

1:8 Scale 4WD Nitro Off Road Competition Buggy Kit Manual

#80953 RC8B4.1 ONGARO EDITION, Team Kit







:: Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new Kit. Please take a moment to read through this manual to help familiarize yourself with these steps. We are continually changing and improving our designs; therefore, actual parts may appear slightly different than in 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.

:: KIT Features

Features in the RC8B4.1 Kit:

- New RC8B4.1 RWB chassis and side guards with tapered chassis design to increase stiffness and predictability
- New low CG and lightweight aluminum front and rear shock towers
- New shorter 16mm front and rear shock bodies for lower CG and lighter weight
- New 6-hole 1.4mm front and 1.5mm taper rear machined shock pistons included with emulsion shock cap seals
- New 3-hole rear suspension arms with updated rear anti-roll bar geometry for both smooth and bumpy tracks
- · New durable rear hub design with wide footprint base, and tuneable 3mm carbon fiber hub towers
- New blue aluminum front upper arm mount for added durability
- New molded RC8B4.1 front bumper with optimized profile for bumpy transitions
- New 47T machined spur gear
- 13-44 Ring and Pinion Bevel Gear Set
- 92mm universal driveshafts with 17mm outdrives
- Updated Soft Blend suspension arms for maximum durability in cold weather
- New +1 aluminum steering block arms for sharper steering on low grip
- Innovative new pivot ball front suspension geometry improves steering balance / provides predictable handling in all conditions
- RC8B4 8° steering blocks are paired with a wider upper suspension arm pivot for increased stability and consistent steering through the entire steering throw
- RC8B4 gearboxes are included in the latest hard material used on RC8T4:
 - o Front gearbox features a 3.5° inclined pinion gear angle to straighten the center driveshaft for increased drivetrain efficiency and reduced phasing and vibration
 - o Both gearboxes feature large flanged bearings resulting in longer life of bearings and ring and pinion gears
- Latest version RC8B4 fuel tank with:
 - o Flexible rubber lid puller
 - o Updated spring for tight seal between lid and tank
- RC8B4 rear chassis brace has several design features and flex options:
 - o Rear brace is mounted centrally to the gearbox, and has 2 two screw locations through the chassis to tune flex
- RC8B4 front upper suspension arms, now in soft blend material
 - o Includes an optional molded "wing" insert for increased front-end downforce
- RC8B4 front lower suspension arms, now in soft blend material
 - o Optional arm inserts mount to the top only
- RC8B4 rear wing mount has adjustable wing angle shims, significant strength improvements, an aerodynamic shape, and extra clearance for shock position adjustment
 - o Two wing height options on the rear shock tower.

:: Additional

Your new RC8B4.1 Kit comes as a kit. There are some items you will need to complete your kit (refer to website for suggestions):

- 4.8-7.4v receiver battery (Flat style NiMH, Flat style LiPo, Flat style LiFe)
- 2 or 3 channel radio/transmitter set with switch (2.4GHz recommended)
- Model car fuel (20-30% nitro recommended)
- .21 class rear exhaust engine
- 1:8 scale buggy wheels / tires
- Polycarbonate-specific paint

Reamer / Hole Punch - (#1499)

- Starter box (#1751)
- Exhaust system
- Fuel bottle (#1747)
- Reamer / hole punch
- Throttle and Steering servos
- Transmitter batteries
- Glow igniter (#27377)
- Needle-nose pliers
- Ride height gauge
- Hobby knife
- CA (cyanoacrylic) glue (#1597) • Thread-locking compound - (#1596)

:: Other Helpful Items

- Silicone Shock/Diff Fluids (Refer to website for complete listings)
- **Shock Pliers**

- FT Hex Wrenches (#1518)
- · Wire Cutters

- Body Scissors (AE #1737)
- FT Nut Drivers (#1519)
- Calipers or a Precision Ruler

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



Customer Service Tel: 949.544.7500 Fax: 949.544.7501

:: Hardware - 1:1 Scale View

2.5x6mm (4675)
2.5x8mm (31448)
3x5mm (31540)
3x6mm (31541)
3x8mm (25201)
3x10mm (25202)
3x12mm (25203)
3x14mm (89208)
3x30mm (89212)
4x10mm (81262)
4x12mm (89214)
4x14mm (89217)
4x16mm (81263)
4x20mm (81264)

	3x14mm (69206)
	3x30mm (89212)
	4x10mm (81262)
	4x12mm (89214)
	4x14mm (89217)
	4x16mm (81263)
	4x20mm (81264)
Socket Head (shcs)
	2x5mm (31511)
Socket Head (shcs	•
Socket Head (shcs	2x5mm (31511)
Socket Head (shcs	2x5mm (31511) 2x16mm (7184)
Socket Head (shcs	2x5mm (31511) 2x16mm (7184) 3x10mm (25620)
Socket Head (shcs	2x5mm (31511) 2x16mm (7184) 3x10mm (25620) 3x12mm (89454)

Button Head (bl	ncs)
	2.5x6mm (31520
	2.5x8mm (31521
	2.5x18mm (81259
	3x6mm (31531
	3x8mm (31532
	3x10mm (25211
	3x12mm (89202
	3x14mm (25187
	3x16mm (89203
	3x18mm (2308
	3x20mm (25188
	3x22mm (25189
	3x24mm (89204
	4x14mm (81260
	4x16mm (81261

m (31532)	
m (25211)	
m (89202)	В
m (25187)	
m (89203)	
mm (2308)	
m (25188)	
m (25189)	
m (89204)	
m (81260)	
m (81261)	
	N
m (41089)	(
m (41090)	'
m (41094)	(
m (41093)	(de

259)	
237)	4
531)	
532)	
211)	
202)	Ball Bearings
187)	
203)	
308)	
188)	
189)	
204)	
260)	
261)	
	Nuts (lock/plain)
089)	M3 Alum. Lo
090)	

Set Screws

Ball Bearings	
	5x8x2.5mm (8680)
	5x10x4mm (91560)
	6x10mm (31404)
	6x13x5mm flanged (91559)
	8x16x5mm (91564)
	8x16x5mm flanged (91565)

3x3mm (25225)

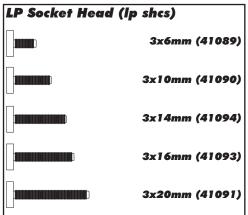
3x6mm (81257)

3x10mm (4671)

3x12mm (81258)

4x4mm (7732)

5x4mm (89221)





:: Table of Contents
1 Cover
2Introduction
31:1 Hardware "Fold Out"

4.....Table of Contents

5 - 7.....Differentials Build (Bags 1.1, 1.2)

7 - 8.....Shocks Build (Bag 2.1)

9.....Turnbuckles Build (Bags 3.1, 3.2)

10 - 11.....Steering / Chassis Build (Bag 4.1)

11 - 14.....Front Gearbox Build (Bags 5.1, 5.2, 5.3)

14 - 15.....Steering Blocks Build (Bags 6.1, 6.2)

16 - 18.....Rear End Build (Bags 7.1, 7.2, 7.3)

19.....Rear Hubs Build (Bags 8.1, 8.2)

20-21.....Center Bulkhead Build (Bag 9.1)

21 - 22.....Linkages Build (Bag 10.1)

22 - 23......Radio Tray Build (Bag 11.1)

23-26......Clutch / Filter Build (Bags 12.1, 12.2)

26 - 27.....Fuel Tank Build (Bags 13.1, 13.2)

27-28......Wheels/Tires/Body (Misc.)

29..... Droop Settings

30.....Back Cover

:: Notes



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



This symbol indicates a specific build order in the manual.



This symbol indicates a Racers Tip.

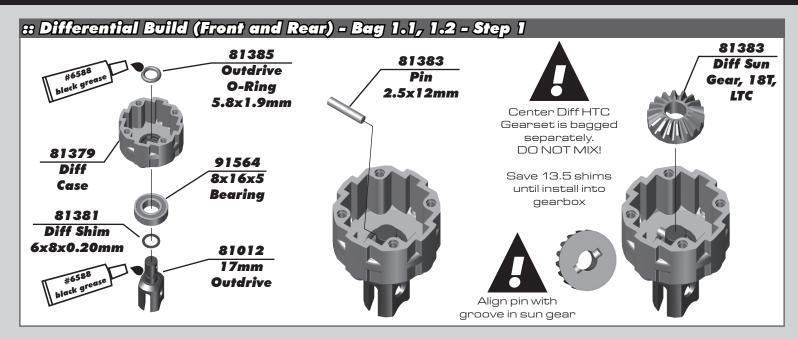


There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardare with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

