







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

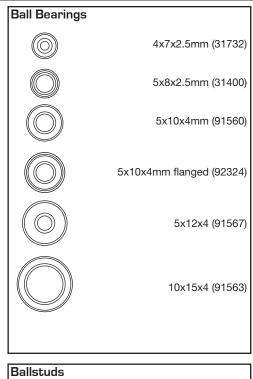
Associated Electrics, Inc. 21062 Bake Parkway. Lake Forest, CA 92630



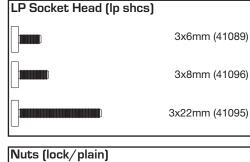
# # Hardware - 1:1 Scale View

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)
Cap Head (shcs)	

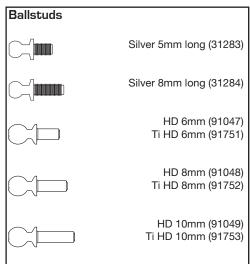


Shims and Washers	
	5.5x0.5mm (31381)
	5.5x1.0mm (31382)
	5.5x2.0mm (31383)
	3x8mm Washer (89218)



1.6x5mm (91611)

3x16mm (89224)



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

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

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.



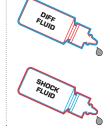
This symbol indicates the order within a step to assemble parts.



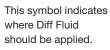
This symbol indicates there are optional FT parts available



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.

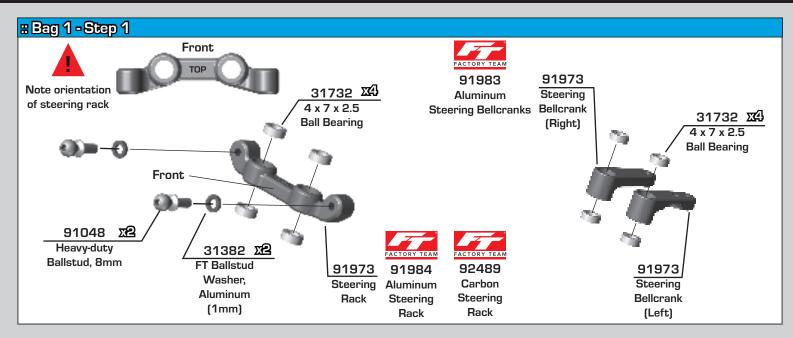


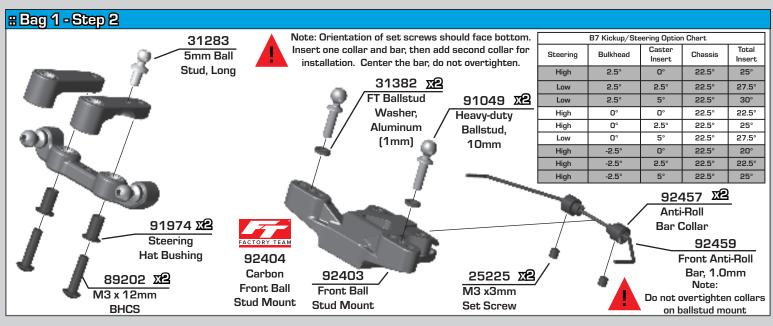
This symbol indicates where Green Slime can be applied.
\*not included

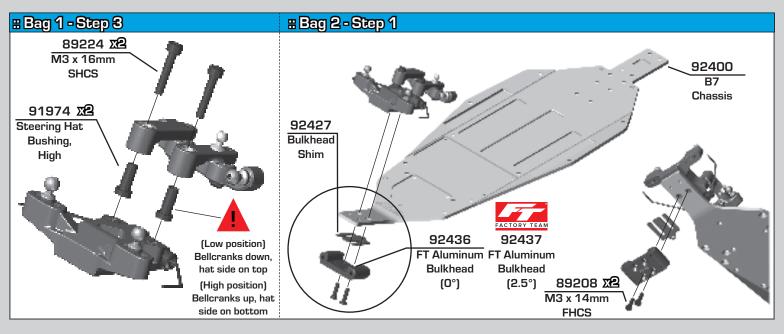


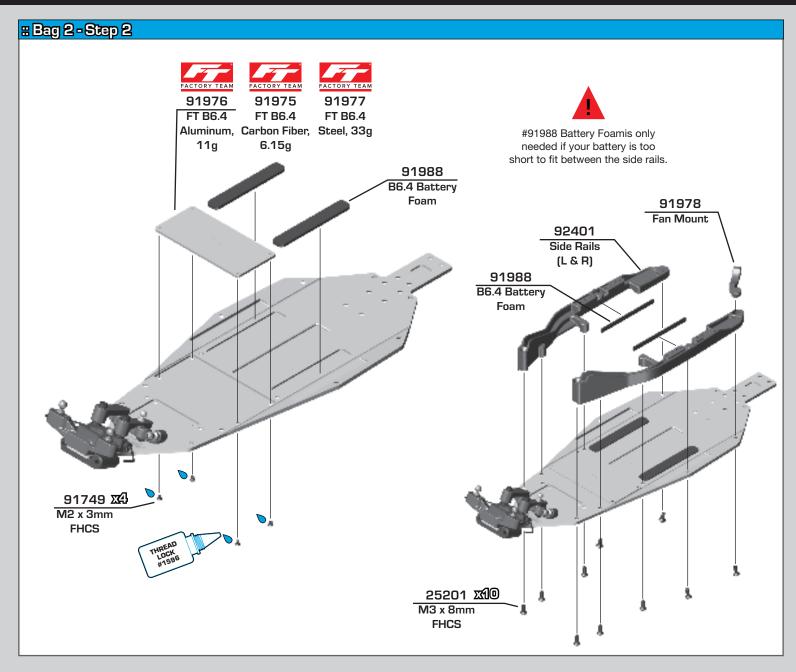
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

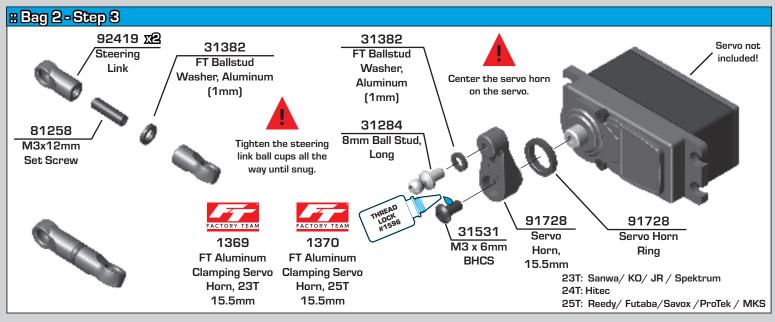
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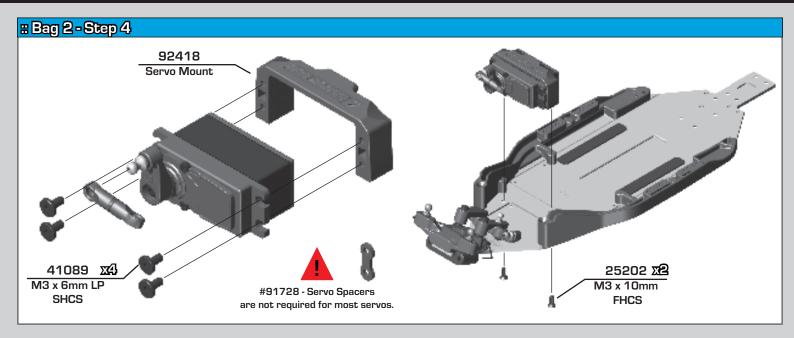


