

1:10 Scale 4WD Electric Off Road Competition Buggy Kit Manual

#90051 RC10B84D Off Road Buggy Team Kit





## # Introduction

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

Check www.rc10.com for the latest versions of our instruction manauls.

## # RC10B84D Features

- Molded Height-Adjustable Gearboxes Front and Rear with Additional +2 Rear Gearbox for High-Grip Conditions
- Long-Arm Suspension Geometry: improves grip and predictability in all conditions
- Optimized Steering Bellcranks and Rack: improved bumpsteer control at all ride heights
- Chassis Bracing: Fine tune chassis flex characteristics with upper and lower chassis bracing front and rear
- Standard and HRC (High Roll Center) Rear Hubs Included
- Insert adjustable caster block with 0, +/-1, and +/-2 degree inserts included
- Forward and Back Motor Positions: used for further weight bias adjustment
- Highly Adjustable Battery Holder with Thumb Tabs: allows for easy battery removal and fine tuning of weight bias
- 2.5mm Thick Tapered 7075-T6 Aluminum Chassis with 10 Degrees of Kickup and Improved Departure Angle
- (90050 Only): Decoupled Slipper Clutch Included
- (90051 Only): Molded Ring and Pinion Gears Included
- Aluminum Center-Mounted Servo Mount
- Two heights Included for Rear Wing Mount
- 7-inch Rear Wing
- Low-Profile Body
- · Shock Tower Covers Front and Rear
- 3.5mm Turnbuckles and Ballcups
- 13mm Big-Bore Shocks

## # Additional

Your new RC10B84 Kit comes unassembled and requires the following items for completion (refer to AssociatedElectrics.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
- Pinion gear, 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") (#1697)
- Thread locking compound (#1596)
- Tires and Inserts, Fronts and Rears

## # Other Helpful Items

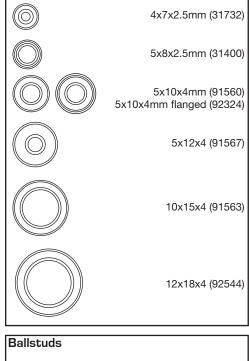
- Silicone Shock Fluid (Refer to AssociatedElectrics.com for complete listings)
- FT Body Scissors (#1737)
- FT Hex/Nut Wrenches (#1519)
- FT Universal Tire Balancer (#1498)
- FT Dual Turnbuckle Wrench (#1114) Green Slime shock lube (#1105)
- FT Body Reamer (#1499)
- Needle Nose Pliers
- Shock Pliers (#1681) • FT Ballcup Wrench (#1579)
- Wire Cutters Hobby Knife
- Calipers or a Precision Ruler
   Soldering Iron

**Customer Service** Tel: 949.544.7500 Fax: 949.544.7501

# # Hardware - 1:1 Scale View

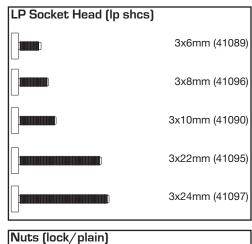
Button Head (bhcs)	
	2x4mm (31510)
	2.5x5mm (31519)
	2.5x6mm (31520)
	2.5x8mm (31521)
	2.5x10mm (31522)
	3x4mm (91158)
	3x5mm (31530)
	3x6mm (31531)
	3x8mm (31532)
	3x10mm (25211)
	3x12mm (89202)
	3x14mm (25187)
	3x16mm (89203)
	3x18mm (2308)
	3x20mm (25188)
	3x22mm (25189)
	3x24mm (89204)
	3x30mm (91478)

Flat Head (fhcs)	
	2x3mm (91743)
	2.5x8mm (31472)
	3x5mm (31540)
	3x6mm (31541)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)
	3x16mm (25204)
	3x18mm (89209)



**Ball Bearings** 

3x20mm (25188) 3x22mm (25189)	
3x24mm (89204)	
3x30mm (91478)	
	Nuts (
3x2.5mm (31500)	
3x3mm (25225)	



Ballstuds	
	HD, short neck 4mm (32041) Ti HD, short neck 4mm (32095)
	HD, short neck 6mm (32042) Ti HD, short neck 6mm (32096)
	HD, short neck 8mm (32040) Ti HD, short neck 8mm (32097)
	HD 6mm (91047) Ti HD 6mm (91751)
	HD 8mm (91048) Ti HD 8mm (91752)
	HD 10mm (91049) Ti HD 10mm (91753)

Set Screws	
	3x2.5mm (31500)
	3x3mm (25225)
	3x6mm (81257)
	3x10mm (4671)
	3x20mm (91737)
	4x5mm (25226)

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)
FT Aluminum (Blue) (31551)

Serrated Aluminum (Black) (91738)

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

1.6 x 5mm (91611)

Cap Head (shcs)



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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.



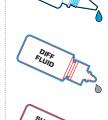
This symbol indicates the order within a step to assemble parts.



This symbol indicates there are optional FT parts available



This symbol indicates a Racers Tip.



This symbol indicates where Shock Fluid should be applied.

This symbol indicates

where Thread Lock

Adhesive should be

applied. \*not included

This symbol indicates

where Diff 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



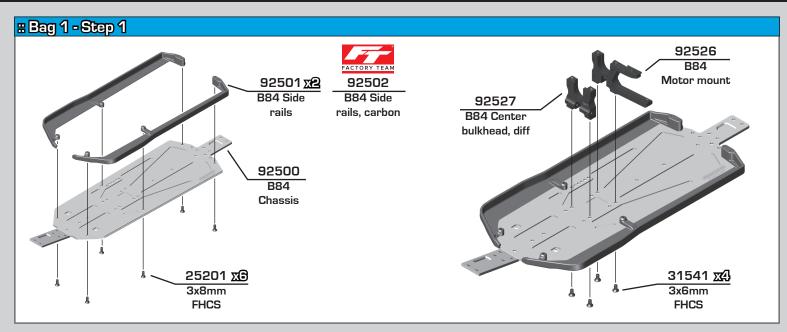
This symbol indicates where Black Grease should be applied.

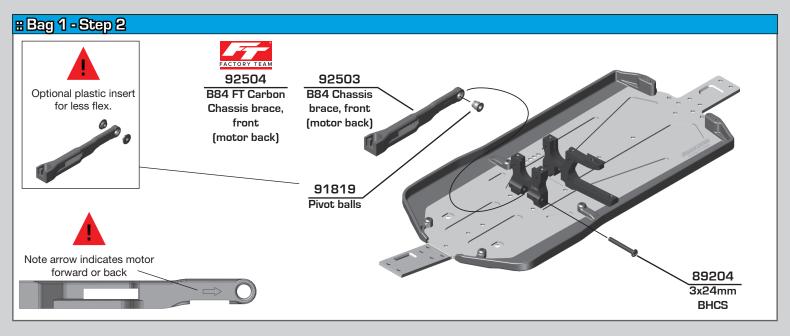


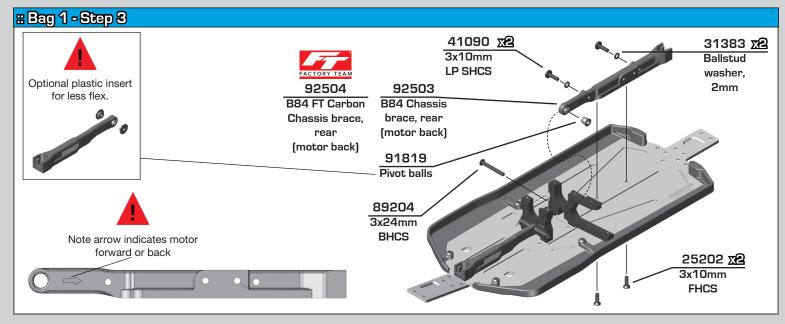
This symbol indicates where Green Slime can be applied. \*not included

