

1:10 Scale 2WD Electric Off Road Competition Buggy Kit





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





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.

RC10B7 Team Kit Features

- 5-gear laydown transmission with low profile motor mount moves weight of motor closer to the center of the car
- Long-arm suspension geometry improves grip and predictability in all conditions
- KPI adjustable steering and caster blocks allows for fine tuning steering feel. Three options are included in kit.
- · Vertical front outer ballstud allows fine tuning of roll center, camber gain, and link length
- Height adjustable aluminum front bulkhead allows for further tuning of front roll center
- Standard and HRC (High Roll Center) rear hubs included
- · High volume gear differential improves consistency of differential action over a longer run. Fits LTC internal diff gears from the RC10B74.2.
- · Highly adjustable battery holder with thumb tabs allows for easy battery removal and fine tuning of weight bias
- 7075-T6 aluminum chassis with increased departure angle and optional weight plate pockets
- Easy access anti-roll bars front and rear
- 6.5mm aluminum front axle increases stability and grip when using slim front wheels and low-profile tires
- HD 69mm CVA bones and differential outdrives for improved durability

Additional

Your new RC10B7 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 specific spray paint
- Cyanoacrylate glue ("CA") (#1597)
- Thread locking compound (#1596)
- Tires and Inserts. Fronts and Rears
- Wheels w/12mm Hex Front Wheels #9690 (white), #9691 (yelllow) Rear Wheels #9695 (white), #9696 (yelllow)
- Slim Front Wheels w/12mm Hex (carpet/astro turf) #91757 (white) #91758 (yelllow)

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

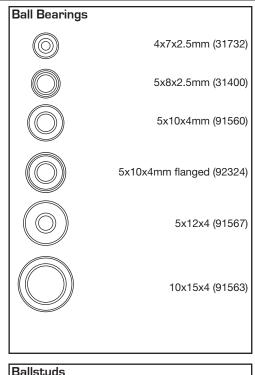
Associated Electrics, Inc. 21062 Bake Parkway. Lake Forest, CA 92630



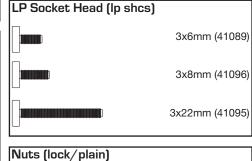
Hardware - 1:1 Scale View

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

Flat Head (fhcs)	
	2x3mm (91749)
	2.5x10mm (31350)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)
Can Hood (shee)	
Cap Head (shcs)	

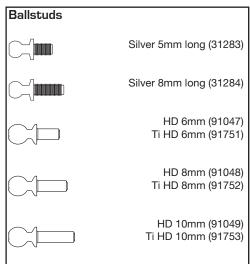


Shims and Washers	
	5.5x0.5mm (31381)
	5.5x1.0mm (31382)
	5.5x2.0mm (31383)
	3x8mm Washer (89218)



1.6x5mm (91611)

3x16mm (89224)



3x3mm (25225)
3x6mm (81257)
3x12mm (81258)
3x20mm (91737)

Notes:

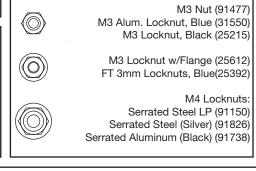


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Notes



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



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



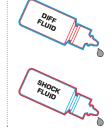
This symbol indicates the order within a step to assemble parts.



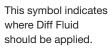
This symbol indicates there are optional FT parts available



This symbol indicates a Racers Tip.



This symbol indicates where Thread Lock Adhesive should be applied. *not included



This symbol indicates where Shock Fluid should be applied.



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.

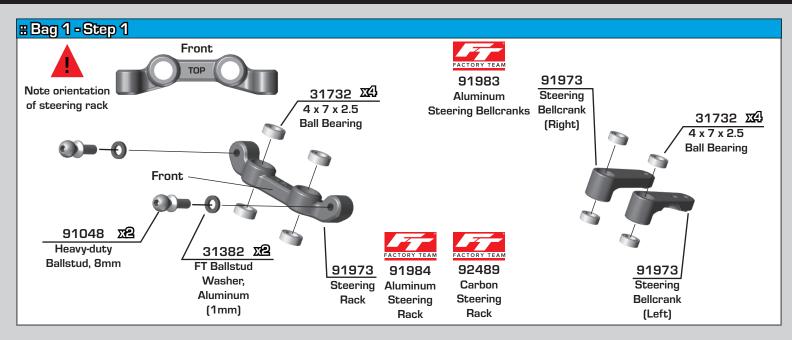


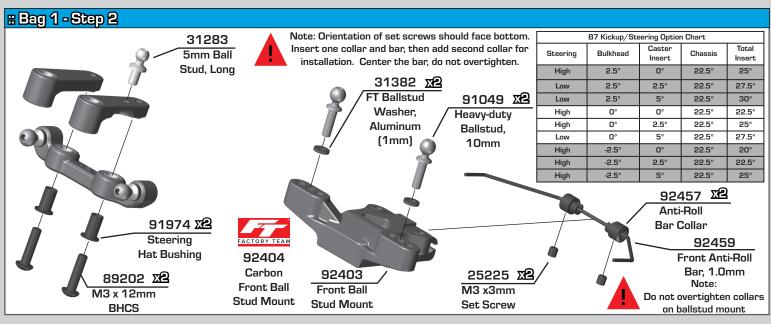
This symbol indicates where Green Slime can be applied.
*not included

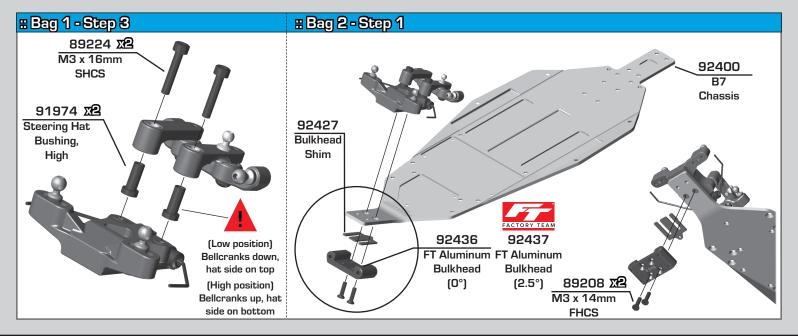


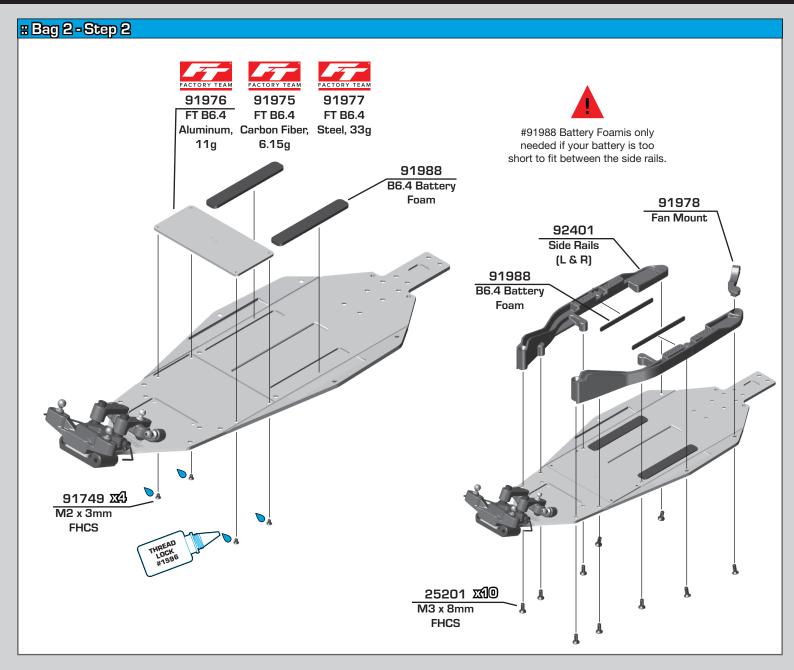
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

