

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

#RC10B7D 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
- · 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
- HD 69mm CVA bones and differential outdrives for improved durability
- Light-weight molded servo mount
- One-piece rear wing mount improves durability
- New 7-inch rear wing and 2.5-inch front wing
- · Low-profile body included
- · Shock tower covers front and rear
- 3.5mm turnbuckles and ballcups

Additional

Your new RC10B7D 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)
 - FT Ballcup Wrench (#1579) • Calipers or a Precision Ruler • FT Body Scissors (#1737)
- Shock Pliers (#1681)
- Hobby Knife
- Wire Cutters
- Needle Nose Pliers
- Soldering Iron

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

• FT Hex/Nut Wrenches (#1519)

• FT Universal Tire Balancer (#1498)



Customer Service Tel: 949.544.7500 Fax: 949.544.7501

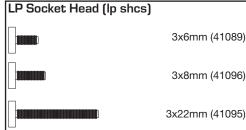
Hardware - 1:1 Scale View

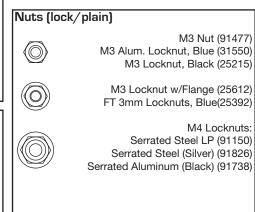
Button Head (bhcs)	
	2x4mm (31510)
	2.5x6mm (31520)
	3x6mm (31531)
	3x8mm (31532)
	3x10mm (25211)
	3x12mm (89202)
	3x14mm (25187)
	3x16mm (89203)
	3x18mm (2308)
	3x22mm (25189)
	3x24mm (89204)

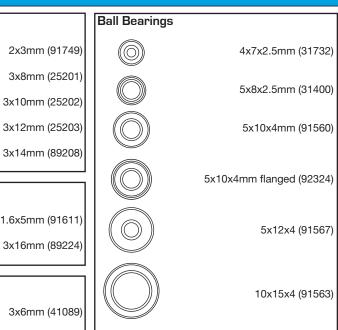
Shims and Washers	
	5.5x0.5mm (31381)
	5.5x1.0mm (31382)
	5.5x2.0mm (31383)
	3x8mm Washer (89218)

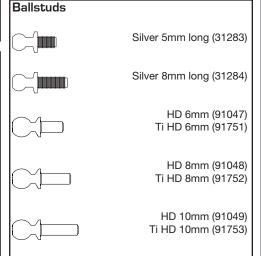
Set Screws	
	3x3mm (25225)
	3x6mm (81257)
	3x12mm (81258)
	3x20mm (91737)

Flat Head (fhcs)	
	2x3mm (91749)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)
Cap Head (shcs)	
	1.6x5mm (91611)









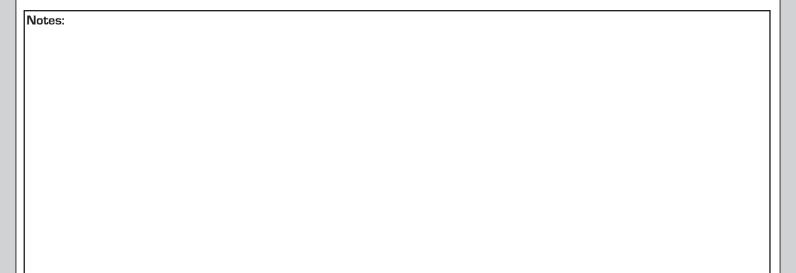


Table of Contents

1......Cover

2..... Introduction

3.....1:1 Hardware "Fold Out"

4.....Table of Contents

5.....Steering Build Bag 1

5.....Front Suspension Build Bag 2

8.....Caster / Steering Blocks Build Bag 3

9.....Rear Suspension Build Bag 4

10.....Gear Differential Build Bag 5 11.....Gearbox Build Bag 6

14.....Rear Hubs Build Bag 7

15.....Turnbuckles Build Bag 8

16.....Shocks Build Bag 9

19.....Electronics Build Bag 10

22.....Tuning Tips

24...... Setup Sheet "Kit Setup"

25..... Setup Sheet "Blank"

26..... Back Cover

Notes



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



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



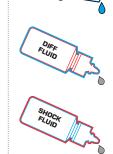
This symbol indicates the order within a step to assemble parts.



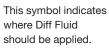
This symbol indicates there are optional FT parts available



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.

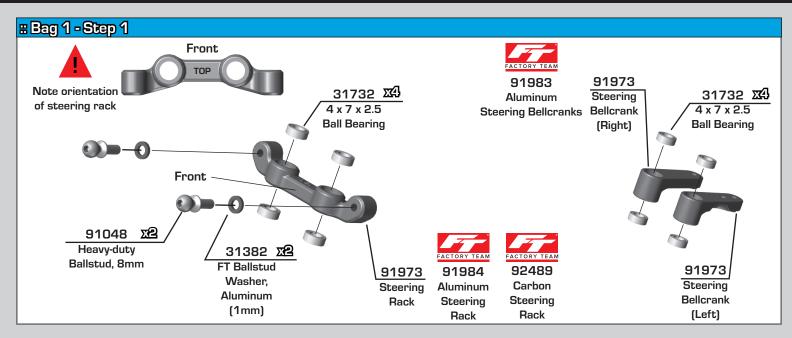


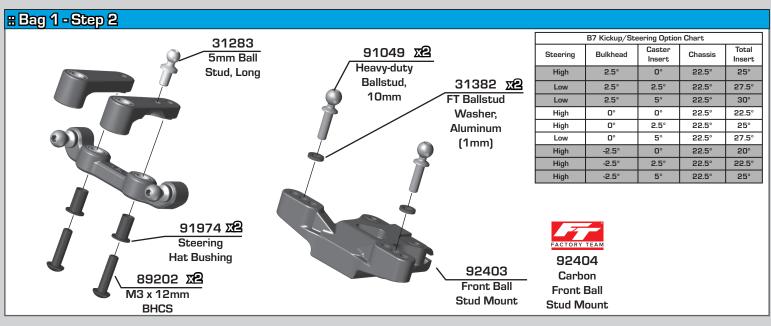
This symbol indicates where Green Slime can be applied.
*not included