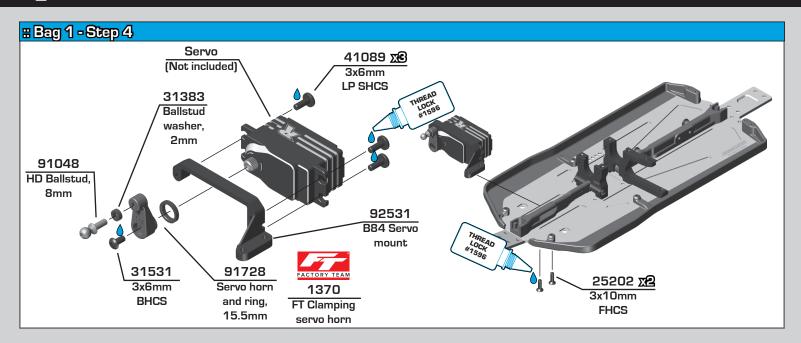


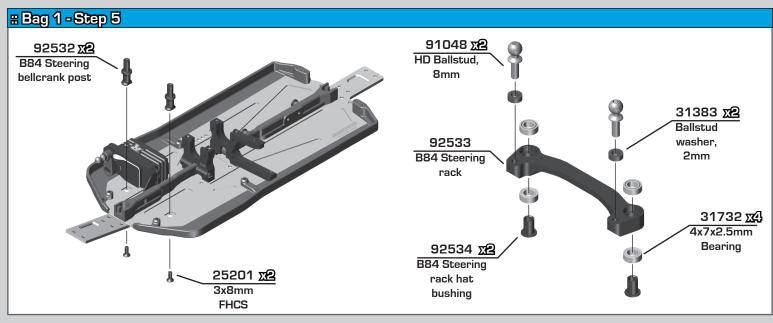
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