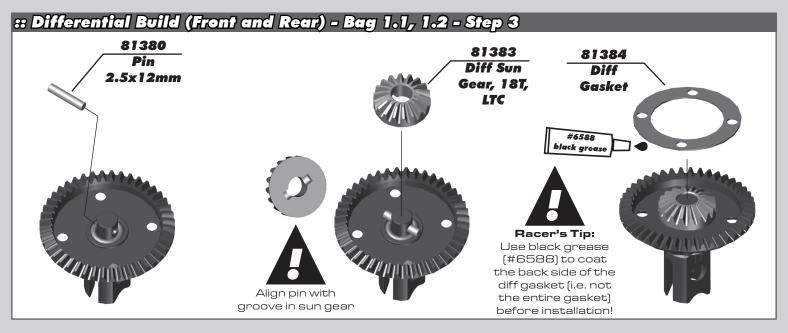
Associated Electrics, Inc. 21062 Bake Parkway Lake Forest, CA 92630

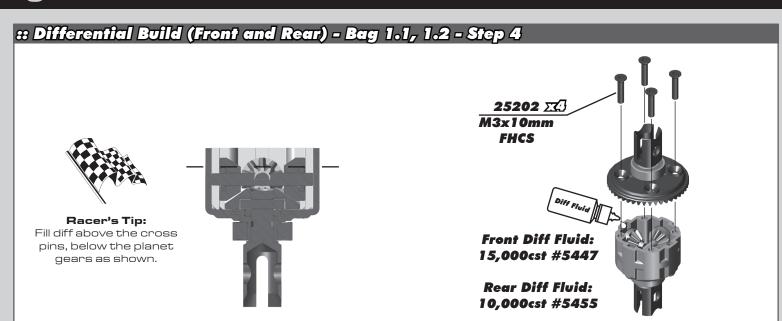


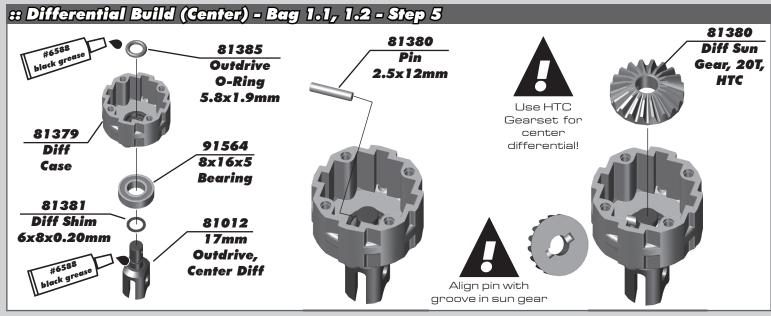
Customer Service Tel: 949.544.7500 Fax: 949.544.7501 4/24

