RC8 B4

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

30 TIME ASSOCIATED

SCALE 1:8 VEHICLE | KIT | 4 WHEEL DRIVE | NITRO POWERED | OFF ROAD | NOT INCLUDED | CLEAR BODY

#80945 RC8B4 TEAM KIT

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

WeAreAE CHAMPIONS by DESIGN AssociatedElectrics.com

TEAM ASSOCIATED

:: 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 Kit:

- Innovative front-end geometry with new 8° inclined kingpin steering blocks are paired with a new wider upper suspension arm pivot for improved steering balance and predictable handling in all conditions
- New gearboxes are specific to front and rear
- All new front lower, front upper, and rear suspension arm designs
- New rear wing mount has adjustable wing angle shims, significant strength improvements, an aerodynamic shape, and extra clearance for shock position adjustment
- New rear wing has more vertical fins for increased straight line stability, a taller rear lip height for increased downforce, increased strength in various areas to reduce bending fatigue, and dimples on the backside as a template for cutout holes
- New rear chassis brace has several design features and flex options
- New rear hub features a symmetrical left and right common design with axle height inserts for adjustable roll center tuning. The standard bearing size used is an 8x16x5mm flanged but the hub will still accept 15x21x4mm bearing for tuning options.
- New fuel tank with many new features
- New steering bellcranks with top-mounted steering rack for extra clearance around gearbox assembly
- New aluminum steering rack designed around the updated front end geometry is lightweight and durable
- New steering bellcrank nuts are longer to reduce drag from the steering rack under flex
- Updated steering servo linkage features a new heavy duty threaded ball and steel screw joint
- New A and B blue aluminum suspension arm mounts are shaped to interlock with the RC8B4 chassis
- New RC8B4 specific 7075 aluminum hard anodized chassis features updates to strengthen the front and rear droop tab areas and an increased width along kick up area
- New upper suspension arm link mount is significantly wider than RC8B3 series, providing the required geometry for the new 8° steering blocks
- New front shock tower has strength improvements and allows for the upper suspension arm insert to be mounted from front side via a recessed pocket, without disassembly of the tower from the gearbox
- New carbon fiber front top plate centralizes the front chassis brace for balanced flex in all directions
- New front body post is recessed into the front top plate and the reversible design is easy to mount
- New spring cups and shock rod end design has a locking screw to keep the cups in place during a crash
- New front shock bushings are 1.5mm longer, and rear shock bushings are 4mm than RC8B3 shock mounts
- New exhaust hanger mount and spring
- New carbon fiber radio tray brace for repositioned steering servo
- New brake pads and a new brake rotor design that has clearance to accept a 14mm driveshaft pin for longer outdrive life
- New two-piece rear body post features a rubber grommet to allow some flex to extend the life of the body

:: Additional

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

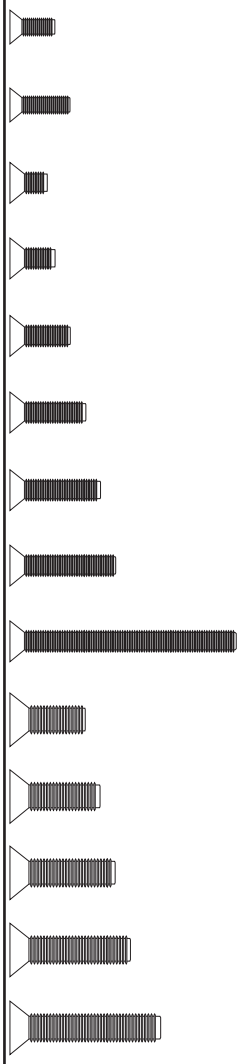
- 4.8-7.4v receiver battery (Flat style NiMH, Flat style LiPo, Flat style LiFe)
- 2 or 3 channel radio/transmitter set with switch (2.4GHz recommended)
- Throttle and Steering servos
- Model car fuel (20-30% nitro recommended)
- .21 class rear exhaust engine
- 1:8 scale buggy wheels / tires
- CA (cyanoacrylic) glue - (#1597)
- Thread-locking compound - (#1596)
- Polycarbonate-specific paint
- Starter box - (#1751)
- Exhaust system
- Fuel bottle - (#1747)
- Ride height gauge
- Transmitter batteries
- Reamer / hole punch
- Glow igniter - (#27377)
- Needle-nose pliers
- Hobby knife

:: Other Helpful Items

- Silicone Shock/Diff Fluids (Refer to website for complete listings)
- Shock Pliers
- Reamer / Hole Punch - (#1499)
- FT Hex Wrenches - (#1518)
- Wire Cutters
- Body Scissors (AE #1737)
- FT Nut Drivers - (#1519)
- Calipers or a Precision Ruler

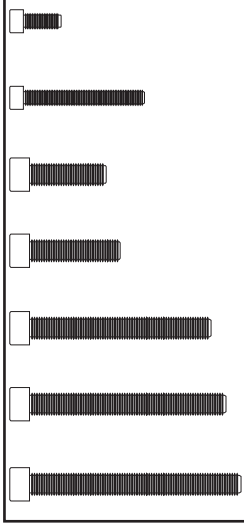
:: Hardware - 1:1 Scale View

Flat Head (fhcs)



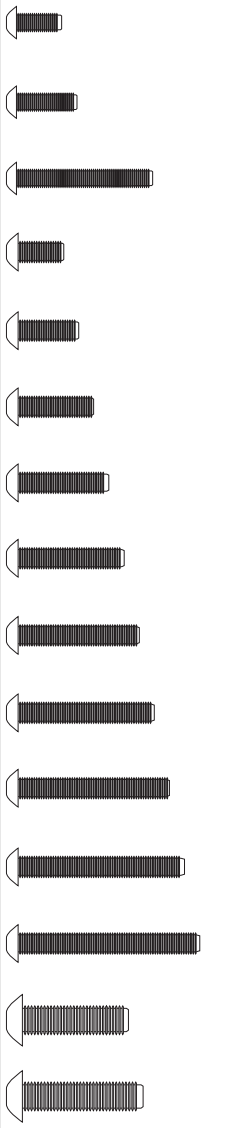
2.5x6mm (4675)
2.5x8mm (31448)
3x5mm (31540)
3x6mm (31541)
3x8mm (25201)
3x10mm (25202)
3x12mm (25203)
3x14mm (89208)
3x30mm (89212)
4x10mm (81262)
4x12mm (89214)
4x14mm (89217)
4x16mm (81263)
4x20mm (81264)

Socket Head (shcs)



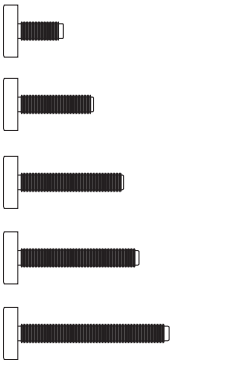
2x5mm (31511)
2x16mm (7184)
3x10mm (25620)
3x12mm (89454)
3x24mm (89225)
3x26mm (89226)
3x28mm (89227)

Button Head (bhcs)



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)

LP Socket Head (lp shcs)

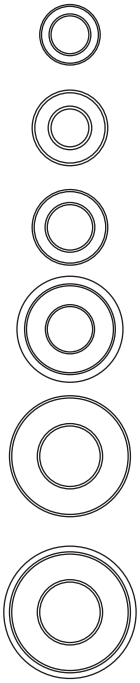


3x6mm (41089)
3x10mm (41090)
3x14mm (41094)
3x16mm (41093)
3x20mm (41091)

Set Screws

3x3mm (25225)
3x6mm (81257)
3x10mm (4671)
3x12mm (81258)
4x4mm (7732)
5x4mm (89221)

Ball Bearings



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

Nuts (lock/plain)

M3 Nut (91477)
M3 Alum. Locknut, Blue (31550)
M3 Locknut, Black (25215)

M3 Locknut w/Flange (25612)
FT 3mm Locknuts, Blue(25392)

FT M4 Locknut, Blue (31551)
M4 Locknut, Serrated (91738)

:: Table of Contents

:: 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.