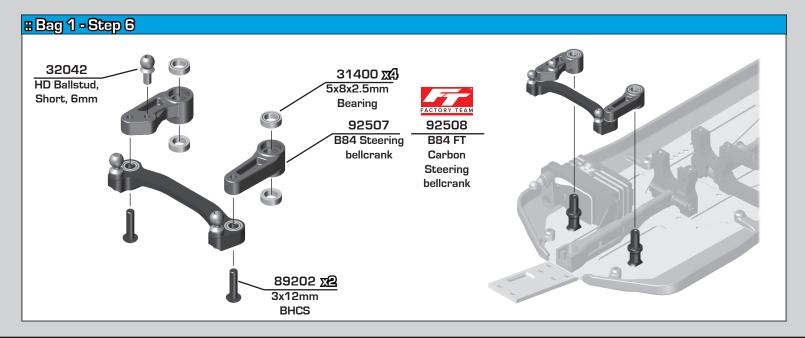


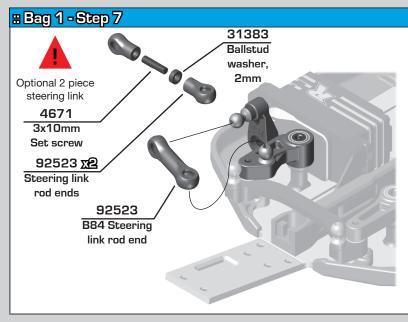


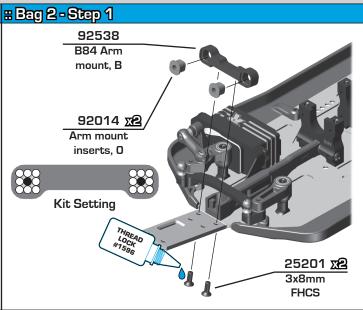


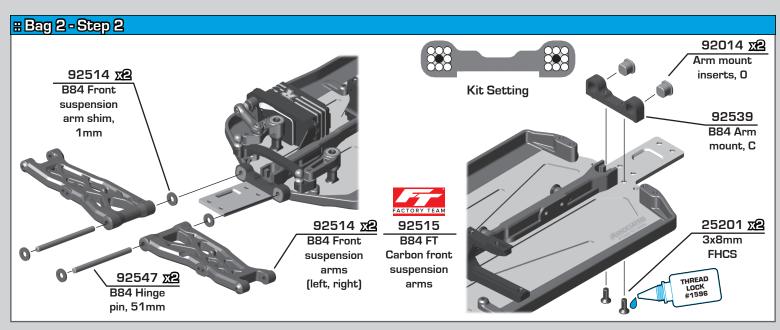


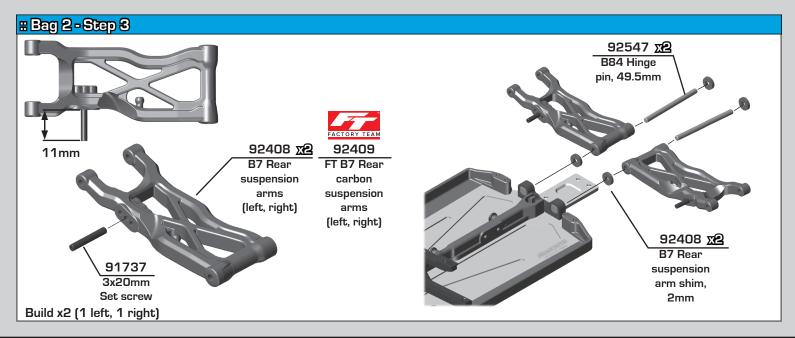


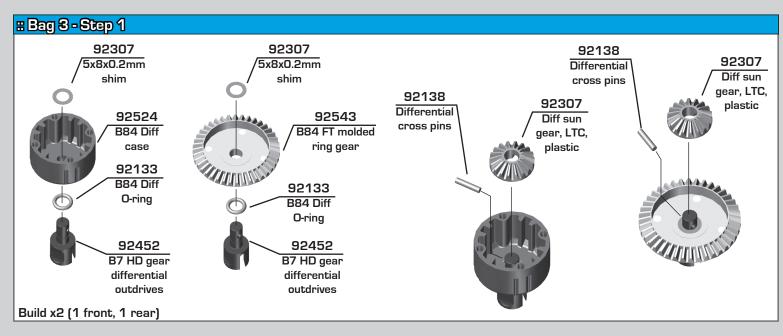


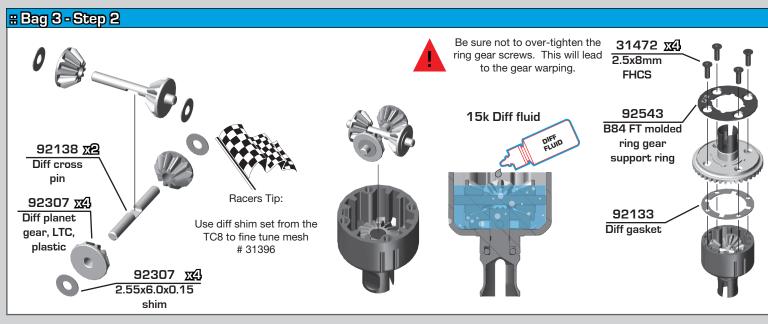


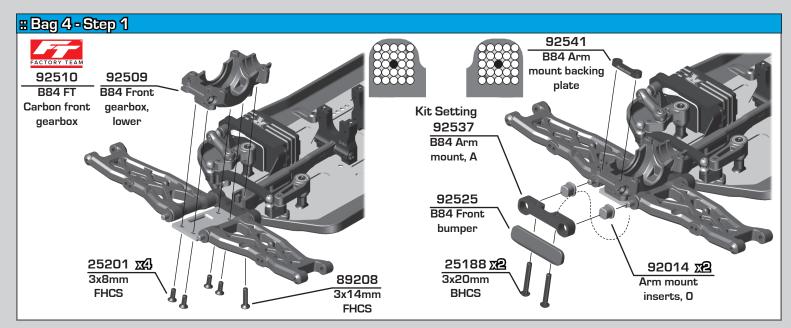


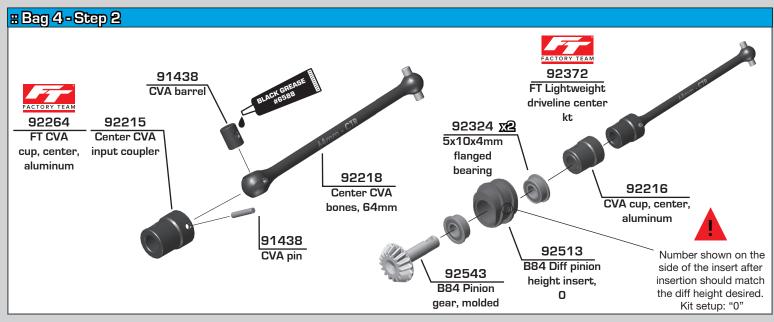




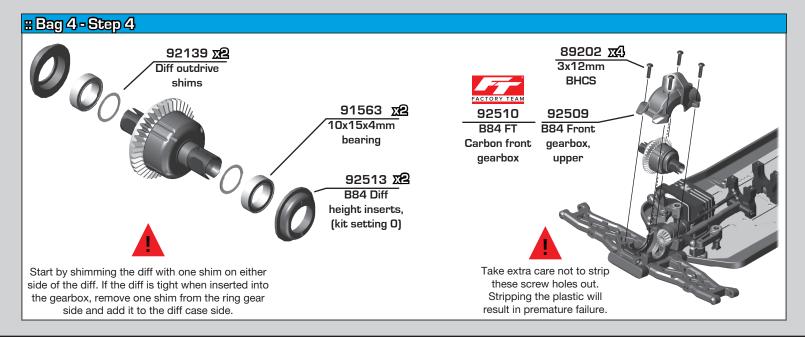


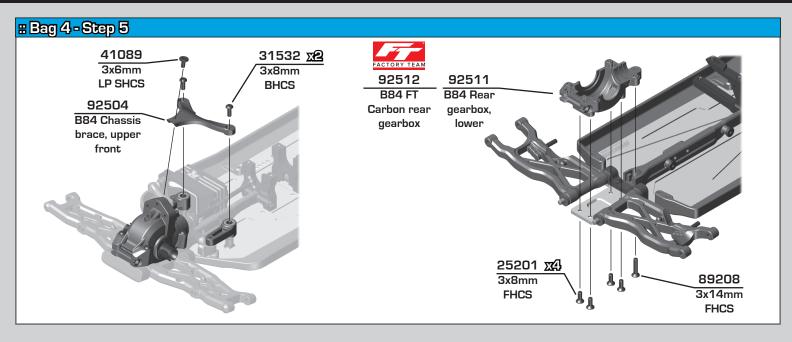


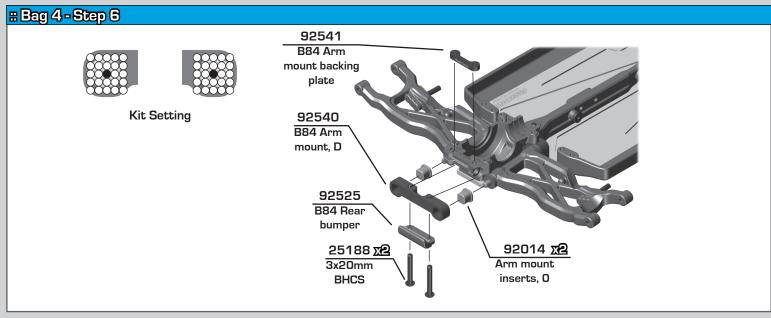


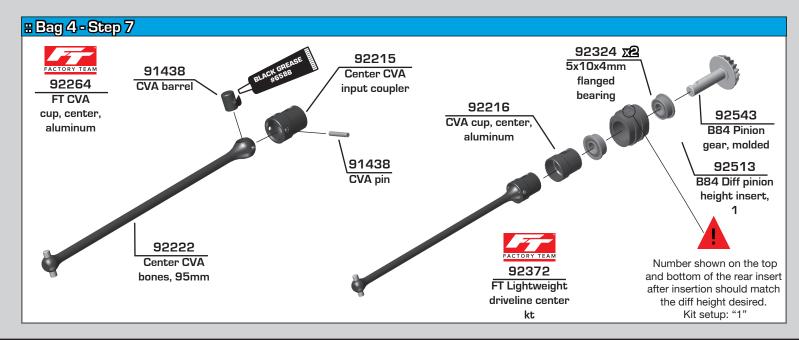


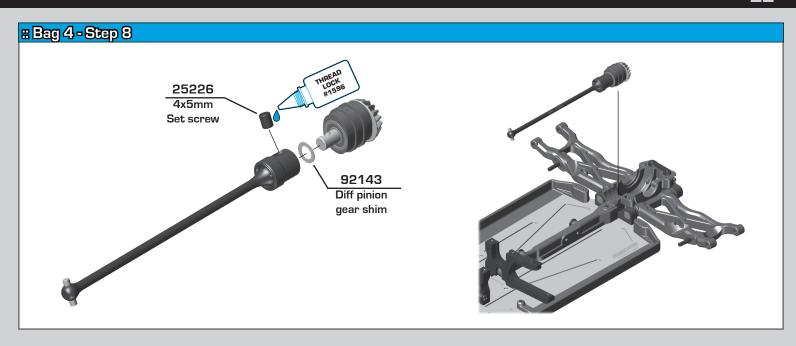


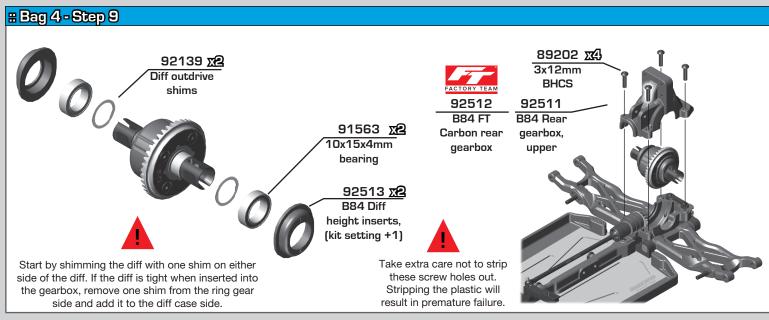


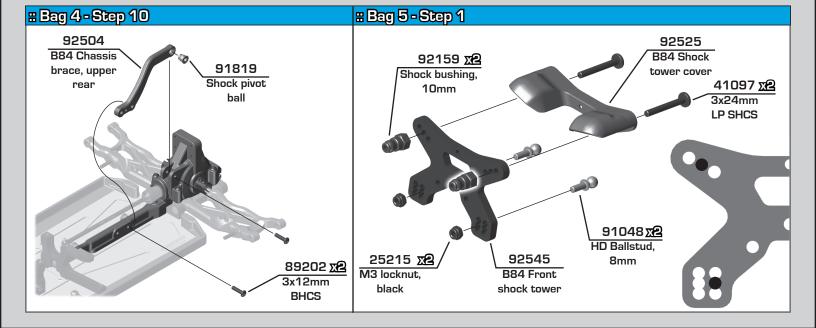


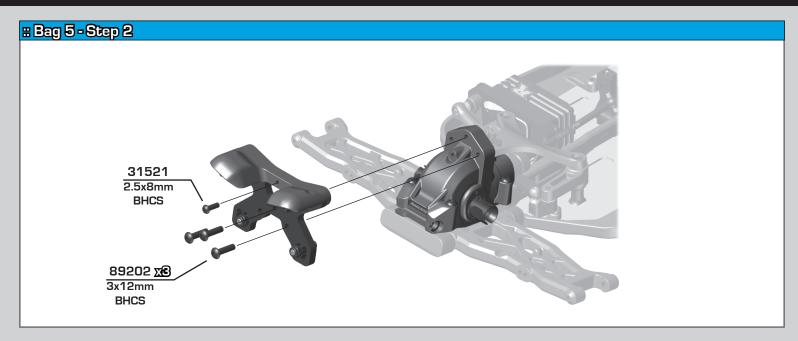


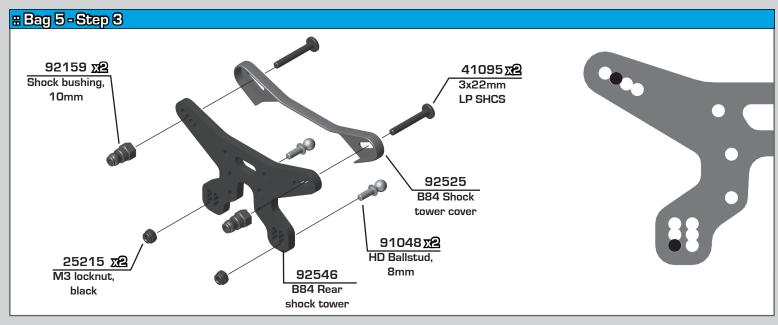


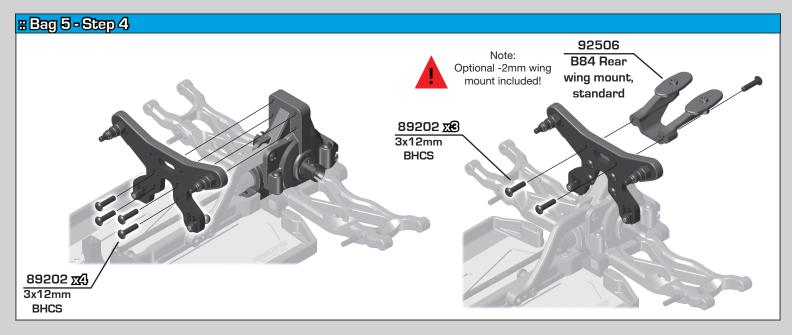


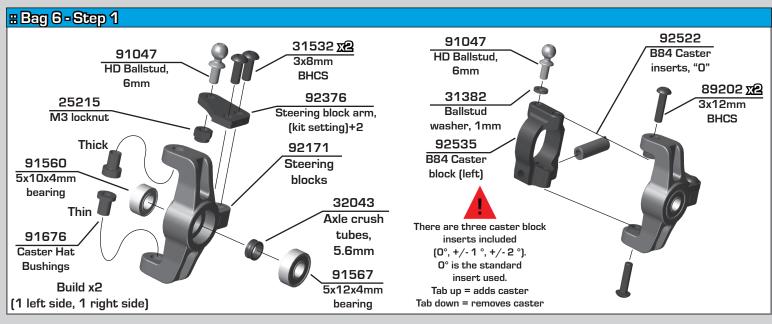


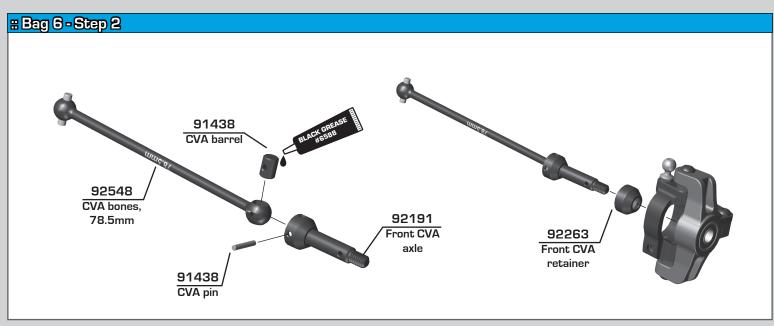


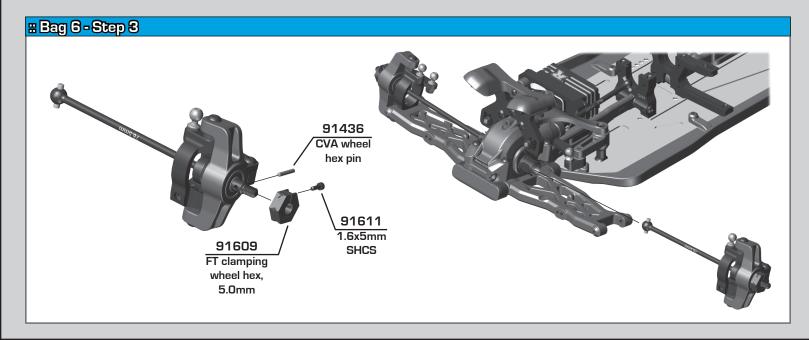