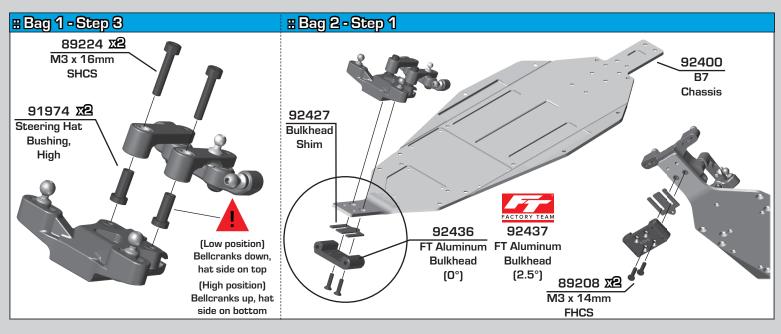


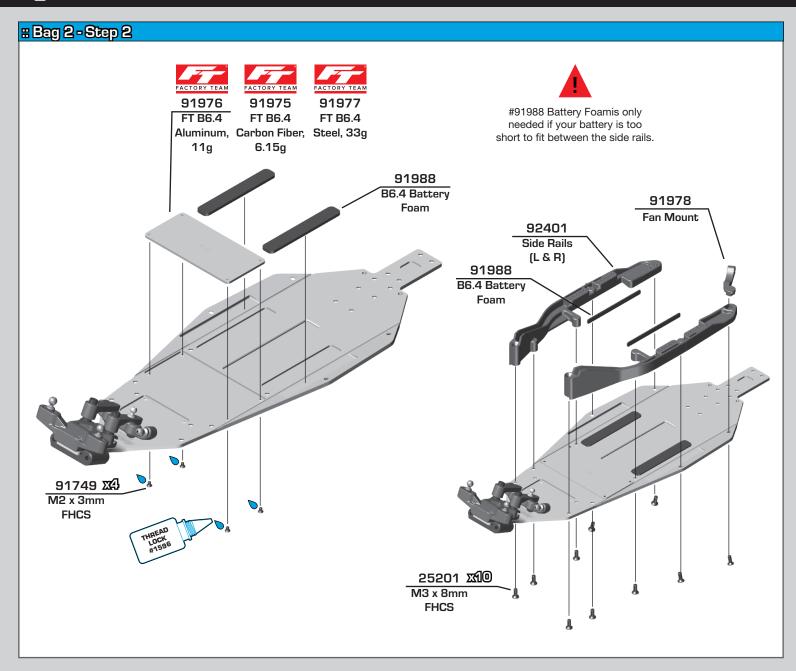
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

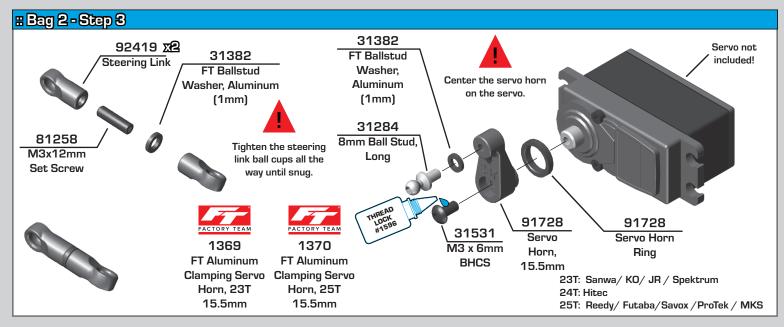
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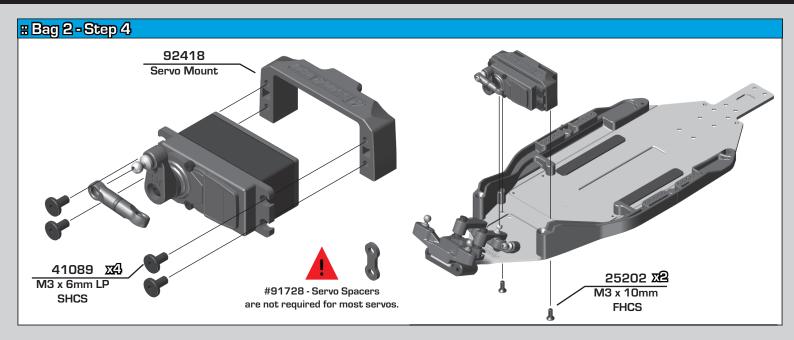