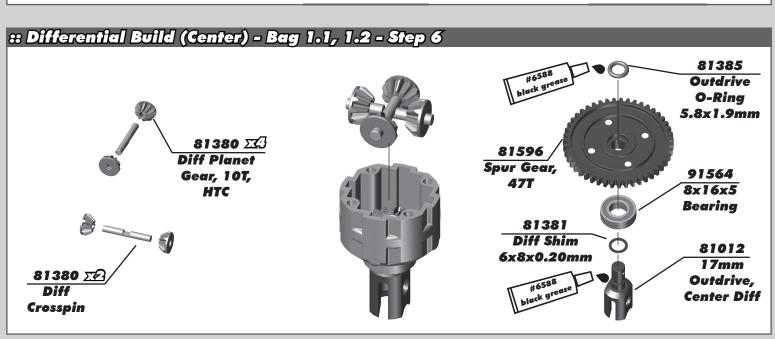


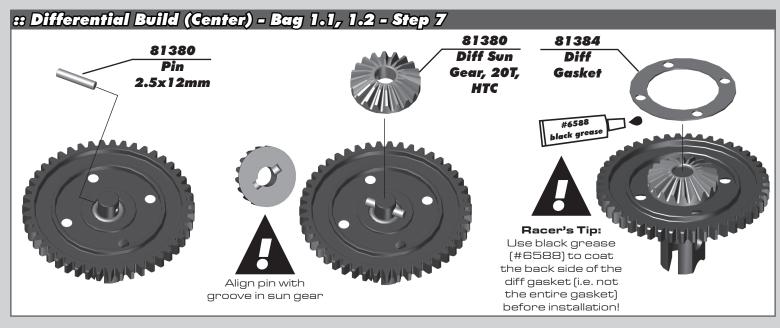


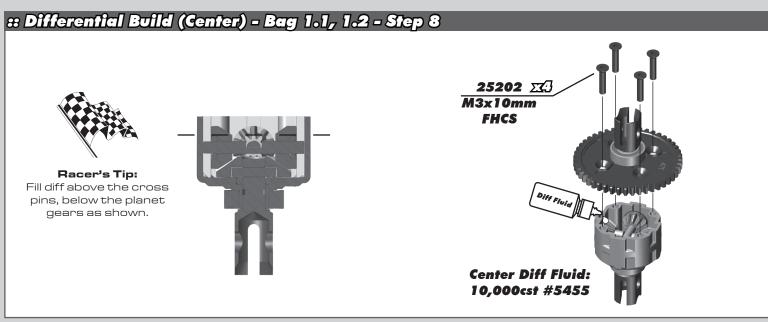


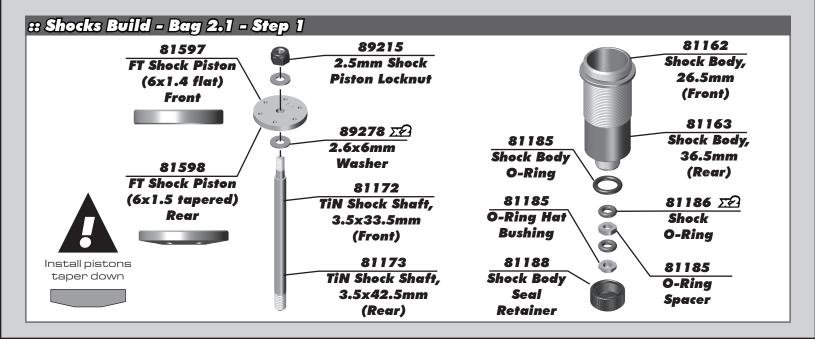


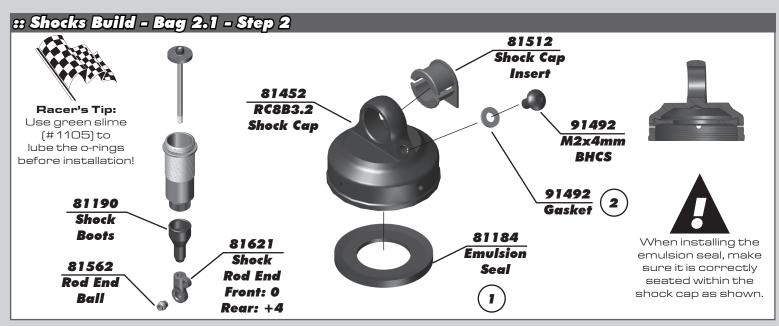


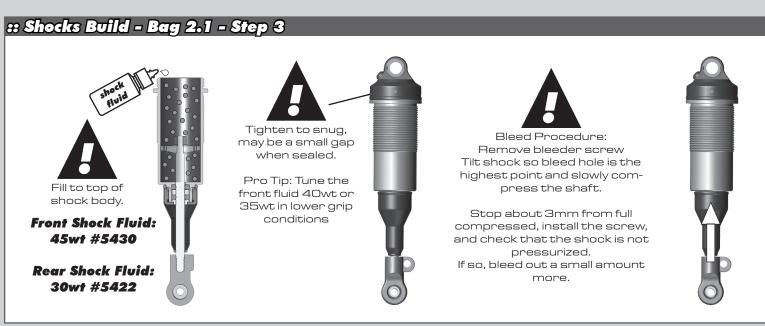


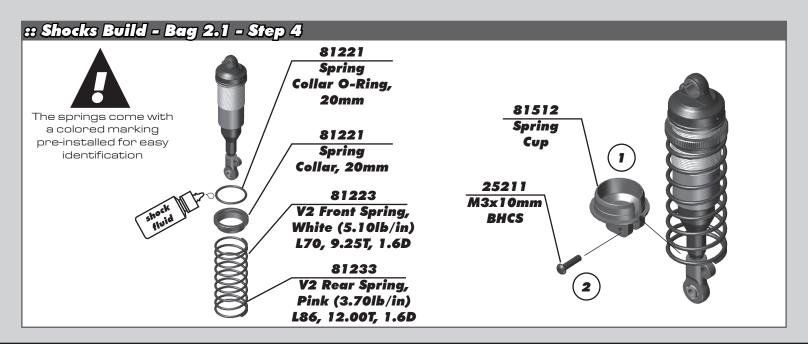


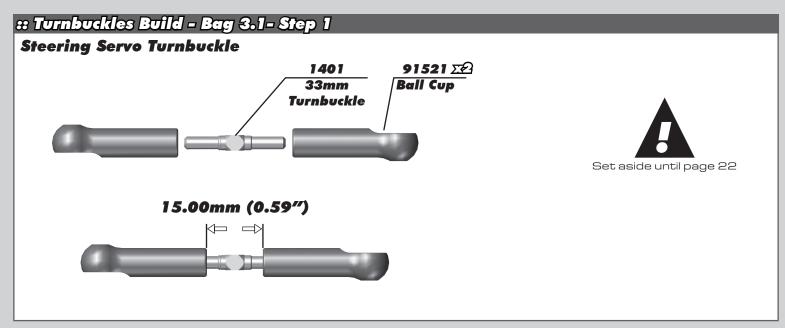


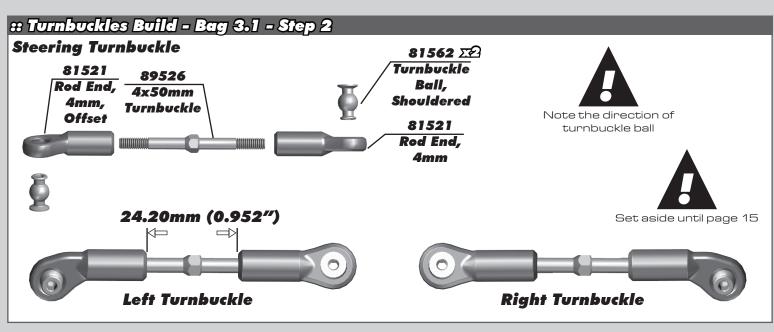


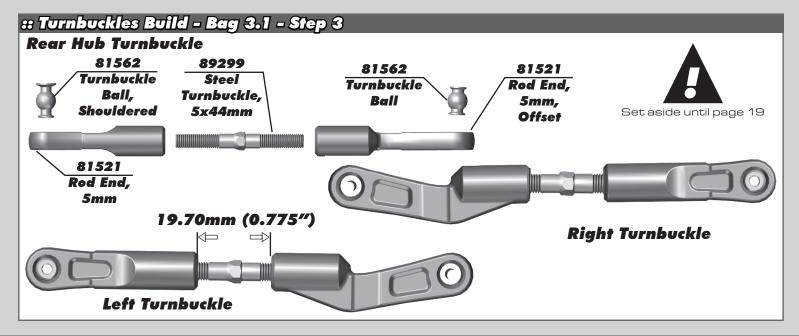


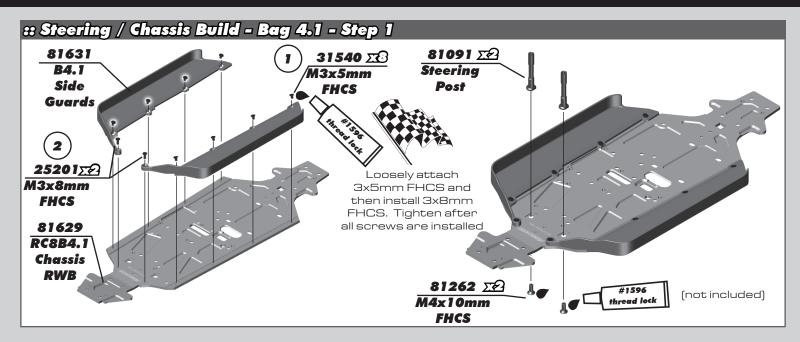


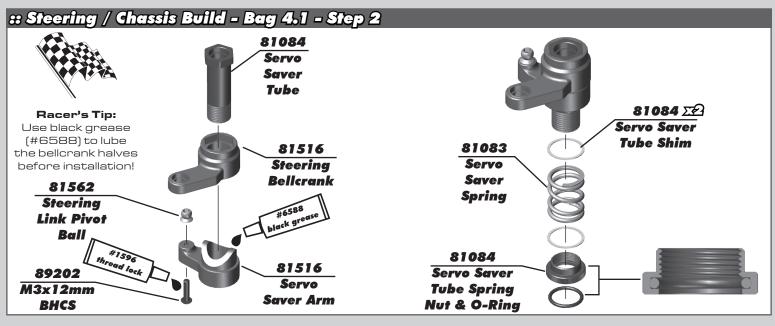


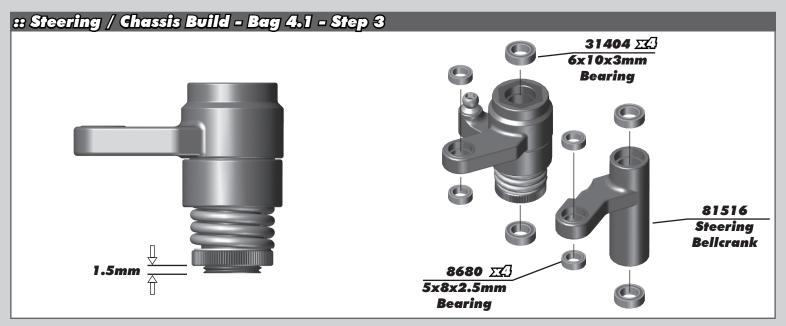


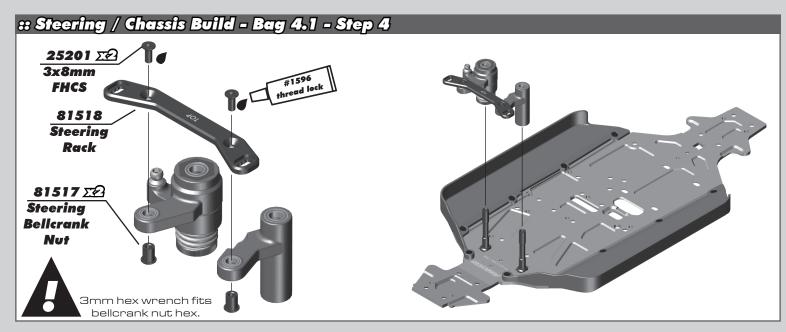


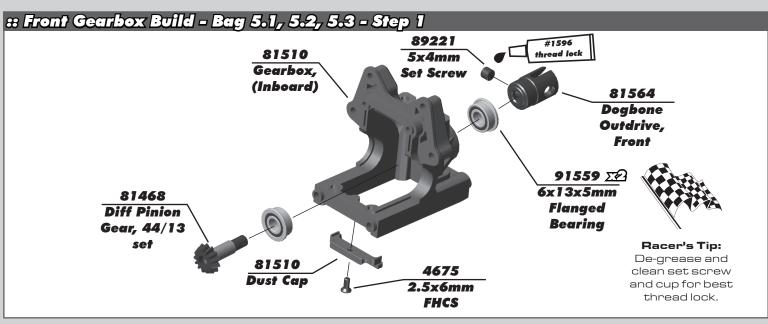


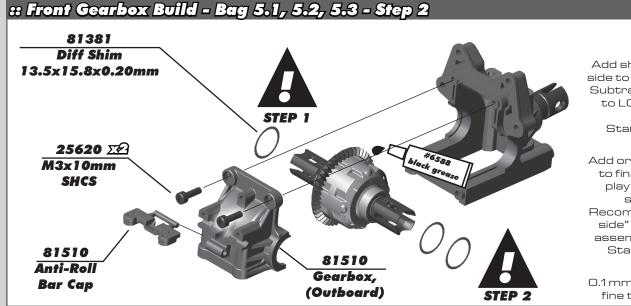












Step 1:

Add shims on the ring gear side to TIGHTEN gear mesh.
Subtract shims on this side to LOOSEN gear mesh.
NOTE:

Start 1x Thick 0.2mm

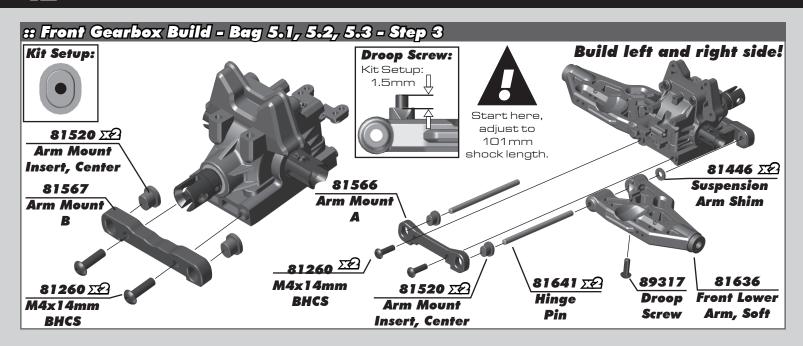
Step 2:

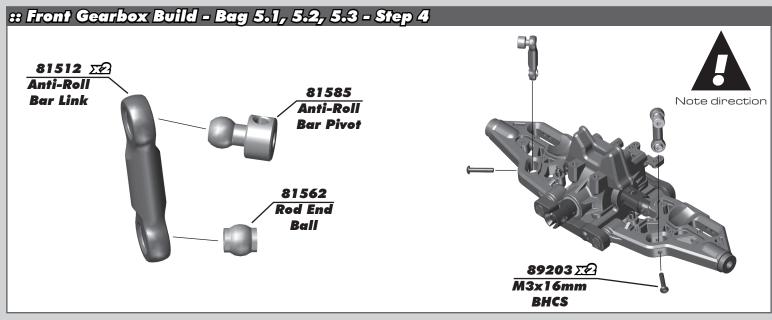
Add or subtract shims here to finalize diff side to side play once gear mesh is set from Step 1.