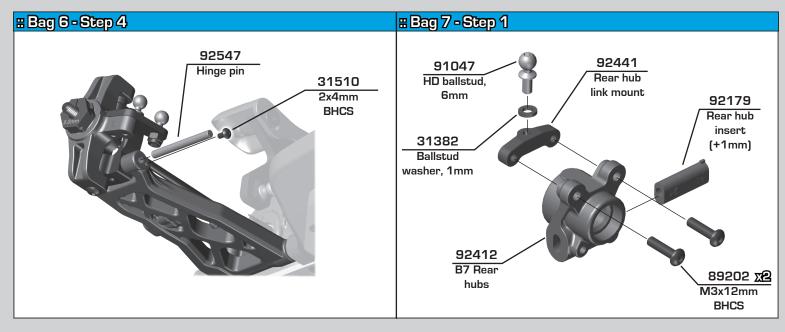


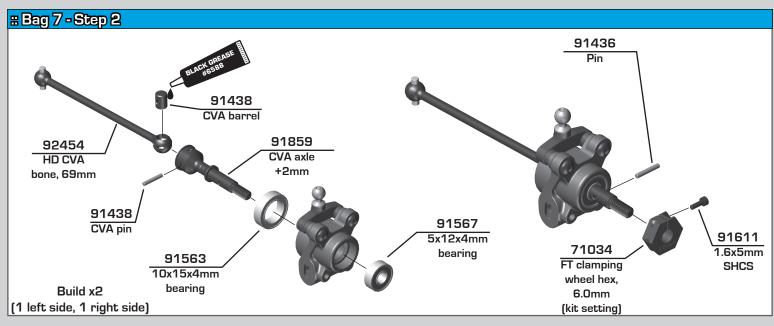


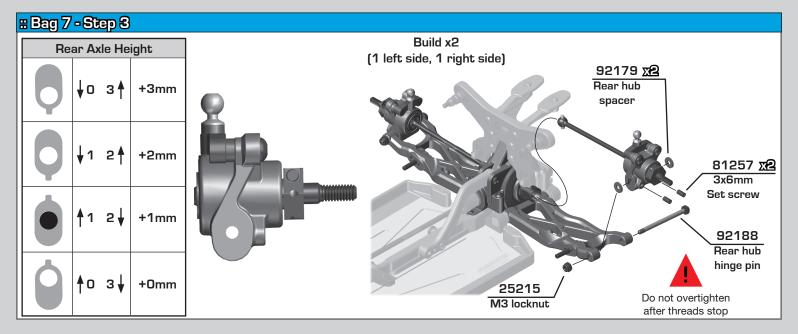


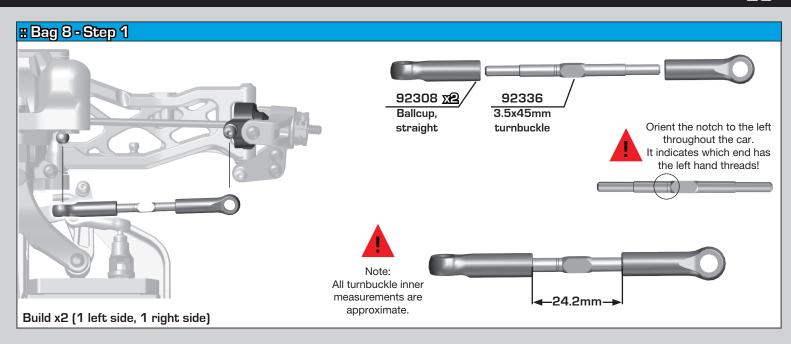


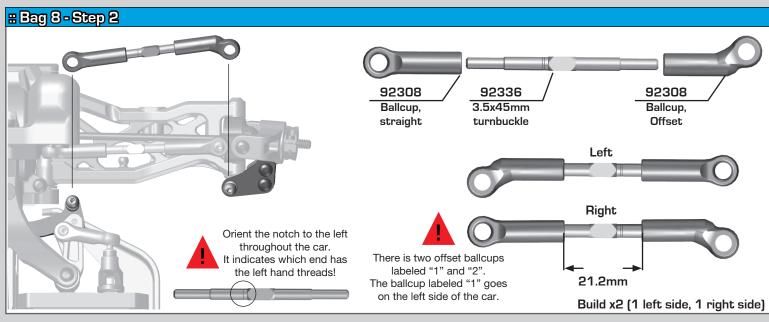


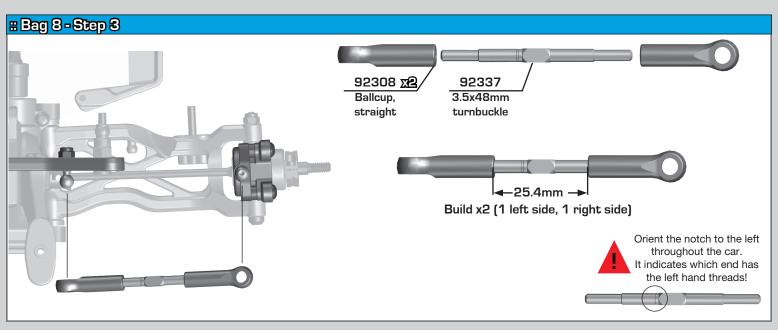


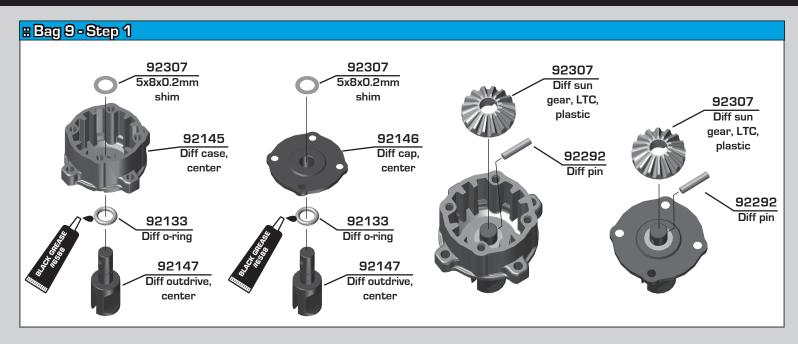


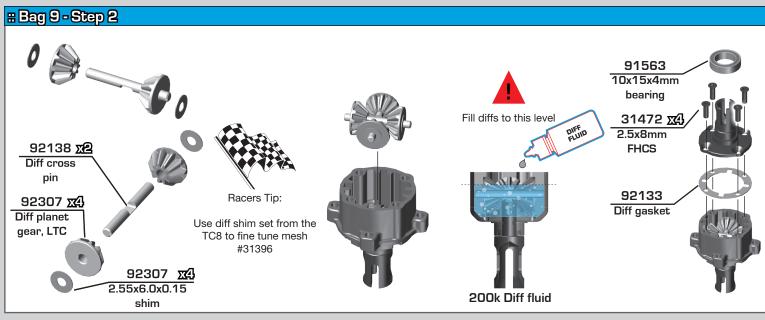


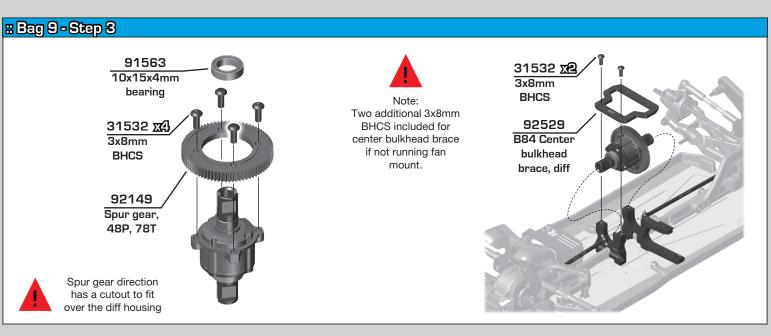


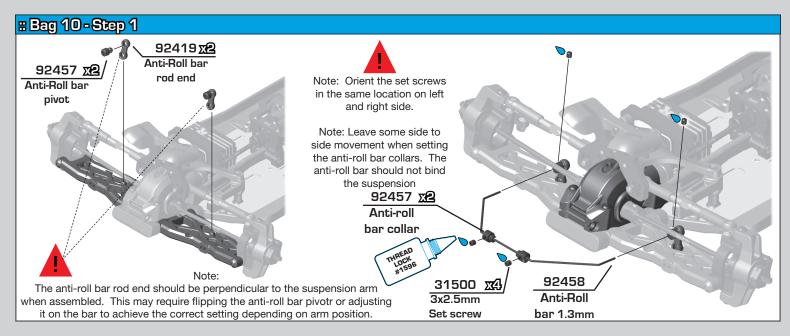


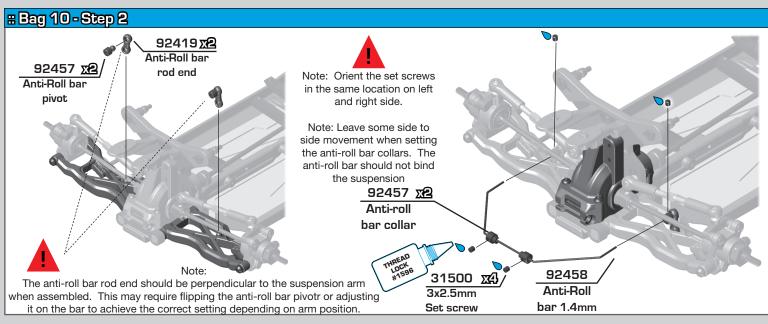


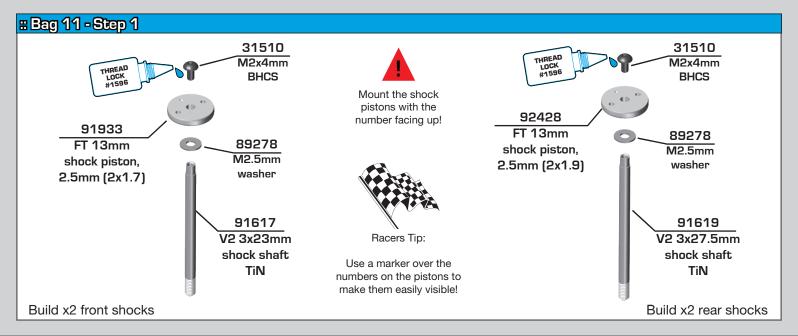


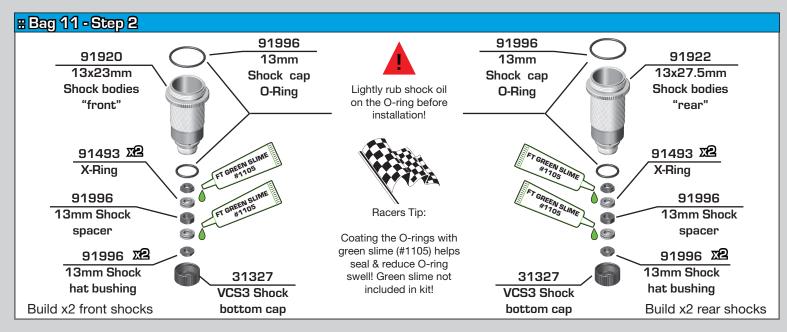


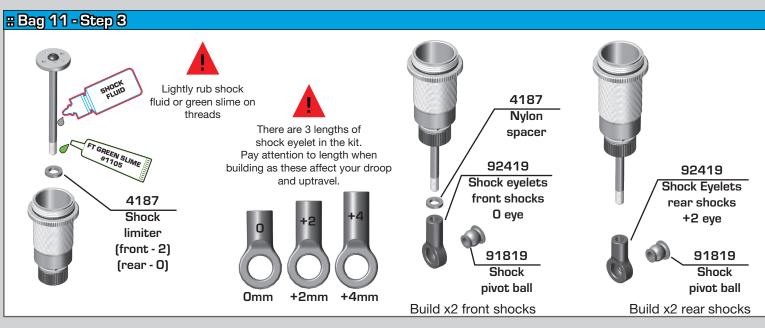


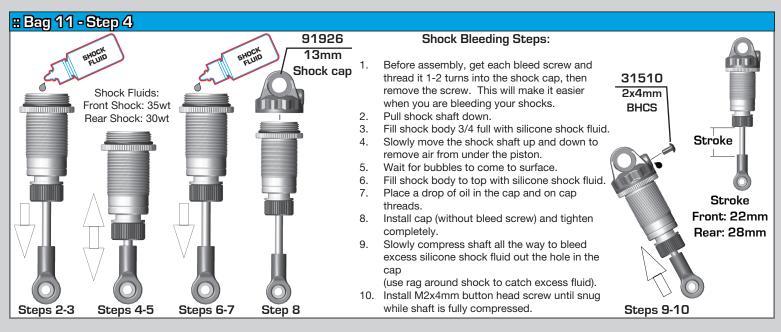


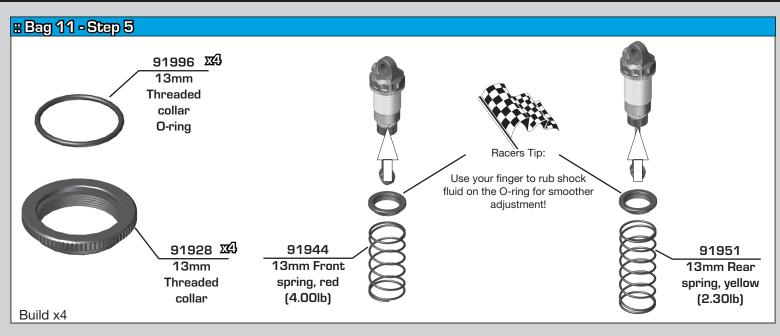


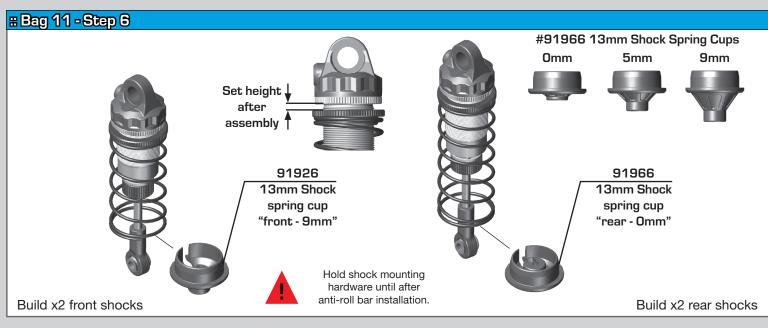


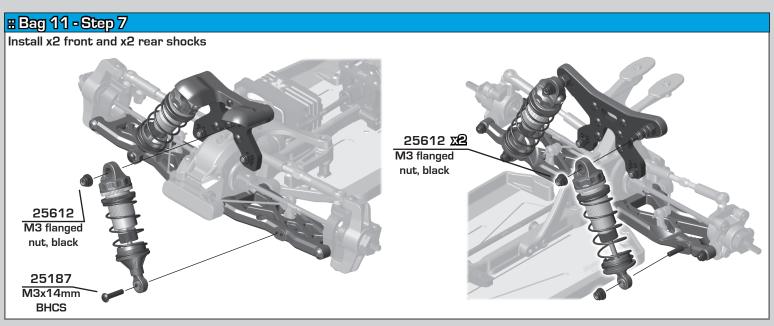


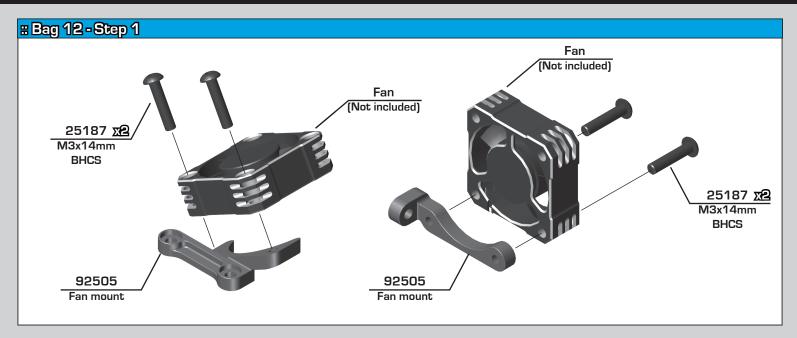


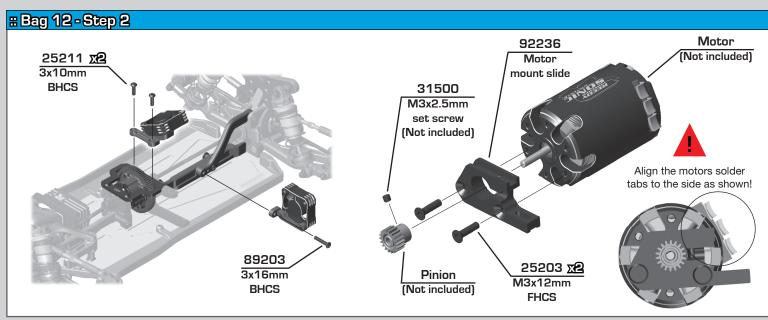


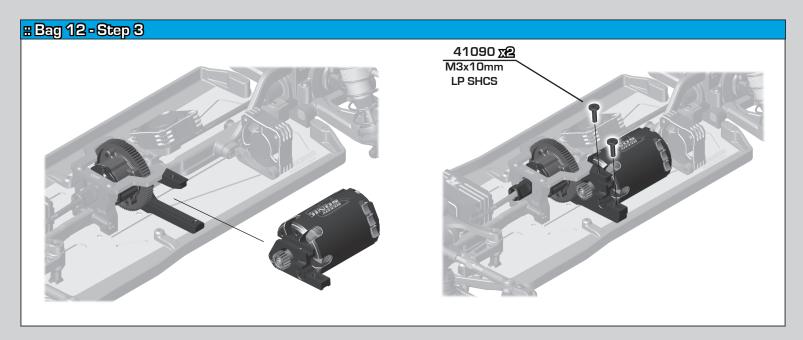


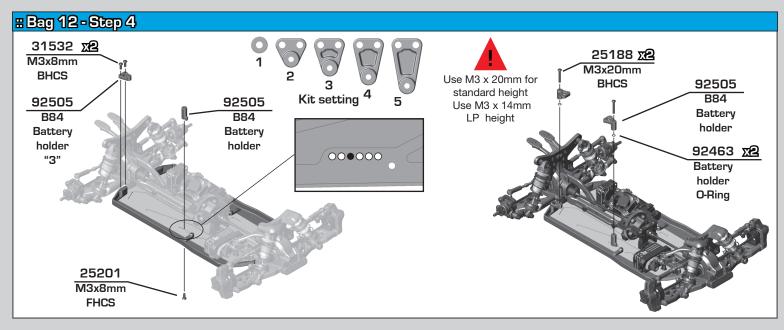