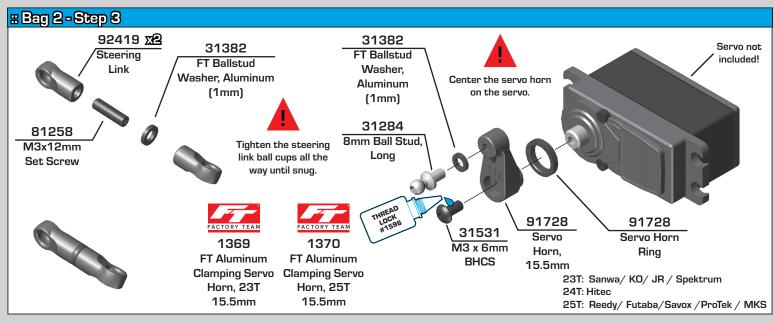
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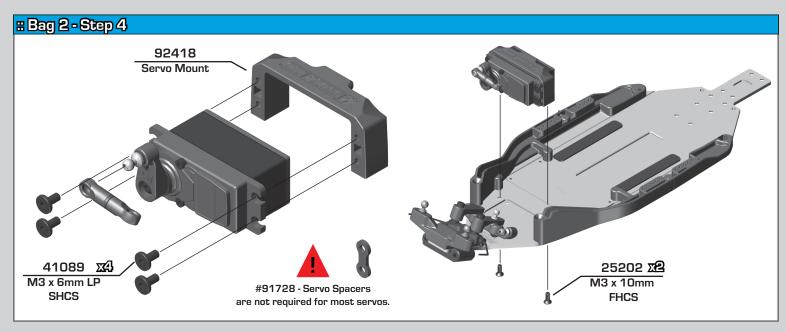


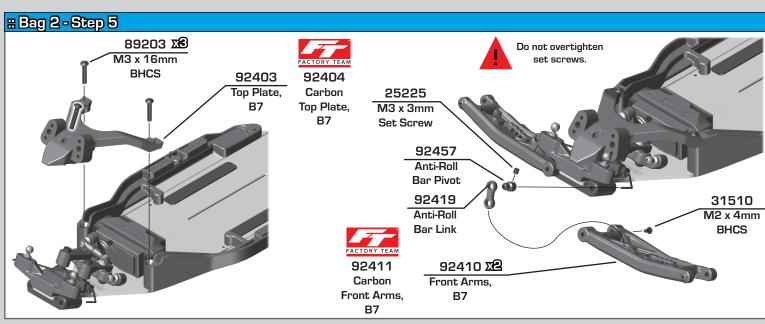


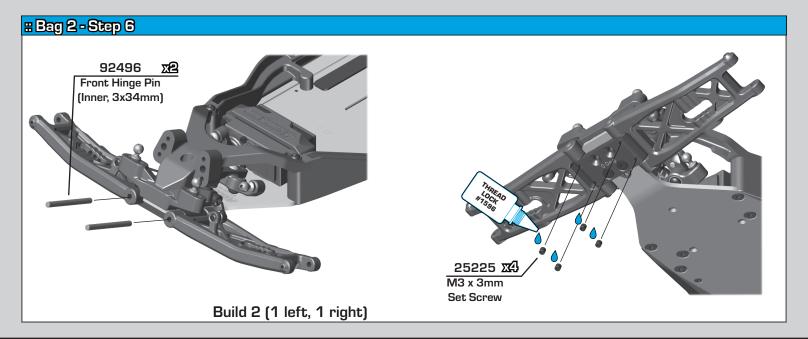


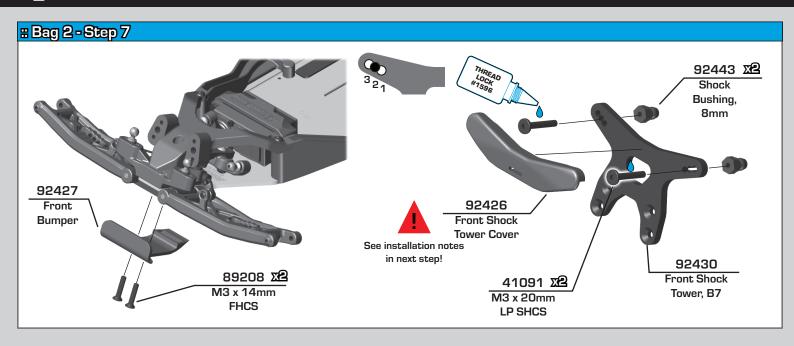


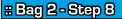












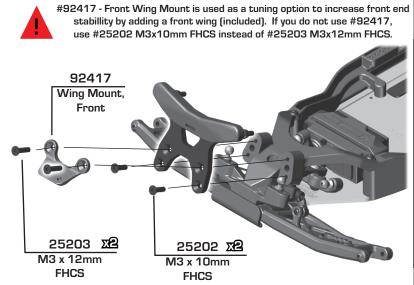


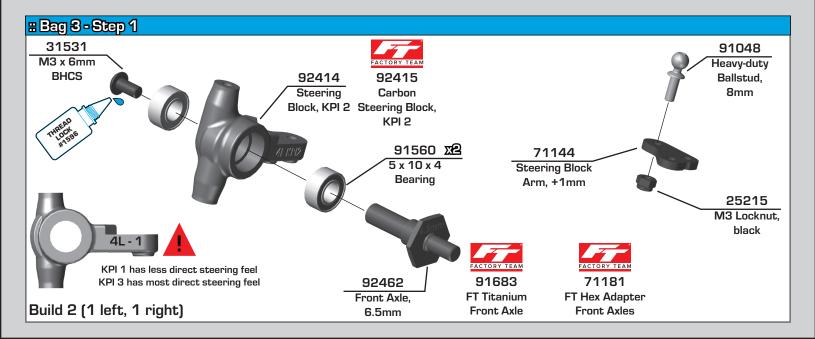
- Line up the front tower cover on the shock tower at an angle as shown in the 1st image to the right.
- Press firmly down on the center of the shock tower cover.

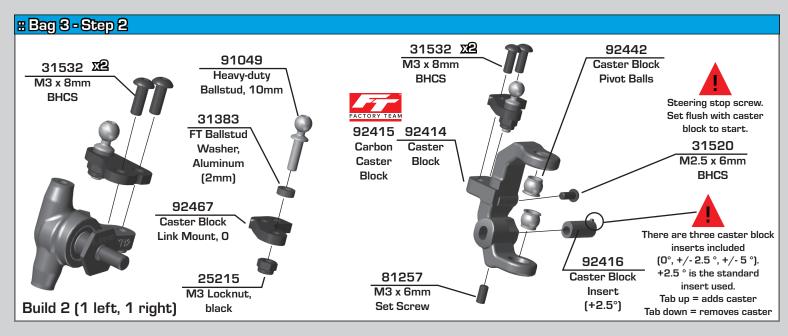
 Be sure to keep the tower cover centered on the tower.
- 3. The cover should snap into place with the tap locking on the back side of the tower.