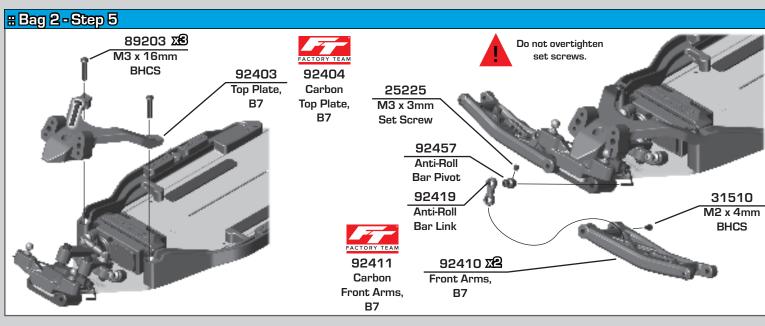


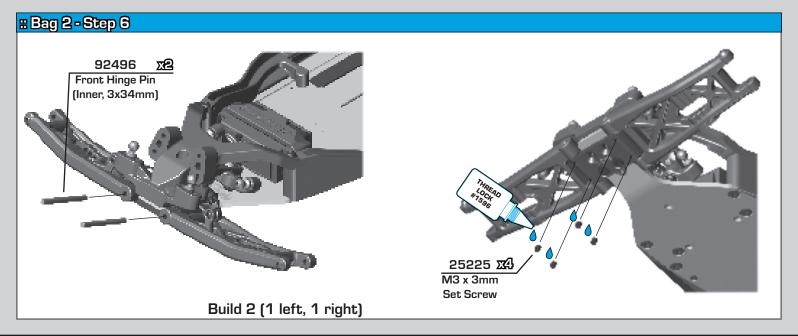


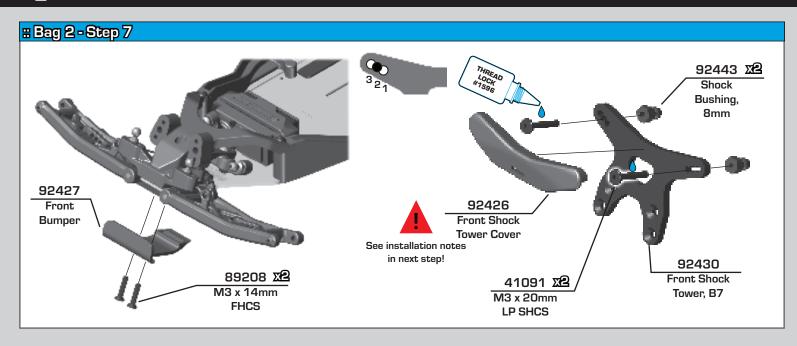


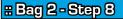












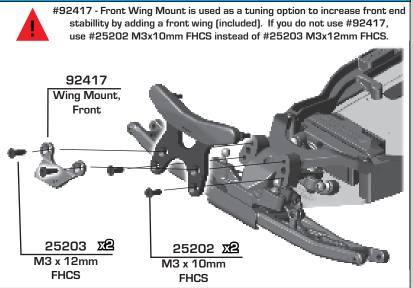


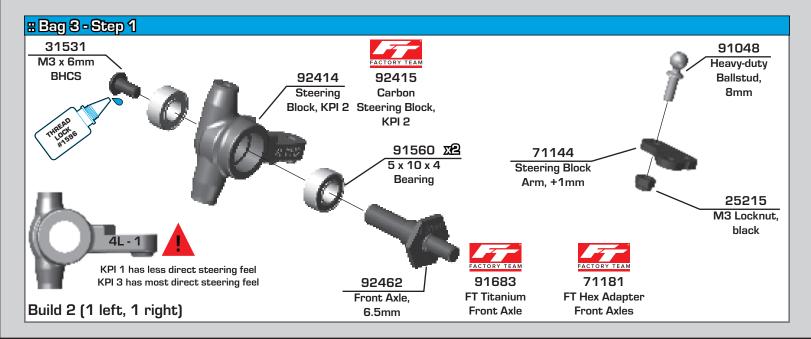
- Line up the front tower cover on the shock tower at an angle as shown in the 1st image to the right.
- Press firmly down on the center of the shock tower cover.

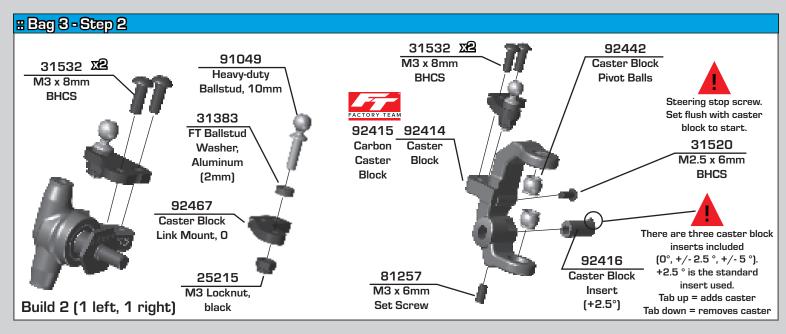
  Be sure to keep the tower cover centered on the tower.
- 3. The cover should snap into place with the tap locking on the back side of the tower.

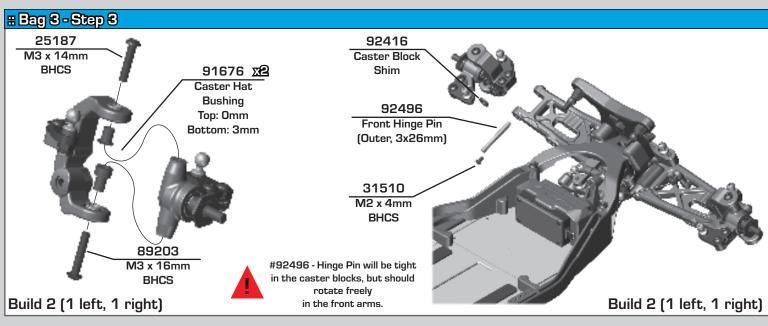
NOTE: The tower cover was designed to key into place with the supplied LP SHCS. Use of another screw type is not recommended.