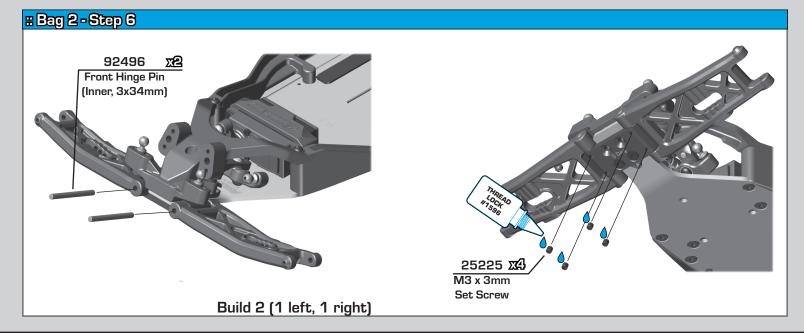


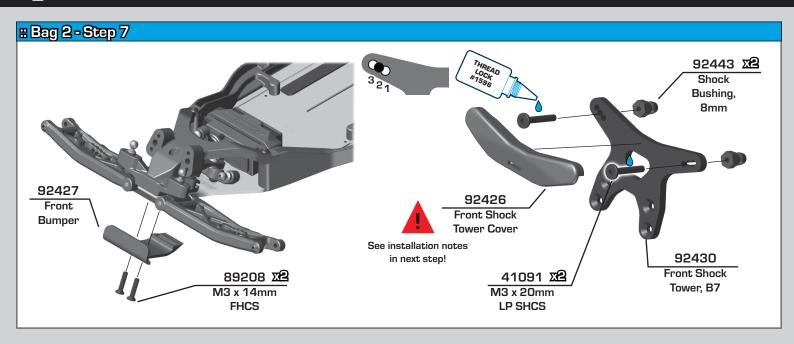


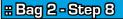










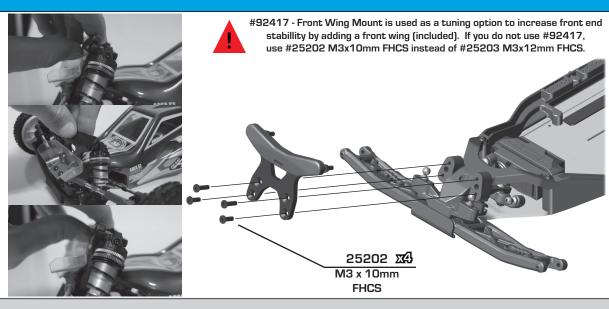


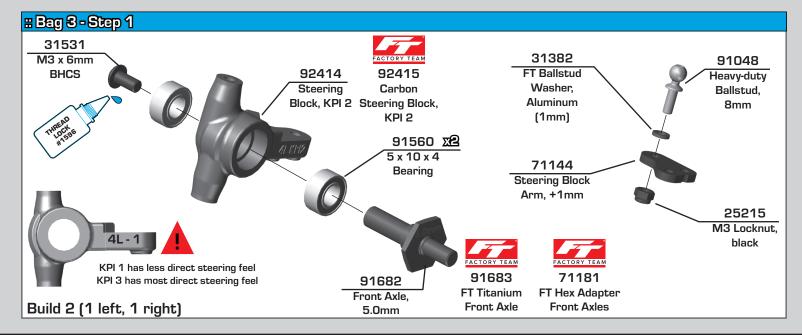


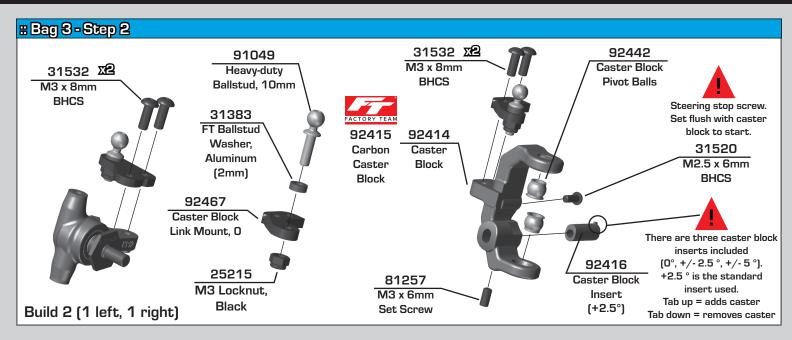
- Line up the front tower cover on the shock tower at an angle as shown in the 1st image to the right.
- Press firmly down on the center of the shock tower cover.

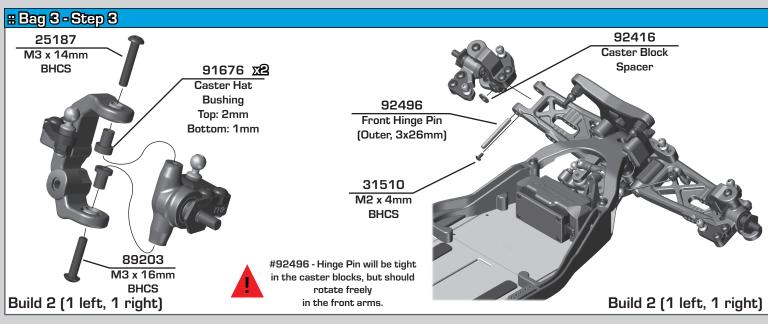
 Be sure to keep the tower cover centered on the tower.
- 3. The cover should snap into place with the tap locking on the back side of the tower.

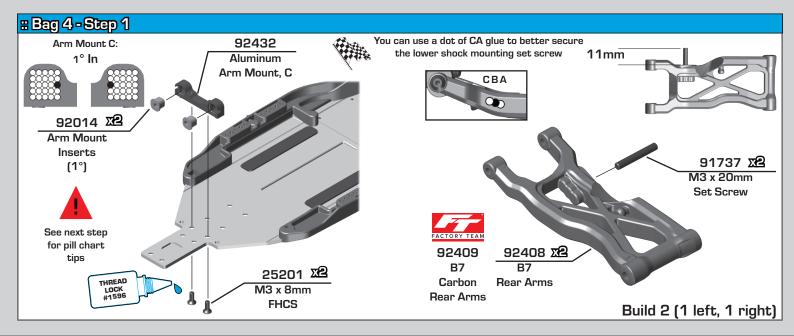
NOTE: The tower cover was designed to key into place with the supplied LP SHCS. Use of another screw type is not recommended.

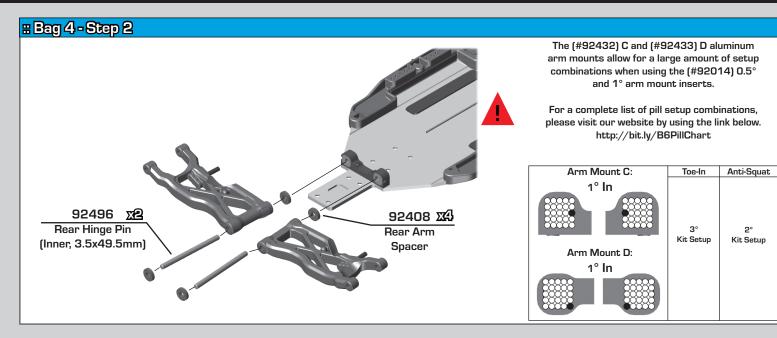


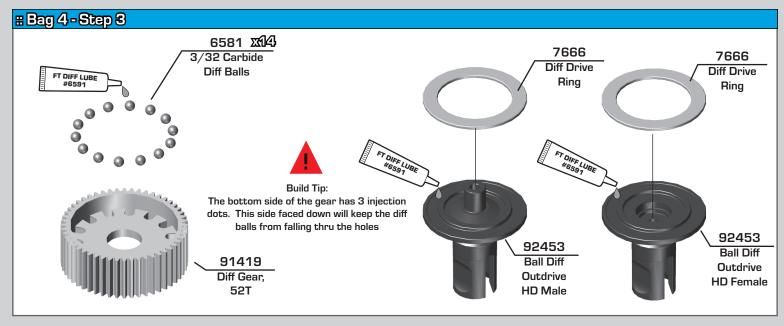


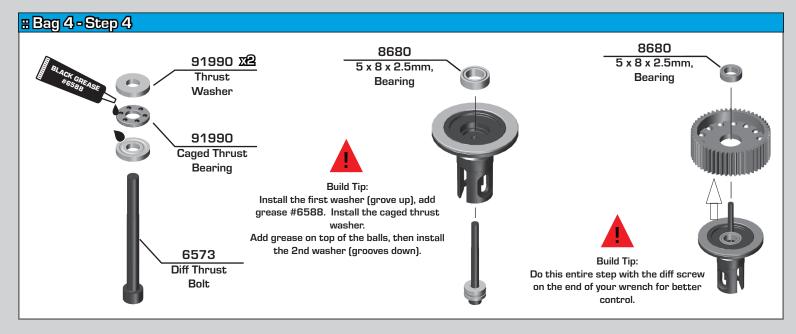












Bag 4-Step 5





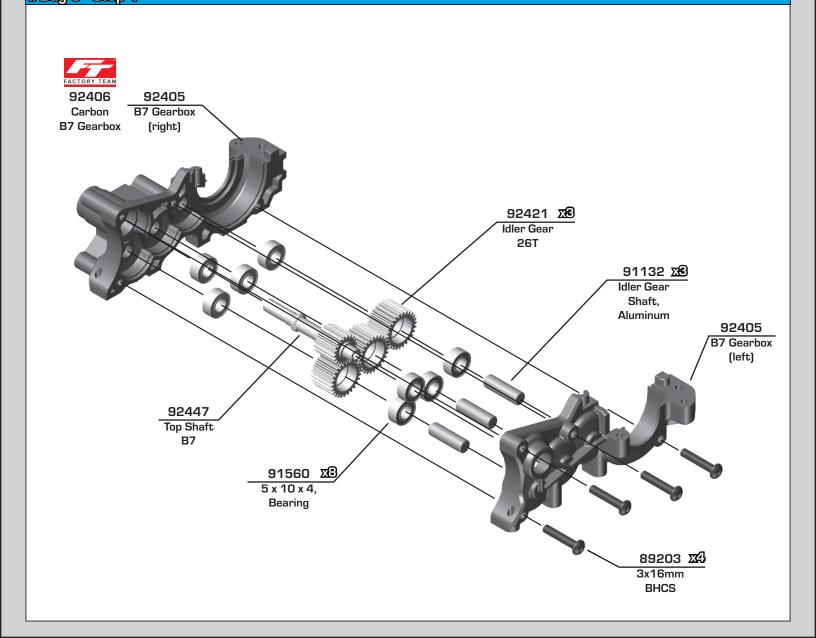
As you tighten the diff bolt, you will notice the T-nut ears moving closer to the bottom of the outdrive slot. This compresses the spring behind the T-nut. The spring should be completely