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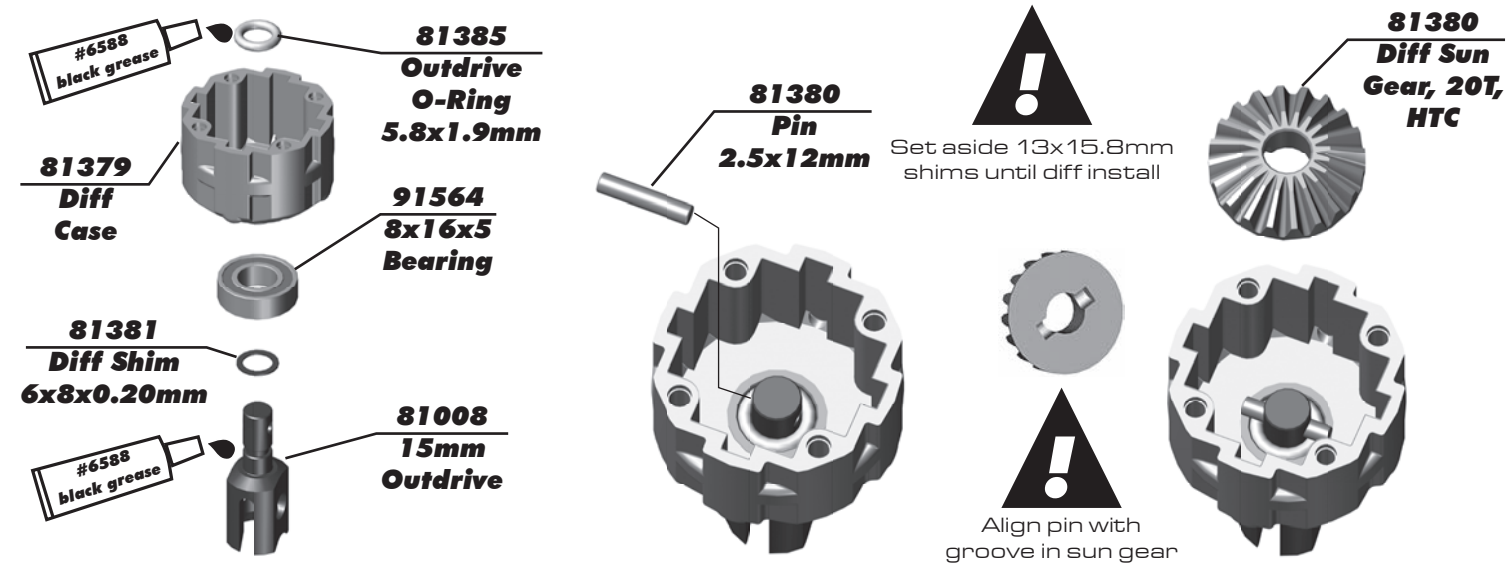
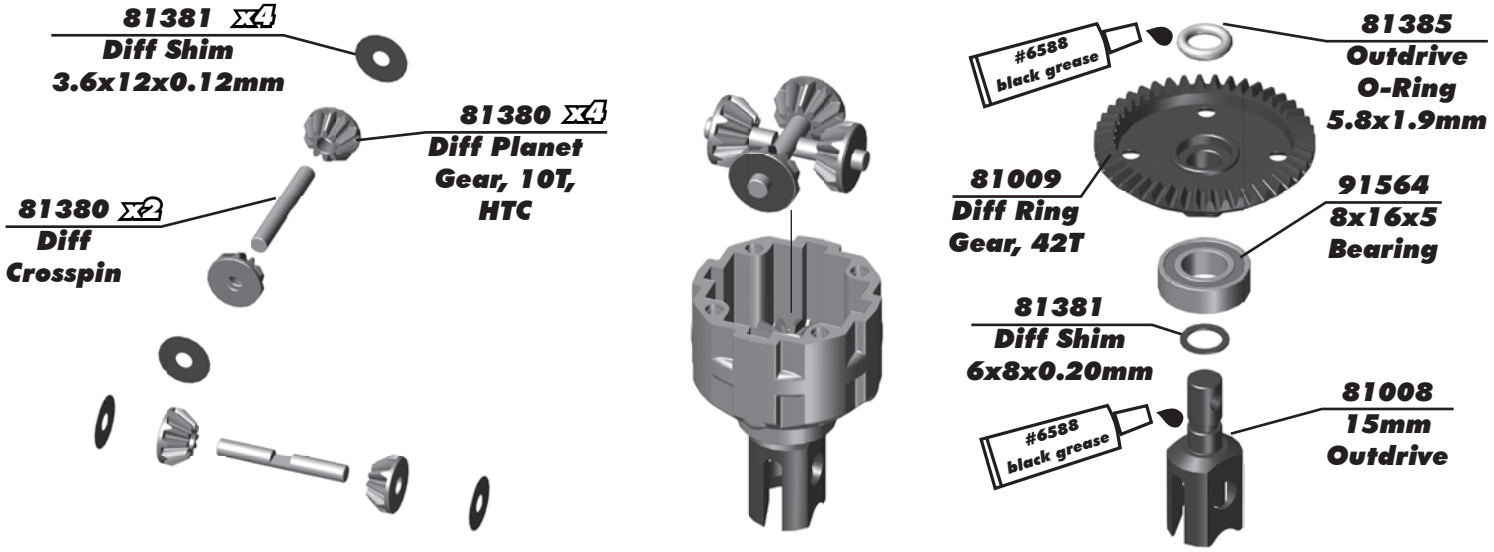
http://www.RC10.com • http://twitter.com/Team_Associated • http://www.instagram.com/teamassociatedrc/ • http://www.facebook.com/TeamAssociated/

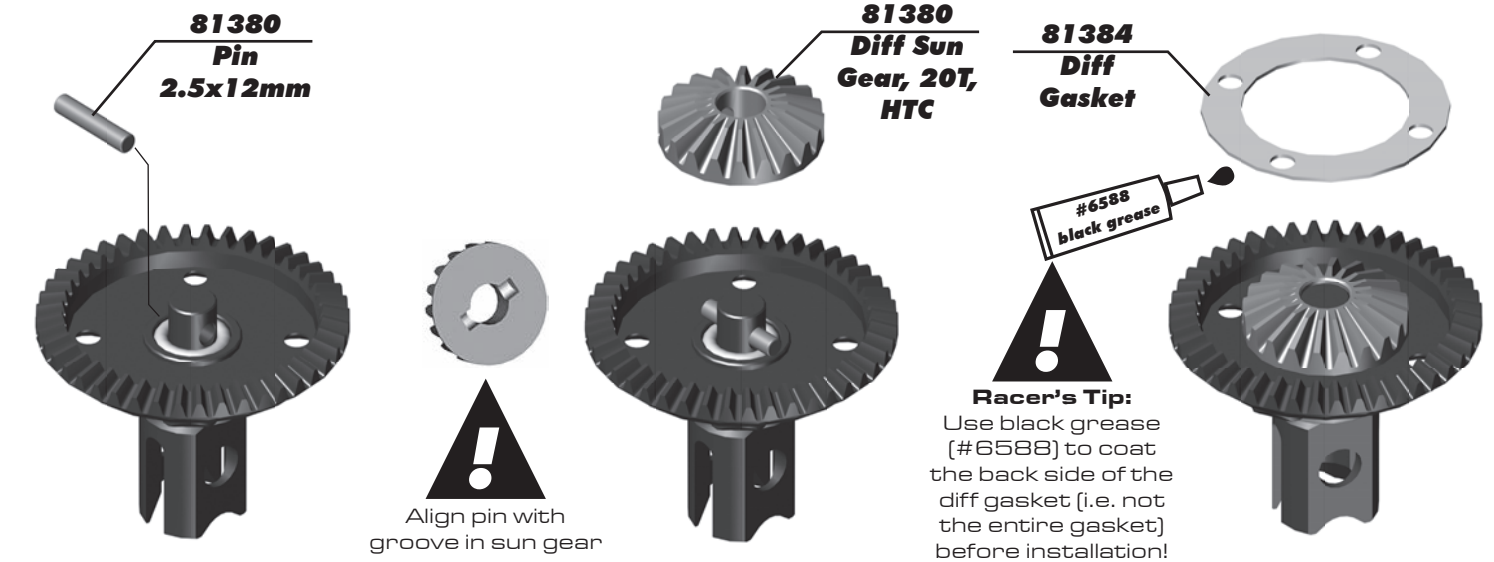
:: Differential Build (Front and Rear) - Bag 1.1, 1.2 - Step 1



:: Differential Build (Front and Rear) - Bag 1.1, 1.2 - Step 2

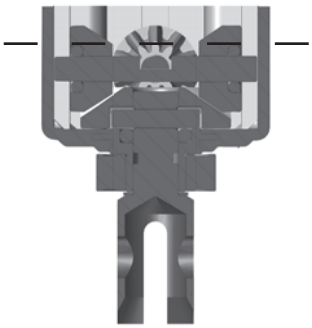


:: Differential Build (Front and Rear) - Bag 1.1, 1.2 - Step 3

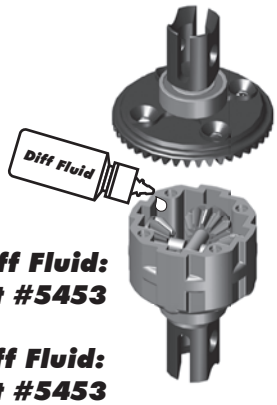


:: Differential Build (Front and Rear) - Bag 1.1, 1.2 - Step 4

Racer's Tip:
Fill diff above the cross pins, below the planet gears as shown.