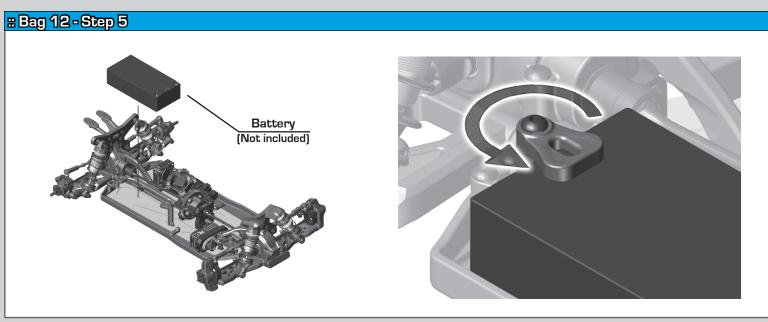


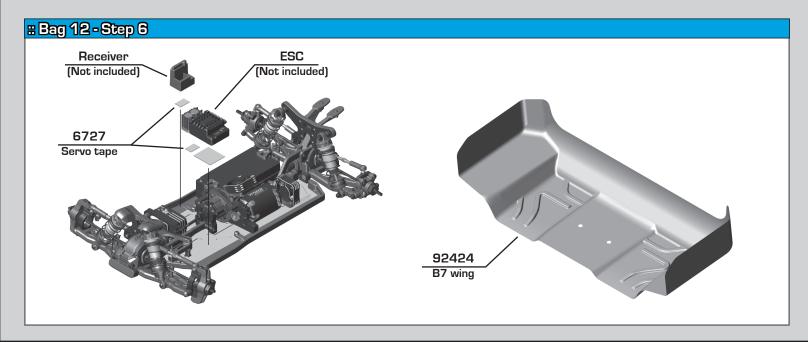


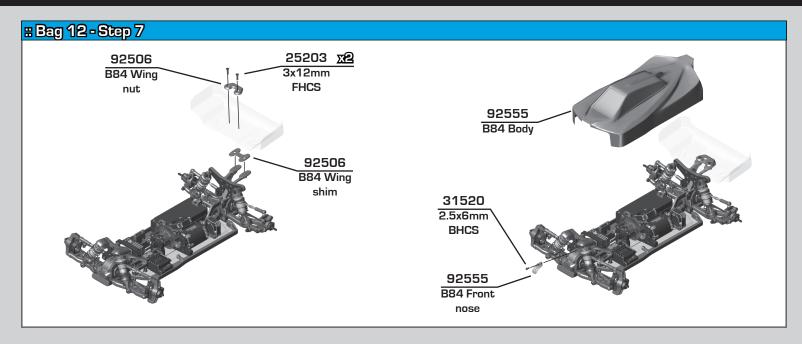


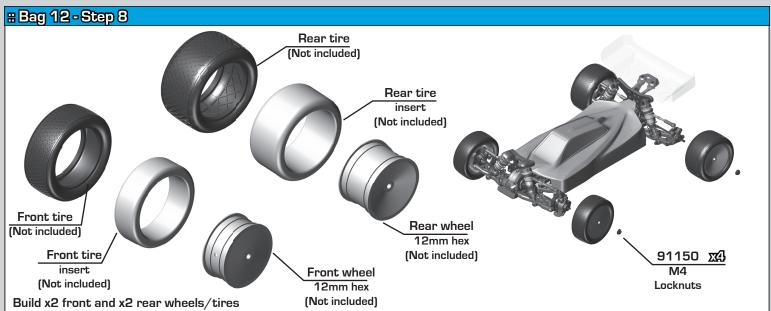












## # Tuning Tips - Painting, Beginners

## 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.

## # Tuning Tips - Front Arm Mount Pill Insert Setups

**B** Mount

B Mount

(i)

(G)

0

(i)

## Standard Position

Use this position as a reference when changing pill locations.

> Kick-up: 10° Roll Center: +0 Pin Width: +0

> > Pin Width

More distance = wider pivot

Less distance = narrower pivot

0

(19)

(3)

0

(9)

(4)

Pin Height Higher pin = Higher roll center Lower Pin = Lower roll center

A Mount

A Mount

0

(9)

0

(F)

(5)

0

(9)

(4)



B Mount

= +1.4mm

= +0.7mm

= -0.7mm

= -1.4mm

= +0.7mm

= +0.35mm

= -0.35mm

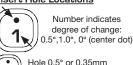
= -0.7mm

= 0mm

= 0 mm



## Insert Hole Locations

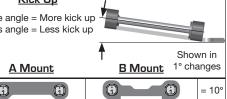