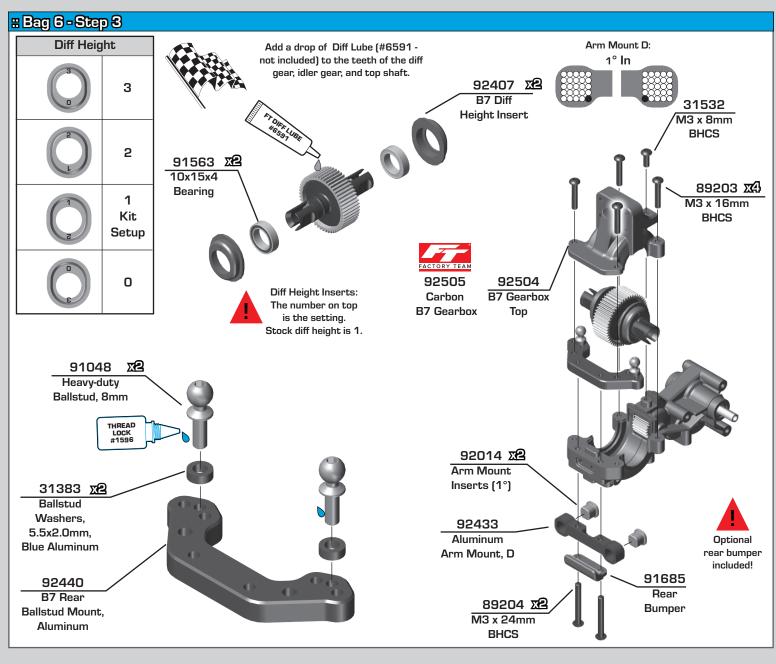
compressed at the time the T-nut reaches the end of the slot. Caution! Pay close attention to the feeling when the spring is completely compressed. Do not overtighten the bolt. When you feel the spring completely compressed, loosen the diff bolt 1/8 of a turn. Your diff should now operate smoothly but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

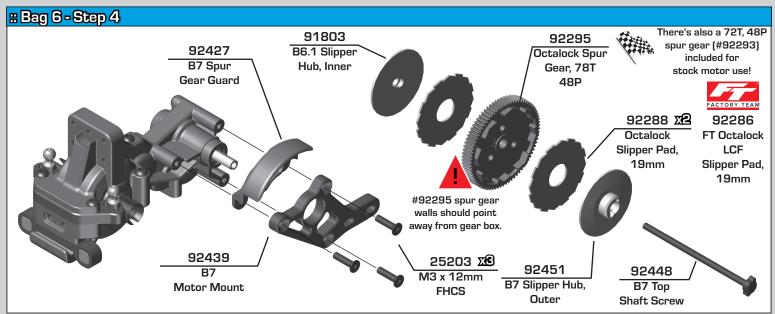
resistance as the outdrives move in opposite directions. After you have driven the car once, re-check the diff setting.