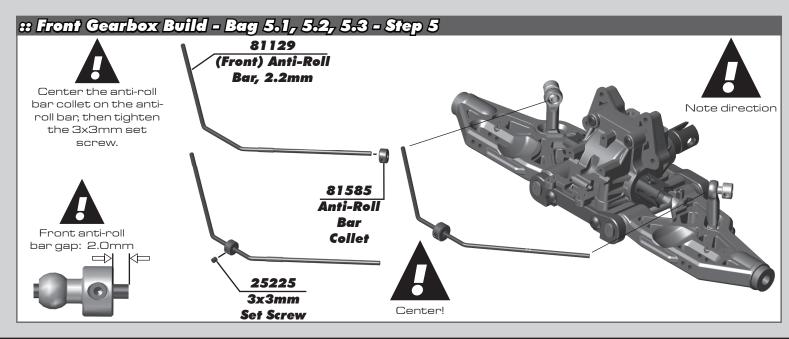
Recommended diff "side-toside" clearance (gearbox assembly) 0.10 - 0.25mm. Start with 1 x 0.1mm.

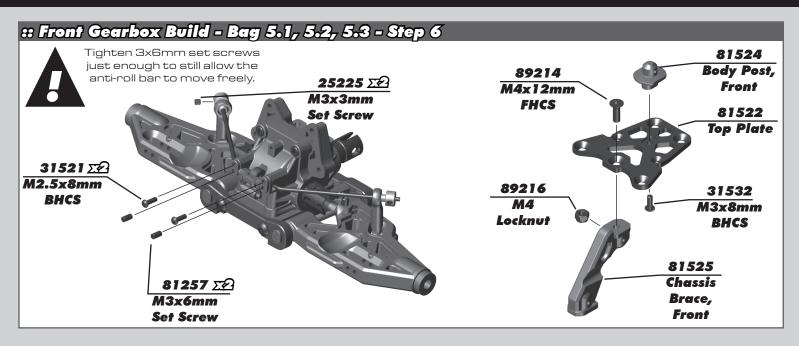
Note:

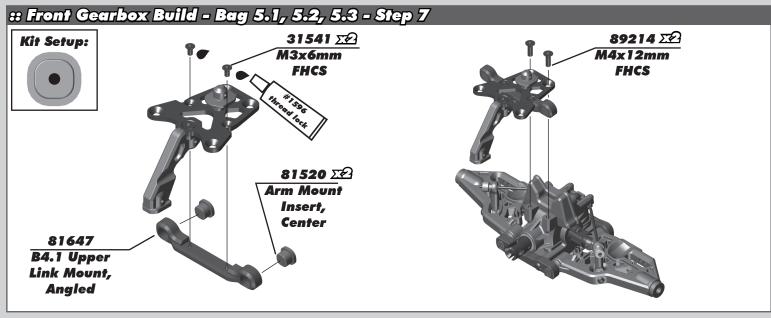
O.1 mm shim can be used for fine tuning of gear mesh