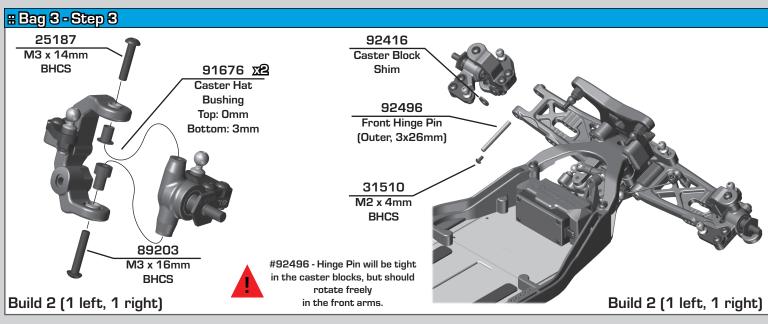
NOTE: The tower cover was designed to key into place with the supplied LP SHCS. Use of another screw type is not recommended.

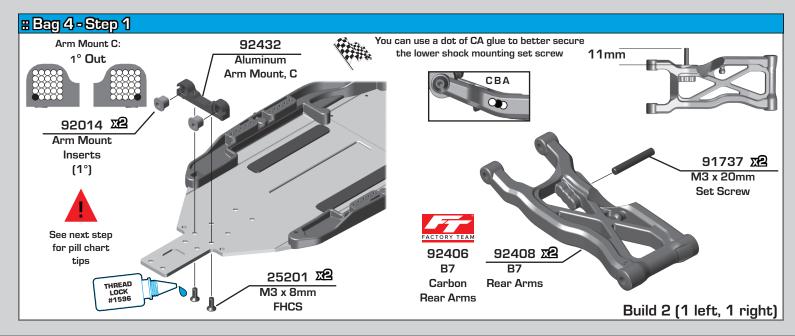


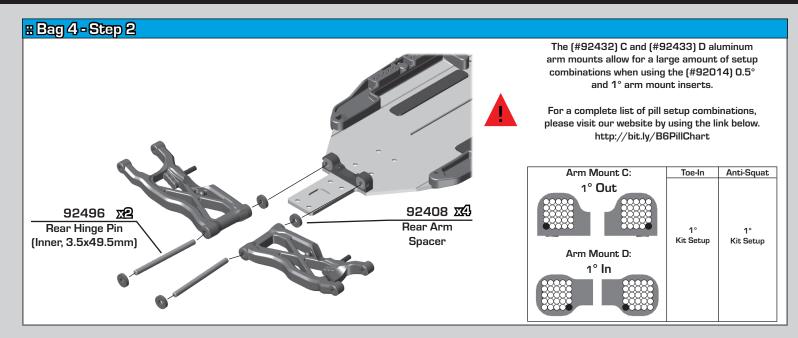


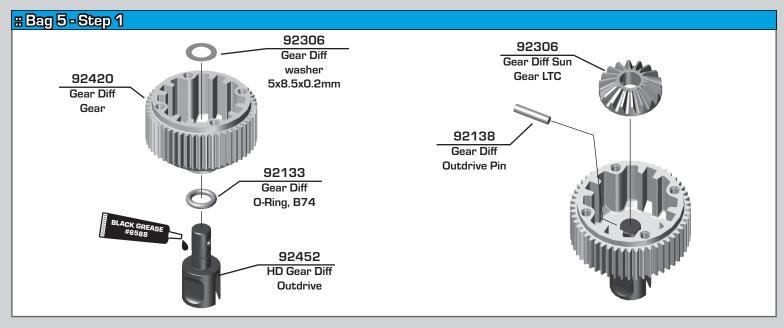


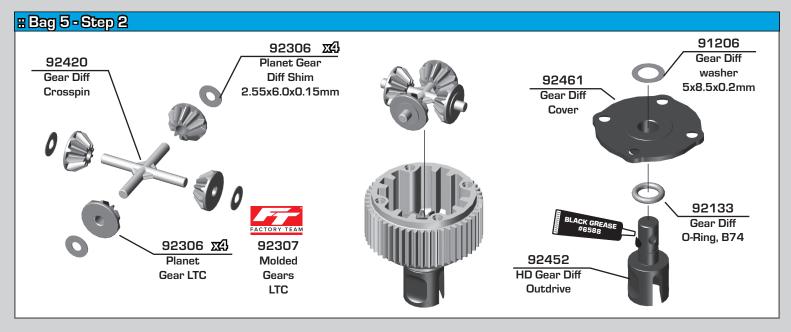


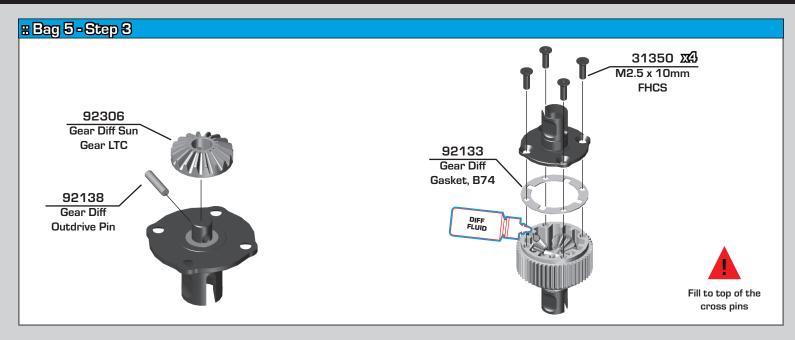


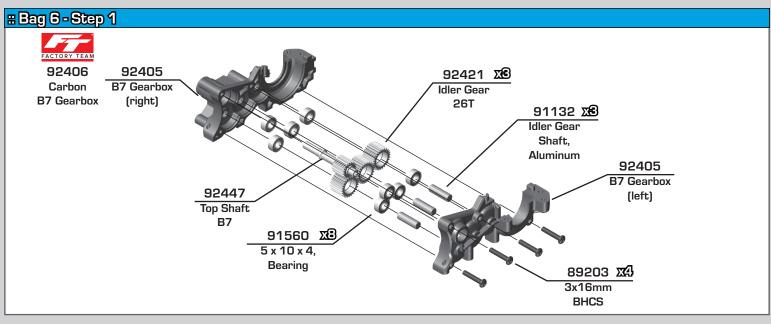


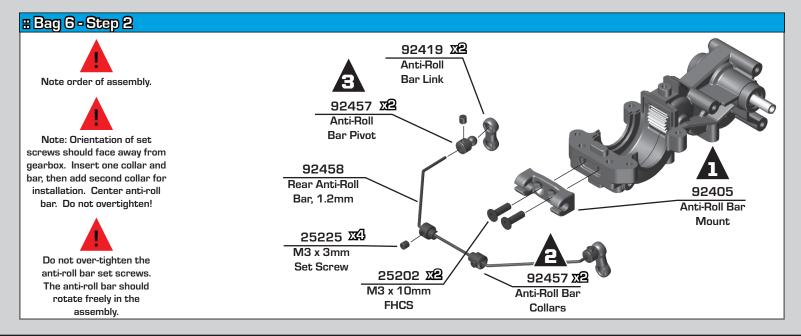


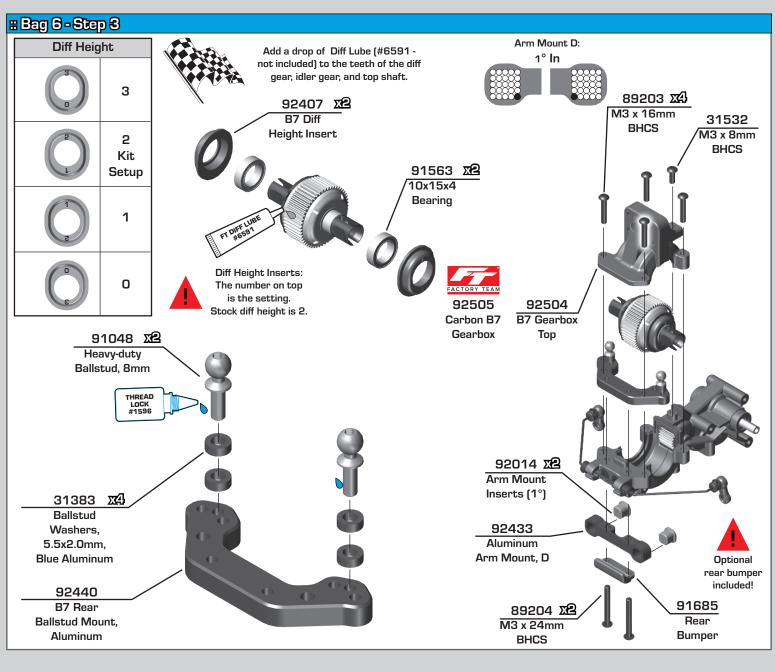


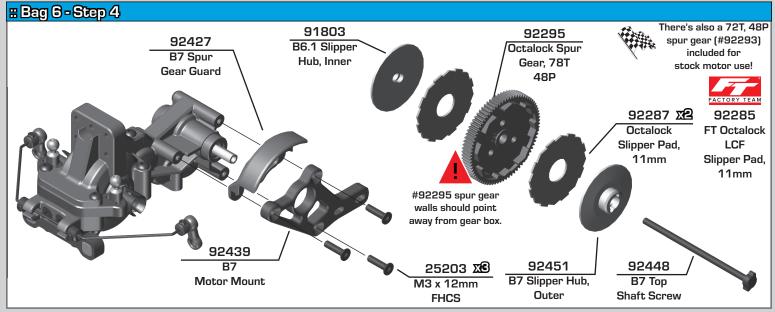


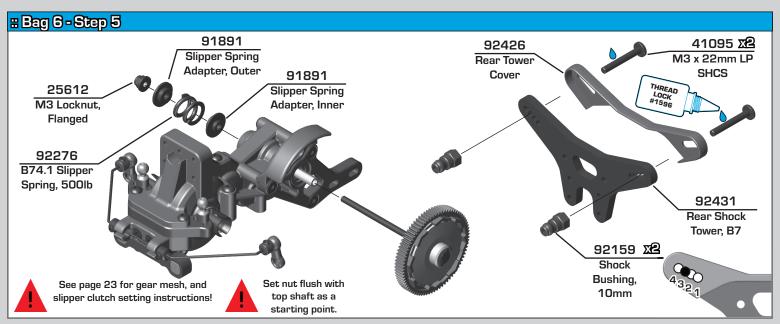


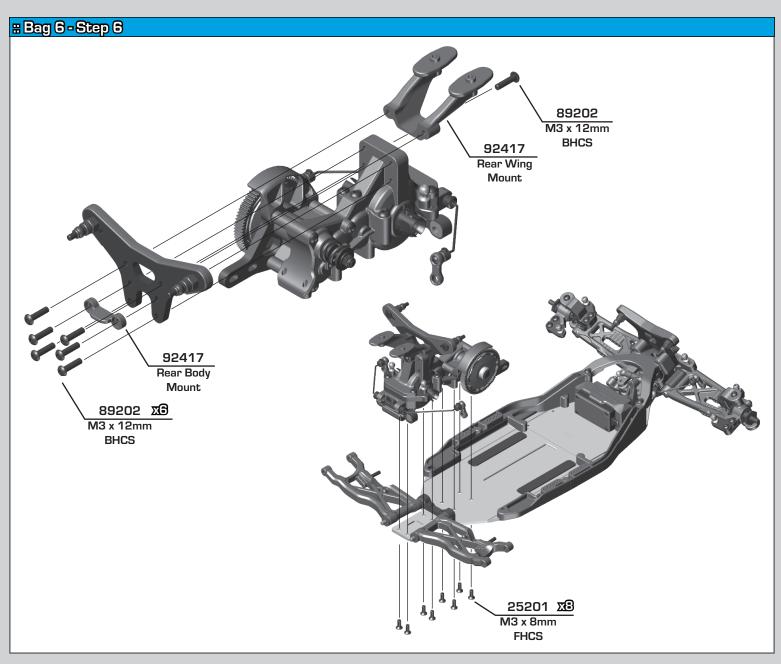


