

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





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

:: RC10B6.4D KIT Features

- New 13mm big-bore threaded aluminum shocks and springs with machined shock pistons for improved handling
- New dirt length aluminum chassis with 22.5° kick-up to complement updated front-end geometry and with new shape to reduce chassis scrub with the track surface
- 20°, 22.5°, and 25° molded bulkheads included for a complete range of caster and kickup options
- New adjustable height steering bellcrank and rack system for optimized bumpsteer at all ride heights and caster angles
- New -1mm kingpin offset steering and caster block set for smoother and more predictable steering through the entire wheel throw
- New aluminum RC10B6.4D ESC weight shifted forward in the chassis and with a wider footprint to fit electronics results in a further forward weight bias
- · New front ballstud mount, top plate, and front wing mount to account for the kickup angle change
- New chassis side rails with 3 optional fan mount locations to choose from
- New caged thrust bearing for ball differential
- New cab-forward design RC10B6.4 bodyshell offered in standard (kit) and lightweight (optional) thickness
- Front wing mount and front wing included
- · Clear body and clear wing included
- 5mm aluminum clamping rear wheel hexes

:: Additional

Your new B6.4D Team Kit comes unassembled and requires the following items for completion (Refer to www.rc10.com and www.Reedypower.com for complete listings):

- RC two channel surface frequency radio system
- AA-size batteries for transmitter (#302 alkaline)
- Electronic Speed Control, ESC
- Steering servo
- 540 size electric motor
- Pinion gear (48P), size determined by type/wind 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, #9691 Rear Wheels #9695, #9696
- Slim Front Wheels w/12mm Hex (carpet/astro use) #91757 (white) #91758 (yellow)

:: Other Helpful Items

- Silicone Shock Fluid (Refer to www.rc10.com for complete listings):
- Body Scissors (AE Part #1737)
- FT Hex/Nut Wrenches (AE Part #1519, 1650) FT Ballcup Wrench (#1579)
- Green Slime shock lube (AE Part #1105)
- Soldering Iron
- Needle Nose Pliers

- FT Body Reamer
- FT Dual Turnbuckle Wrench (#1114)
- Hobby Knife

- Shock Pliers
- FT Universal Tire Balancer (#1498)
- Calipers or a Precision Ruler
- Wire Cutters

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



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:: Hardware - 1:1 Scale View

Button Head (bhcs)			
	2x4mm (31510) Aluminum (8545)		
	2.5x6mm (31520)		
	2.5x8mm (31521)		
	2.5×10mm (31522)		
	3x4mm (91158)		
	3x5mm (31530)		
	3x6mm (31531)		
	3x8mm (31532)		
	3x10mm (25211)		
	3x12mm (89202)		
	3x14mm (25187)		
	3x16mm (89203)		
	3x18mm (2308)		
	3x20mm (25188)		
	3x22mm (25189)		
	3x24mm (89204)		
	3x30mm (91478)		

Flat Head (fhcs)
	2x3mm (91749)
	2.5x8mm (31448)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)
	3x16mm (25204)
	3x18mm (89209)

ľ		. €
	2.5x8mm (31448)	
	3x8mm (25201)	
	3x10mm (25202)	
	3x12mm (25203)	
	3x14mm (89208)	
	3x16mm (25204)	
	3x18mm (89209)	
Set Screws		
oci oticws		
	3x2.5mm (31500)	Balls
	3x3mm (25225)	
	3x5mm (89219)	
	3x10mm (4671)	
	3x20mm (91737)	
Socket Head (sl	ics)	
	1.6 x 5mm (91611)	
	3 x 18mm (25191)	
	3 x 6mm (41089)	
I ⁼	I	

3 x 22mm (41095)

7	Ball Bearings	
		4x7x2.5mm (31732)
		5x8x2.5mm (8680)
		5x10x4mm (91560)
		5x12x4mm (91567)
		10x15x4mm (91563)
	Ballstuds	

Ballstuds	
	Silver 5mm long (31283)
	Silver 8mm long (31284)
	HD 6mm (91047) Ti HD 6mm (91751)
	HD 8mm (91048) Ti HD 8mm (91752)
	HD 10mm (91049) Ti HD 10mm (91753)
Nuts (lock/	plain)

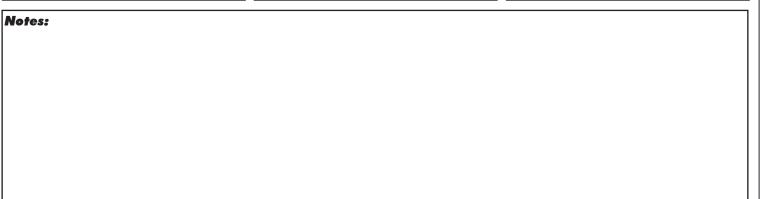
Diff Ba	lls
0	3/32 Carbide Diff Balls (6581) 3/32 Ceramic Diff Balls (6584)
00	Thrust Washer (91990)
	Caged Thrust Washer (91990)

Shims and	Washers
	5.5x0.5mm (31381)
	5.5×1.0mm (31382)
	5.5x2.0mm (31383)
\bigcirc	2.6x6mm Washer (89278)
	3x8mm Washer (89218)



M3 Plain Nut (91477)

M3 Alum. Locknut, Blue (31550)



:: Table of Contents

1..... Cover

2.....Introduction

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

4.....Table of Contents

5.....Bag 1: Steering

6 - 8.....Bag 2: Front Suspension

8 - 9.....Bag 3: Caster Blocks

9 - 10.....Bag 4: Rear Suspension

10 - 11.....Bag 5: Ball Diff

11 - 13......Bag 6: Gearbox

14.....Bag 7: Rear Hubs

15.....Bag 8: Turnbuckles

16 - 18......Bag 9: Shocks

19 - 23......Bag 10: Battery Strap, Body, and Wheels

24 - 25..... Tuning Tips

26.....Back Cover

:: Notes



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



This symbol indicates a Racers Tip.