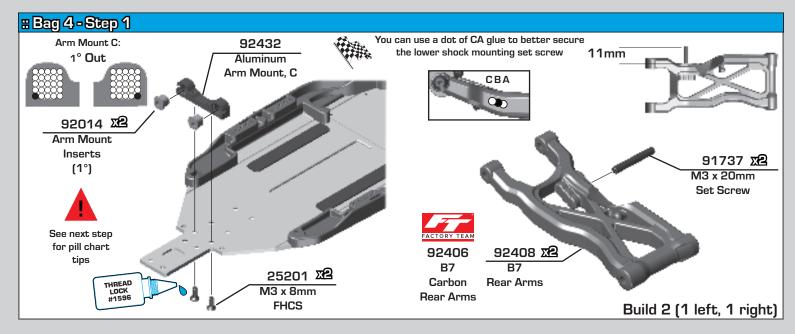


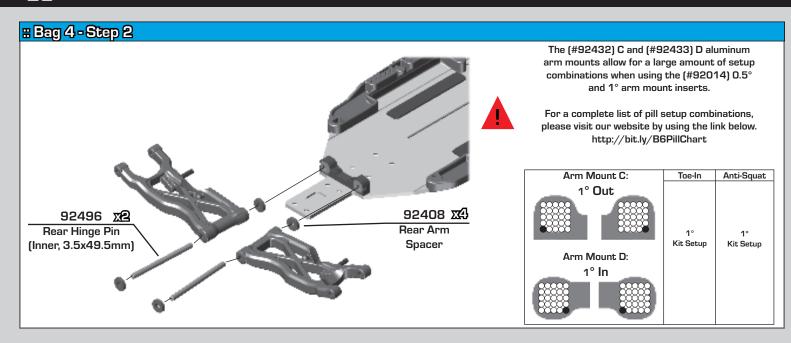


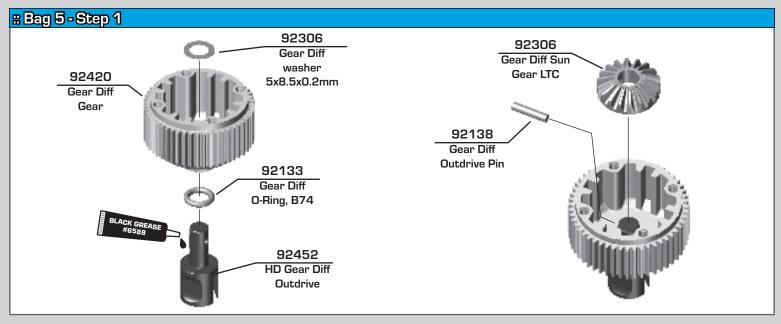


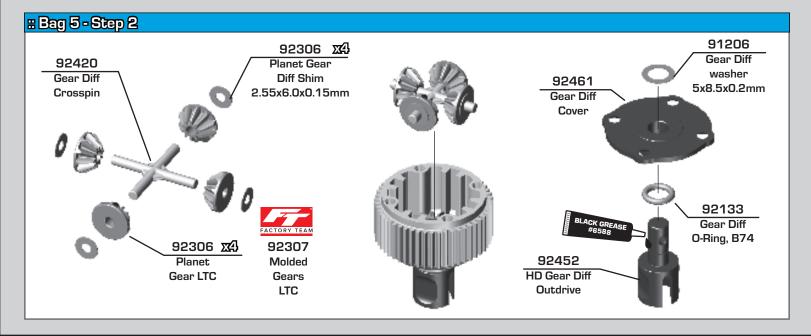


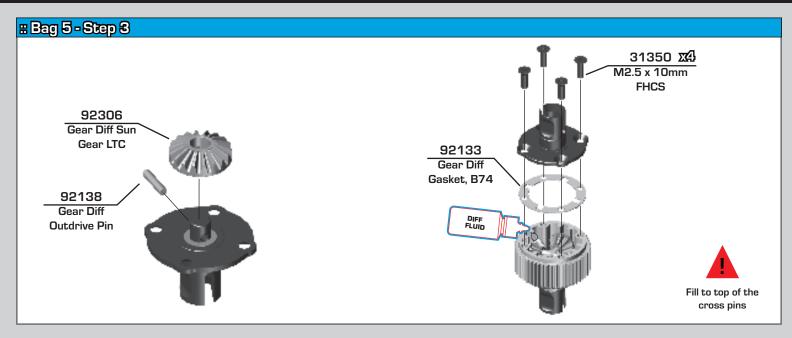


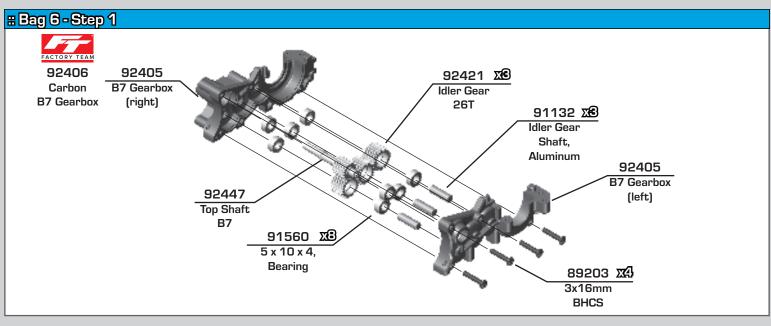


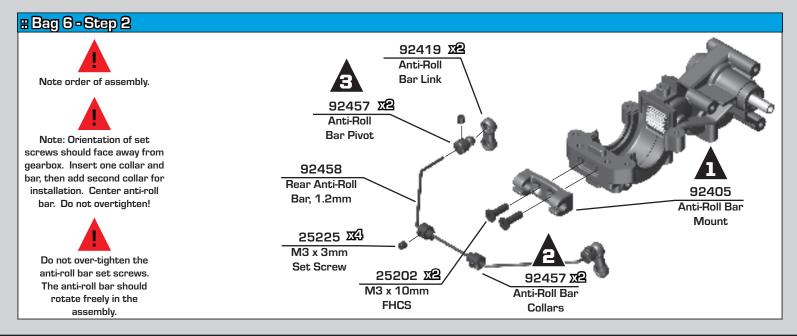


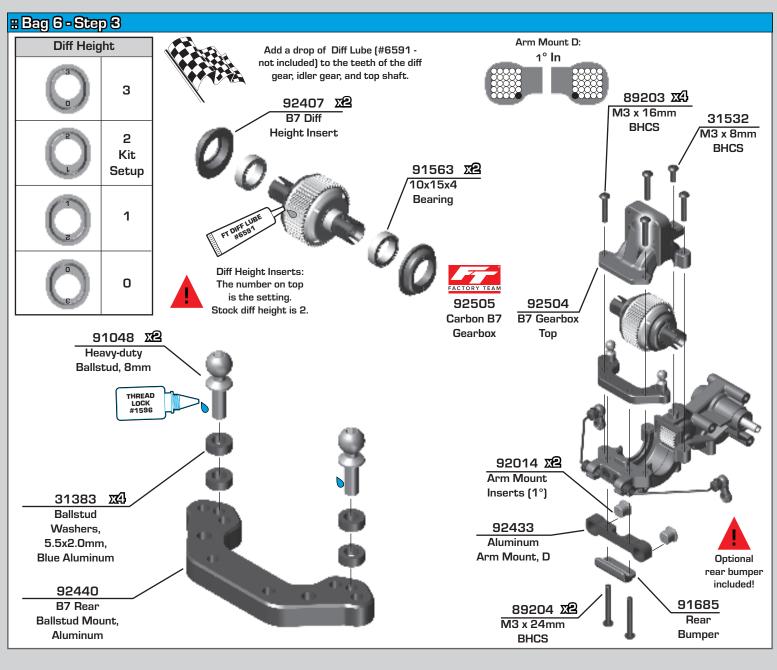


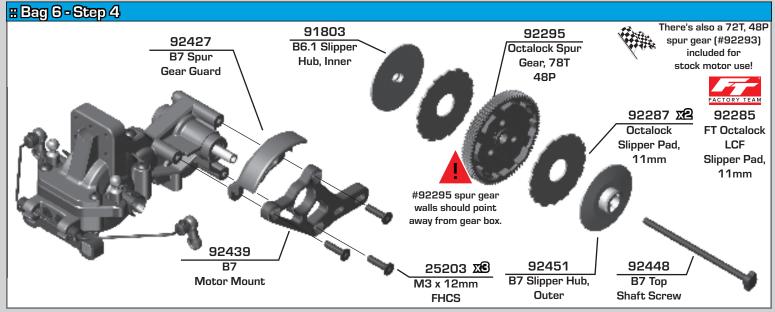


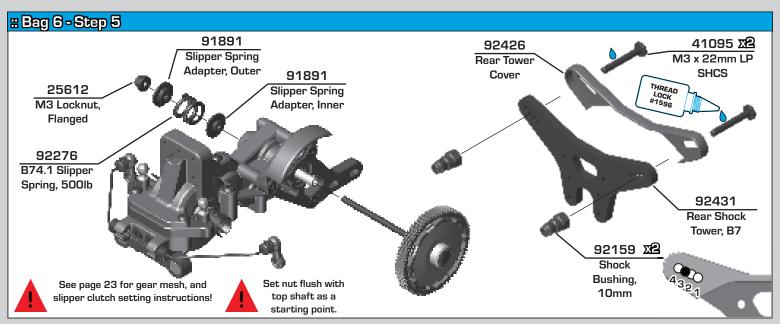


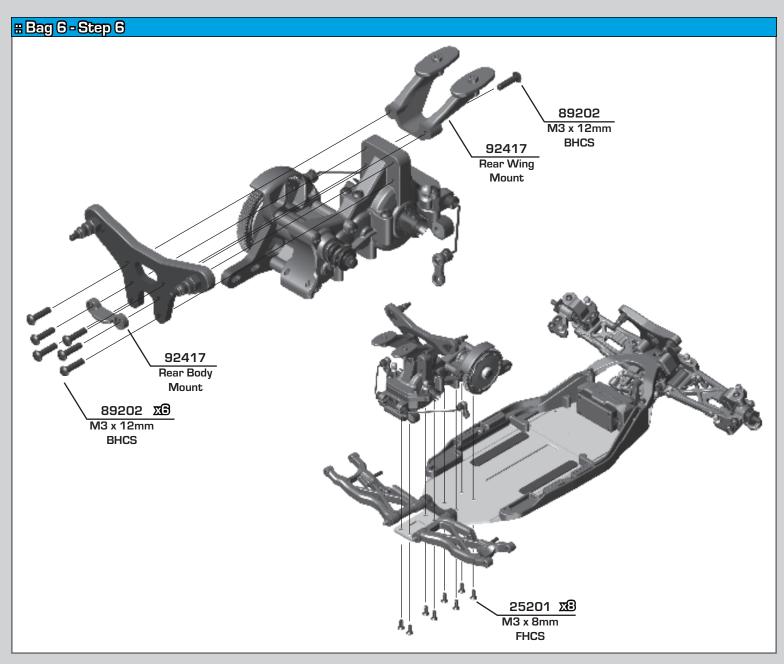


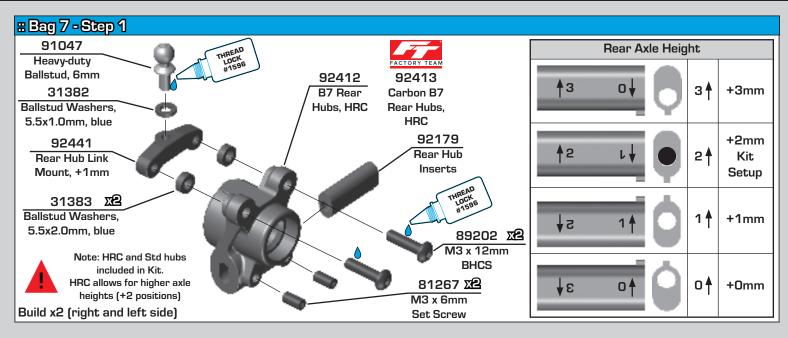