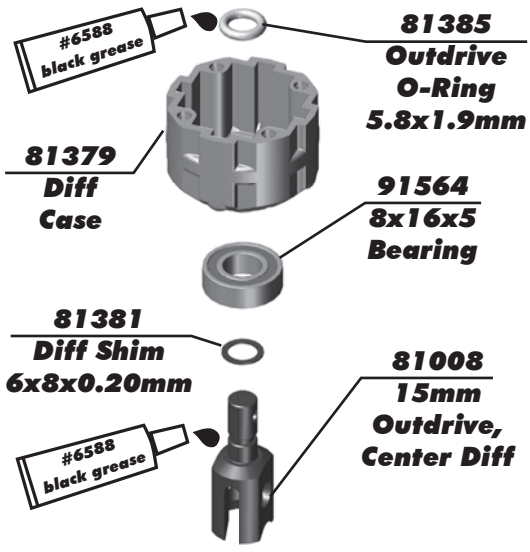
89208 x4
3x14mm
FHCS

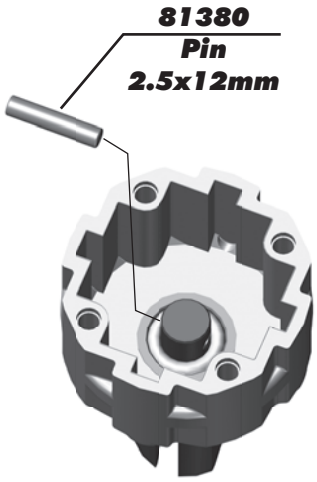


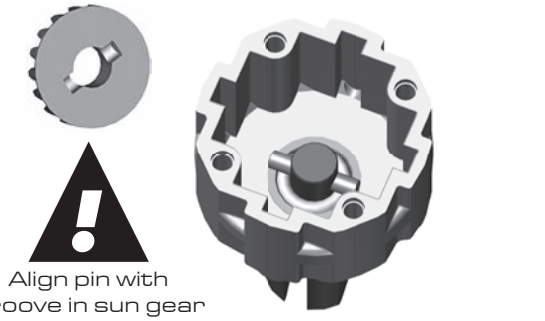
Front Diff Fluid:
5,000cst #5453

Rear Diff Fluid:
5,000cst #5453

:: Differential Build (Center) - Bag 1.1, 1.2 - Step 5

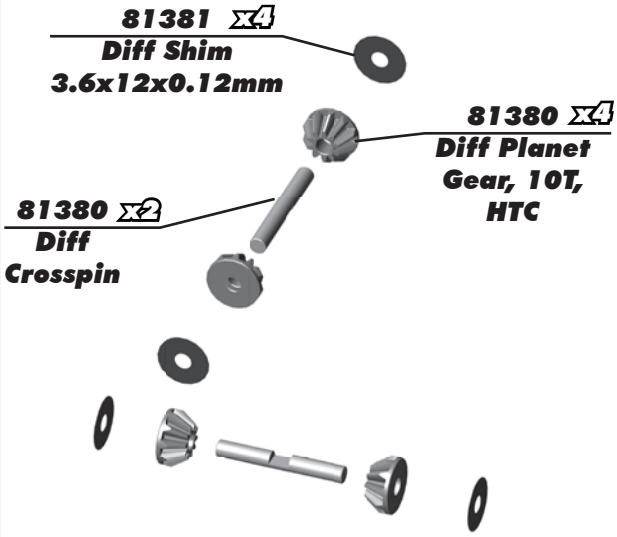


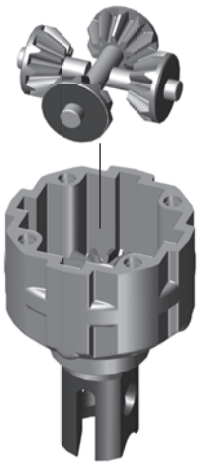




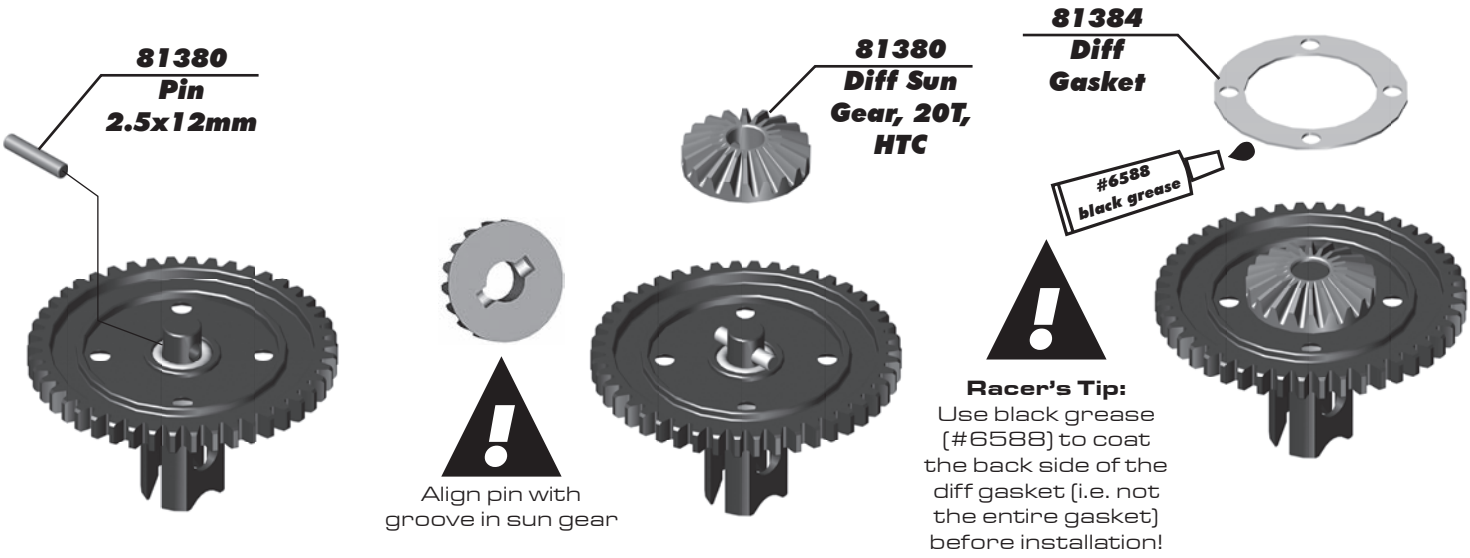
Align pin with groove in sun gear

:: Differential Build (Center) - Bag 1.1, 1.2 - Step 6

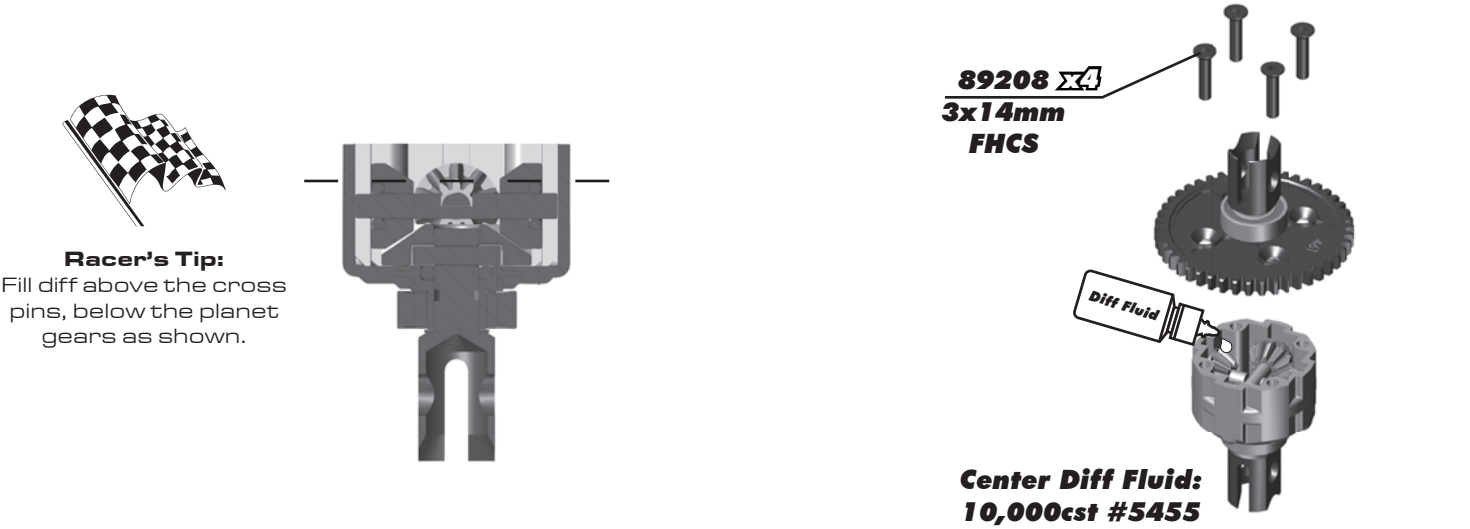




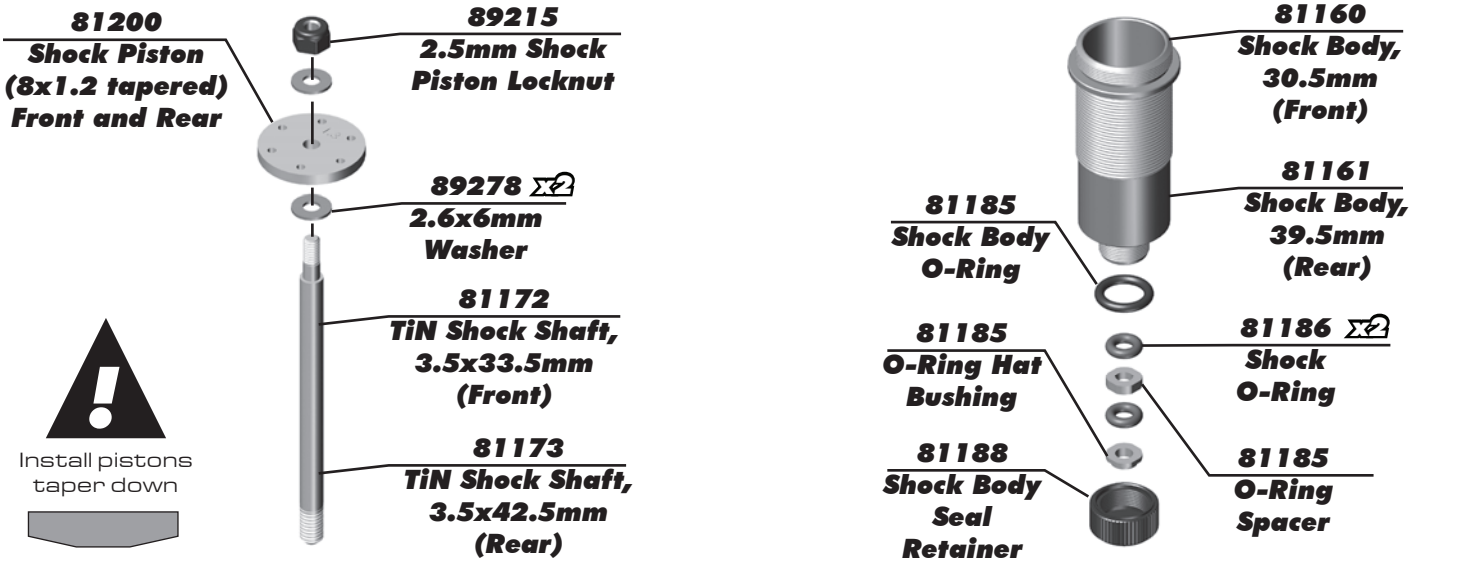
:: Differential Build (Center) - Bag 1.1, 1.2 - Step 7