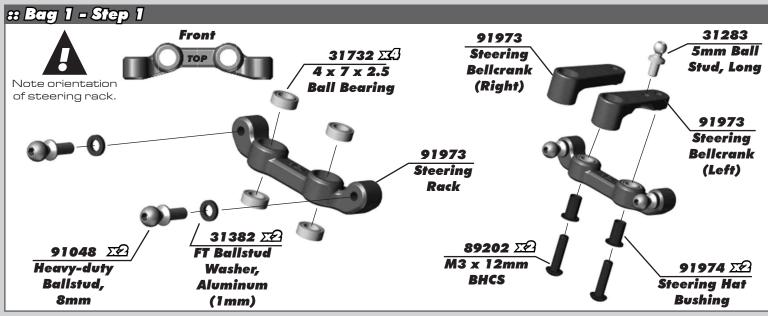


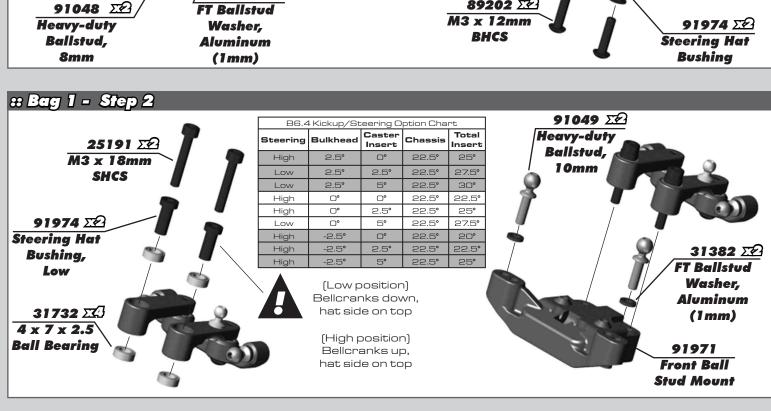
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

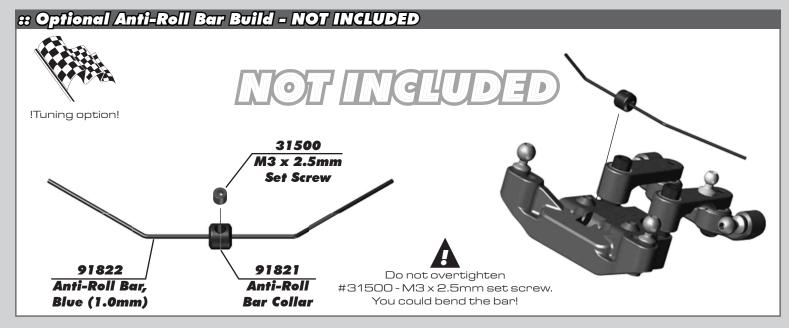
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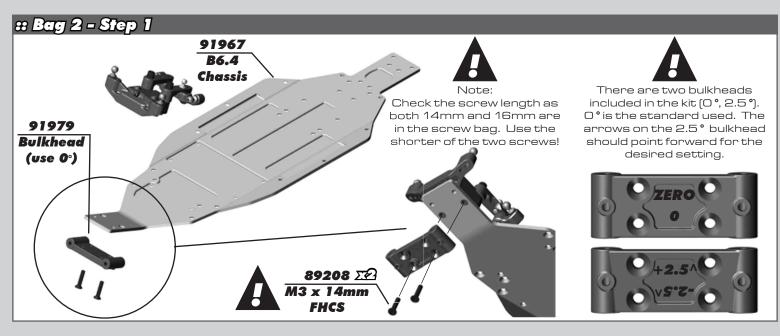


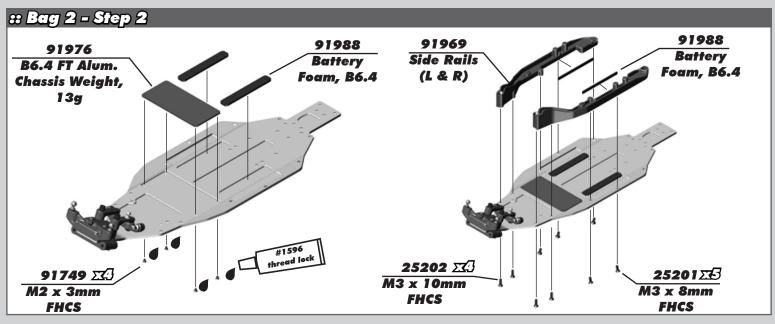
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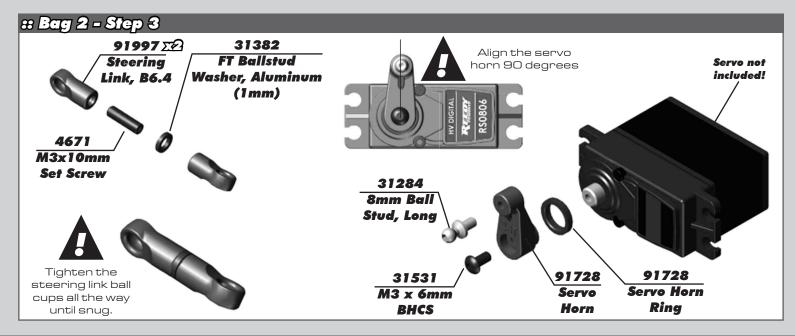