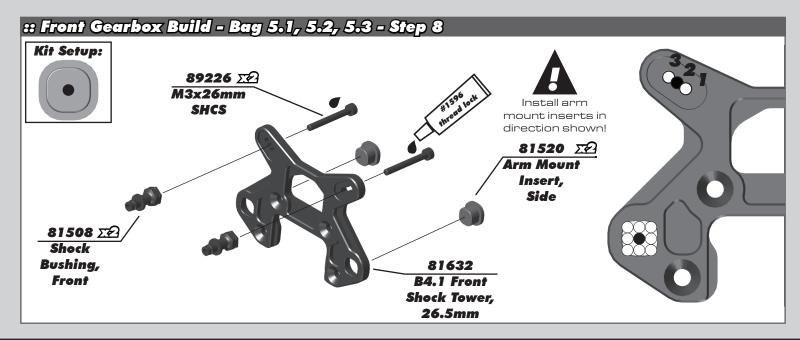


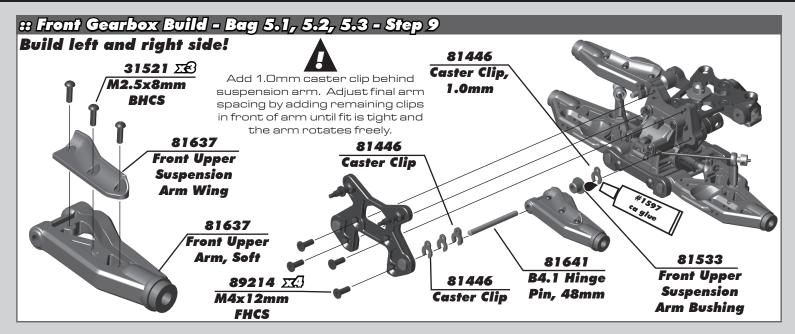


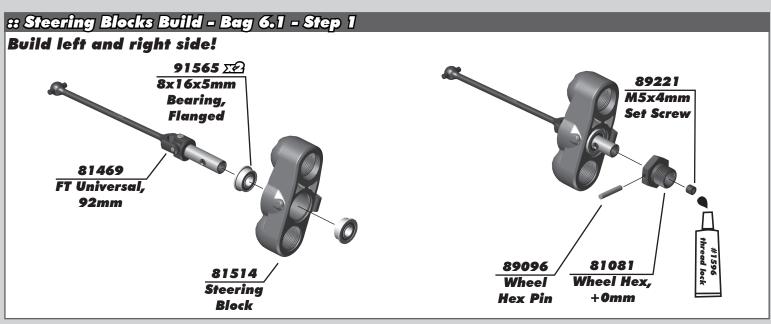


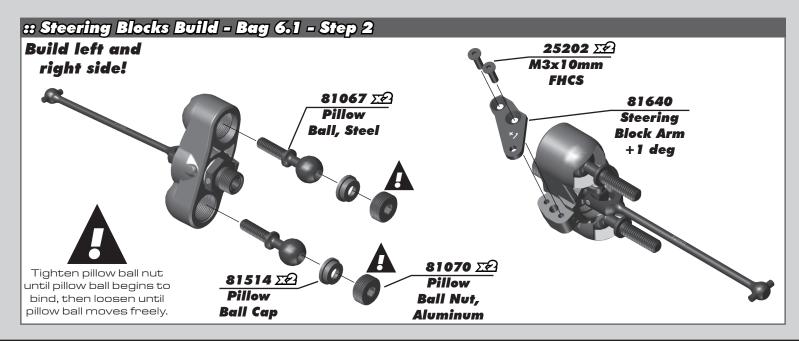


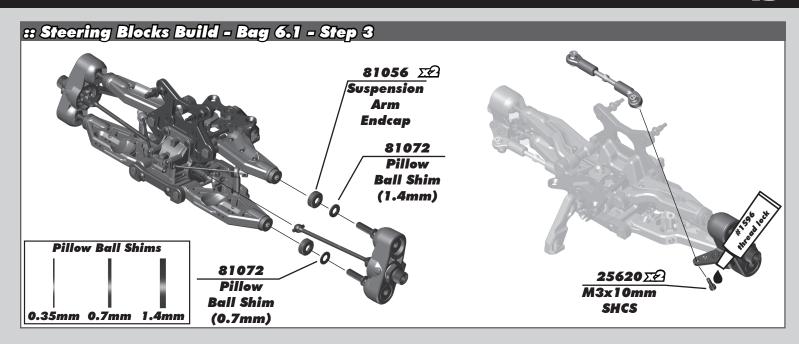


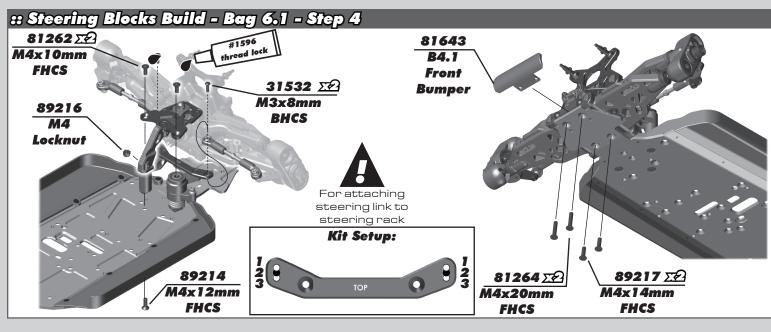


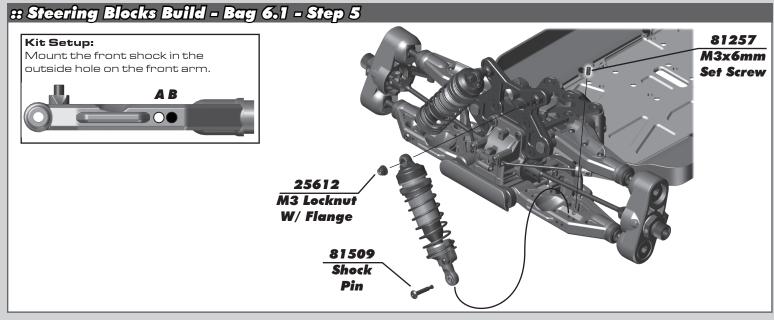


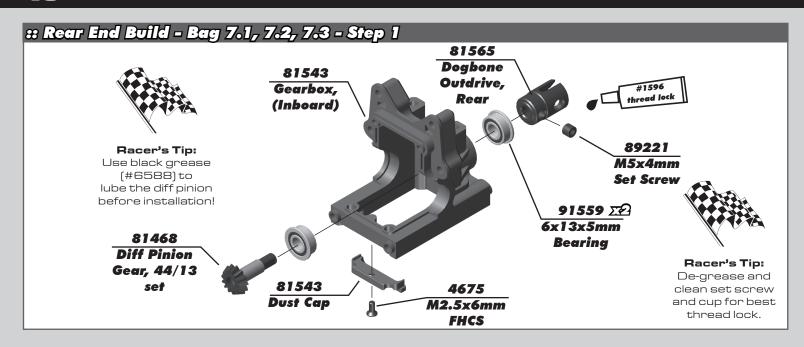


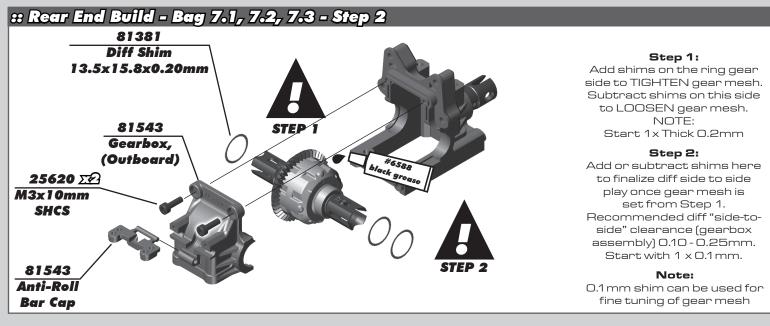


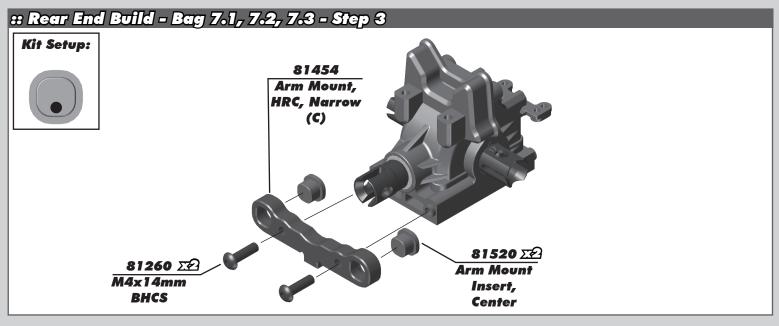


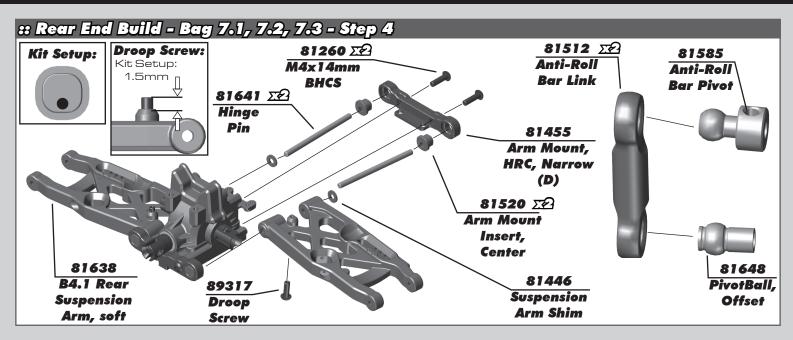


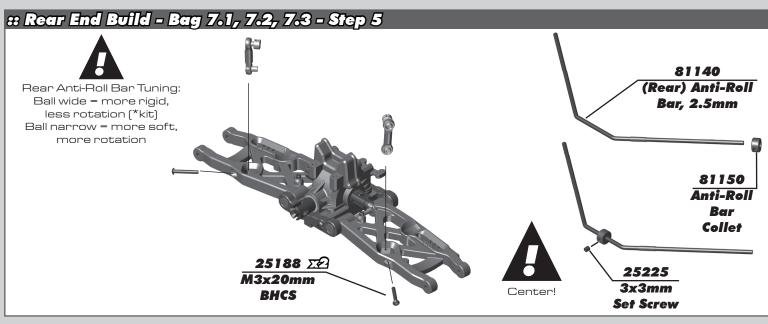


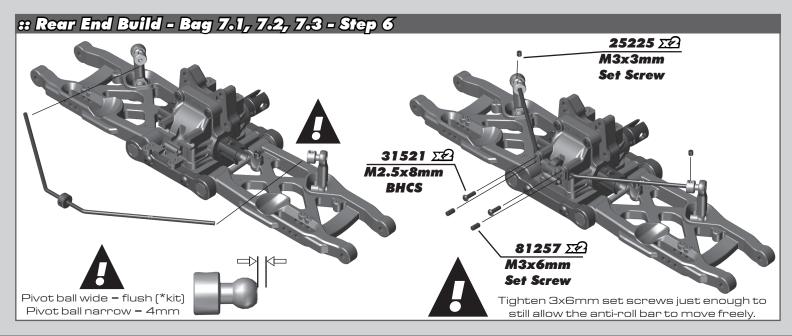


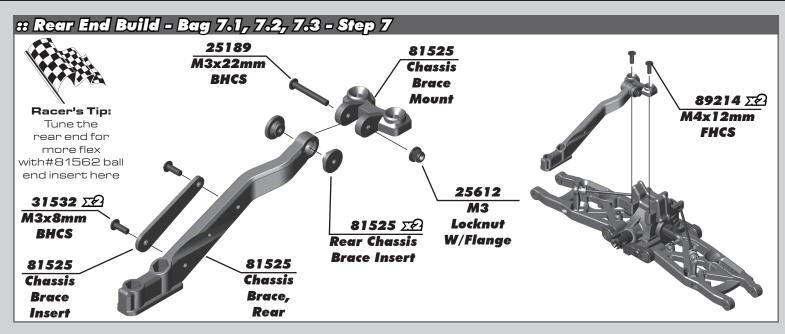