:: Differential Build (Center) - Bag 1.1, 1.2 - Step 8



:: Shocks Build - Bag 2.1 - Step 1



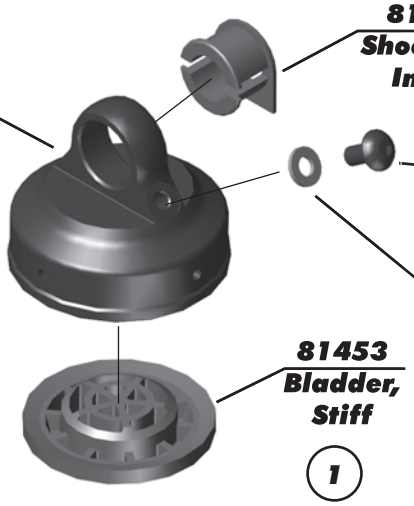
:: Shocks Build - Bag 2.1 - Step 2

Racer's Tip:
Use green slime (#1105) to lube the o-rings before installation!

81190
Shock Boots

81562
Rod End Ball

81512
Shock Rod End



81452
RC8B3.2
Shock Cap

81512
Shock Cap Insert

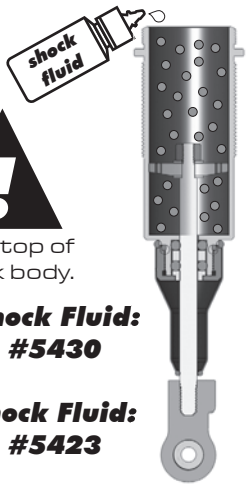
91492
2x4mm BHCS

91492
Gasket (2)

81453
Bladder, Stiff (1)

When installing the shock bladder, make sure it is correctly seated within the shock cap as shown.

:: Shocks Build - Bag 2.1 - Step 3



Fill to top of shock body.

Front Shock Fluid: 45wt #5430

Rear Shock Fluid: 40wt #5423

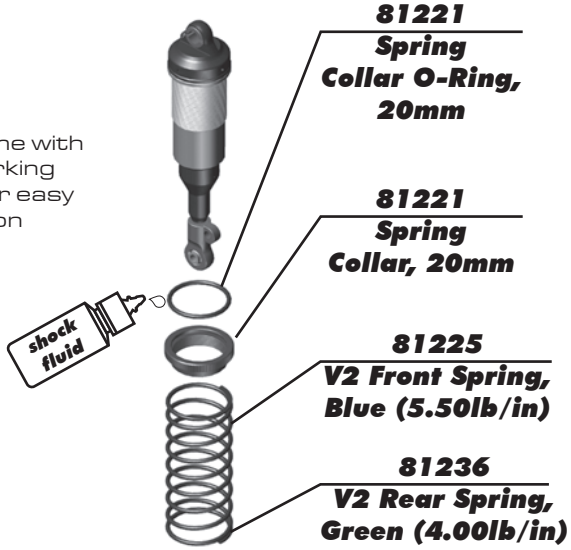
Leave a gap when installing the shock cap.

Compress shock shaft fully. Let shock fluid bleed from cap, then tighten cap.

For more rebound, do not compress shock shaft as far before tightening the shock cap.

:: Shocks Build - Bag 2.1 - Step 4

The springs come with a colored marking pre-installed for easy identification

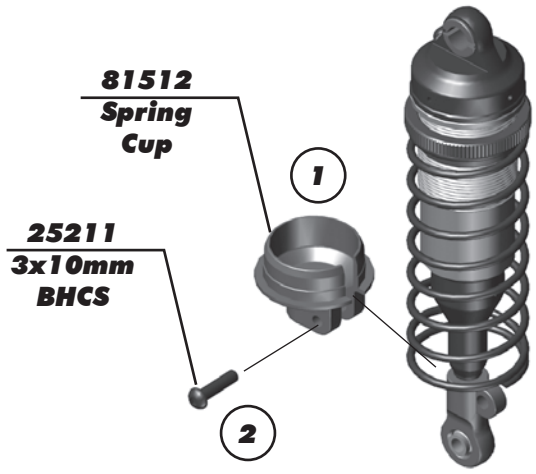


81221
Spring Collar O-Ring, 20mm

81221
Spring Collar, 20mm

81225
V2 Front Spring, Blue (5.50lb/in)

81236
V2 Rear Spring, Green (4.00lb/in)

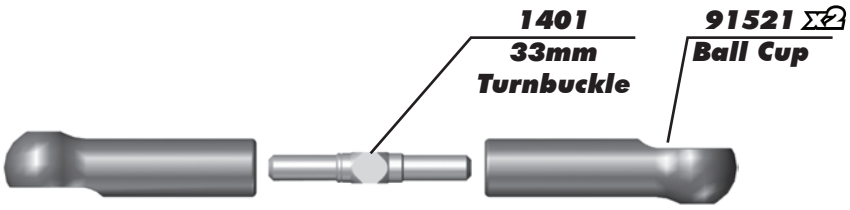


81512
Spring Cup (1)

25211
3x10mm BHCS (2)

:: Turnbuckles Build - Bag 3.1- Step 1

Steering Servo Turnbuckle



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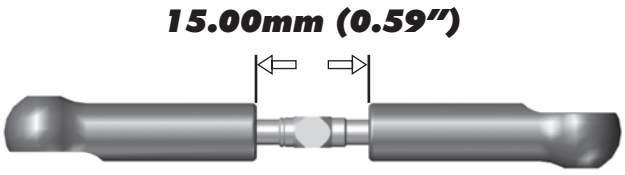
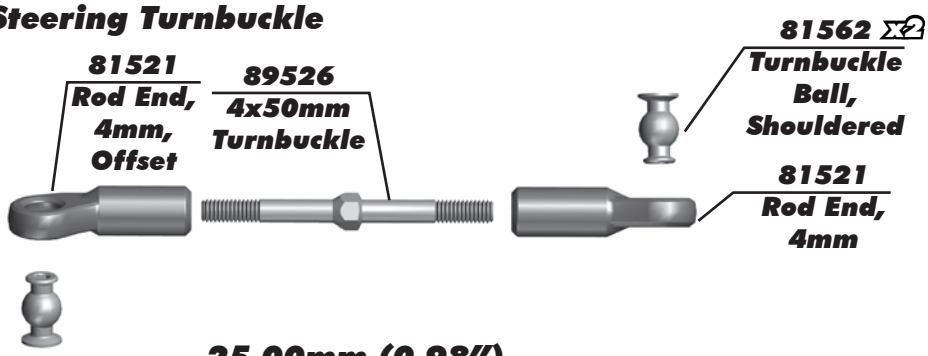


:: Turnbuckles Build - Bag 3.1 - Step 2

Steering Turnbuckle



Note the direction of turnbuckle ball

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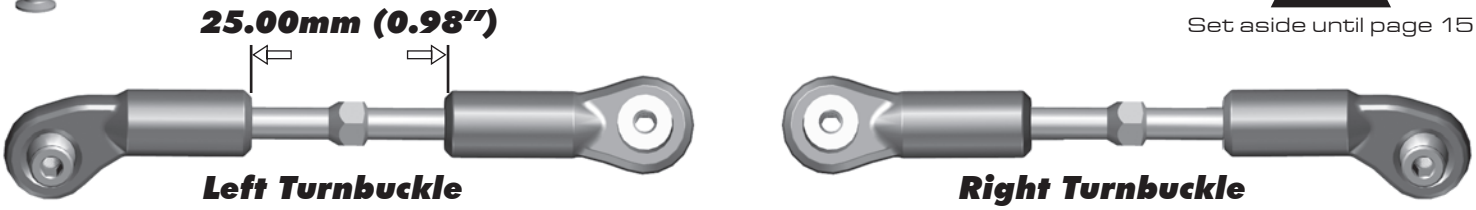
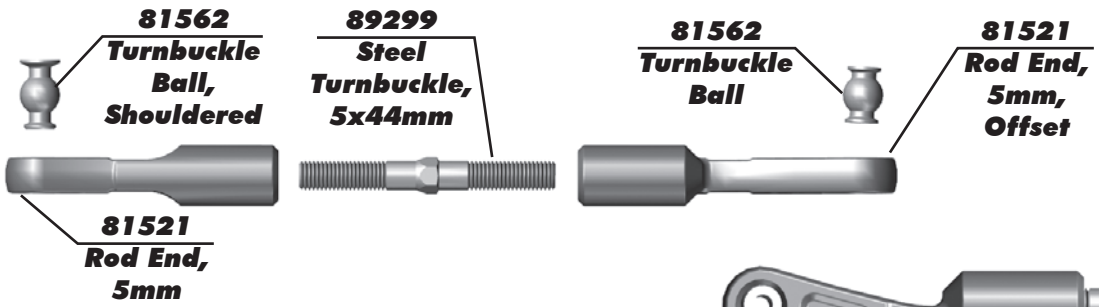