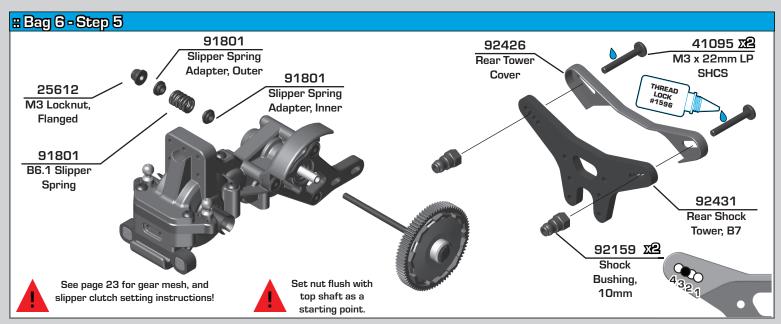


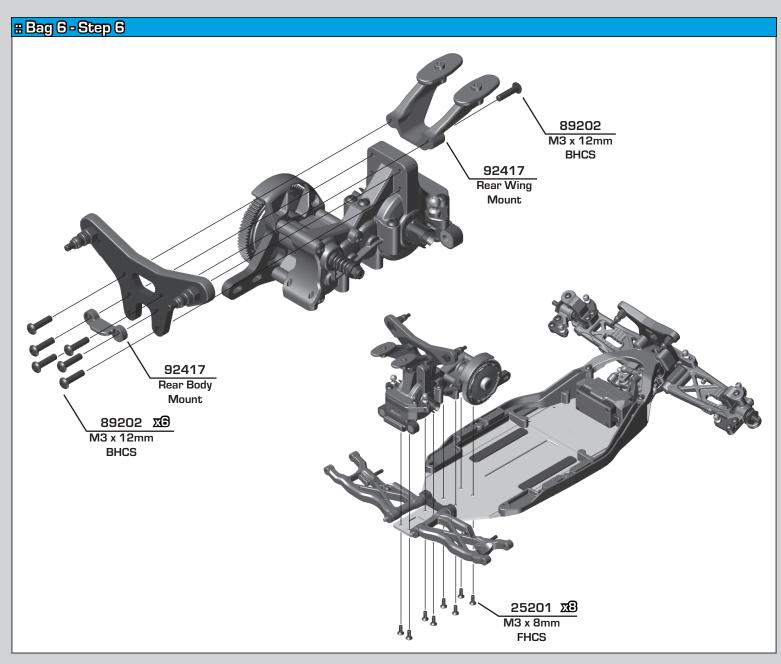
#Bag 6-Step 1

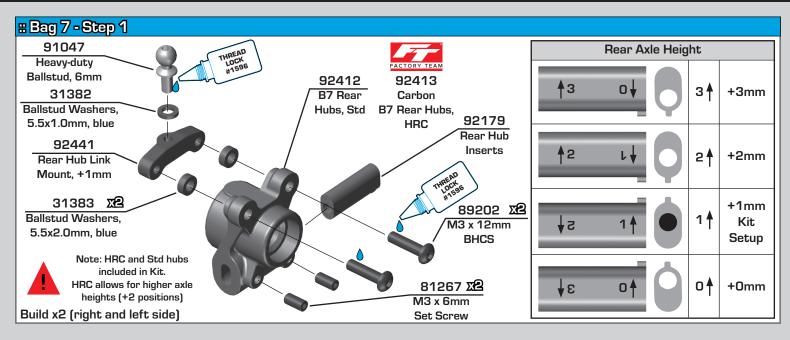


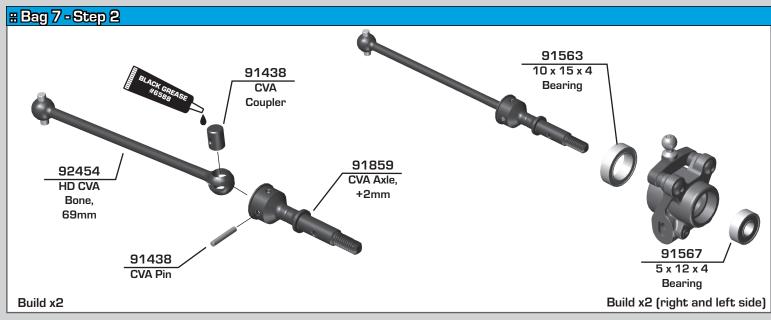


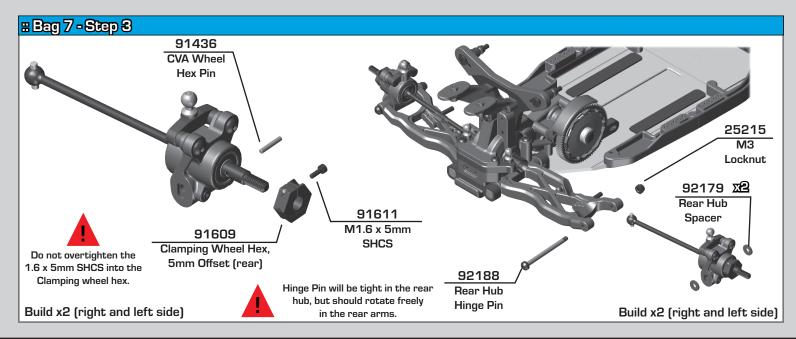


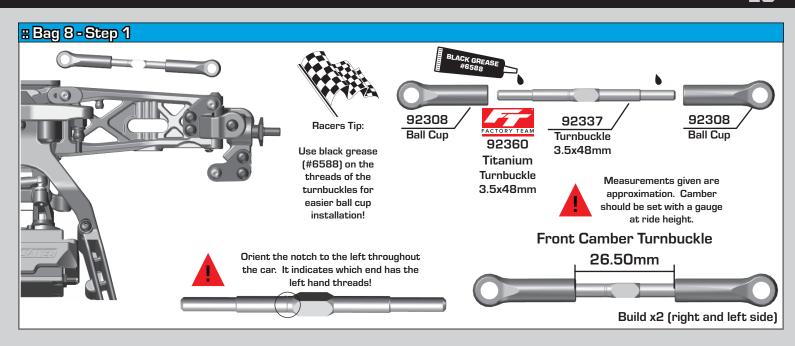


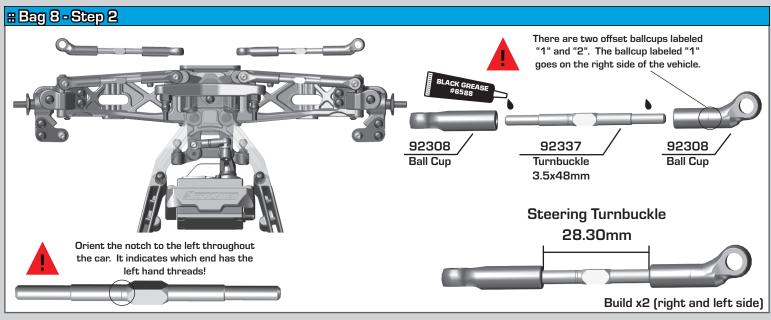


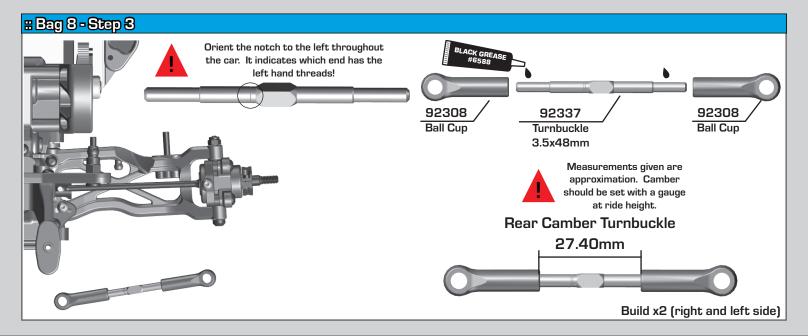


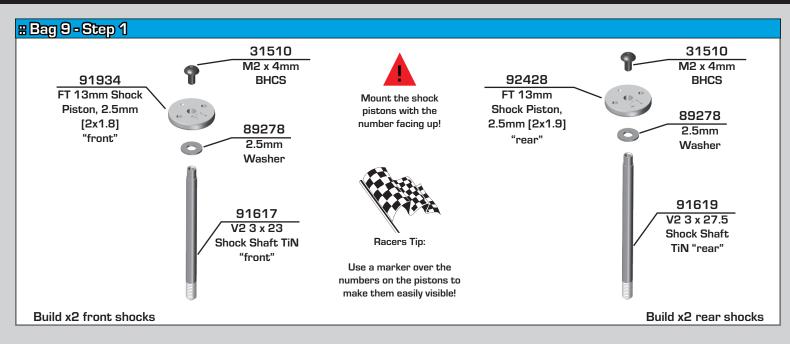


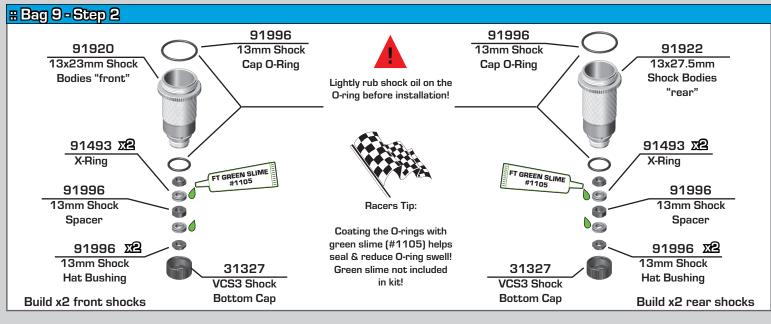


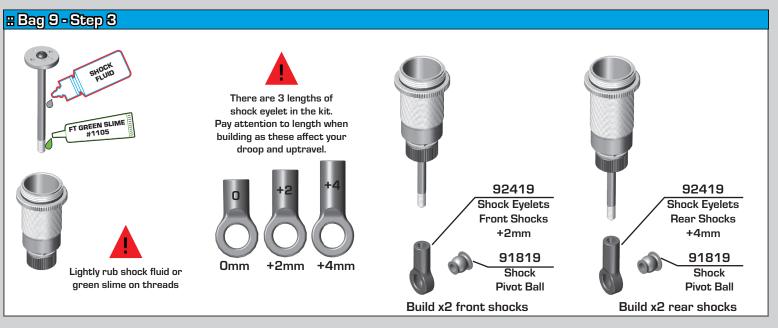