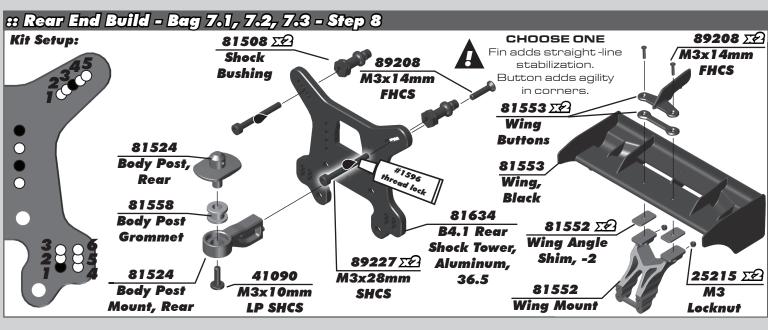


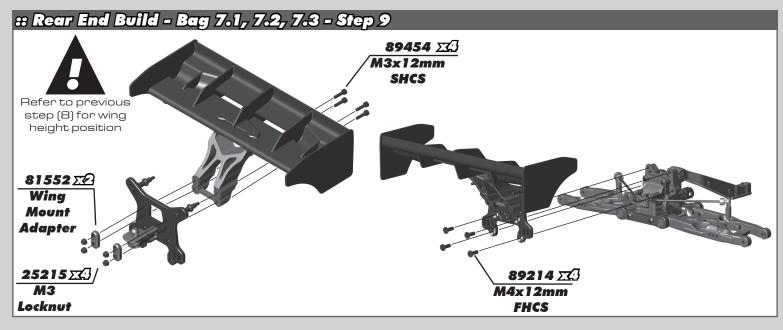


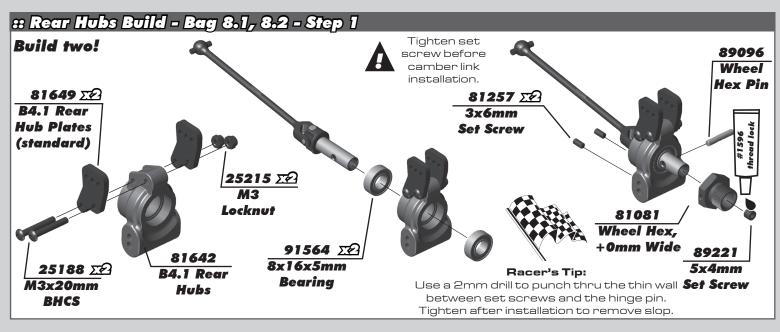


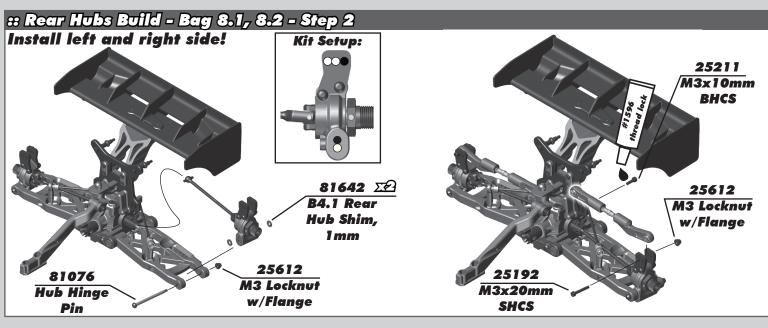


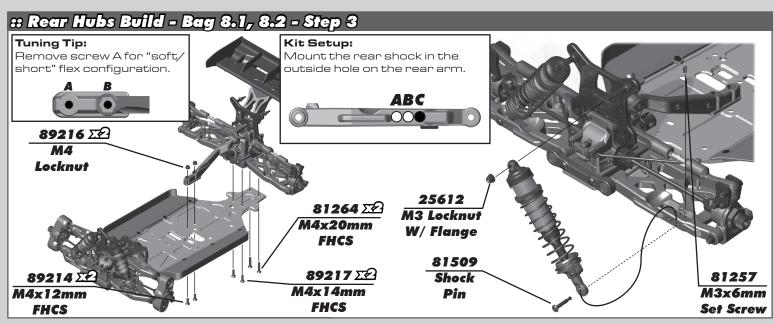


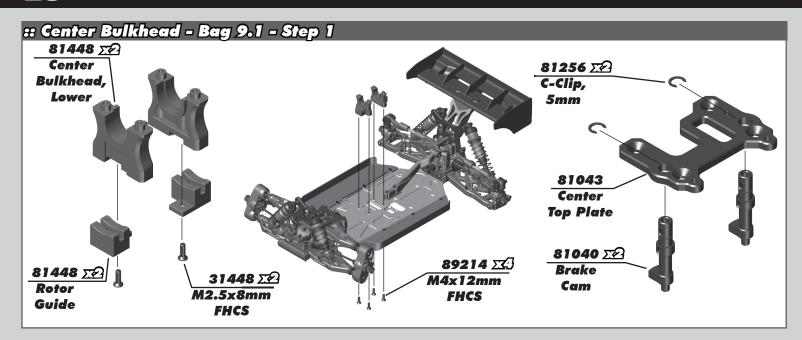


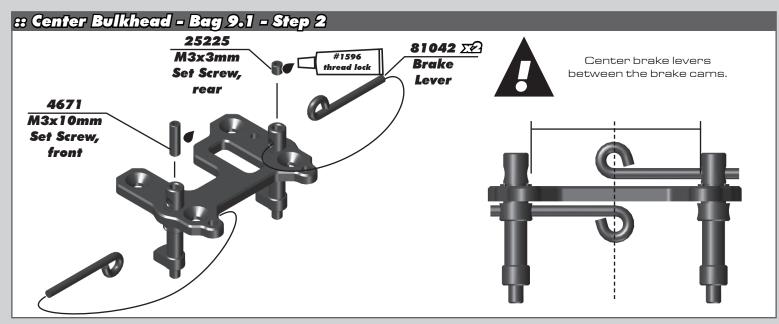


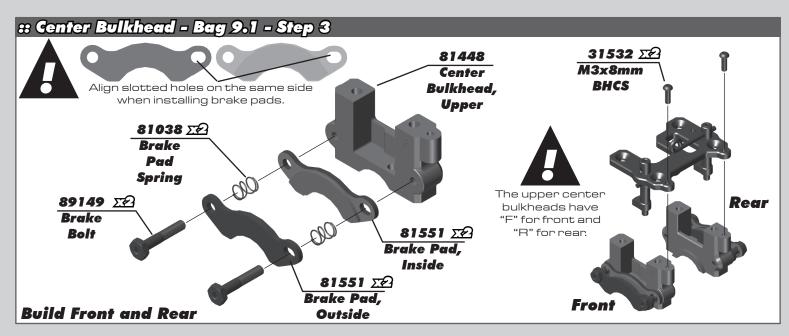


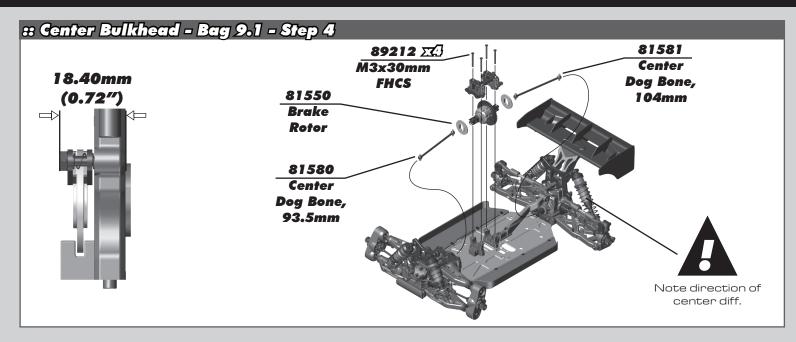


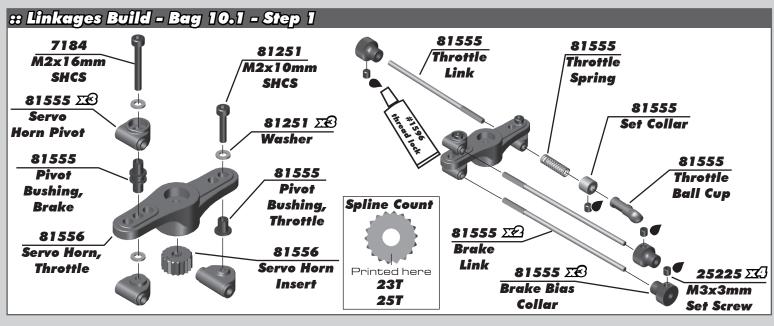


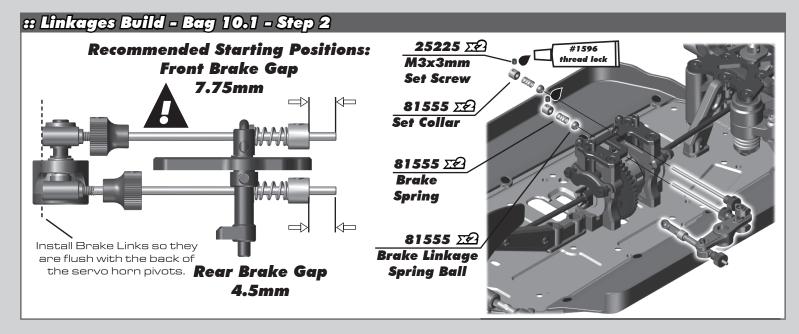


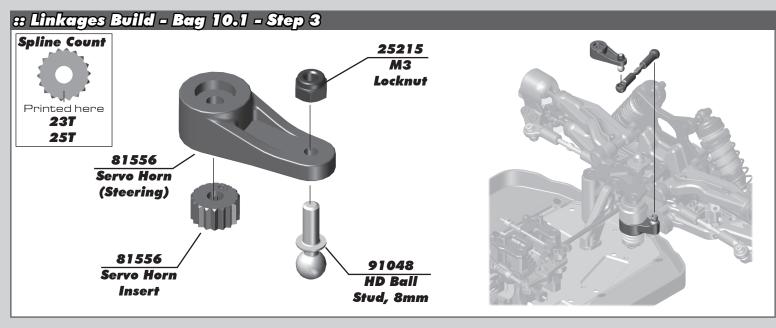


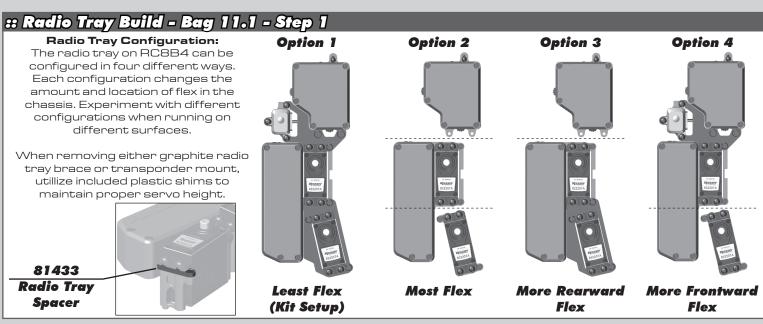