:: Turnbuckles Build - Bag 3.1 - Step 3

Rear Hub Turnbuckle



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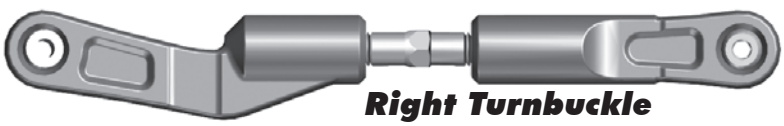
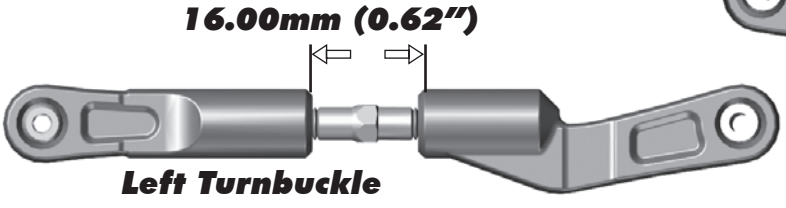
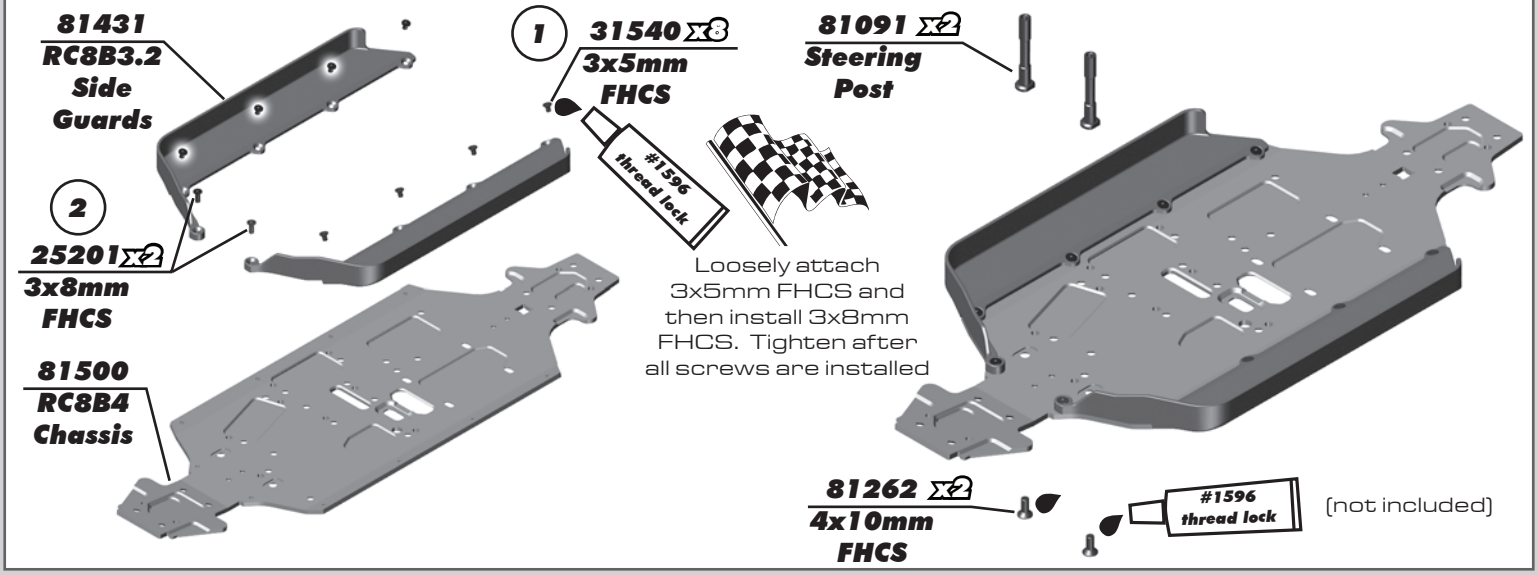
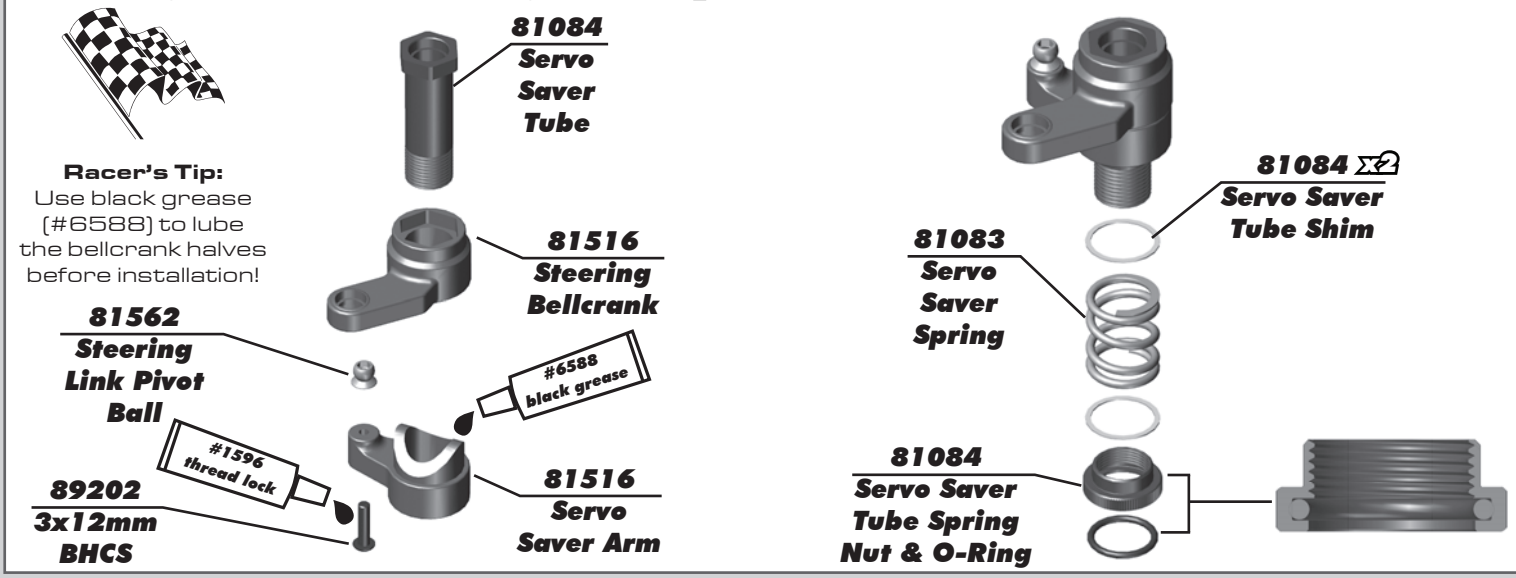




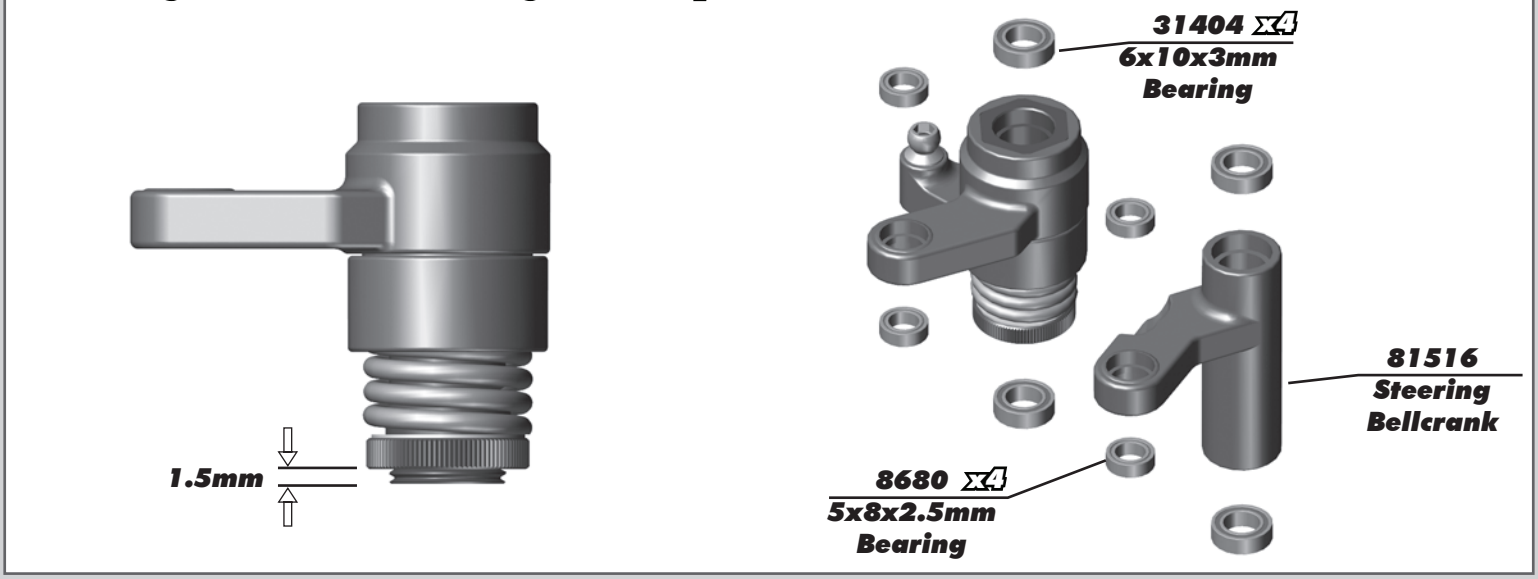
:: Steering / Chassis Build - Bag 4.1 - Step 1