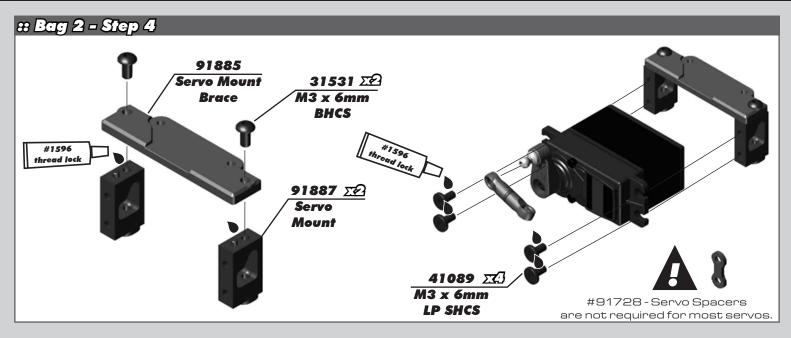


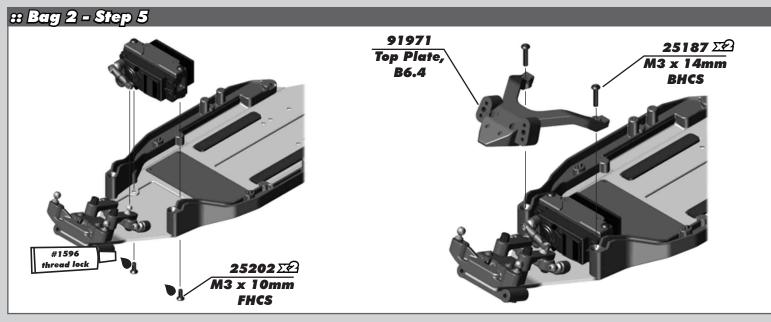


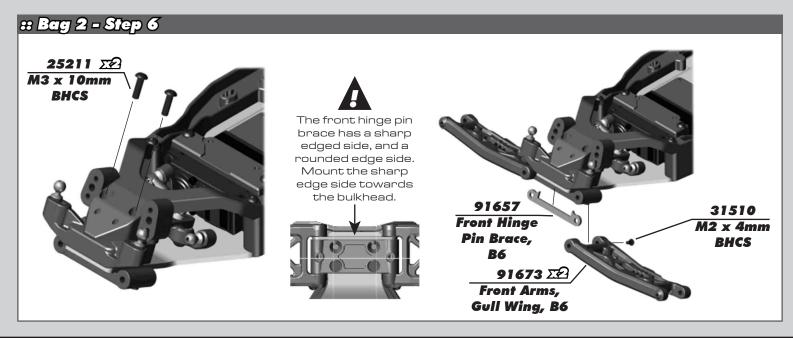


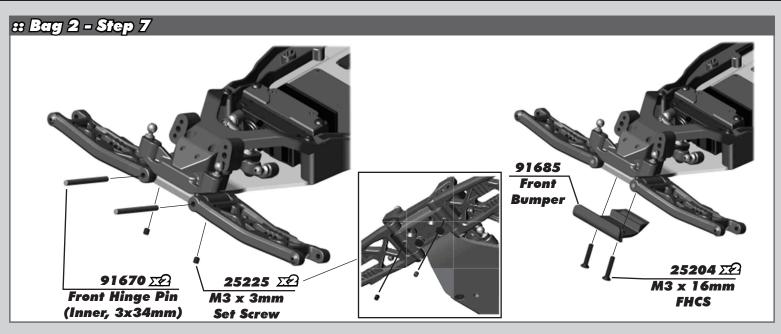


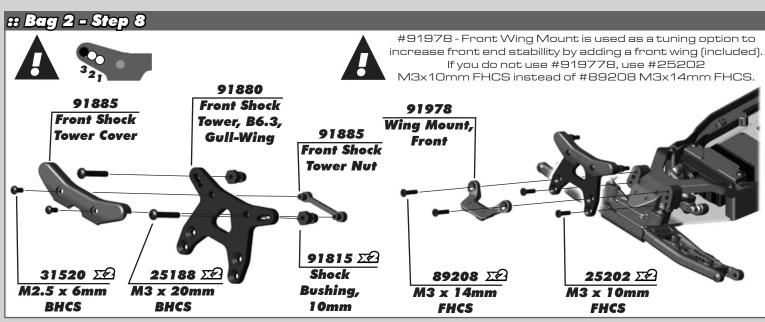


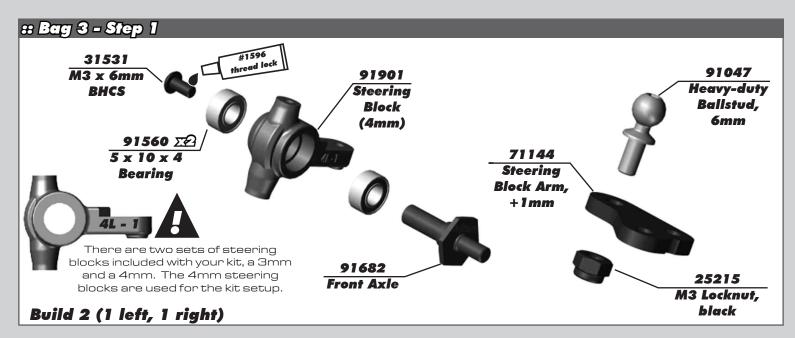




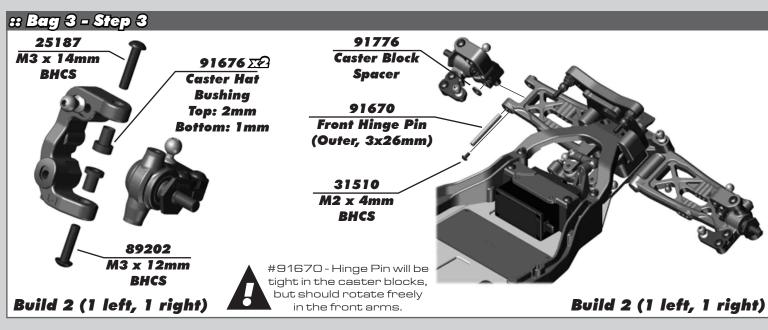


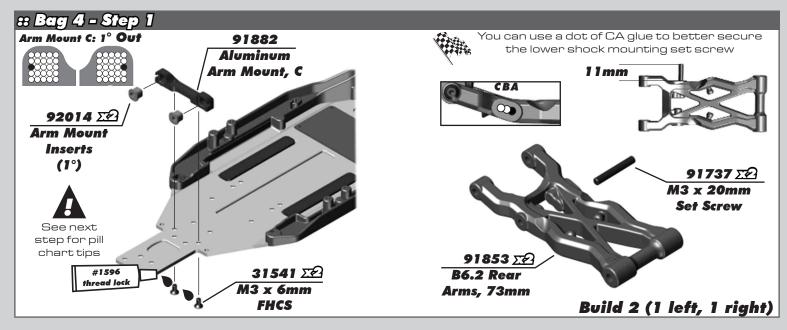


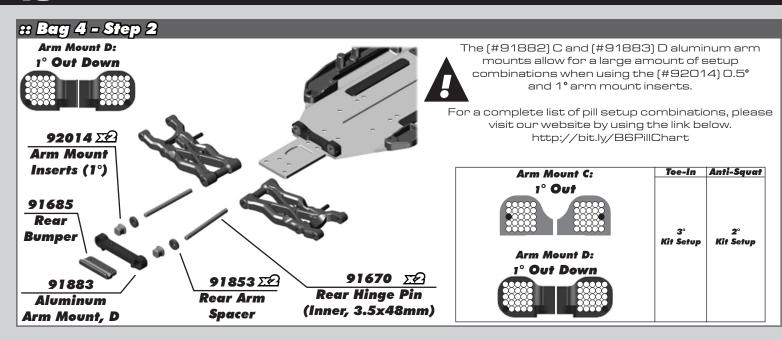


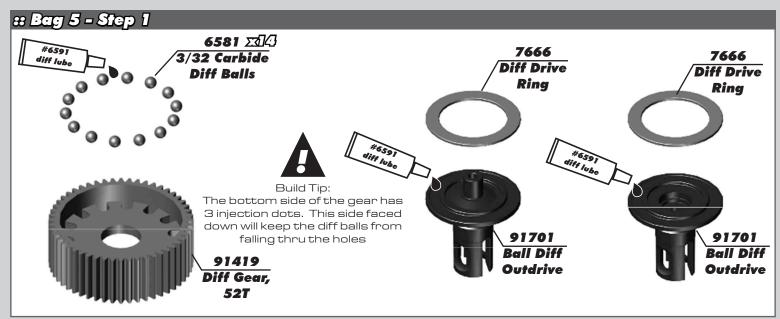


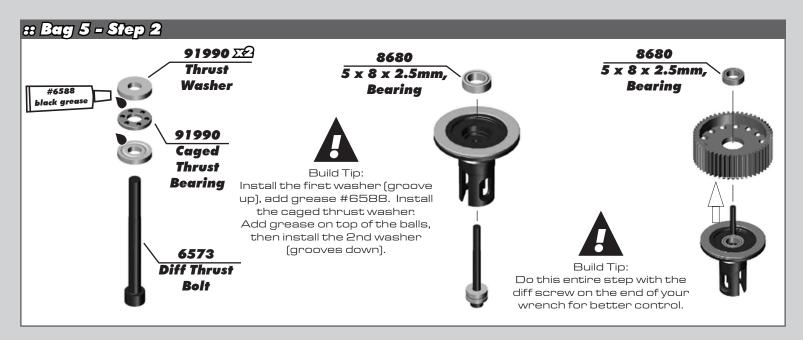


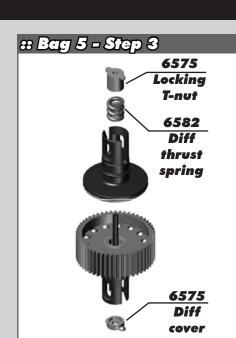