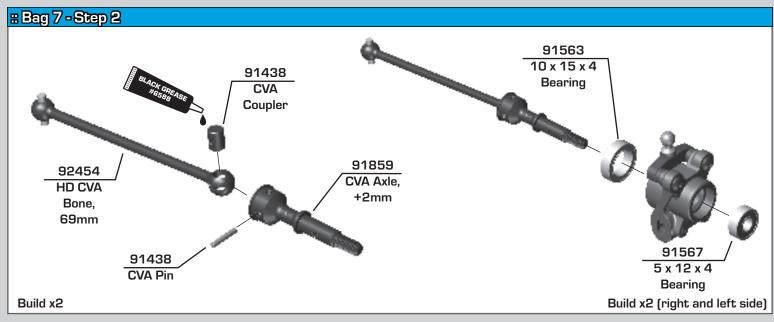


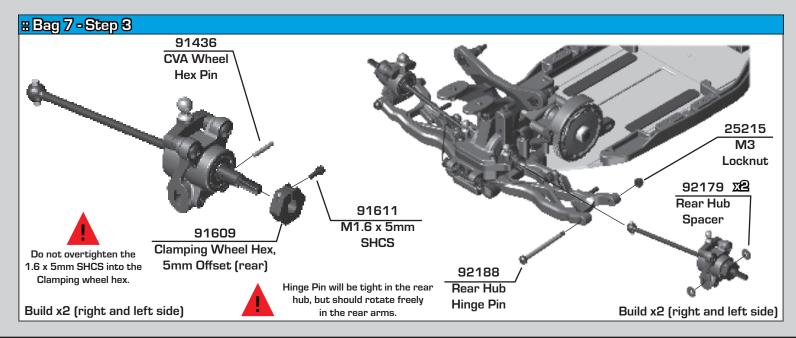


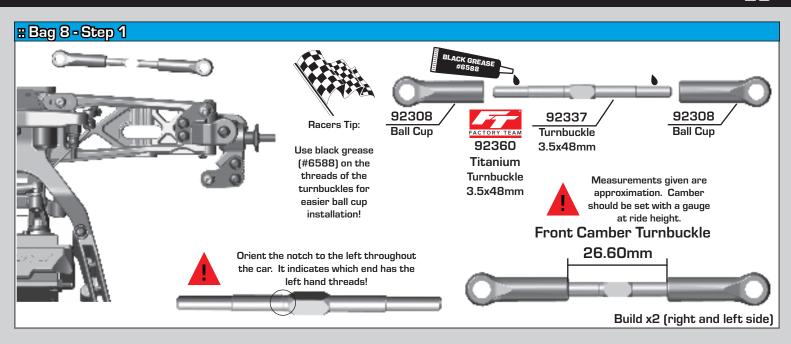


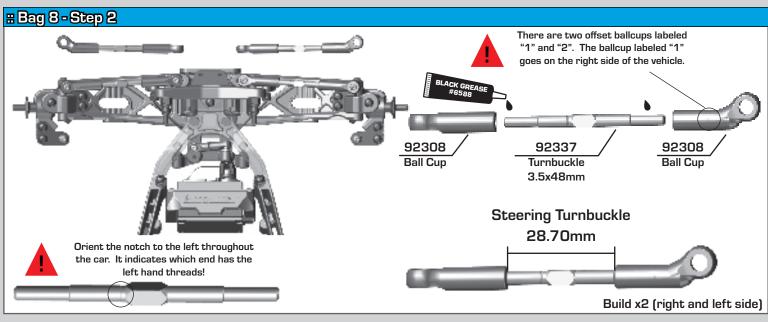


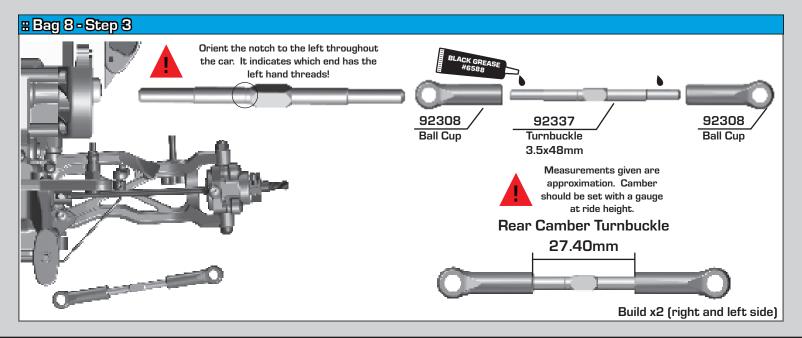


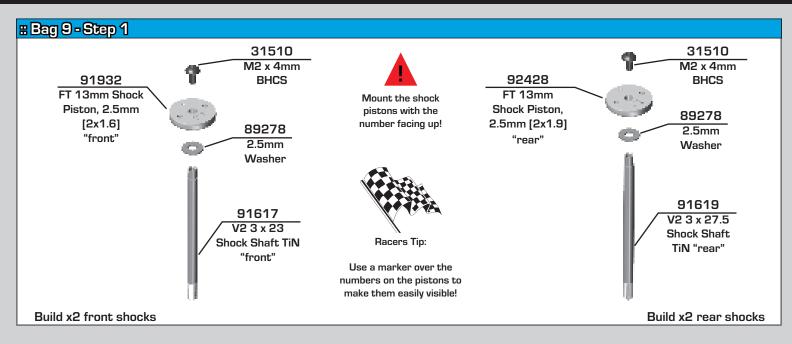


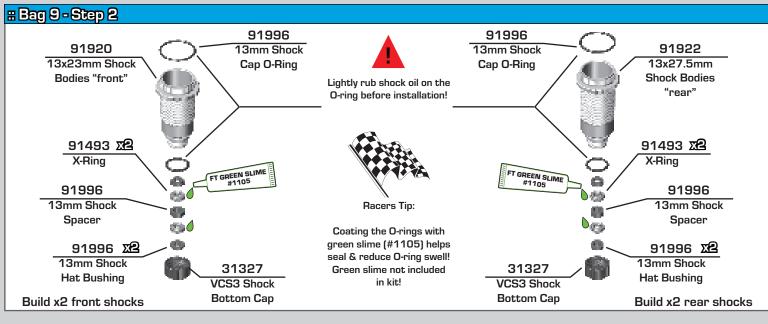


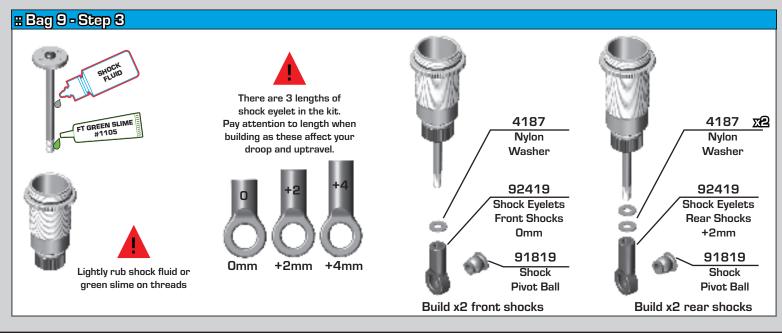


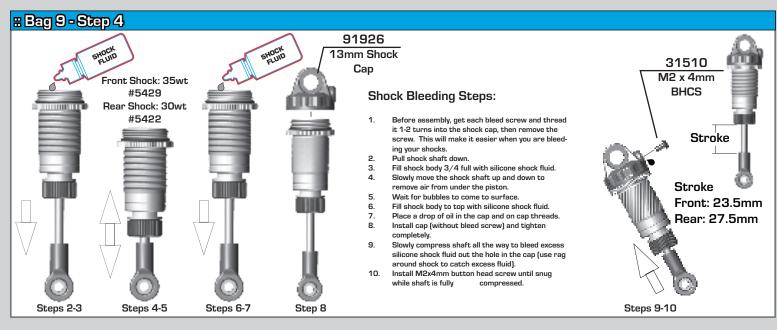


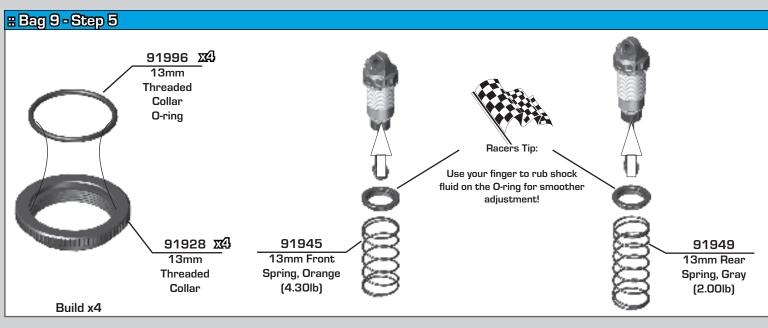


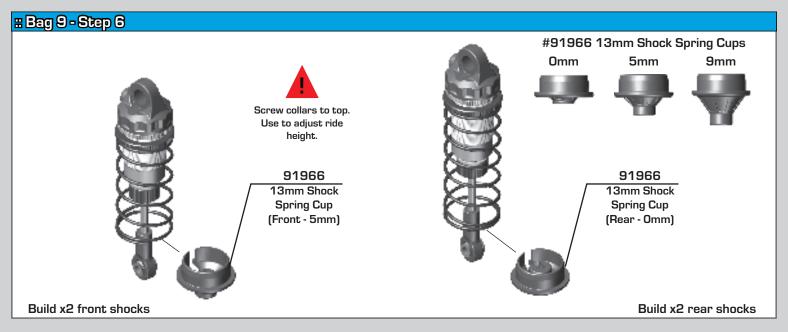