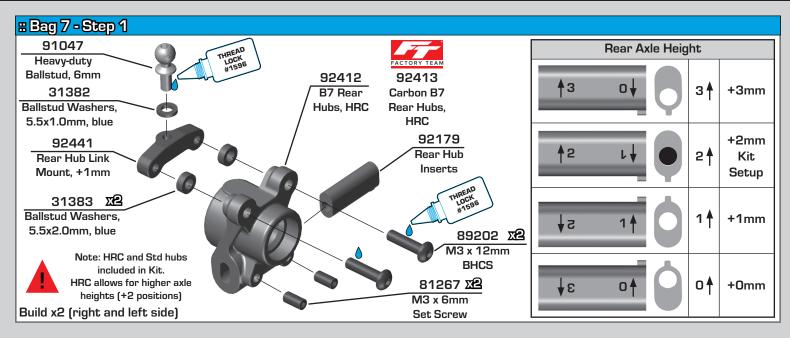


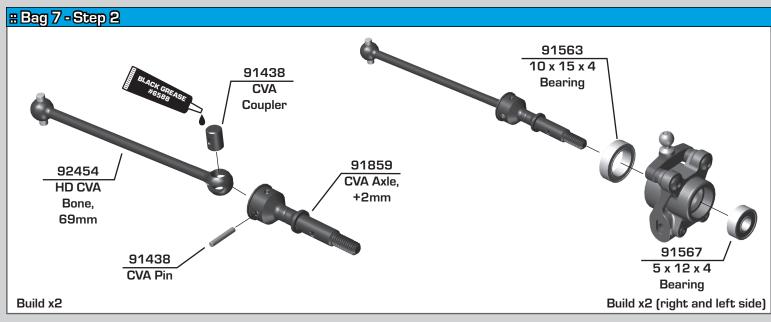


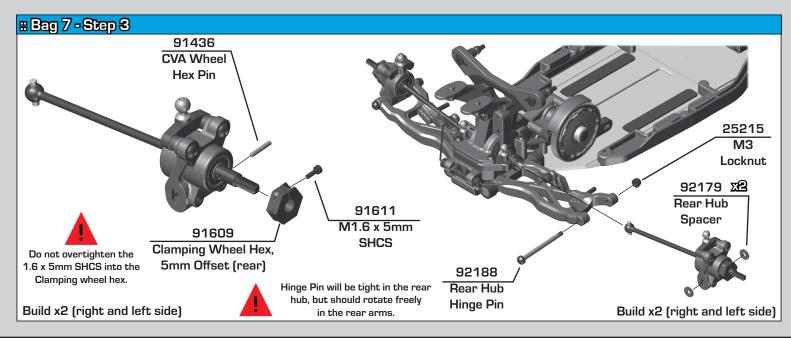


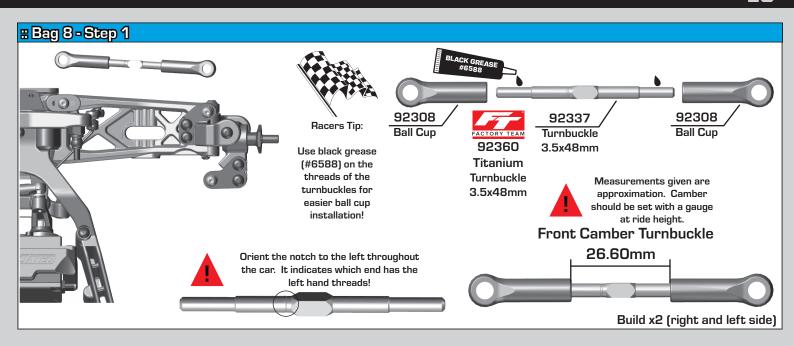


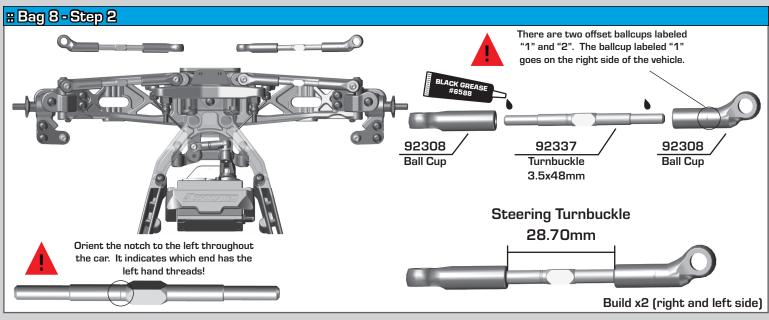


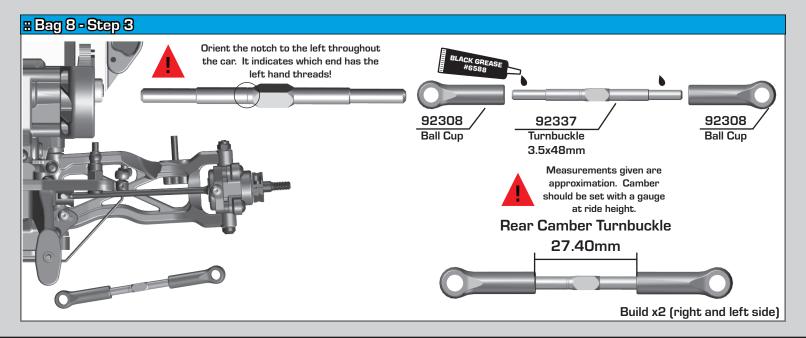


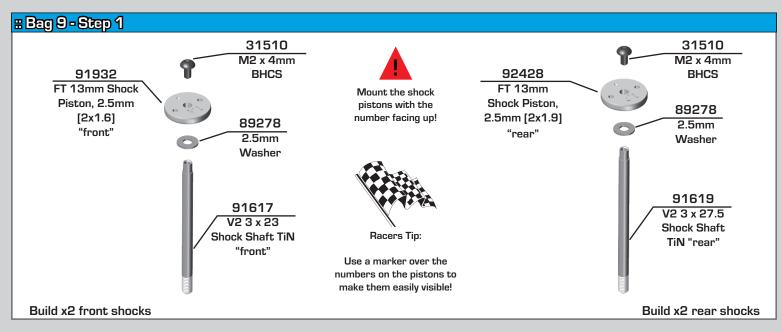


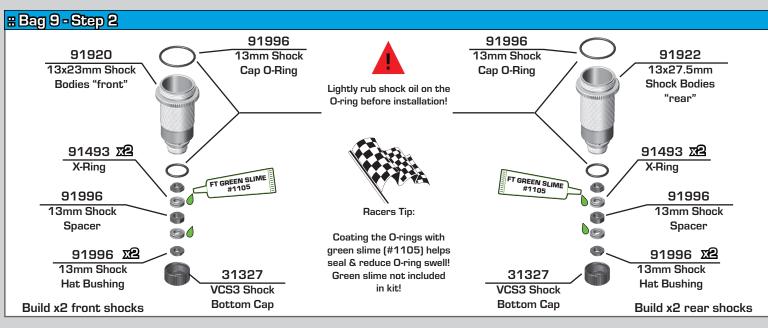


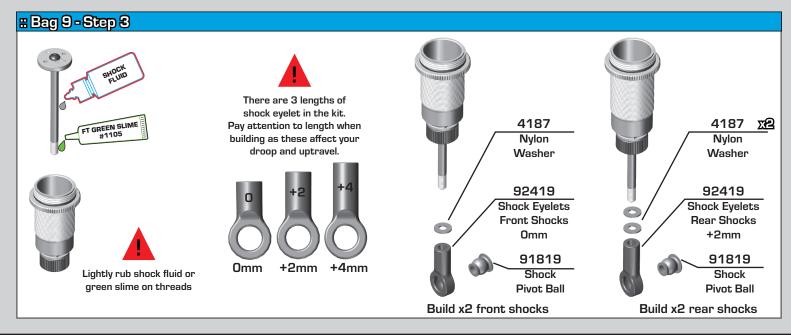


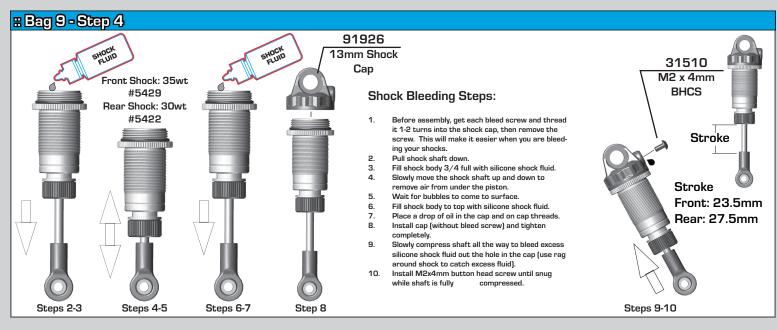


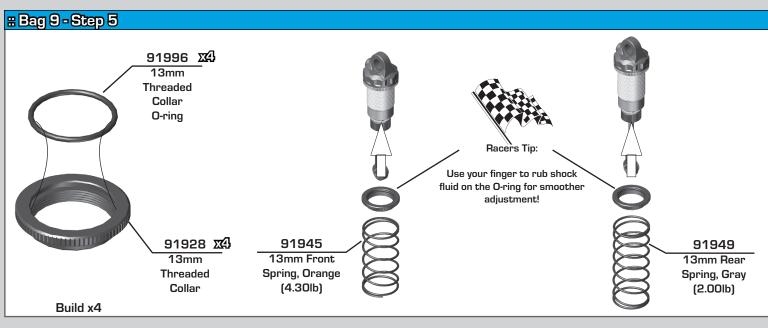


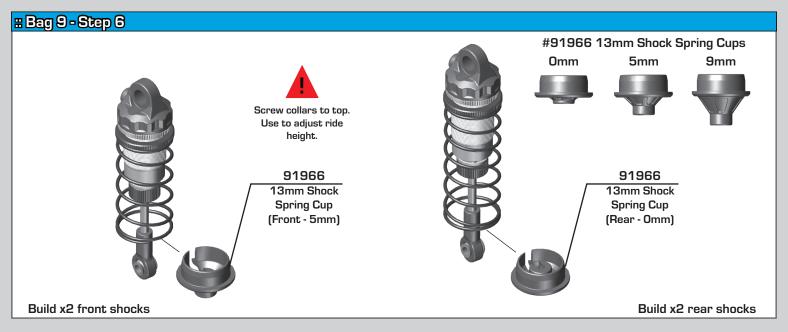


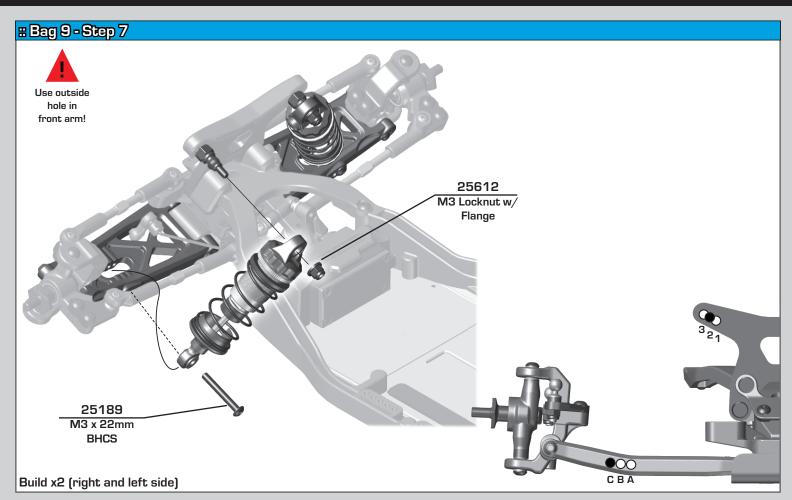


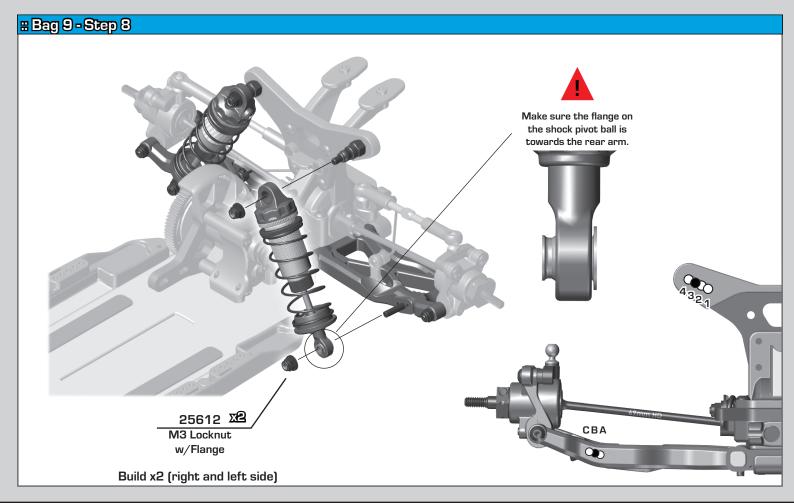


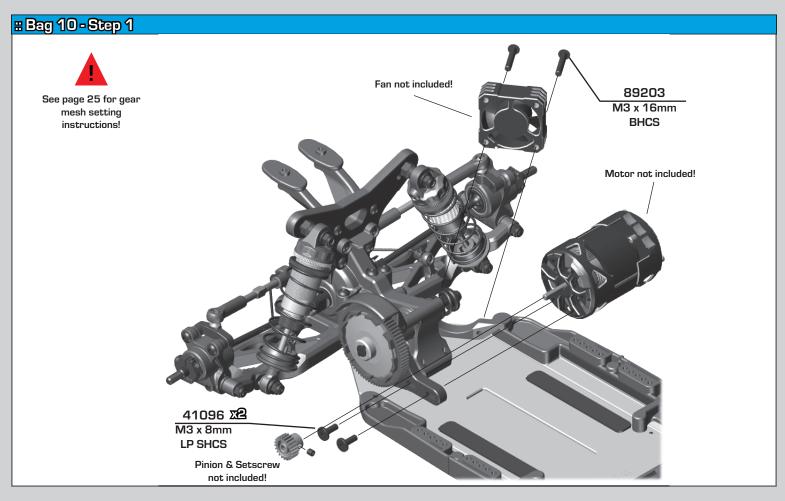