from center Hole 1.0° or 0.7mm from center

The aluminum front arm mounts utilize eccentric pill inserts to make fine adjustments to kick-up, pin height, and pin width. Adjustments can be made using the supplied inserts (#92014)



More angle = More kick up Less angle = Less kick up

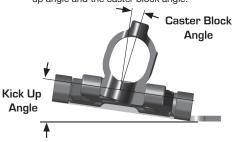


.5

A Mo	<u>unt</u>		wn in anges
<b>(3)</b>	<b>(1)</b>	<b>(1)</b>	= 10°
	0		= 9°
			= 8°
	<b>(3)</b>		= 11°
	0		= 10°
			= 9°
<b>(1)</b>	<b>(1)</b>		= 12°
	0	(9)	= 11°

#### **Total Caster Angle**

Total caster angle is the sum of the kick up angle and the caster block angle.



		К	Kick Up Angle					
		8°	9°	10°	11°			
쓩	6°	14°	15°	16°	17°			
Caster Block Angle	7°	15°	16°	17°	18°			
ter E	8°	16°	17°	18°	19°			
Ste	9°	17°	18°	19°	20°			
8	10°	18°	19°	20°	21°			

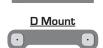
# # Tuning Tips - Rear Arm Mount Pill Insert Setups

#### Standard Position

Use this position as a reference when changing pill locations.