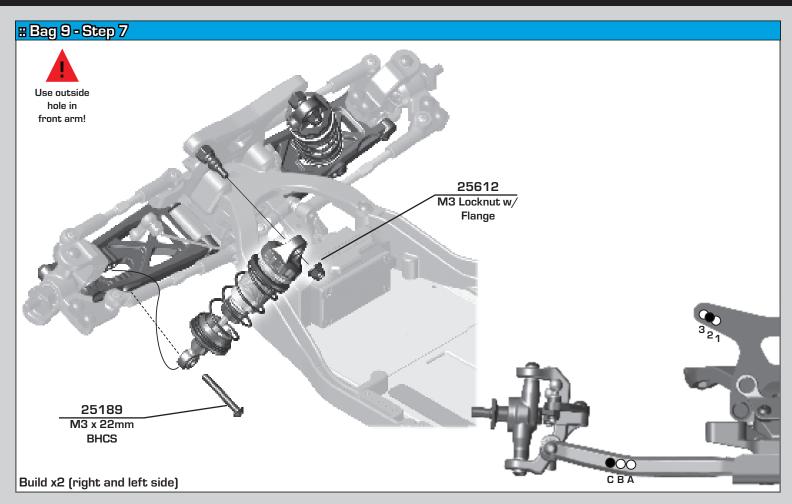


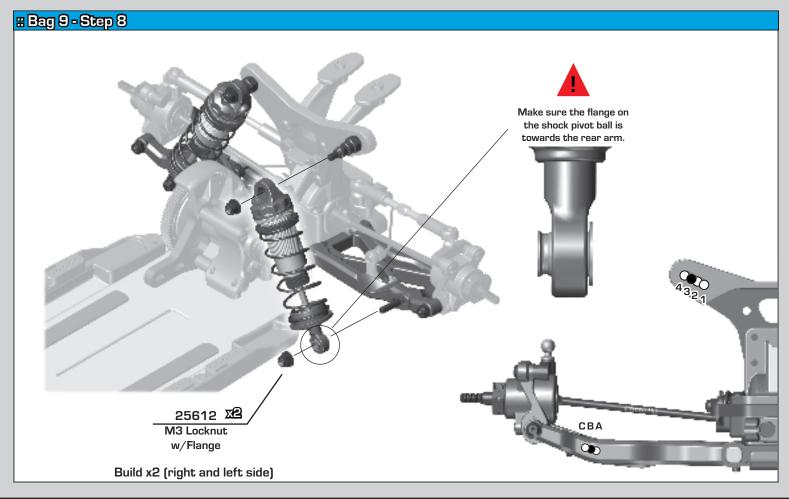


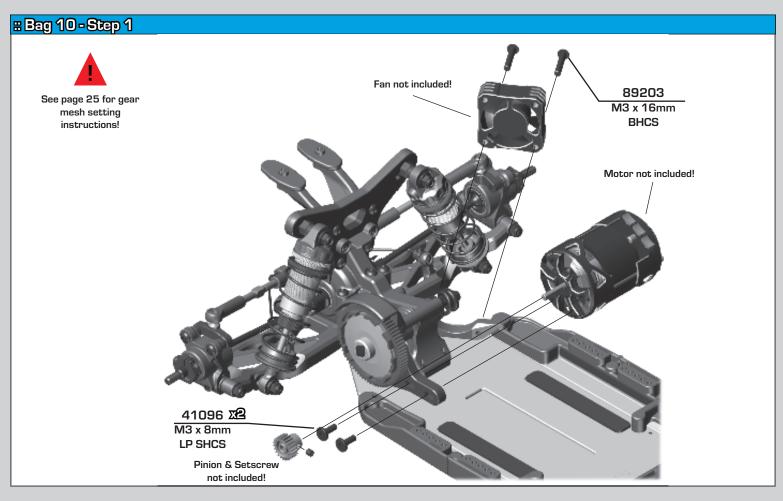


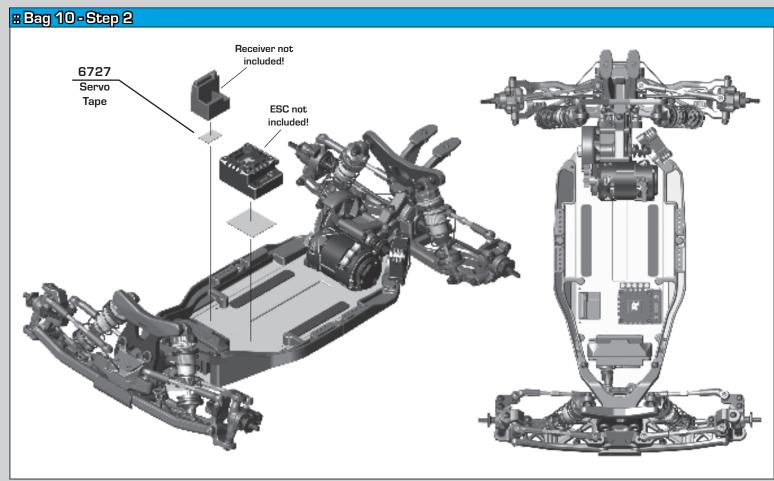


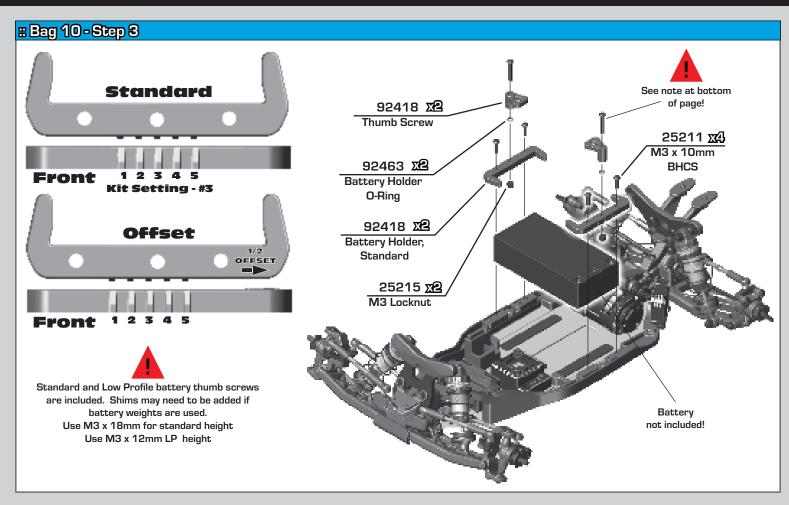


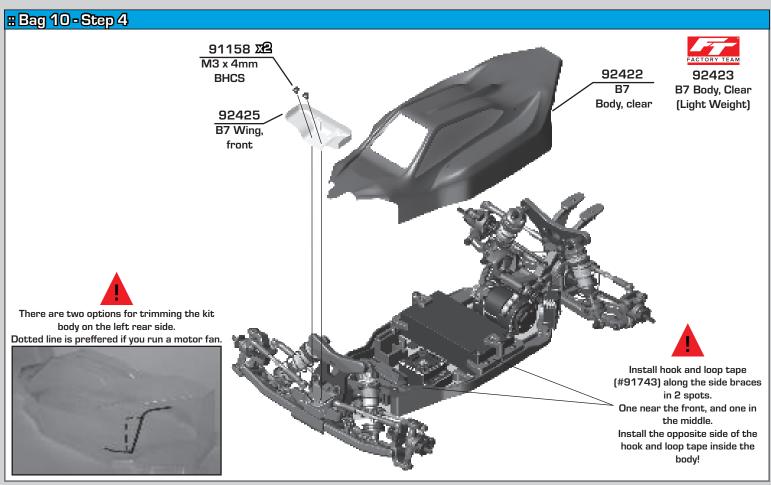


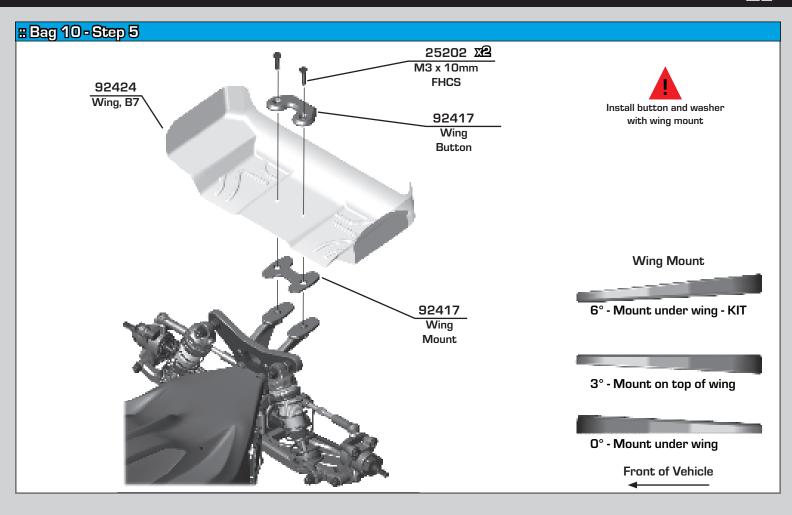


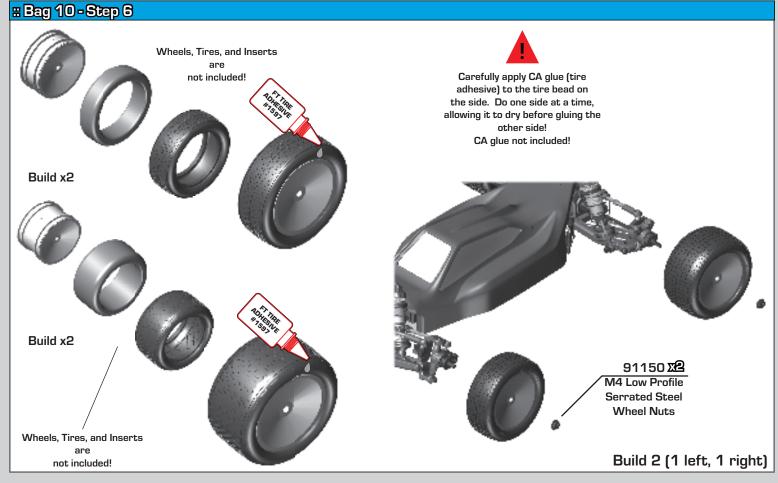












# # Tuning Tips - Painting, Beginners

### 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.

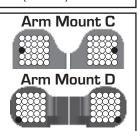