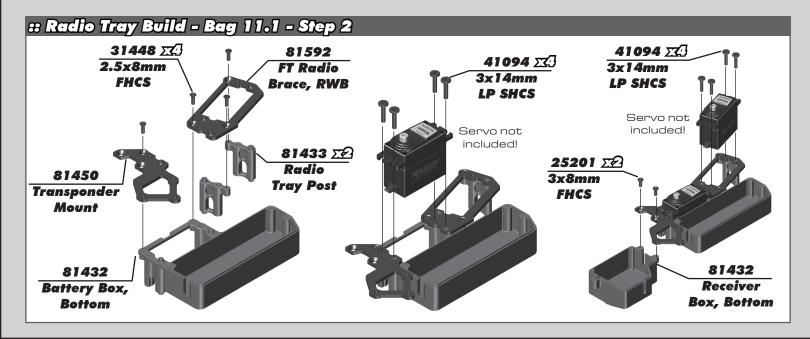


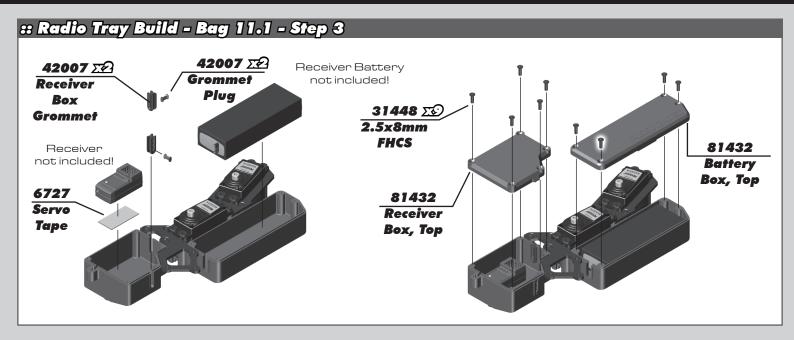


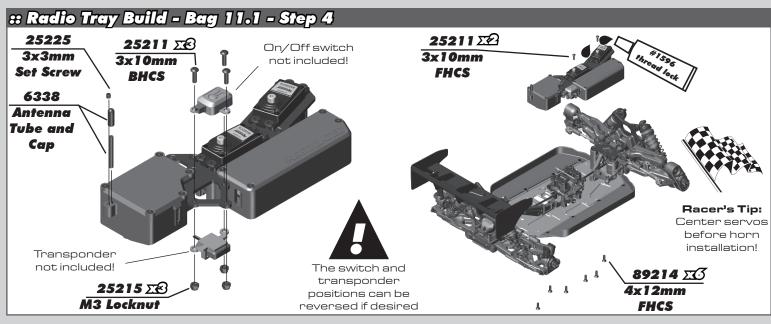


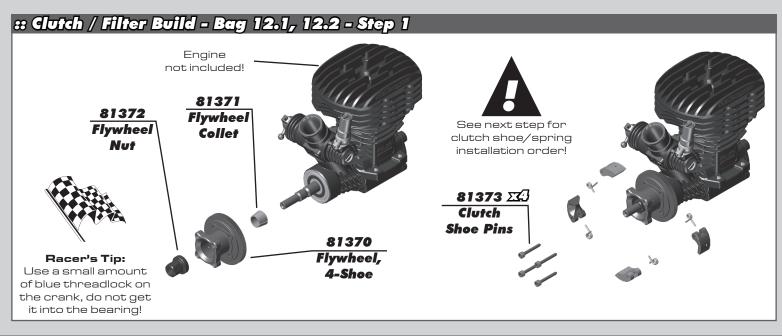


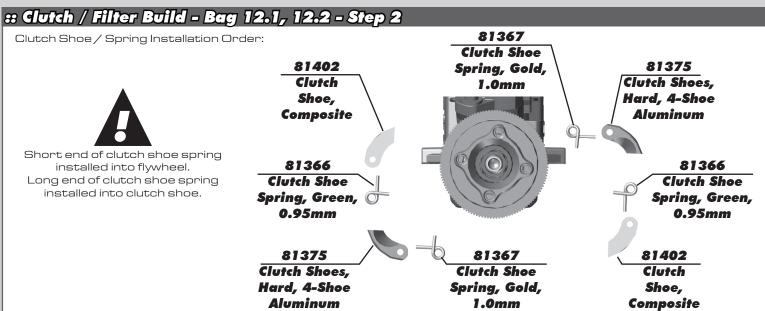


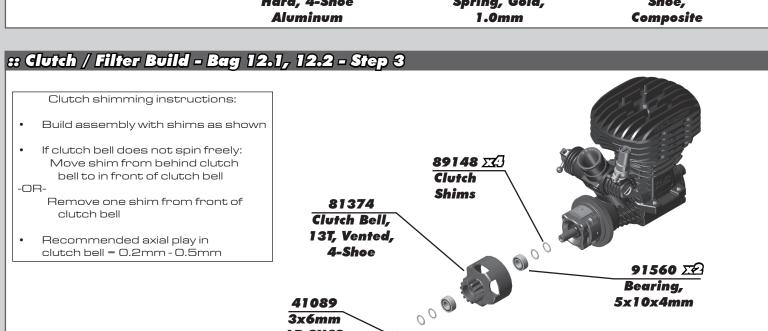




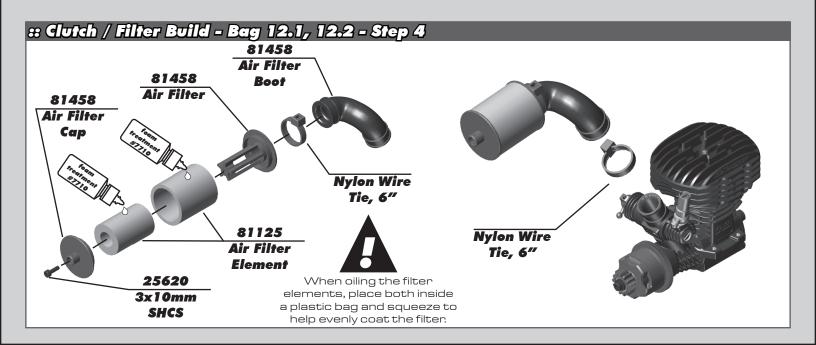


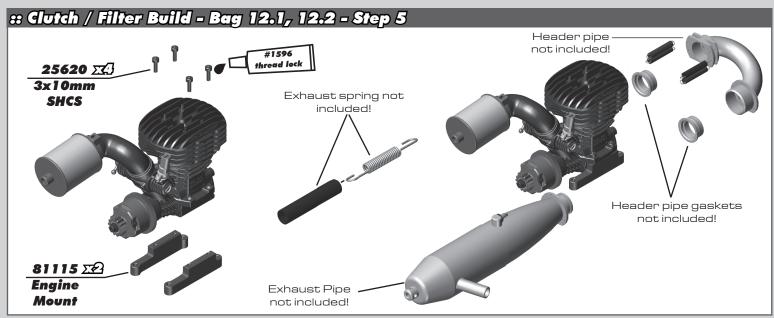


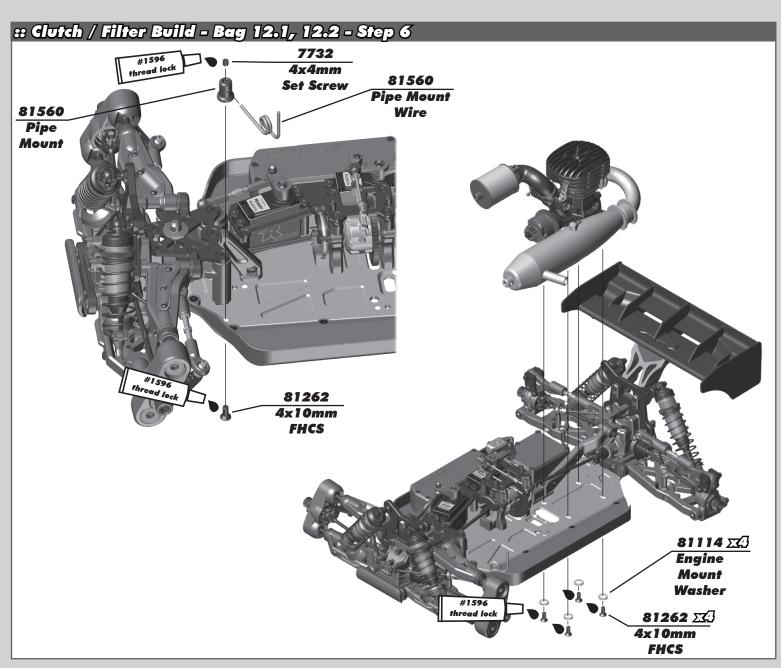




LP SHCS



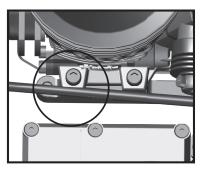


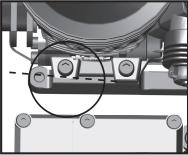


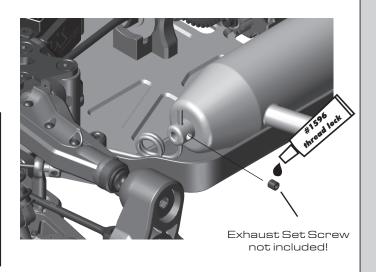
:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 7