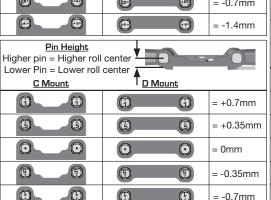
> Toe: 3° Anti-Squat: 2° Roll Center: +0 Pin Width: +0

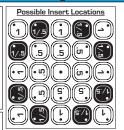




#### Pin Width More distance = wider pivot Less distance = narrower pivot C Mount D Mount

		= +1.4mm
		= +0.7mm
	0 0	= 0mm
		= -0.7mm
<b>9 0</b>		= -1.4mm





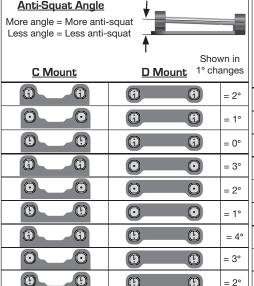
# **Insert Hole Locations** Number indicates

Hole 0.5° or 0.35mm

degree of change: 0.5°,1.0°, 0° (center dot)

from center Hole 1.0° or 0.7mm from center

The aluminum front arm mounts utilize eccentric pill inserts to make fine adjustments to kick-up, pin height, and pin width. Adjustments can be made using the supplied inserts (#92014)



Toe Angle More angle = More toe in Less angle = Less toe in Shown in 1° changes C Mount D Mount 0 0 **G** (e) = 3° 0 0 0 = 4° 0 0 0 = 5° (e) = 2°  $\odot$ 0 0 0 0 = 3° 0 0 0 = 4° 0 = 1° 0 0 = 2° = 3°