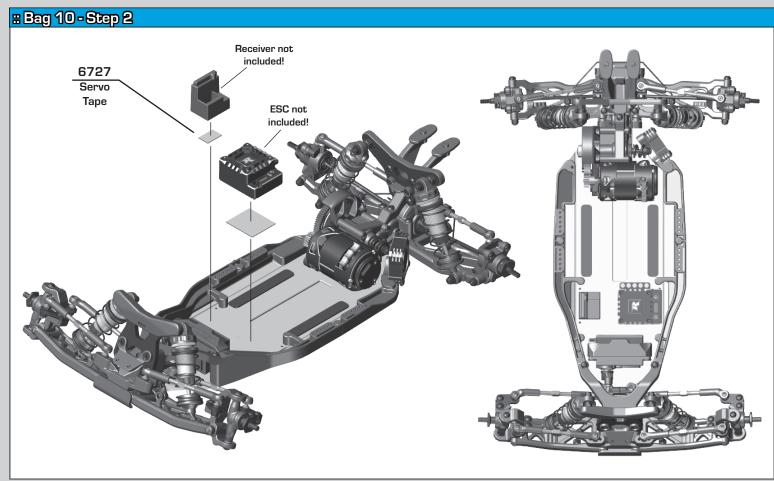


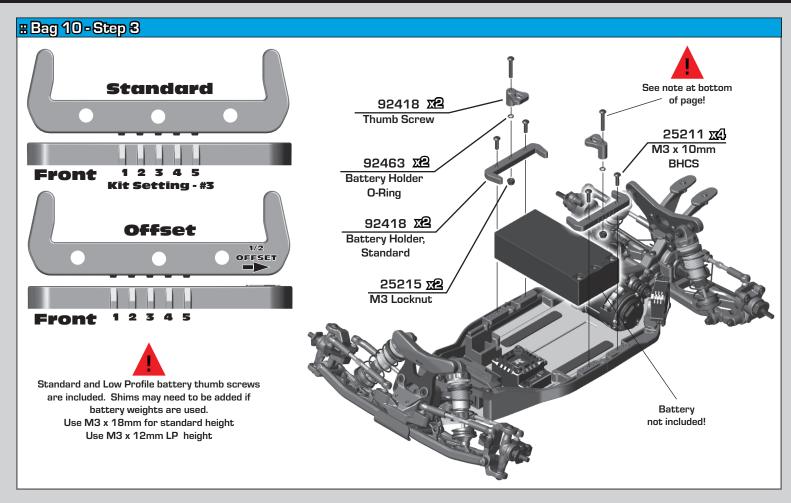


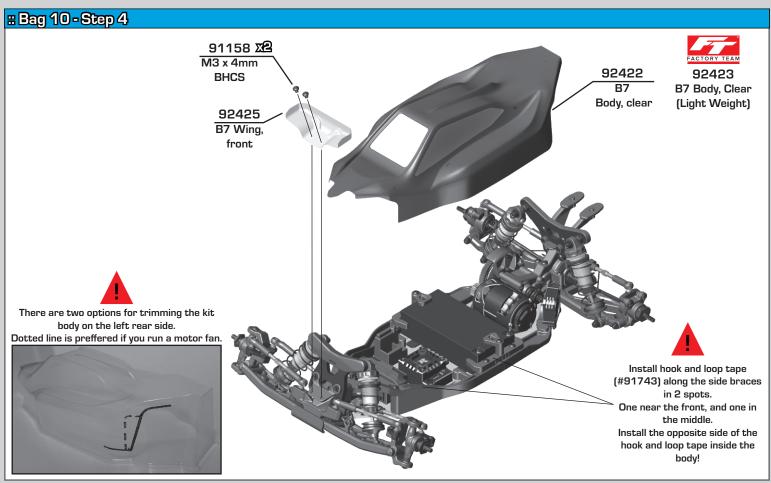


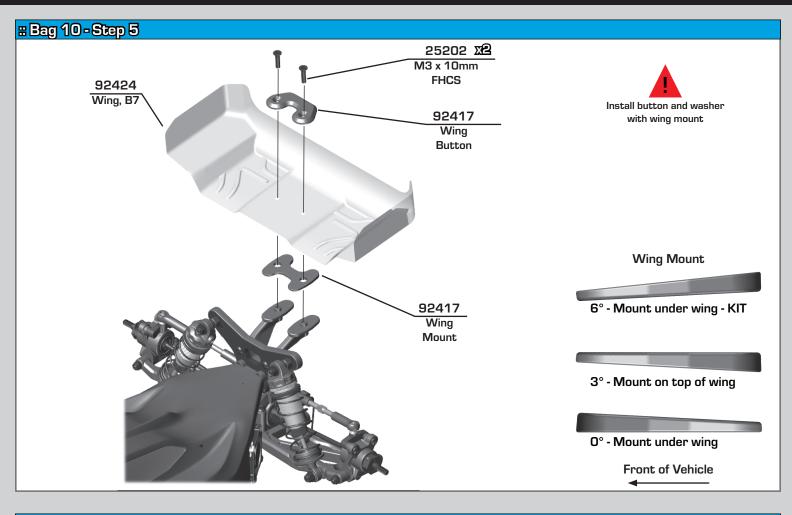


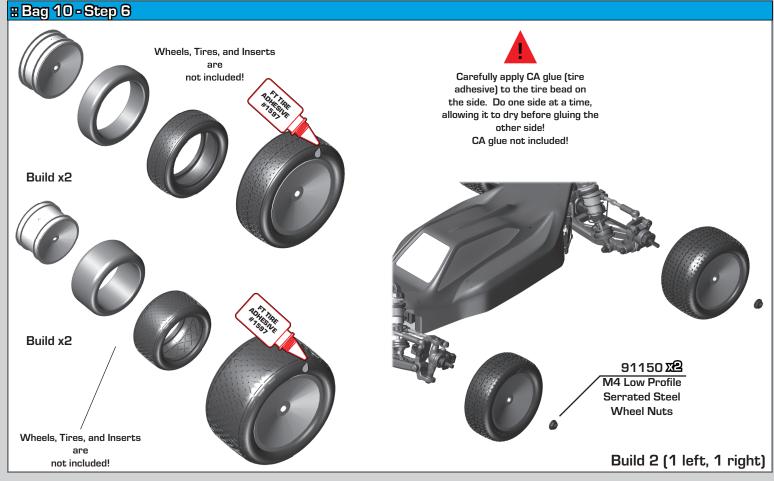












Tuning Tips - Painting, Beginners

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.

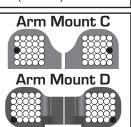
Rear Arm Mount Pill Insert Setup:

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



Insert Hole Locations 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°
		= -1°
	0 0	= 2°
0 0	0 0	= 1°
0	0 0	= 0°
	0	= 3°
0 0	0	= 2°
	0	= 1°

Possible Insert Locations