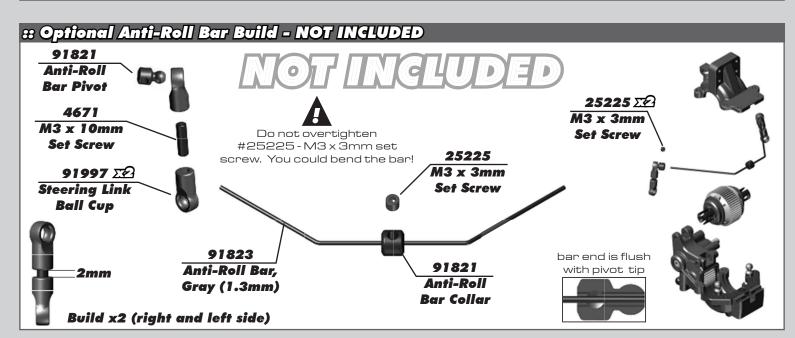


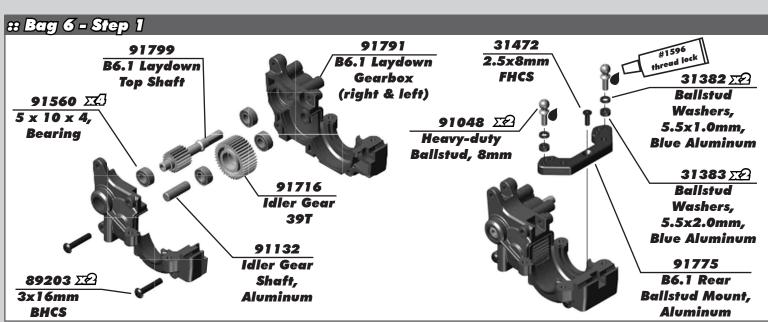




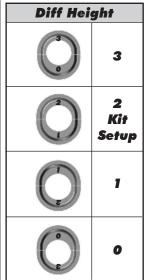
As you tighten the diff bolt, you will notice the T-nut ears moving closer to the bottom of the outdrive slot. This compresses the spring behind the T-nut. The spring should be completely compressed at the time the T-nut reaches the end of the slot. Caution! Pay close attention to the feeling when the 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.