### Rear Arm Mount Pill Insert Setup:

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

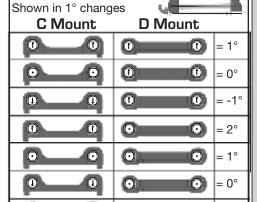
Use this position as a reference when changing pill locations.

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



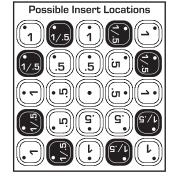
Hole 1.0° or 0.7mm from center

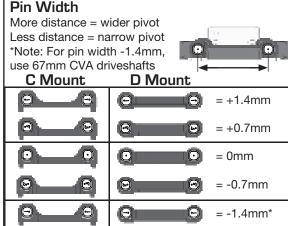
# Insert Hole Locations Number indicates degree of change: 0.5°, 1.0°, 0° (center dot) Hole 0.5° or 0.35mm from center

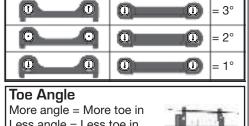


Anti-squat Angle More angle = More anti-squat

Less angle = Less anti-squat





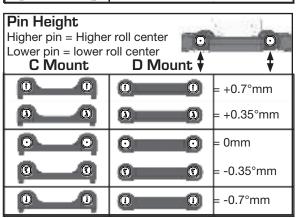




For additional setup tips, please visit our website by using the link or QR code below.

http://bit.ly/B6PillChart





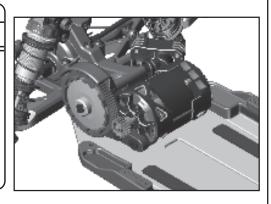
Shown in 1° changes C Mount D Mount						
Θ	$-\Theta$	Θ	lacksquare	= 3°		
0		0	$\Theta$	= 4°		
•	0	0		= 5°		
Θ	9	0	0	= 2°		
0		0		= 3°		
0	Θ	0	0	= 4°		
Θ	$\Theta$	Θ		= 1°		
0	0	Θ	Θ	= 2°		
Θ	Θ	Θ	Θ	= 3°		