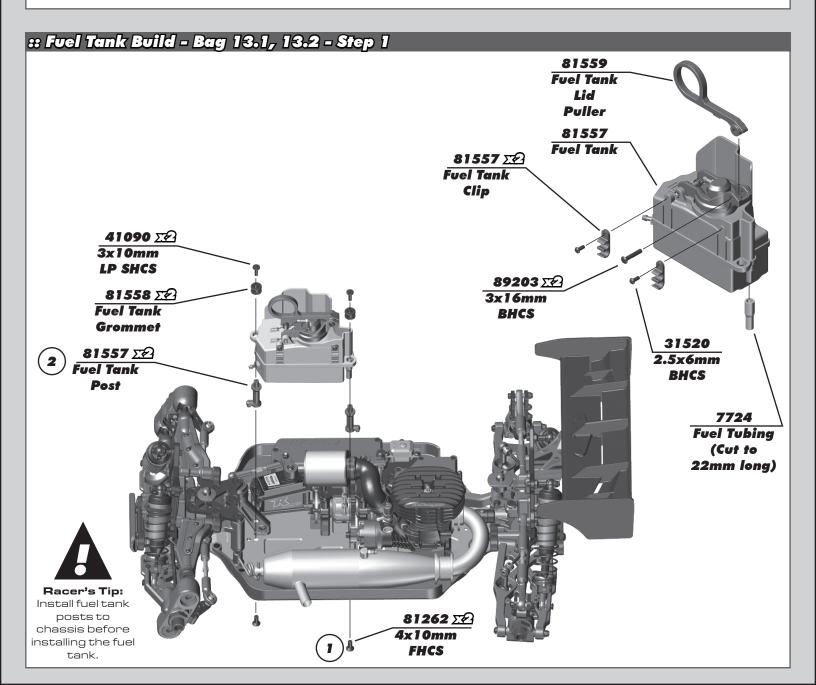


When installing your engine, make sure the rear drive shaft does not interfere with the engine block. You may need to remove material from the engine block for fitment.



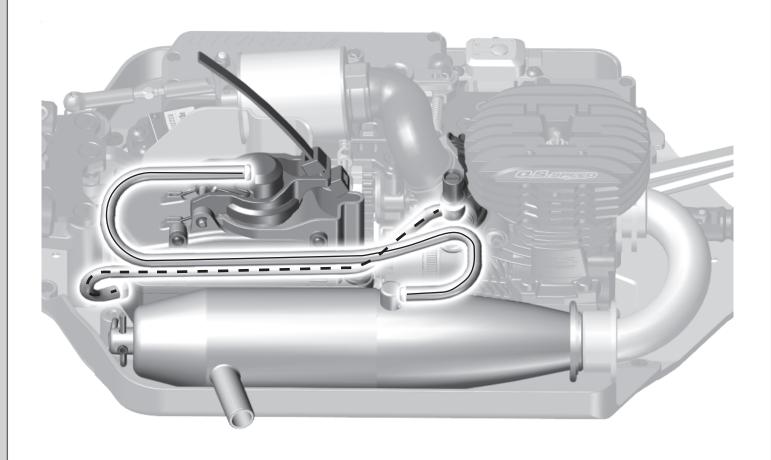




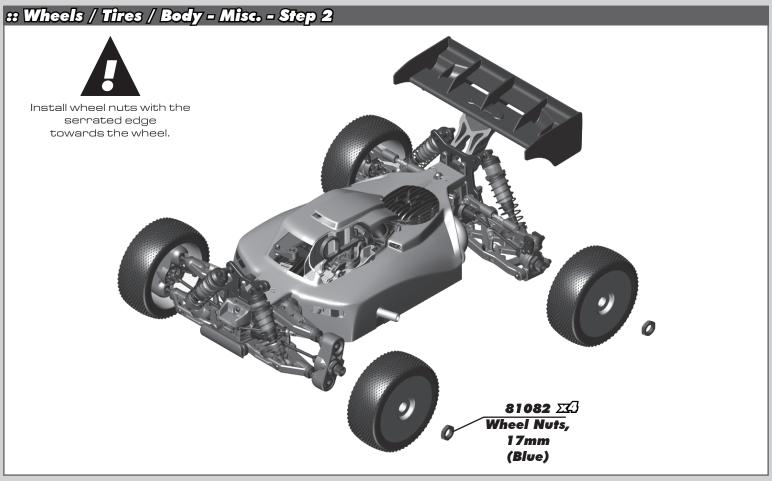


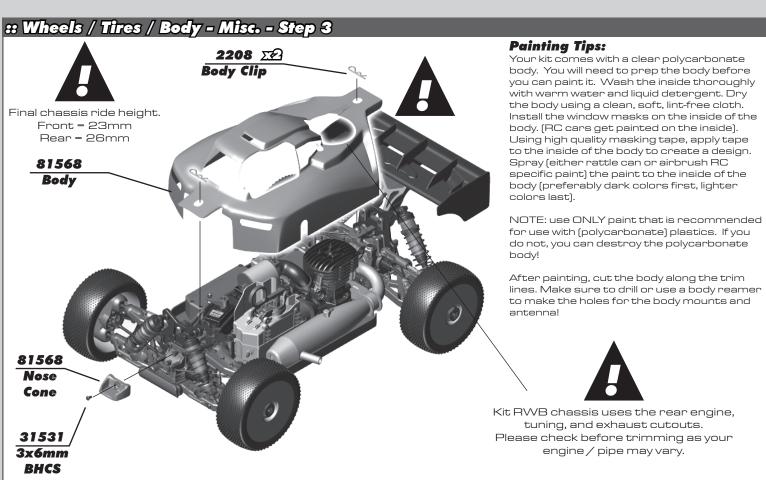
:: Fuel Tank Build - Bag 13.1, 13.2 - Step 2

Pressure line from fuel tank lid to exhaust pipe Fuel line from fuel tank to carburetor









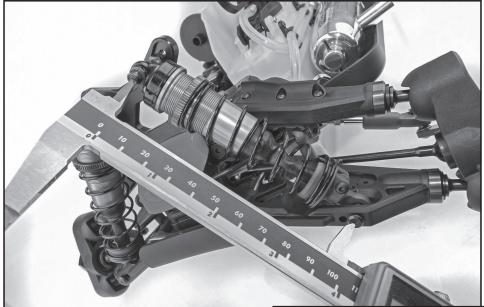
:: Droop Settings

Set droop by measuring overall length of shock (from standoff to shock pin) while the chassis is elevated above your working surface. The shocks should be fully extended.

Kit setup for front droop is 101mm shock length, and 126mm shock length for the rear "C" hole.

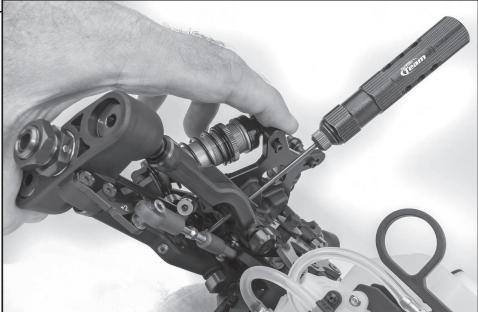
If the shock length is too long, adjust by turning the droop screws clockwise.

If the shock length is too short, adjust by turning the droop screws counter-clockwise.





Racer's Tip:
Use 123mm for the
middle "B" rear arm
hole, and +2 or 0 eyelet.



Front Droop: Increasing front droop (loosen droop screws) will increase off-throttle steering. It also allows the front end to lift more, giving more rear grip and less front grip on-power. Remember to never loosen the screws beyond the FULL DROOP setting. Decreasing front droop (tighten droop screws) yields more on-power steering and quicker response at the expense of some stability in bumpy sections. It will also give less off-throttle steering.

Rear Droop: Increasing rear droop (loosen droop screws) will increase traction in bumpy sections, but will reduce high-speed stability. Remember to never loosen the screws beyond the FULL DROOP setting. Decreasing rear droop (tighten droop screws) will increase stability in high speed sections, but will reduce stability in bumpy sections.

Setup Sheets:

To find different setups for your kit, visit our website, https://www.associatedelectrics.com/teamassociated/and click on the "Setup Sheets" link, and then the link to your model. Our team of professional drivers help develop these setups at races worldwide. Additionally, most drivers have a "base" setup that they use as a starting point for most races. Try running some of our base setups or look for track conditions and tires that are similar to your local track and replicate that setup. Remember, each adjustment has a purpose, so copy everything from the setup sheet and then make adjustments based on the recommendations in here.

FIND IT ON ASSOCIATEDELECTRICS.COM

CARS & TRUCKS



Vehicle Spare Parts GO TO: AssociatedElectrics.com Team Associated tab Cars & Trucks Scroll to your vehicle Parts & Accessories link



Setups and Manuals GO TO: AssociatedElectrics.com Team Associated tab Manuals & Setups Scroll to your vehicle

A-TEAM APPS



Tuning Guides & Tips GO TO: AssociatedElectrics.com Support -**A-Team Apps**



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

call: (949) 544-7500 - fax: (949) 544-7501 Check out the following web sites for all of our kits, current products, new releases, setup help, tips, and racing info!

www.AssociatedElectrics.com

FOLLOW US ON SOCIAL MEDIA



TeamAssociated ReedyPower **ElementRC Factory Team**



@TeamAssociatedRC @ReedyPower

@Element RC

@FactoryTeam RC



@Team Associated @ReedyPower



@Associated Electrics