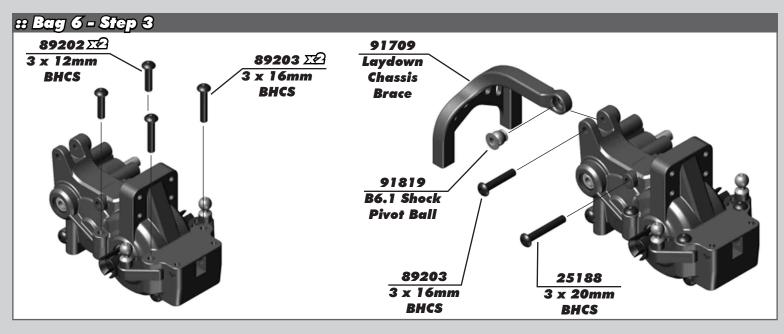


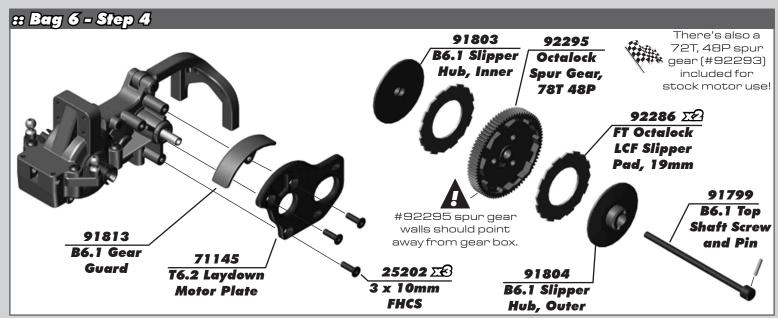


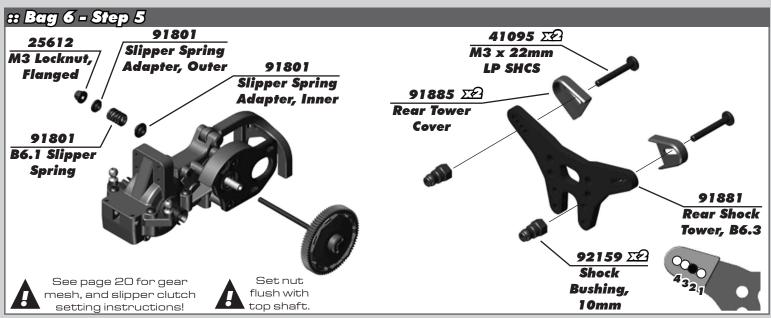
:: Bag 6 - Step 2

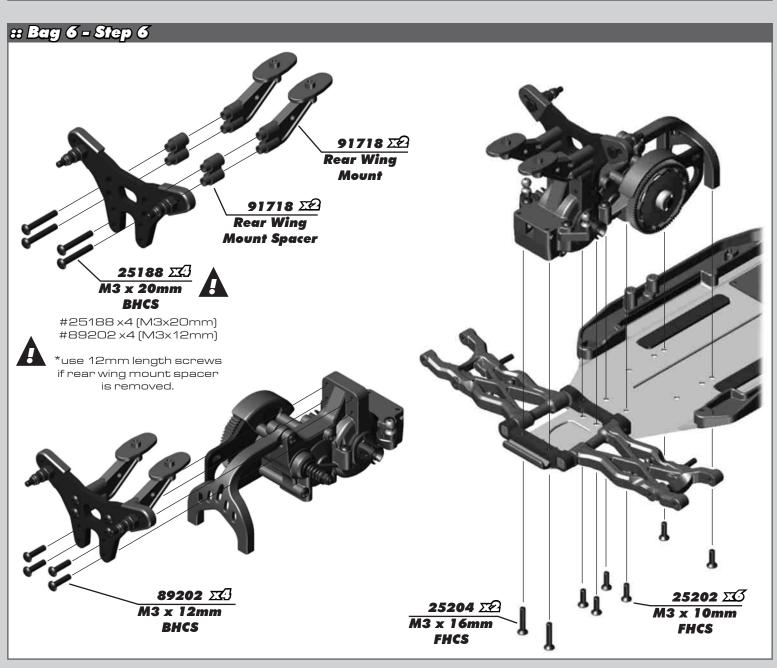


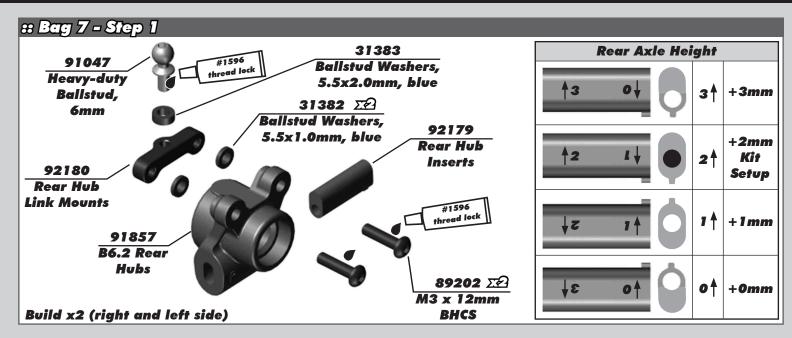


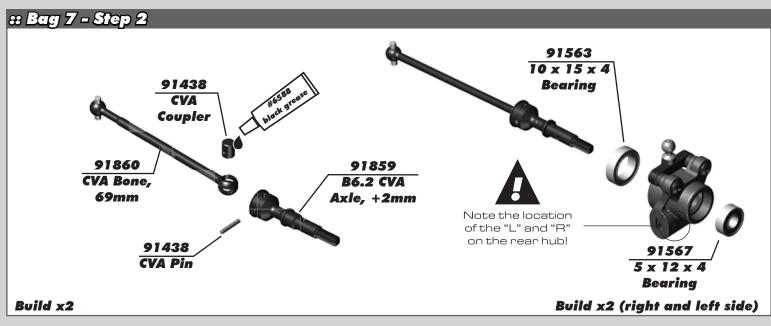


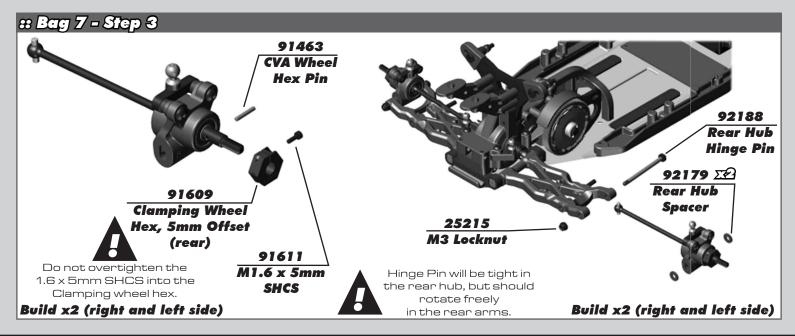


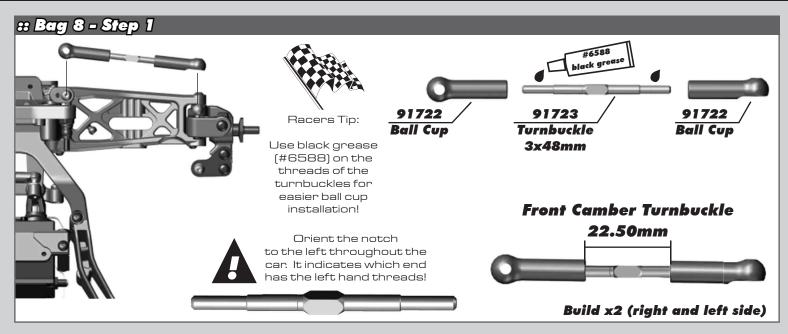


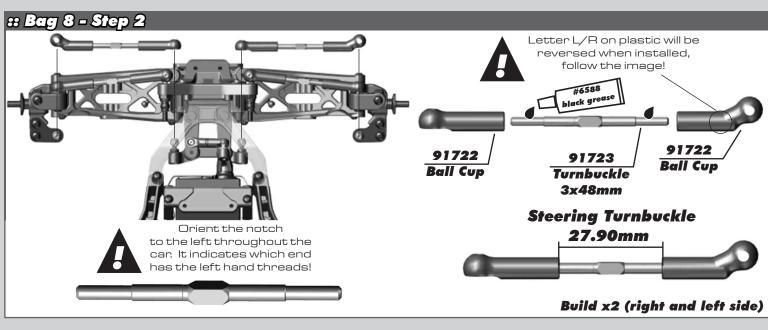


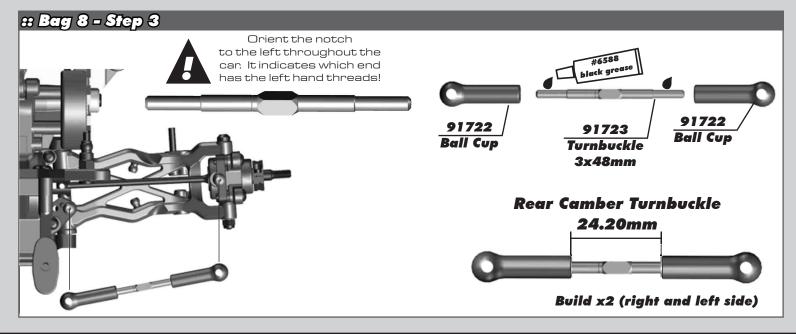


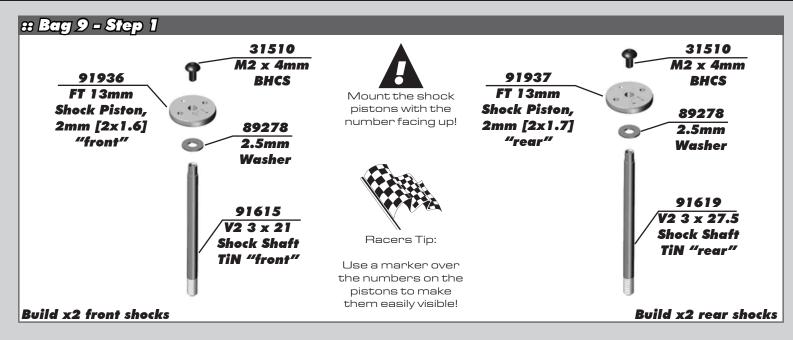




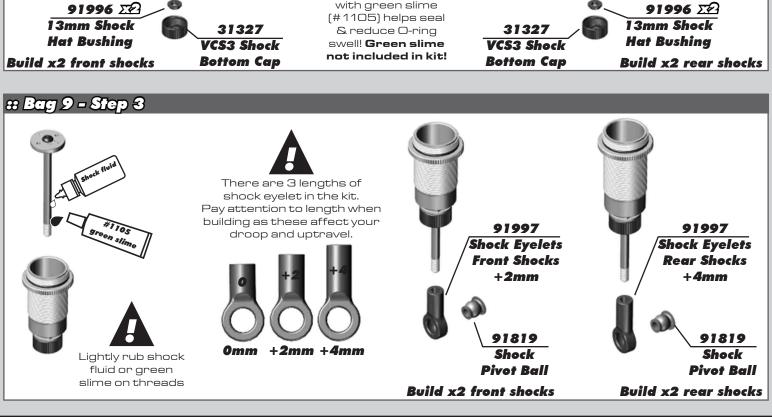


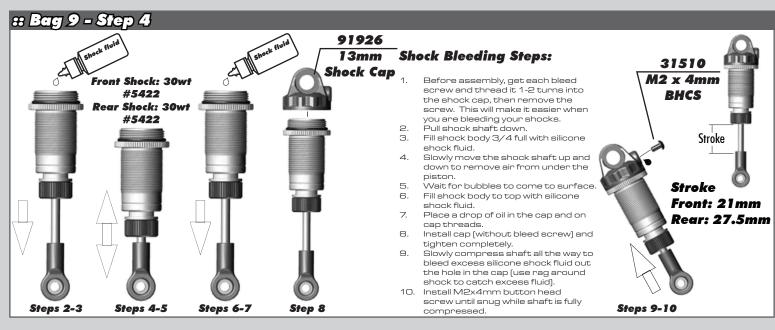


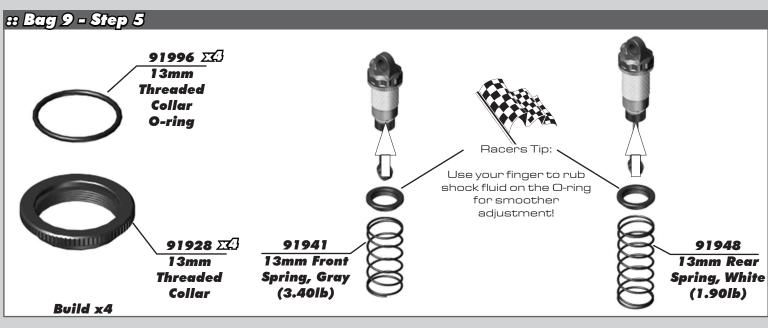


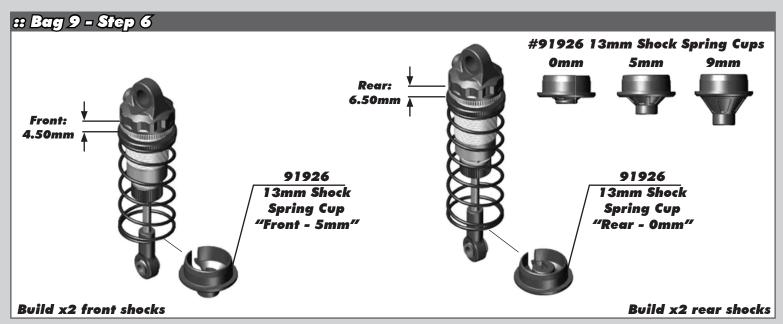


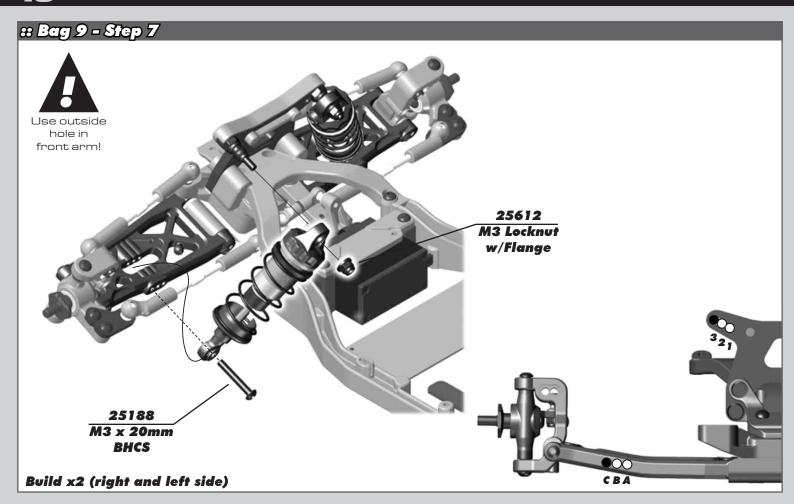


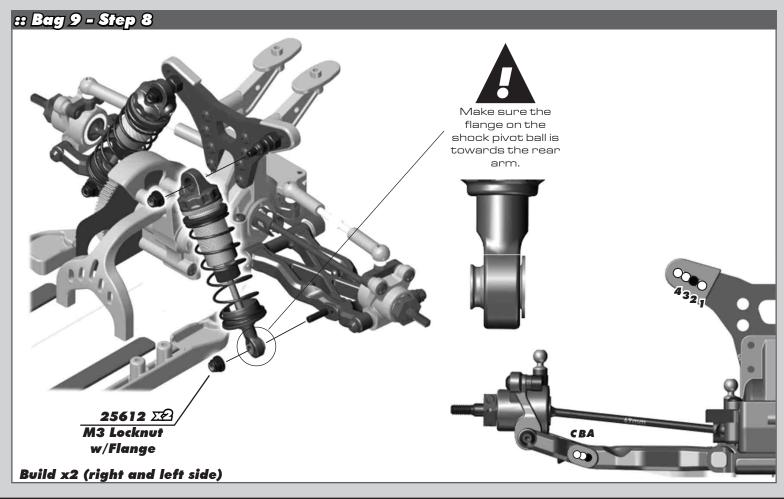


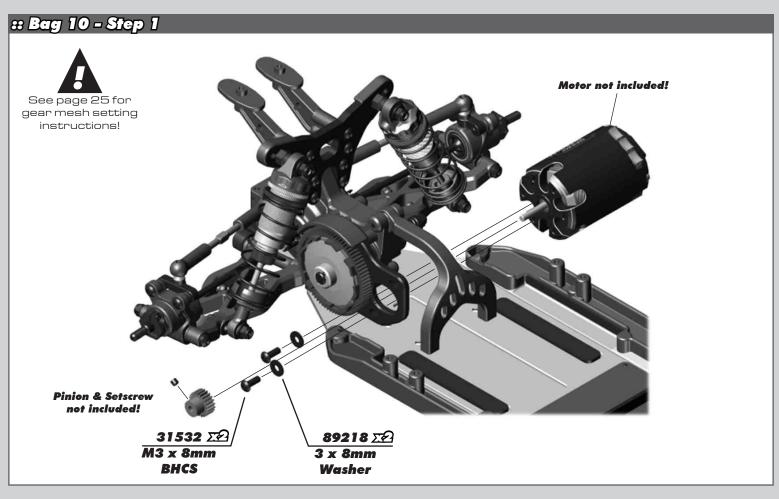


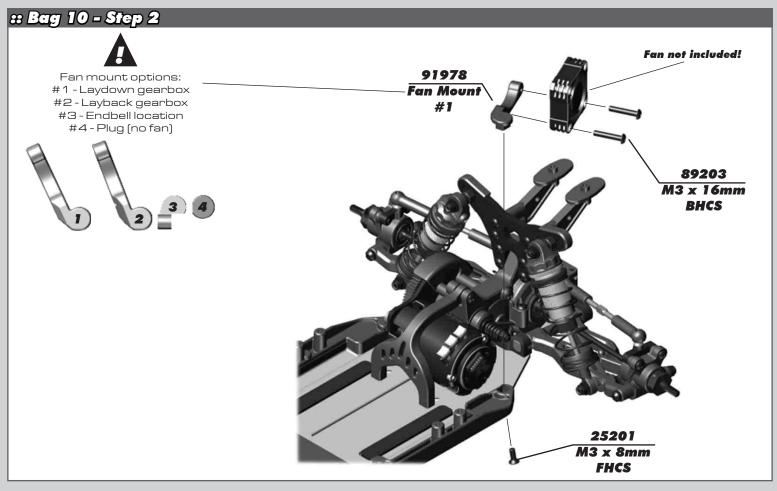


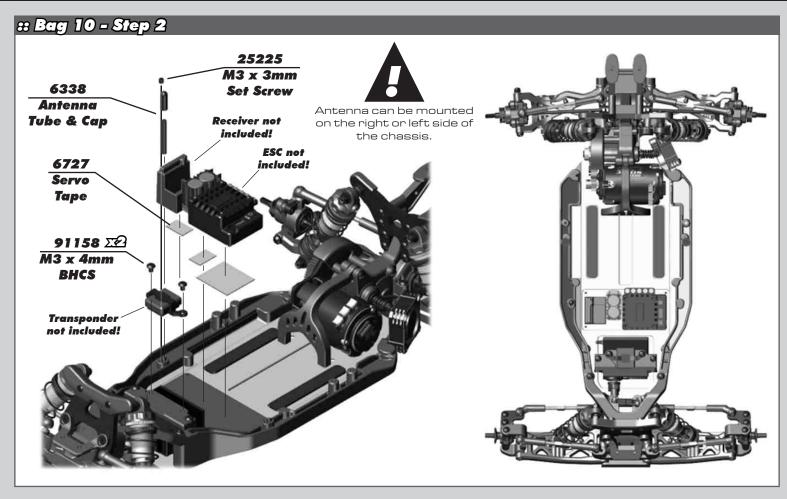


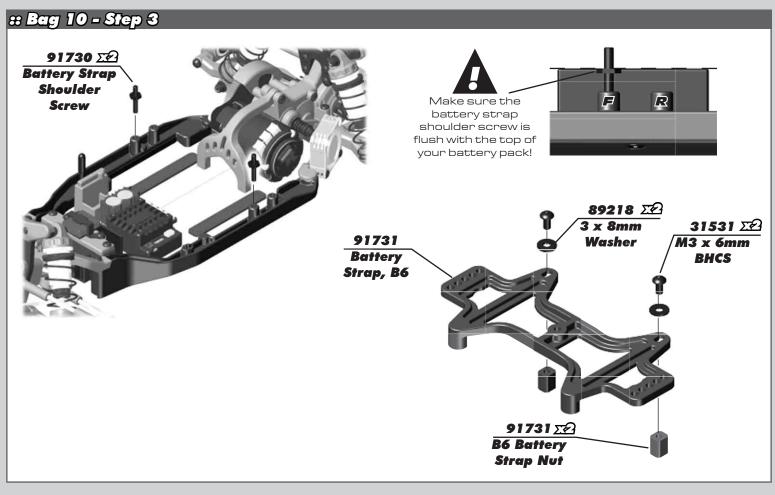


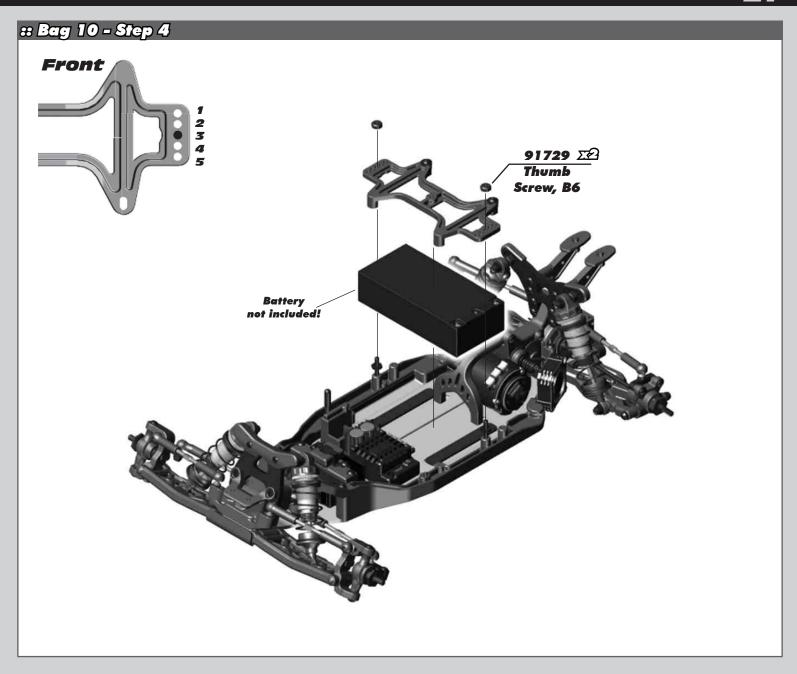


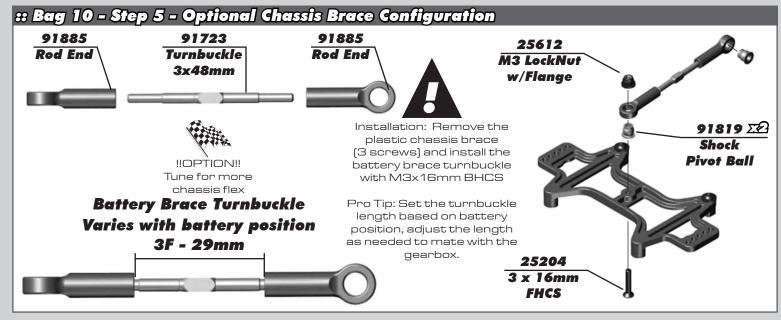




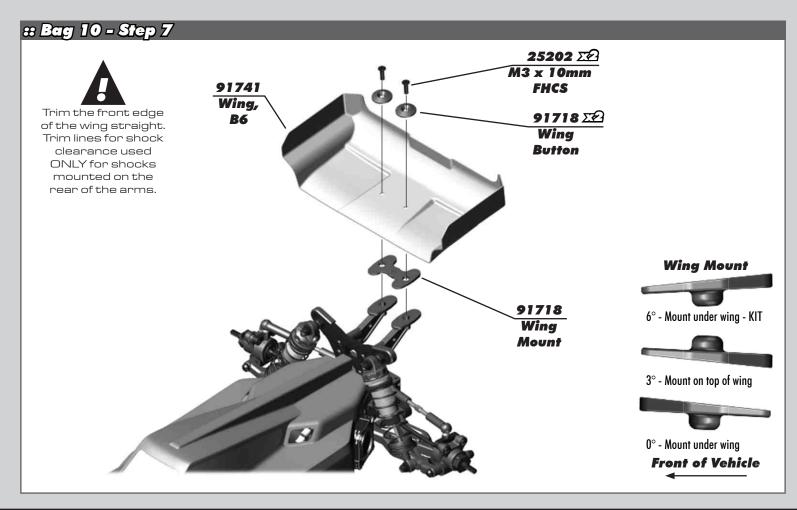