TEAM KIT (-)	- 1955221 - 19117731141 -					remilite		
TEAM KIT	) maren —						_Best Lep Tilmer	
Front Suspension:								
Ride Height: 17mm	Lower Br	ace Type: Fixed	] Pivot				Axle Height:	
Camber: -1 deg							+3  +2 +1	0 🗌
Toe: O deg			Ball	Stud Spaci	ng: 2mm		Ball Stud Spacing: 0	)
Anti-Roll Bar: 1.3mm	$\neg$							
Arm Type: Kit	Arm Mou	nt <b>A</b> : 1 ° 0	.5° 🔲				Steering Plate: +2	
Tower Type: Kit	╡	Gray Bla	ck 🗌					•
Wheelbase Shim: Arm Middle			000	Diff H	eight:			1
Wheel Hex: 5mm		3	888	+3		Ball Stu	d Spacing: 1mm	
Steering Block Type: B74	Ħ T			+2			3	6
Caster Block: 6° 7° 8° 9° 10°	Arm Mou	ınt <b>B</b> : 1°  0	.5° 🗌	$\exists \mid_{\cdot 0}^{+1}$	닐ㅣ		2 1	5 5
Chassis Brace Material: Kit	f		ick 🔲	+0				-60
Top Plate Brace Material: Kit	╡ ̄ ̄			_	·			
Front Axles: CVA DCV	$\exists$		000					
Notes;	$\dashv$						ВА	
Rear Suspension:								
Ride Height: 17mm	Lower Pr	ace Type: Fixed	Pivot	Avle	Height:		Gearbox:	
	Lower bi	ace Type. Fixed_	Pivol		3 ▲ +3	_ 🙎	Standard Standard	
Camber: -1 deg				1			+2	
Anti-Roll Bar: 1.4mm	==	ssis Brace Screw		<b>○ ▼</b> 1	2 4 +2			
Arm Type: Kit - B7	Arm Mou		.5° 🔲	1 ● 1	2♥ +1		432 <sub>0</sub>	
Tower Type: Kit		Gray Bla	ck 🗌	<b>□</b> •0	3 ♥ +0			
Wheelbase Shim: Arm Middle	$\dashv$ $\bowtie$					Cambe	r Link Spacing: 0	
Wheel Hex: 6mm	$\dashv$ $\bowtie$						3	6
Hub Type: Kit - B7 Standard							Ball Stud Spacing: 1mm 2	85
Drive Shaft Type: 69mm Bone	Arm Mou		.5° 🔲	Diff Heig	ght:			
Chassis Brace Material: Kit	╡└──	Gray Bla	ck 🗌	$\rfloor_{+2}^{+3}$			69mm HD	As As
Upper Chassis Brace Materia	╡ 888			+1				
Hub Spacing: Fwd Mid Back	╡ 🐯	88		+0			000	
Notes:					_		CBA	
Electronics		Differential			Shocks			
Radio: Servo:		Front	Center	Rear		Front	Rear	
EPA: Throttle: % Brake:	%	Fluid: 15K	200K	15K	Piston:	2x1.7	2x1.9	
ESC:		Gears: LTC	LTC	LTC	Thickness:	2.5mm	2.5mm	
ESC Settings:		Type: Plastic	Plastic	Plastic	Fluid:	35wt	30wt	
Motor / Wind:	iming:	Notes:			Spring:	Red	Yellow	
Pinion: Spur:		Slipper Clutc	be		Limiters:	Int: 2 Ex	t: 1   Int: 0   Ext: 0	Stroke
Motor Position: Forward: Back:		Туре:			Stroke:	22mm	28mm	\$
Battery Position:		# of Pads:			Eyelet:	0	+2	
Back 1 2 3 4 5	Forward	Setting:		i	Cup Offset:	0 +5	+9 0 +5 +9	
Battery: Weight:		Notes:			Kashima B		ome Shafts: Machined Sp	acers:
Notes:					Notes:			
TrackInfo:	Tires			Body, Wa	elohtu		Vehicle Comments:	
Size:	Front Tires:			Body:	B84		Notes:	
Surface:	Front Compo	ound:		Front Win		ose		
Traction:	Front Insert:		==	Rear Wing		37		
Moisture:	Rear Tires:			Rear Wing		0 -2		
Condition:	Rear Compo	ıınd:	==	Wing Angl		3° 6°		
	Rear Insert:			Chassis Le		Standard		
Tomponatures					cle Weight:	ocariual'u		
Temperature:	Wheel (F/R)	•		Notes:	sie vveignt:			
Notes:	Notes:							
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		Even9			Qualify:	M	alln:		
TEAM KIT BELL	Date:	Track	l		Finish:	B	stlep Tin	DE#	
Front Suspension:									
Ride Height:	Lower Br	ace Type: Fixed Pivot	1 0				Axle Height:		
Camber:		and type. Timed Tive.		er i			+3  +2		0 🔲
Toe:		Ba	II Stud Spac	ina:	9	<u> </u>	Ball Stud Sp	acing:	
Anti-Roll Bar:	╡			9				g.	
Arm Type:	Arm Mou	nt A: 1 ° 0 .5° 0	$\neg$				Steering Pla	ite:	
Tower Type:	<b>=  </b>	Gray Black							0
Wheelbase Shim:		· · · · ·	Diff H	leight:				3	21
Wheel Hex:	$\exists$		+3		Ball 9	Stud Spa	acing:		
Steering Block Type:	<b>-</b>		+2					3	006
Caster Block: 6° 7° 8° 9° 10°	Arm Mou	nt B: 1 ° 0 .5° 0	<b>□</b>  +1	님				3 2 1	885
Chassis Brace Material:	fil	Gray Black	+0	Ш					
Top Plate Brace Material:	╡ <i>─</i> ─								
Front Axles: CVA DCV		000				3	(00)		
Notes:	$\exists$						ВА		
Rear Suspension:									
Ride Height:	Lower Br	ace Type: Fixed Pivot	Axle	Height:		G	Gearbox:		
Camber:				3 ▲ +3	ر ا	s	Standard 🗌		
Anti-Roll Bar:	Rear Cha	ssis Brace Screws:		2 ▲ +2			.2		
Arm Type:	₹ ===			-				4.2	9
Tower Type:		nt <b>C</b> : 1 ° □ 0.5° □ Gray □ Black □		2♥ +1				324	CI
Wheelbase Shim:	<b>-</b>			3♥ +0	Con	shon Lin	k Spacing:	`	
Wheel Hex:	₹ 888				G	)	k Spacing.		
Hub Type:	╡  ‱					í		3 2	226
Drive Shaft Type:	Arm Mou	nt D: 1 ° 0 .5°	Diff Hei	ght:		Ball S	Stud Spacing:	1	884
Chassis Brace Material:		Gray Black	+3				69mm Hi		
Upper Chassis Brace Material:			<b></b>  +2						
Hub Spacing: Fwd Mid Back	ī (888		+1	님			000		
Notes:	7 888		+0			C	ВА		
Electronics		Differential:		Shocks					
Radio: Servo:		Front Center	r Rear	CIECUS	Fron	+	Т в	lear	1 _
EPA: Throttle: % Brake:	%	Fluid:		Piston:	11011		<u> </u>	icui	
ESC:	70	Gears:	<del>                                     </del>	Thickness	<u>.</u>				
ESC Settings:		Type:	$\overline{}$	Fluid:					
	iming:	Notes:		Spring:					
Pinion: Spur:	9.	Slipper Clutch:		Limiters:	Int:	Ext:	   Int:	Ext:	\$\
Motor Position: Forward: Back:		Туре:		Stroke:	1110				Stroke ⊥ Stroke
Battery Position:		# of Pads:		Eyelet:					i "
Back 1 2 3 4 5	] Forward	Setting:		Cup Offse	et: 0 +5	+9	 ]0	+9	
Battery: Weight:	<u>,</u>	Notes:		Kashima			Shafts:	Machined 9	J Snacers: $\Box$
Notes:				Notes:				Widomilou C	-passi s
TrackInfo:	Tires		Body, W			Wa	hicle Com	ments	
Size:	Front Tires:	1	Body:	авич			tes:	IIGIIGEI	
Surface:	Front Compo	und.	Front Win	iu.		╡║			
Traction:	Front Insert:		Rear Wing			$\exists    -$			
Moisture:	Rear Tires:		Rear Wing		0 -2	╣╢┈			
Condition:	Rear Compo	und·	Wing Ang		3°∏ 6°[	╣║─			
	Rear Insert:	u. 141	Chassis L		ν υ	<b> </b>    -			
Temperature:	Wheel (F/R)			cle Weight:		$\exists    -$			
Notes:	Notes:		Notes:	2.0 240lgill.		$\exists    -$			
145365.	140003.		143003.			ᆜᅵ└			

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