# # 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.

RC10 RC10		Kit Setup (Carpet) <b>Even</b>	B		Quality:	Mathr
	Dates _	Trad	ke		Finish:	Best Lep Tilmer
Front Suspension:						
Ride Height: 13mm	_	Ball Stud Spacing: 1mi	m _	6	Steeri	ing Bellcrank Position: Up Down
Camber: -1 degree	=	Dan Otta Opacing. 1111	1/2	-	Ouccii	ing Delici Ciric i Coloicii. Cp
Toe: O degree	╡	Ball Stud Spacing: Om	m l	in .	Ball St	tud Spacing: 1mm
Anti-Roll Bar: 1.0mm	=	Buil Stud Spasing. Citi			Dan St	8 °
Arm Type: Kit	Bump Ste	eer Spacing: 1mm		•	Ball S	tud Spacing: 1mm
Tower Type: Kit		\	- 17	12		tud Spacing: 2mm
Wheel Hex: 6.5mm	Steering	Plate: +1		411		-1
Steering Block KPI: 2	╡╶╌╸		-6	1		
Caster Block Insert: 0 +2.5 +5	╡		- 6		70	3)
Bulkhead Type: Aluminum	- E			5		3 2 1
Kick-Up Angle: -2.5 0 +2.5	<b>≒</b>	<b>T</b> 9:		_	-1-1-10-6	
Steering Stop Spacing: Omm		Axle +3	Height:		H &	•00
Caster Block Spacing: Fwd Back	₹ ₹	+3 +2	■I			CBA
Notes:		+1			Caste	er Block Link Mount: 0
	- 46	+0			Front	Bulkhead Spacing: 1mm
Rear Suspension:						
Ride Height: 13mm	C Mount:		Axle He	eight:		
Camber: -1 degree	Aluminur	n Steel	0 ▼0 3	<b>▲</b> +3		42
Anti-Roll Bar: 1.2mm		00000	<b>● ▼</b> 1 2	<b>4</b> +2		921
Arm Type: Kit			0 1 2	▼ +1		Camber Link Spacing: 2mm
Tower Type: Kit				1-1	Į.	Ball Stud Spacing: 1mm
Arm Spacing: Fwd Mid Back [			<b>№ 4</b> 0 3	<b>▼</b> +0	<b>  •  </b> •	Ball Stud Spacing: 4mm
Wheel Hex: 5mm	D Mount:					
Hub Type: Std HRC	Aluminur	n Steel		k	21	- North
Hub Spacing: Fwd Mid Back	]	_		******		321
Drive Shaft: CVA's Universals		******			0	9
Notes:					1000	000
						CBA
Electronics		<b>Drivetralin</b>		Shocks		
Radio: Servo:		Differential: Ball	Diff:		Front	- 1
EPA: Throttle: % Brake:	%		ır Diff:	Piston:	2x1.6	2x1.9
ESC:		Diff Setting: 30k		Thickness		
ESC Settings:				Fluid:	35wt	
	Γiming:	Notes:		Spring:	Orang	
Pinion: Spur:		Slipper Clutch:		Limiters:		Ext: _1
Battery Mount: Std Offset		Type: HD		Stroke:	23.5m	
		# of Pads: 2x11m	m	Eyelet:	0	+2
Back 1	Forward	Setting:		Cup Offse		+9 0 +5 +9
Battery: Weight:		Notes:		Kashima	Bodies: Cl	hrome Shafts: Machined Spacers:
Notes:				Notes:		
TrackInfo	Tires		Body, W			Vehicle Comments:
Size:	Front Tires:		Body:	RC10		Notes:
Surface:	Front Compo	ound:	Front Win		C10B7	<u> </u>
Traction:	Front Insert:		Rear Wing		10B7 7"	
Moisture:	Rear Tires:		Wing Ang		3°	<u> </u>
Condition:	Rear Compo	und:	Chassis Lo		0	<u> </u>
	Rear Insert:			Gervo Weights: None		<u> </u>
Temperature:		1, ,		Electronic Weights: Aluminum		<u>-</u>
Notes:	Notes:		Total Vehi	cle Weight:		J L
# For more setups, vis	sit https:///	www.associatedelectr	cscom/t	eamasso	dated/manua	als_and_setup_sheets/

RC10 RC10	Datvera_	<b>Ev</b> a	nG		Qualify:	Malin:	
	Dates _	The	rek#		Finish:	Best Lep Tilmer_	
Front Suspension:							
Ride Height:	7	Ball Stud Spacing:		6	Steering	Bellcrank Position: Up	Down 🗍
Camber:	╡	Dail Occur Opacing.	1/2		oceening	Delici arik Pusicion. Op	, Down
Toe:	╡	Ball Stud Spacing:		in .	Rall Stu	d Spacing:	
Anti-Roll Bar:	=	Dan Otaa Opacing.			Dan Sua	a opaomy.	- F
Arm Type:	Bumn Ste	eer Spacing:		<b>.</b>	Ball Stu	d Spacing:	0
Tower Type:		Ser Optioning.	a 107	11 🛠 🗆		d Spacing:	<sup>3</sup> 21
Wheel Hex:	Steering	Diate		<b>711</b>		p	-1
Steering Block KPI:		Trace.	(0	1	-		
	╗				7675		C C
Bulkhead Type:	= =	The Control of the Co				la la	3 2 1) 🧕
Kick-Up Angle: -2.5 0 +2.5	╡ 🗏	<b>T</b> o _		-			
Steering Stop Spacing:	북 [[		xle Height:				
	=		= 1			C B A	
Caster Block Spacing: Fwd Back  Notes:			= 1		Caster	Block Link Mount:	¬
Notes:			= 1			ulkhead Spacing:	Ţ
Rear Suspension:						, J	
Ride Height:	C Mount:		Axle He	eight:		, m	Itaa.
Camber:	Aluminur	n Steel	0 ▼0 3			Q	200
Anti-Roll Bar:	<b>=</b>		<b>○</b> ▼1 2	<b>A</b> +2		4.	<sup>3</sup> 21
Arm Type:	╡ ‱		- T		Ca	mber Link Spacing:	- CI
Tower Type:	╡│‱		0 ▲1 2	+1	=	II Stud Spacing:	
Arm Spacing: Fwd Mid Back	╡ ̄ ̄		<b>△ ▲</b> 0 3	<b>▼</b> +0	Ba Ba	II Stud Spacing:	i 1
		D Mount:				\	1 2
Hub Type: Std HRC		Aluminum Steel		in the			- Jan-
Hub Spacing: Fwd Mid Back	╡  ̄ ̄			mm:		62mm HB	1000
Drive Shaft: CVA's Universals		00000				(3	321
Notes:	$\dashv$					200	
						BA	
Electronics		Drivetrain:		Shocks:			
Radio: Servo:		Differential: B	all Diff:		Front	Rear	
EPA: Throttle: % Brake:	%	Height: G	iear Diff: 🔲	Piston:		Ī	
ESC:		Diff Setting:		Thickness	:		
ESC Settings:				Fluid:		İ	
Motor / Wind:	Γiming:	Notes:		Spring:		İ	
Pinion: Spur:		Slipper Clutch:		Limiters:	Int: Ext	:: Int: Ex	t:
Battery Mount: Std Offset		Туре:		Stroke:			Stroke ::
1111		# of Pads:		Eyelet:	Ī	l	
Back 1 2 3 4 5	Forward	Setting:		Cup Offse	t: 0 +5	+9 0 +5	+9 🗍
Battery: Weight:		Notes:	j	Kashima I	Bodies: Chr	ome Shafts: Macl	hined Spacers:
Notes:				Notes:			
TrackInfo:	Tires		Body, Wa	elghte		Vehicle Comment	S#
Size:	Front Tires:		Body:			Notes:	
Surface:	Front Compo	ound:	Front Win	g:			
Traction:	Front Insert:		Rear Wing				
Moisture:	Rear Tires:		Wing Angl		3° ☐ 6° ☐		
Condition:	Rear Compo	und:	Chassis Le	ength:			
	Rear Insert:		Servo Wei				
Temperature:	Wheel (F/R)			Weights:			
Notes:	Notes:		=   = = = =	cle Weight:			
			_			<b>-</b>	

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