:: Bag 10 - Step 6 91981 B6.4 Body, clear 91158 🔀 M3 x 4mm **BHCS** 91866 B6.2 Wing, front Install hook and loop tape (#91743) along the side braces in 2 spots. One near the front, and one in the middle. Install the opposite side of the hook and loop tape inside the body!

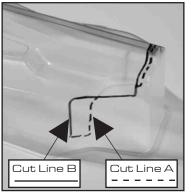


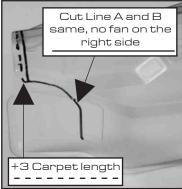
:: Bag 10 - Step 8

Body Trimming / Mounting:

There are 2 body trimming options depending on what transmission you choose to run.

- Cut Line A is for #3 endbell or #4 no fan
- Cut Line B is for running a fan #1 or #2 location.

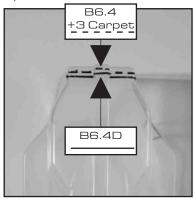


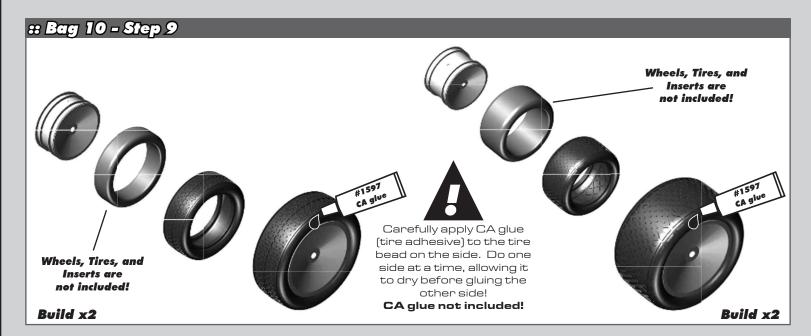


Body Trimming for Length:

There are 2 body trimming options depending on what transmission you choose to run.

• Cut the body on the top/rear, long for the B6.4, shorter for the B6.4D







:: Tuning Tips

Paintina:

Your Kit comes with 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 cars 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.

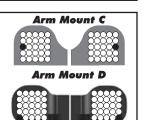
Rear Arm Mount Pill Insert Setup:

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

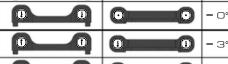