Pin Width More distance = wider pivot Less distance = narrow pivot *Note: For pin width -1.4mm, use 67mm CVA driveshafts C Mount **D** Mount = +1.4mm = +0.7mm = 0mm = -0.7mm = -1.4mm*

Toe Angle

Ν L

More angle = More Less angle = Less			
Shown in 1° chang C Mount		/lount	
0 0	Θ	Θ	= 3°



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

http://bit.ly/B6PillChart



Pin Height Higher pin = Highe Lower pin = lower C Mount		unt 🕈	•
0 0	0		= +0.7°mm
0	3	3	= +0.35°mm
0 0	0	0	= 0mm
0	•		= -0.35°mm
	0	0	= -0.7°mm

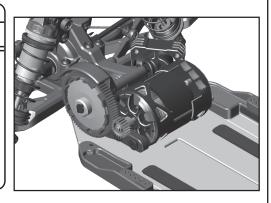
Shown in 1° chang C Mount	es D Mount
	6 = 3°
0 0	O = 4°
•	• = 5°
9 9	• = 2°
0 0	o = 3°
Θ Θ	• = 4°
	O = 1°
0 0	O = 2°
0	O = 3°

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.

B7 Gear Ratio Chart (Internal Gear Ratio 2.60:1)					
Motor	Pinion	Spur	Final Drive Ratio		
21.5 Reedy S-Plus Brushless	33	72	5.67:1		
17.5 Reedy S-Plus Brushless	29	72	6.45:1		
13.5 Reedy S-Plus Brushless	27	*75	7.22:1		
10.5 Reedy 540-M4 Brushless	24	78	8.45:1		
9.5 Reedy 540-M4 Brushless	23	78	8.82:1		
8.5 Reedy 540-M4 Brushless	22	78	9.22:1		
7.5 Reedy 540-M4 Brushless	21	78	9.65:1		
6.5 Reedy 540-M4 Brushless	20	78	10.14:1		
*75T spur gear (#92294) not included					



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.