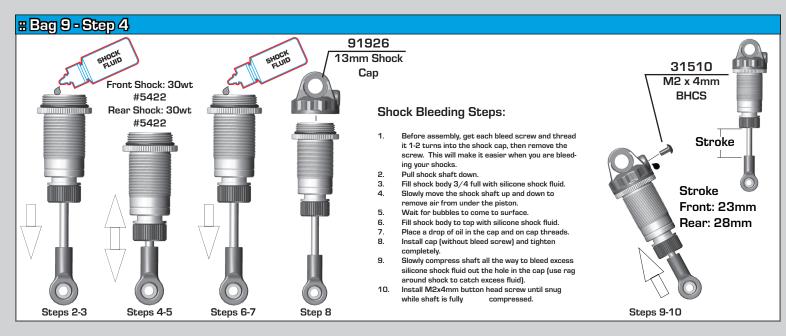


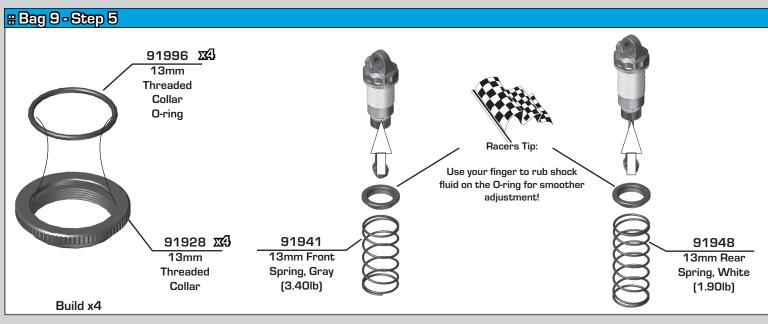


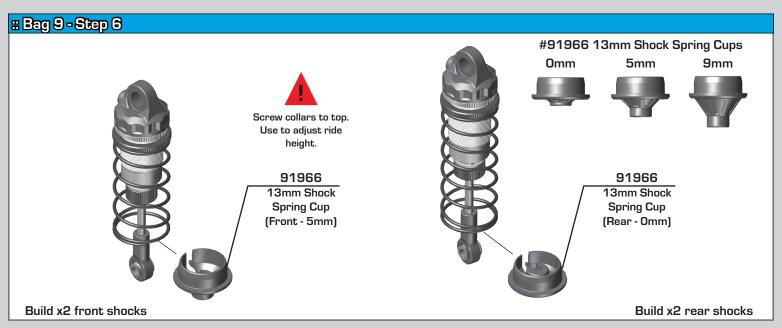


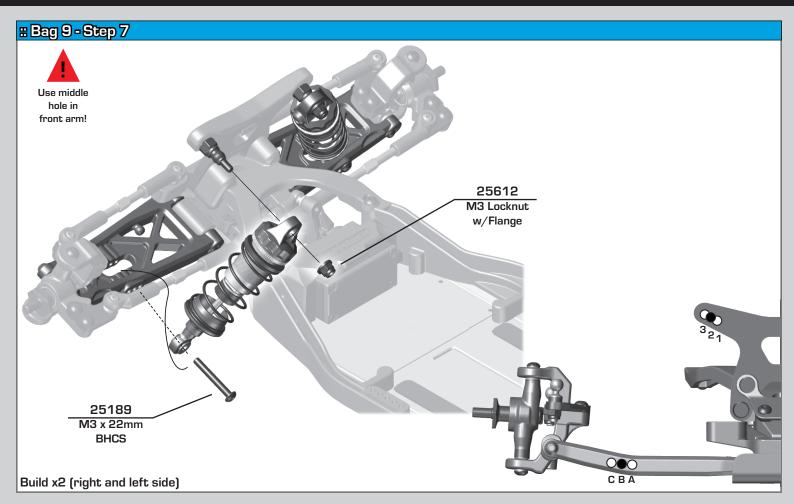


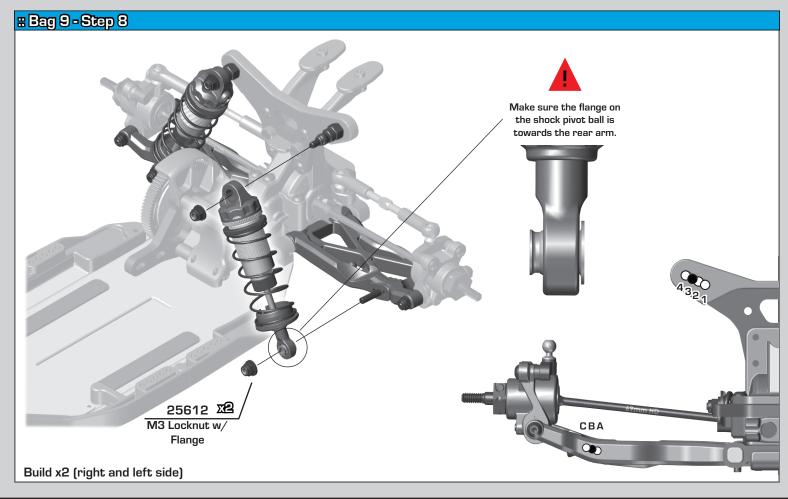


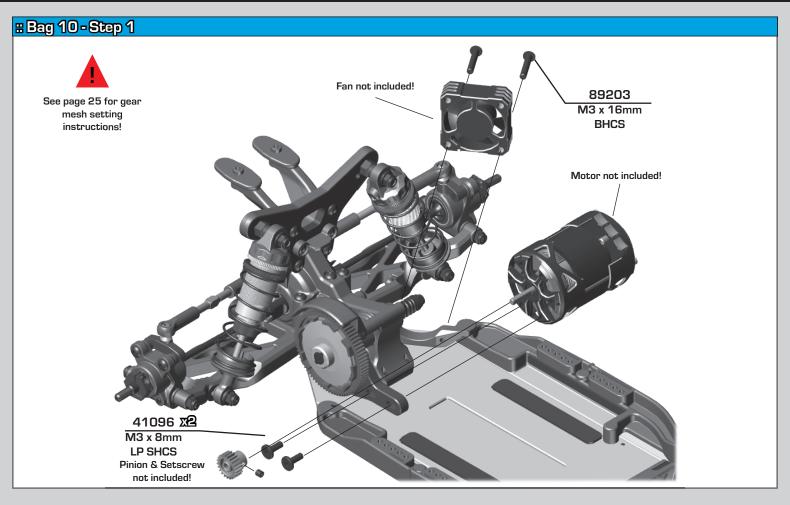


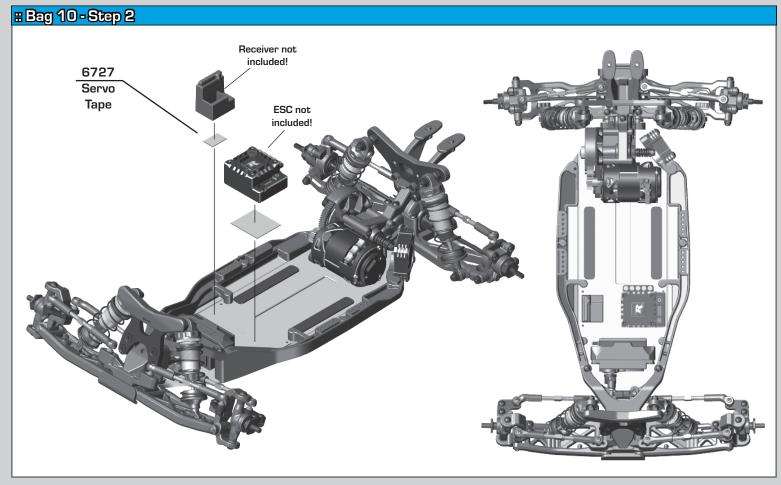


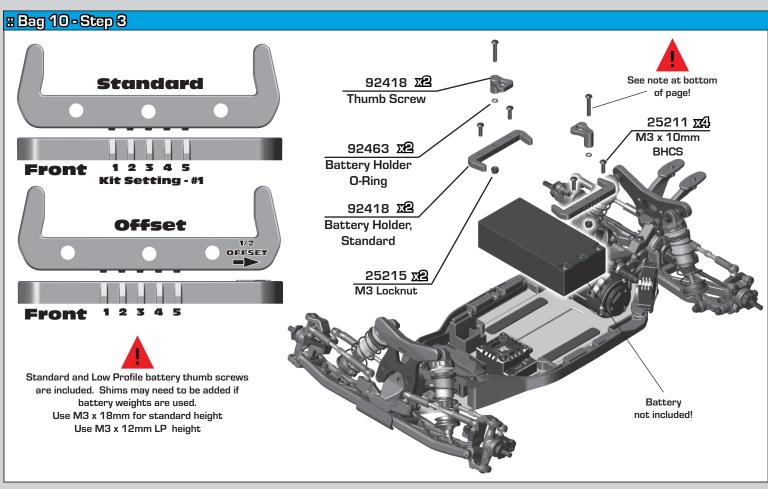


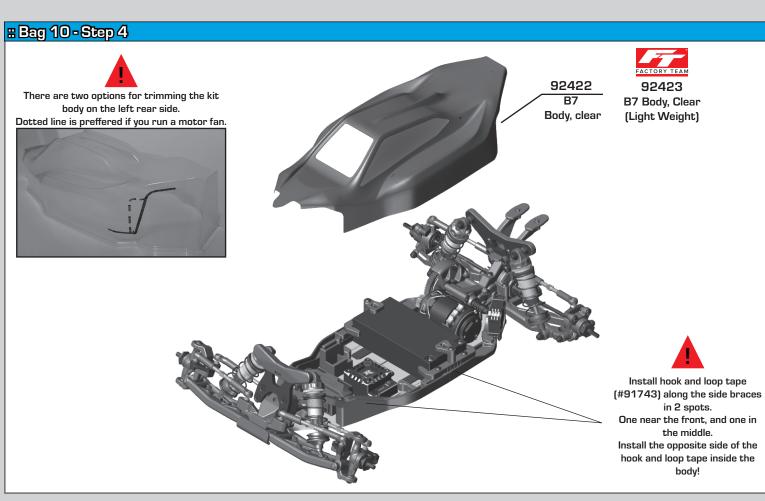


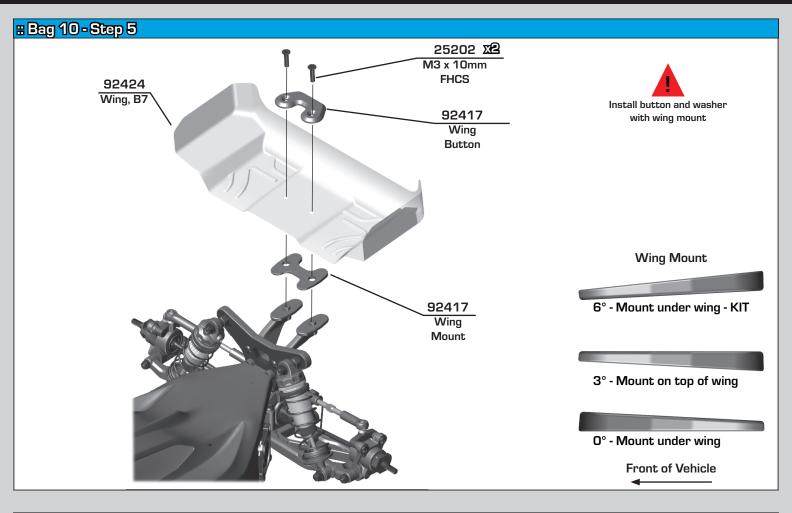


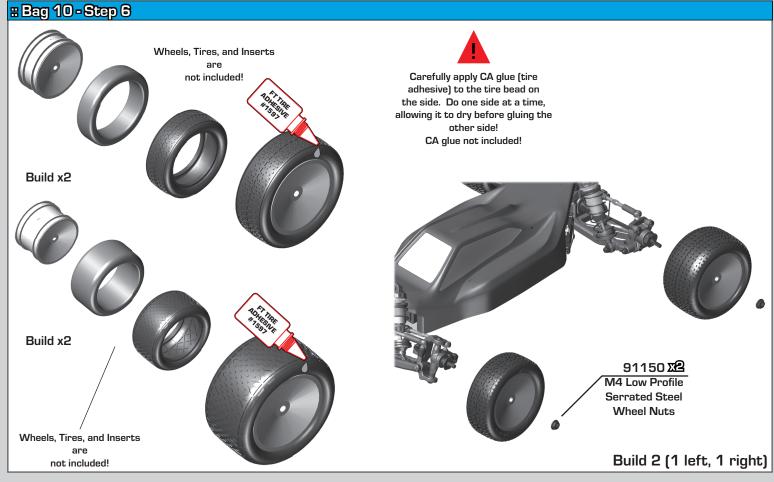












Tuning Tips - Painting, Beginners

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.

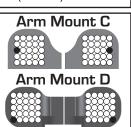
Rear Arm Mount Pill Insert Setup:

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

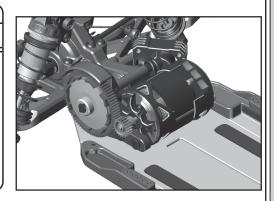
Shown in 1° chang C Mount	es D Mount
	6 = 3°
0 0	O = 4°
•	• = 5°
9 9	• = 2°
0 0	o = 3°
Θ Θ	• = 4°
	O = 1°
0 0	O = 2°
0	O = 3°

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.