Anti-squat Angle

C Mount

More angle = More anti-squat Less angle = Less anti-squat Shown in 1° changes

	0	= 1°
0	0	= O°
	0	= -1°
	0 0	= 2°
	0 0	_ 10

D Mount



- 2° = 1°

Possible Insert Locations



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

http://bit.lv/B6PillChart





Pin Width More distance = wider pivot Less distance = narrow pivot *Note: For pin width -1.4mm, use 67mm CVA driveshafts C Mount **D** Mount = +1.4 mm= +0.7 mm- Omm - -0.7mm $= -1.4 \text{mm}^{3}$

Pin Height Higher pin - Higher roll center Lower pin - lower roll center			
C Mount	D Mount 🕈	*	
		= +0.7°mm	
3 0	0	= +0.35°mm	
0 0	0 0	= Omm	
0	0	= -0.35°mm	
0 0		= -0.7°mm	

Toe Angle

More angle = More toe in

Less angle – Less toe in Shown in 1° changes			
		= 3°	
		= 4°	
	0 0	= 5°	
	0 0	= 2°	
	0 0	= 3°	
	0 0	= 4°	
9 9	Θ Θ	= 1°	
	0 0	- 2°	
	0 0	= 3°	



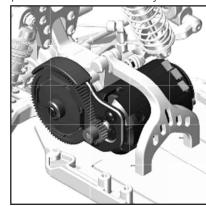
:: Tuning Tips (cont.)

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.

B6 Gear Ratio Chart	(Interna	ıl 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 ii	ncluded		



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 #31532 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.

Gear Box Type:

Selecting the correct gear box is dependent on the type of track it will be used on. The optional 4-gear standup gear box is for the lowest grip conditions. This gear box moves the weight towards the rear of the car and also uses the rotation of the motor to transfer weight to the rear while on-power. The 3-gear standup gear box also moves the weight towards the rear of the car, but in this configuration, the motor's rotation helps with on-power steering. The laydown gear box is used on high grip conditions when on-power steering and stability are most important. This gear box will change directions the quickest and generate the most steering. Layback is used for most indoor clay track conditions.

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 $+5^{\circ}$. 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 $+5^{\circ}$ caster block angle.

For less entry steering and more exit steering, try Ω° 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.

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