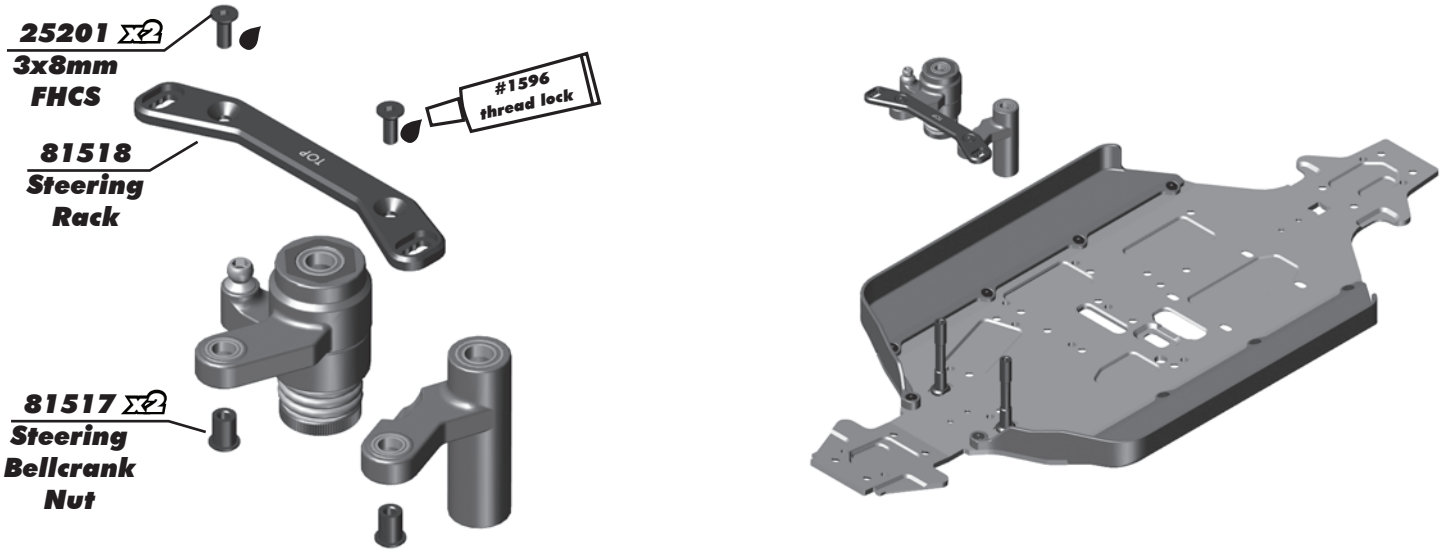
:: Steering / Chassis Build - Bag 4.1 - Step 2



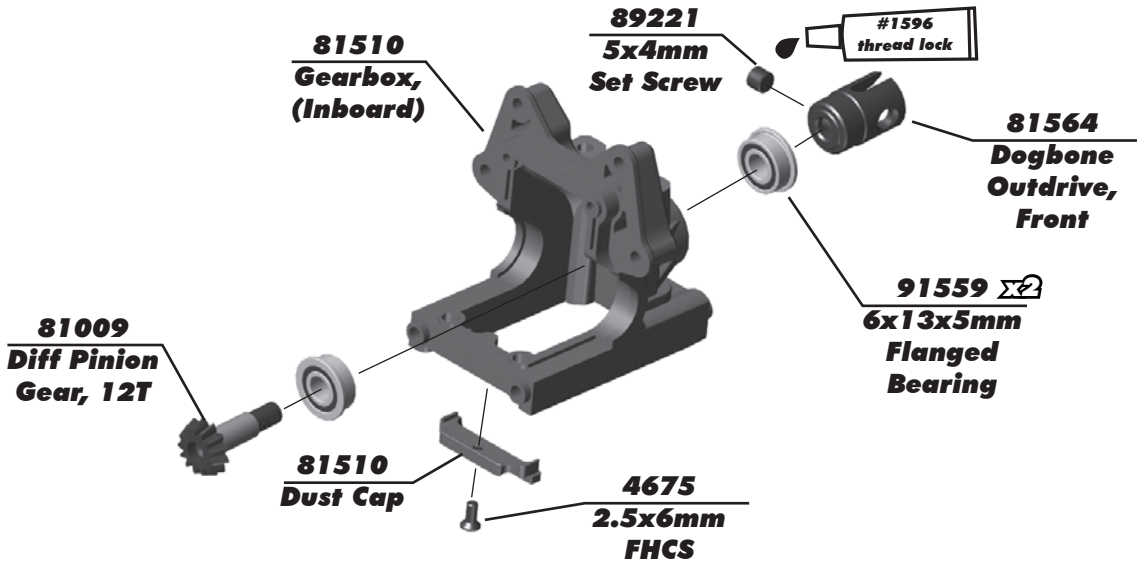
:: Steering / Chassis Build - Bag 4.1 - Step 3



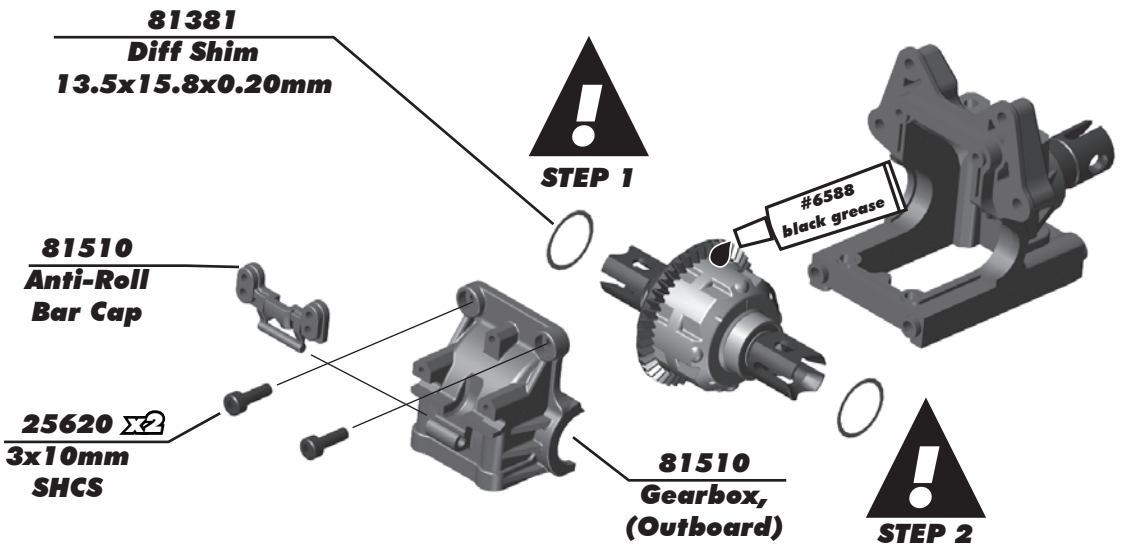
:: Steering / Chassis Build - Bag 4.1 - Step 4



:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 1



:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 2

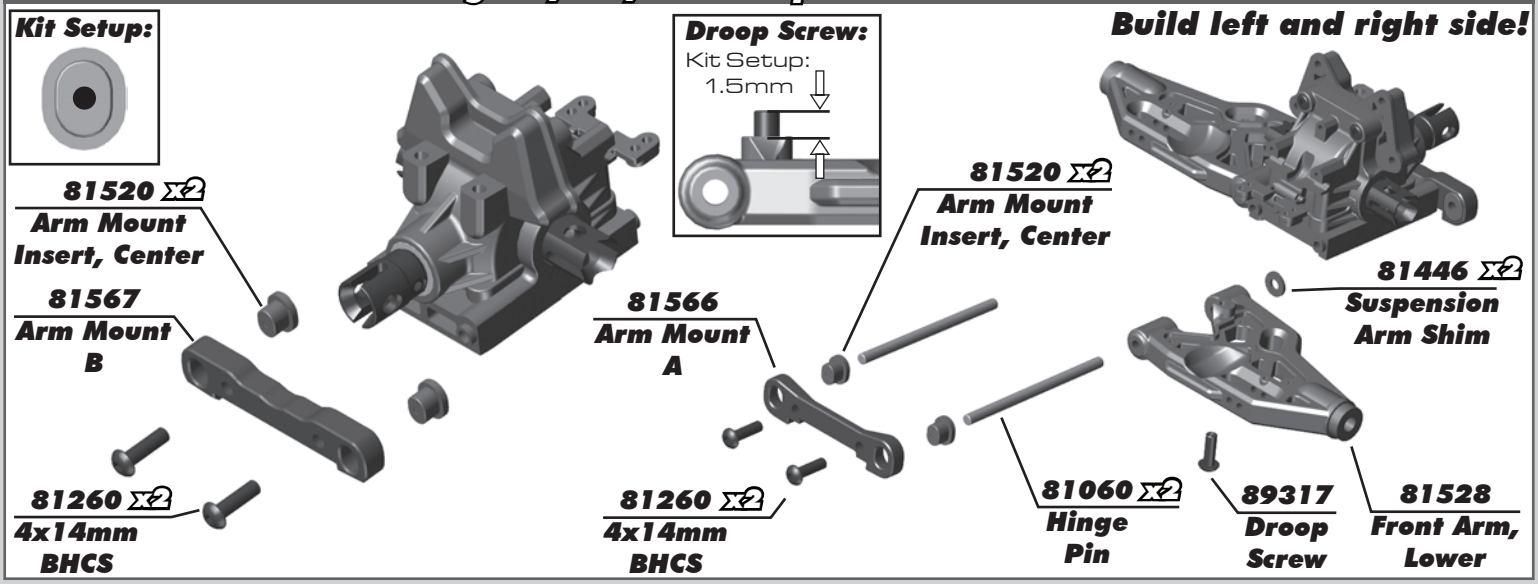


Step 1:
Add shims on the ring gear side to TIGHTEN gear mesh. Subtract shims on this side to LOOSEN gear mesh.
NOTE:
Start 1 x Thick 0.2mm

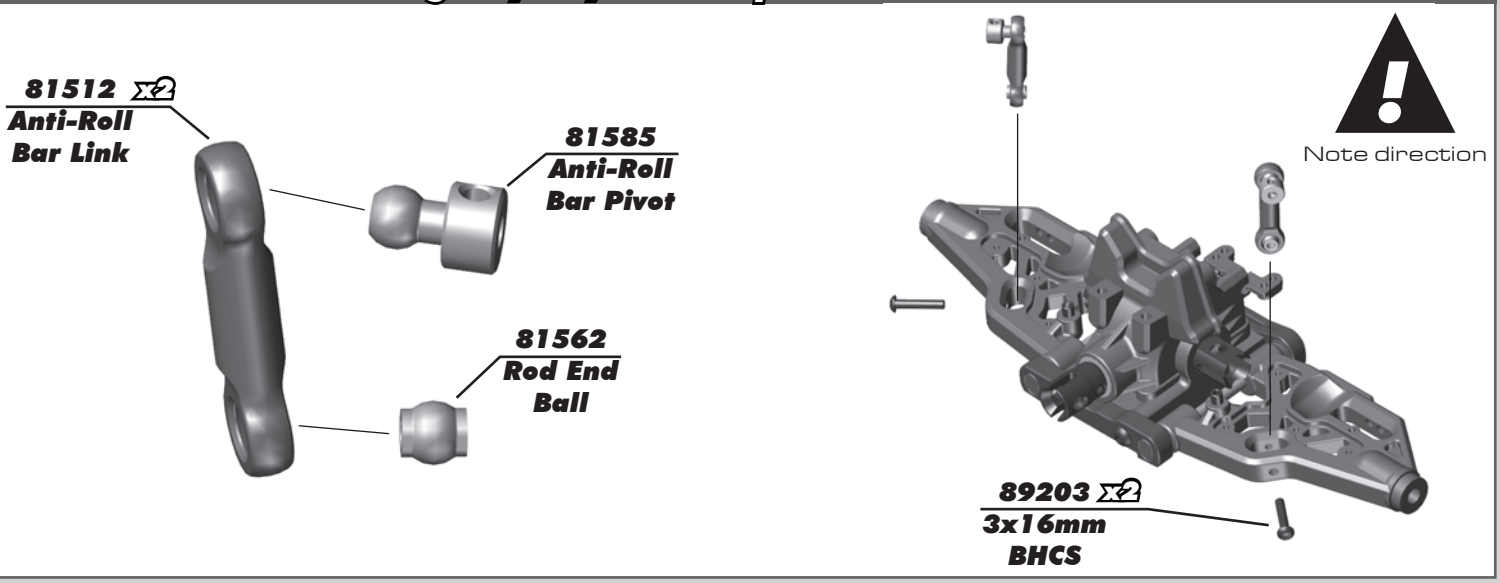
Step 2:
Add or subtract shims here to finalize diff side to side play once gear mesh is set from Step 1.
Recommended diff "side-to-side" clearance (gearbox assembly) 0.10 - 0.25mm.
Start with 1 x 0.1 mm.

Note:
0.1 mm shim can be used for fine tuning of gear mesh

:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 3



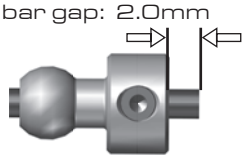
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 4

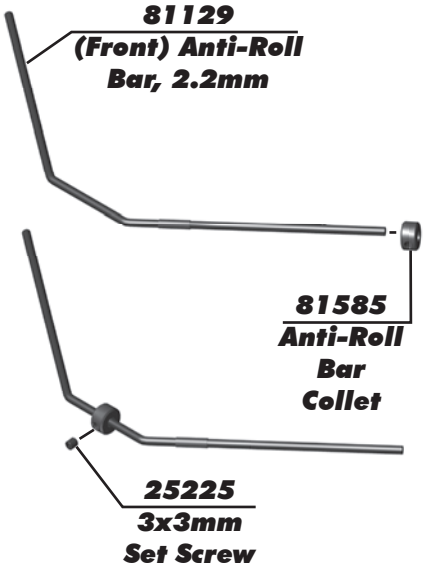


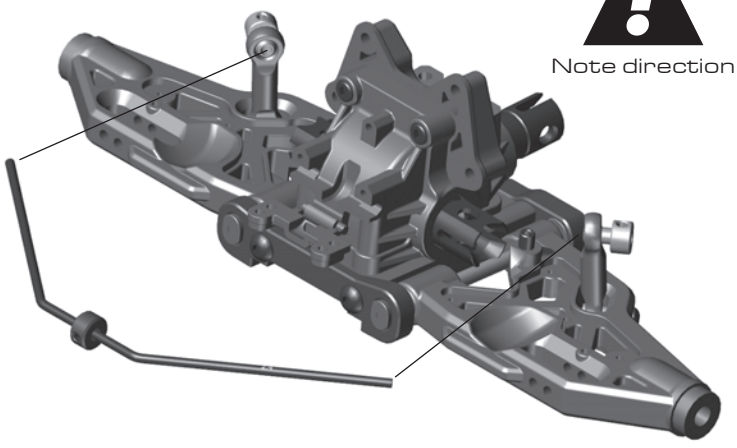
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 5

Center the anti-roll bar collet on the anti-roll bar, then tighten the 3x3mm set screw.