RC19 RC19		Kit Setup (Carpet) Even	ቜ		Qualify:	Mathe	
	Dates	Tiraci	k e		Finish:	Best Lep Time:	
Front Suspension:							
Ride Height: 13mm	_	D-II Charl Conning of Amer			Characi	ng Bellcrank Position: Up	Davin 🔲
	╡	Ball Stud Spacing: 1mi			Sceen	ng belicrank Position: Op	Down 📗
	_	Ball Stud Spacing: Om		in .	Dall Ct	ud Spacing: 1mm	
- mag. and	=	Ball Stud Spacing: Um			Ball St	ud Spacing: 1 mm	
Anti-Roll Bar: 1.0mm					D-11 C	out Consissed Assets	
Arm Type: Kit	Bump Ste	eer Spacing: 1mm	- 8			ud Spacing: 1mm	
Tower Type: Kit	╡		5.0mn	h û	Ball St	ud Spacing: 2mm	³ 21
Wheel Hex: 6.5mm	Steering	Plate: +1					
Steering Block KPI: 2	╛						
Caster Block Insert: 0 +2.5 +5	╝ _	_	1		_11 &		321
Bulkhead Type: Aluminum							-000
Kick-Up Angle: -2.5	⊒ ∏	Axle	Height:				
Steering Stop Spacing: Omm		+3				•00	OT
Caster Block Spacing: Fwd Back		+2				СВД	
Notes:		+1			Caste	Block Link Mount: 0	
	- Allering	+0	Ш		Front	Bulkhead Spacing: 1mm	
Rear Suspension:							
Ride Height: 13mm	C Mount:		Axle He	ight:			
Camber: -1 degree	Aluminun	n Steel	♦ 0 3	4 +3		432	
Anti-Roll Bar: 1.2mm			● ▼1 2	▲ +2		-1	
Arm Type: Kit				▼ +1		Camber Link Spacing: 2mm	J A
Tower Type: Kit		8888				Ball Stud Spacing: 1mm	
Arm Spacing: Fwd Mid Back			№ № 3	♥ +0	• • • • • • • • • •	Ball Stud Spacing: 4mm	
Wheel Hex: 5mm	D Mount:						
Hub Type: Std HRC	Aluminun	n Steel					M
Hub Spacing: Fwd Mid Back						69mm HD	321 —
Drive Shaft: CVA's Universals	7 0000						
Notes:	7 8888					000	
						CBA	
Electronics		Drivetrain:		Shocks			
Radio: Servo:		Differential: Ball	Diff:		Front	Rear	
EPA: Throttle: % Brake:	%	Height: 2 Gea	ır Diff:	Piston:	2x1.6	2x1.9	
ESC:		Diff Setting: 30k		Thickness	s: 2.5mm	1 2.5mm	
ESC Settings:			-	Fluid:	35wt	30wt	
Motor / Wind:	iming:	Notes:		Spring:	Orange	e Gray	
Pinion: Spur:		Slipper Clutch:		Limiters:		xt:_1_ Int: Ext:_2	
Battery Mount: Std Offset		Type: HD		Stroke:	23.5mr	<u> </u>	Stroke
		# of Pads: 2x11m	m	Eyelet:	0	+2	
Back 1	Forward	Setting:		Cup Offse		+9 0 +5 +9	
Battery: Weight:		Notes:		Kashima			d Spacers:
Notes:				Notes:			<u> p </u>
TrackInfo:	Tilresi		Body, W			Vehicle Comments:	
					D.7		
Size:	Front Tires:	4.	Body:	RC10		Notes:	
Surface:	Front Compo		Front Win		C10B7	 	
Traction:	Front Insert:		Rear Wing		10B7 7"		
Moisture:	Rear Tires:		Wing Angl		3°	 	
Condition:	Rear Compo	und:	Chassis Le		0	{	
	Rear Insert:		Servo Wei		None	<u> </u>	
Temperature:	Wheel (F/R):		Electronic		Aluminum	<u> </u>	
Notes:	Notes:		Total Vehi	cle Weight:		J L	
# For more setups, vis	lt https://k	www.associatedelectr	escom/t	eamasso	dated/manua	ls and setup sheets/	

RC19 RC19		Ever	æ		Qualify:	Mailn#	
	Dates	Trea	ske		Finish:	Best Lep Time: _	
Front Suspension:							
Ride Height:	7	Ball Stud Spacing:			Steering	Bellcrank Position: Up	□ Down □
Camber:	₹		4			,	
Toe:	₹	Ball Stud Spacing:		in .	Ball Stu	d Spacing:	
Anti-Roll Bar:	f	1 3				1 3	8
Arm Type:	Bump Ste	eer Spacing:			Ball Stu	d Spacing:	000
Tower Type:	<u> </u>) [7	14	Ball Stu	d Spacing:	³ 2 ₁
Wheel Hex:	Steering	Plate:	5.0mr				-1
Steering Block KPI:	<u> </u>						
Caster Block Insert: 0 +2.5 +5	i i				To		C.
Bulkhead Type:	ī E						321
Kick-Up Angle: -2.5 0 +2.5	<u> </u>	9					000
Steering Stop Spacing:		Ax +3	le Height:			000	
Caster Block Spacing: Fwd Back	<u></u>	+2	= 1			CBA	
Notes:		+1		l	Caster I	Block Link Mount:]
		+0			Front B	ulkhead Spacing:	
Rear Suspension:	_						
Ride Height:	C Mount:		Axle He				
Camber:	Aluminun	n Steel	♦ 1 0 3	+3		43	
Anti-Roll Bar:			○ ▼ 1 2	± 4 +2			-1
Arm Type:			Ô ▲ 1 2	. ▼ +1	=	mber Link Spacing:	
Tower Type:				₩ +0	/=	Il Stud Spacing:	
Arm Spacing: Fwd Mid Back	<u> </u>		40 3	V +0	Ba	II Stud Spacing:	
Wheel Hex:	D Mount:					\	
Hub Type: Std HRC	Aluminun	n Steel					
Hub Spacing: Fwd Mid Back						69mm HD	321
Drive Shaft: CVA's Universals							
Notes:	- 00000					DOO BA	
Electronics		Drivetrain:		Shocks		ур д	
Radio: Servo:			III Diff:	CHECKE	Front	Rear	
EPA: Throttle: % Brake:	%		ear Diff:	Piston:			
ESC:		Diff Setting:		Thickness:	1		
ESC Settings:]		Fluid:			
	iming:	Notes:		Spring:			
Pinion: Spur:		Slipper Clutch:		Limiters:	Int: Ext	: Int: Ext:	
Battery Mount: Std Offset		Туре:		Stroke:			Stroke
		# of Pads:		Eyelet:	İ	İ	
Back 1 2 3 4 5	Forward	Setting:		Cup Offset	: 0 +5	+9 0 +5 -	+9□ ◎
Battery: Weight:		Notes:		Kashima B	odies: Chr	ome Shafts: Machi	ined Spacers:
Notes:				Notes:			
TrackInfo:	Tires		Body, W	elght		Vehicle Comments	1
Size:	Front Tires:		Body:			Notes:	
			T				
Surface:	Front Compo	ound:	Front Win	ıg:			
Traction:	Front Compo Front Insert:		Rear Wing				
				g:	3° 6°		
Traction:	Front Insert:		Rear Wing	g: le: 0°	3° 6° 0		
Traction: Moisture:	Front Insert: Rear Tires:		Rear Wing Wing Ang	g: le: 0° ength:	3° 6° 0		
Traction: Moisture:	Front Insert: Rear Tires: Rear Compo	und:	Rear Wing Wing Ang Chassis L Servo We Electronic	g: le: 0° ength: ights:	3° 6° 0		

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