RC10 RC10		Kit Setup (Dirt)	inG#		Qualify:	Mafine
	Dates	TR8	rek e		Finish:	Best Lep Tilmer
Front Suspension:						
Ride Height: 19mm	7	Ball Stud Spacing: 1	mm		Stoopin	ng Bellcrank Position: Up Down
	-	ball Stud Spacing: 1			Sceenin	ng Bellcrank Position: Up Down Down
Camber: -1 degree	-	D-II C+ C C		in .	D-II Ch	
Toe: O degree	╡	Ball Stud Spacing: 0	mm		Ball St.	ud Spacing: 1mm
Anti-Roll Bar: None					D-11 Ct-	and Connectional Assessed
Arm Type: Kit	Bump Ste	eer Spacing: Omm				ud Spacing: 1mm
Tower Type: Kit			5.0mr	h û	Ball Sti	ud Spacing: 2mm
Wheel Hex: 5mm	Steering I	Plate: +1	0			
Steering Block KPI: 2	_	•	A		490	
Caster Block Insert: 0 +2.5 +5	4 _	_				3210
Bulkhead Type: Aluminum						000
Kick-Up Angle: -2.5	4 1	A	xle Height:			
Steering Stop Spacing: Omm		_ -	3 🔲			000
Caster Block Spacing: Fwd Back		+				СВД
Notes:		+	= 1			Block Link Mount: 0
		+	0 Ц		Front E	Bulkhead Spacing: 1mm
Rear Suspension:	C Mount:			i alaba		
Ride Height: 19mm	Aluminun		Axle He	+3		
Camber: -1 degree			0 10 3	4 +3		4321
Anti-Roll Bar: None	- 88888	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	○ ▼1 2	+ 2	-	
Arm Type: Kit	_		1 1 2	▼ +1		amber Link Spacing: 2mm
Tower Type: Kit			△ ▲ 0 3	▼ +0	/ =	all Stud Spacing: 1mm
Arm Spacing: Fwd Mid Back Back			100	10		all Stud Spacing: 2mm
Wheel Hex: 5mm	D Mount:					
Hub Type: Std HRC	Aluminun	3teel				
Hub Spacing: Fwd Mid Back Back						69mm HD 321
Drive Shaft: CVA's Universals						
Notes:	-					00
						СВД
Electronics		Drivetrain		Shocks		
Radio: Servo:			all Diff:		Front	Rear
EPA: Throttle: % Brake:	%	" ——	iear Diff: 🔲	Piston:	2x1.8	2x1.9
ESC:		Diff Setting:		Thickness		
ESC Settings:				Fluid:	30wt	30wt
	ming:	Notes:		Spring:	Gray	White
Pinion: Spur:		Slipper Clutch:		Limiters:	Int: Ex	28mm 50 20 20 20 20 20 20 20 20 20 20 20 20 20
Battery Mount: Std Offset		Type: Std		Stroke:	23mm	28mm హ్లీ
11111		# of Pads: 2x19	mm	Eyelet:	+2	+4
Back 1 2 3 4 5	Forward	Setting:		Cup Offse	t: 0 +5	+9 0 +5 +9
Battery: Weight:		Notes:		Kashima I	Bodies: Ch	rome Shafts: Machined Spacers:
Notes:				Notes:		
TirackInfo:	Tires:		Body, W	elght:		Vehicle Comments:
Size:	Front Tires:		Body:	RC10I	B7	Notes:
Surface:	Front Compo	und:	Front Win	g: R	C10B7	
Traction:	Front Insert:		Rear Wing	g: RC	10B7 7"	
Moisture:	Rear Tires:		Wing Ang	e: 0°	3°	
Condition:	Rear Compo	ınd:	Chassis Lo	ength:	0	
	Rear Insert:		Servo We	ghts:	None	
Temperature:	Wheel (F/R):		Electronic	Weights:	Aluminum	
Notes:	Notes:		Total Vehi	cle Weight:		
ı 						s_and_setup_sheets/

Finish Best Lep Times Finish Best Lep Times	
Ride Height: Camber: Toe: Anti-Roll Bar: Ball Stud Spacing:	
Ride Height: Camber: Toe: Anti-Roll Bar: Ball Stud Spacing:	
Camber: Toe: Ball Stud Spacing:	
Toe: Ball Stud Spacing: B	
Anti-Roll Bar: Arm Type: Bump Steer Spacing: Ball Stud Spacing:	
Arm Type: Bump Steer Spacing: Ball Stud Spacing:	
Tower Type: Ball Stud Spacing: 324	
Tower Type: Wheel Hex: Steering Plate: 5.0mm	
Steering Block KPI:	
Caster Block Insert: 0	Q
Bulkhead Type:	100
Kick-Up Angle: -2.5 0 +2.5	5)
Axle Height:	3
Caster Block Spacing: Fwd Back +3 +2 C B A	
Notes: Caster Block Link Mount:	
+0 Front Bulkhead Spacing:	
Rear Suspension:	
Ride Height: Axle Height:	-
Camber: Steel Stee	
Anti-Roll Bar:	I
Camber Link Spacing:	a
Tower Type: Ball Stud Spacing:	
Arm Spacing: Fwd	
Wheel Hex: D Mount:	
Hub Type: Std HRC Aluminum Steel	
Hub Spacing: Fwd Mid Back S22	
Drive Shaft: CVA's Universals Universals	
Notes:	
CBA	
Electronics: Shocks:	
Radio: Servo: Differential: Ball Diff: Front Rear	
EPA: Throttle: % Brake: % Height: Gear Diff: Piston:	
ESC: Diff Setting: Thickness:	
ESC Settings: Fluid:	
Motor / Wind: Timing: Notes: Spring:	
Pinion: Spur: Slipper Clutch: Limiters: Int: Ext: Int: Ext: St: St.	Stroke
Battery Mount: Std Offset Type: Stroke:	ก็่่น่
# of Pads:	Ц
Back 1 2 3 4 5 Forward Setting: Cup Offset: 0 +5 +9 0 +5 +9 +5 +9 +5 +9	0
Battery: Weight: Notes: Kashima Bodies: Chrome Shafts: Machined Space	cers:
Notes: Notes:	
Tirack Info: Tires: Body, Weight: Vehicle Comments:	
Size: Body: Notes:	
Surface: Front Compound: Front Wing:	
Traction: Rear Wing:	
Moisture:	
Condition: Rear Compound: Chassis Length:	
Rear Insert: Servo Weights:	
Temperature: Wheel (F/R): Electronic Weights:	
Notes: Total Vehicle Weight:	
# For more setups, visit https://www.associatedelectrics.com/teamassociated/manuals_and_setup_sheets/	

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