Front anti-roll bar gap: 2.0mm

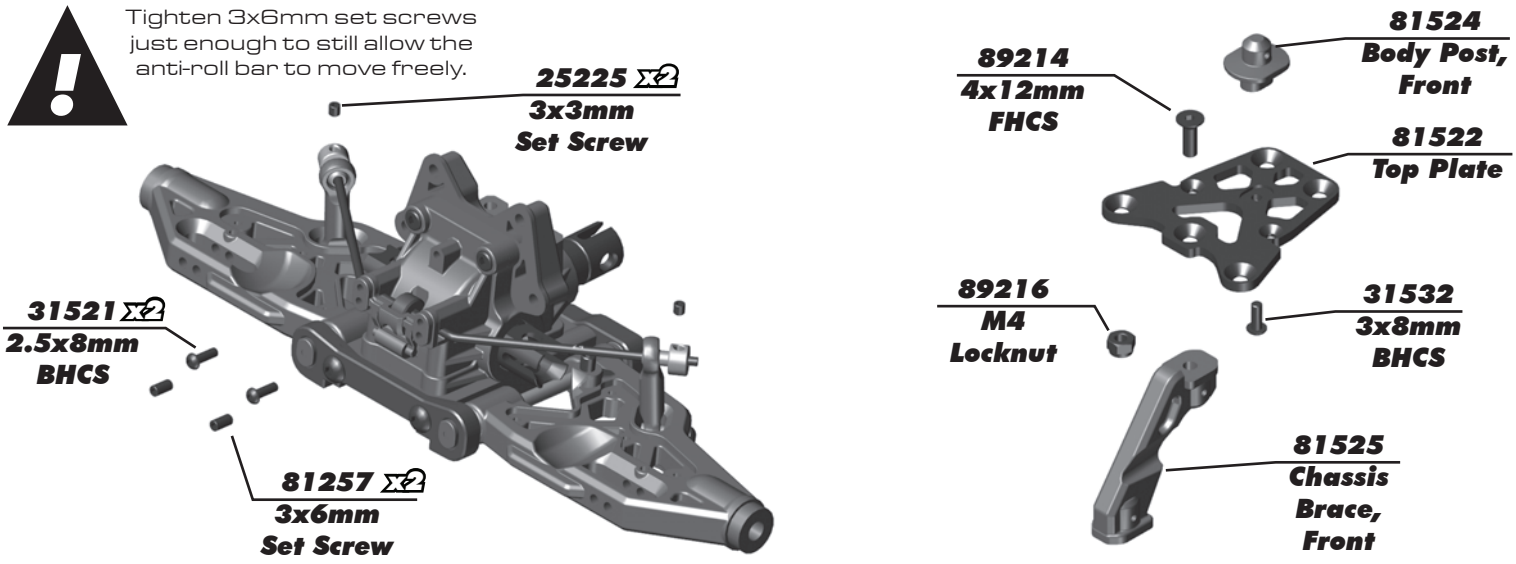




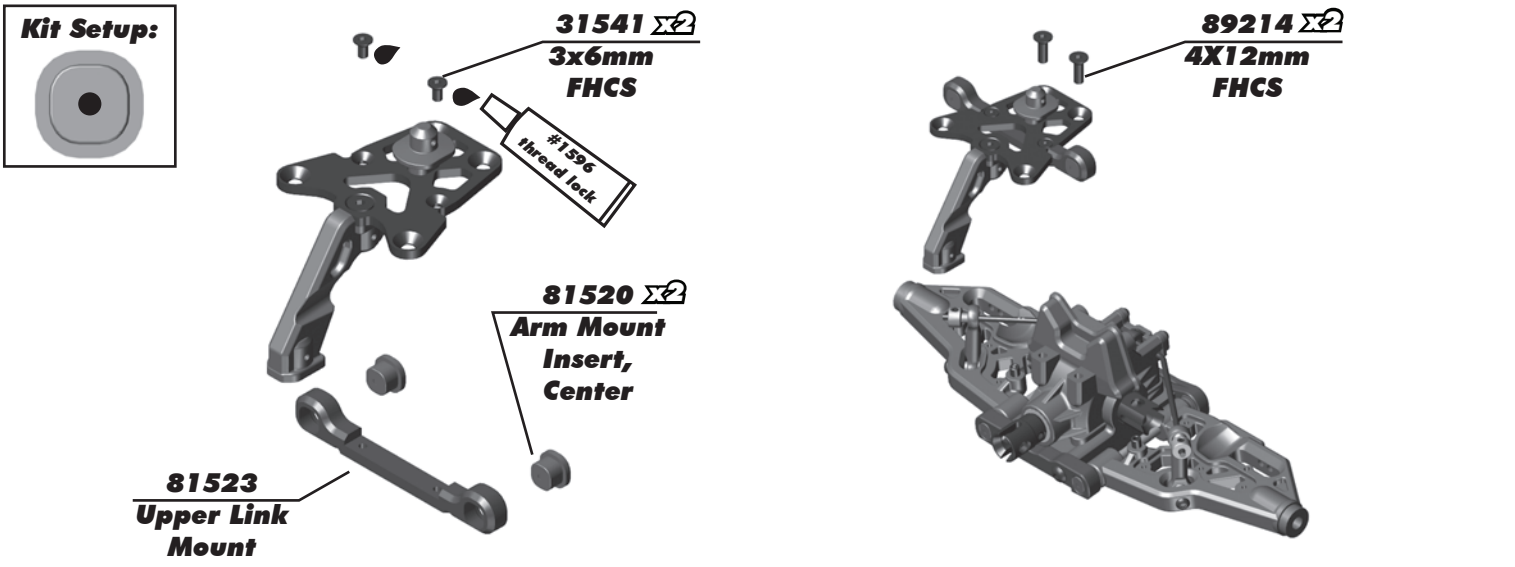


:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 6

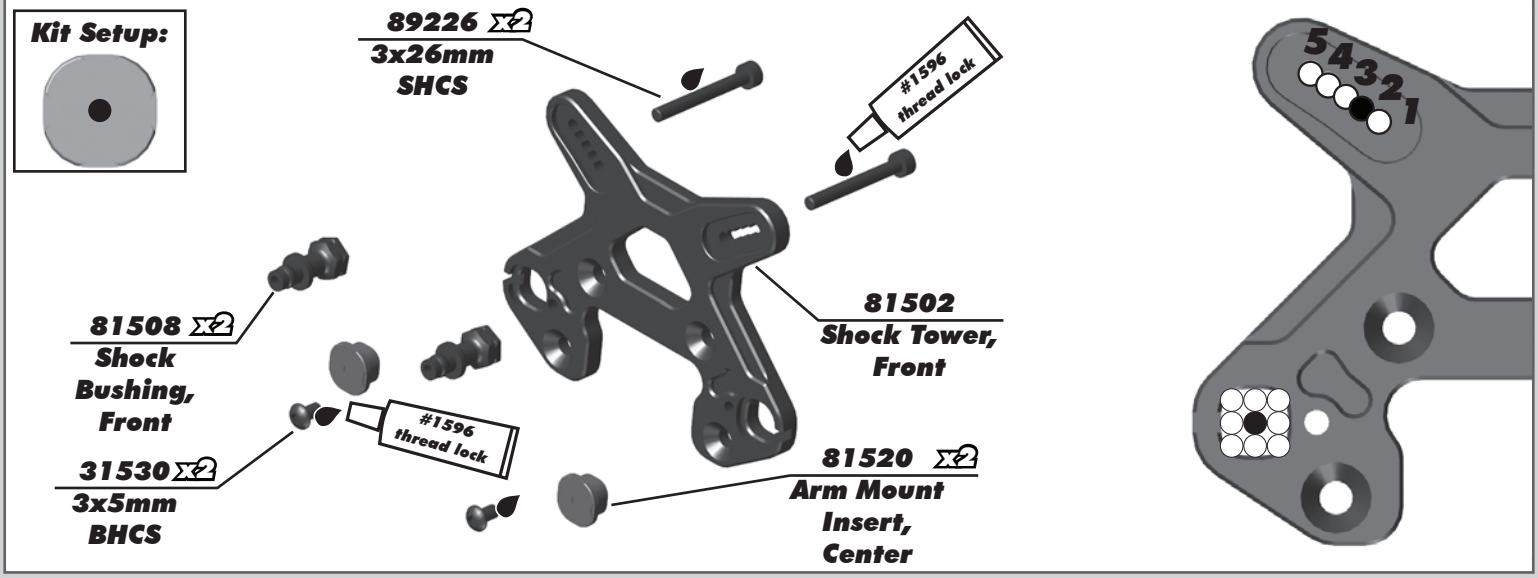
Tighten 3x6mm set screws just enough to still allow the anti-roll bar to move freely.



:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 7

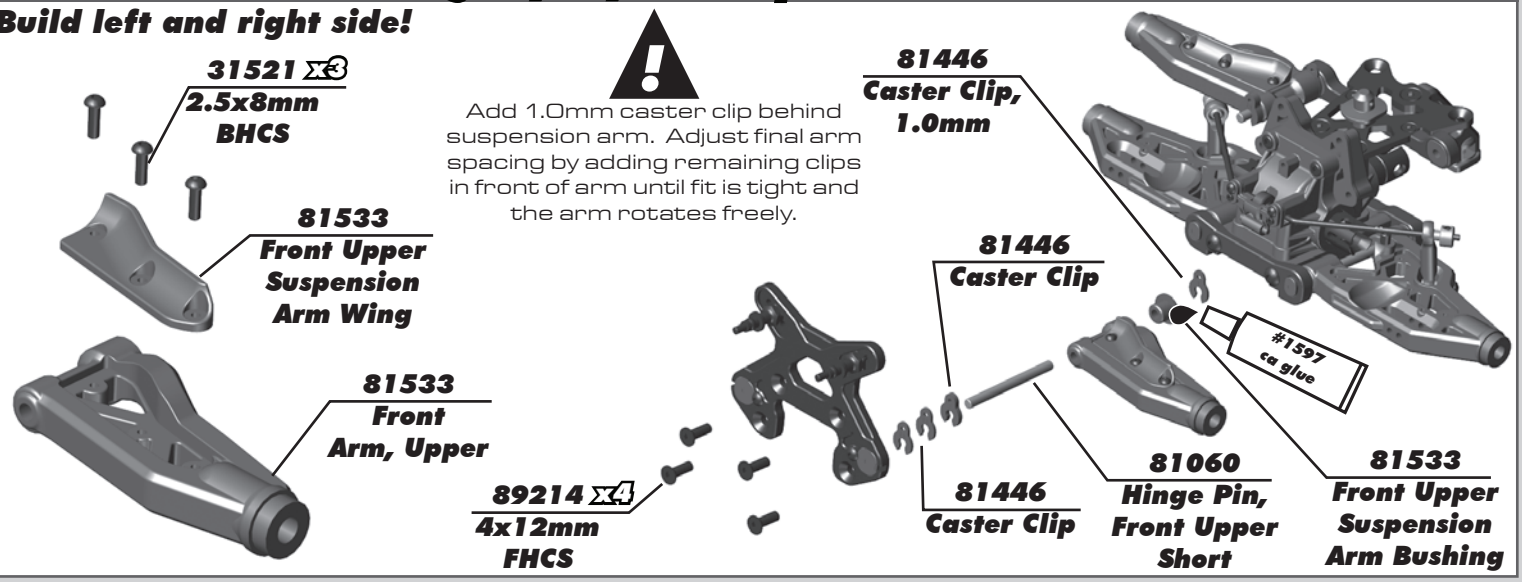


:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 8



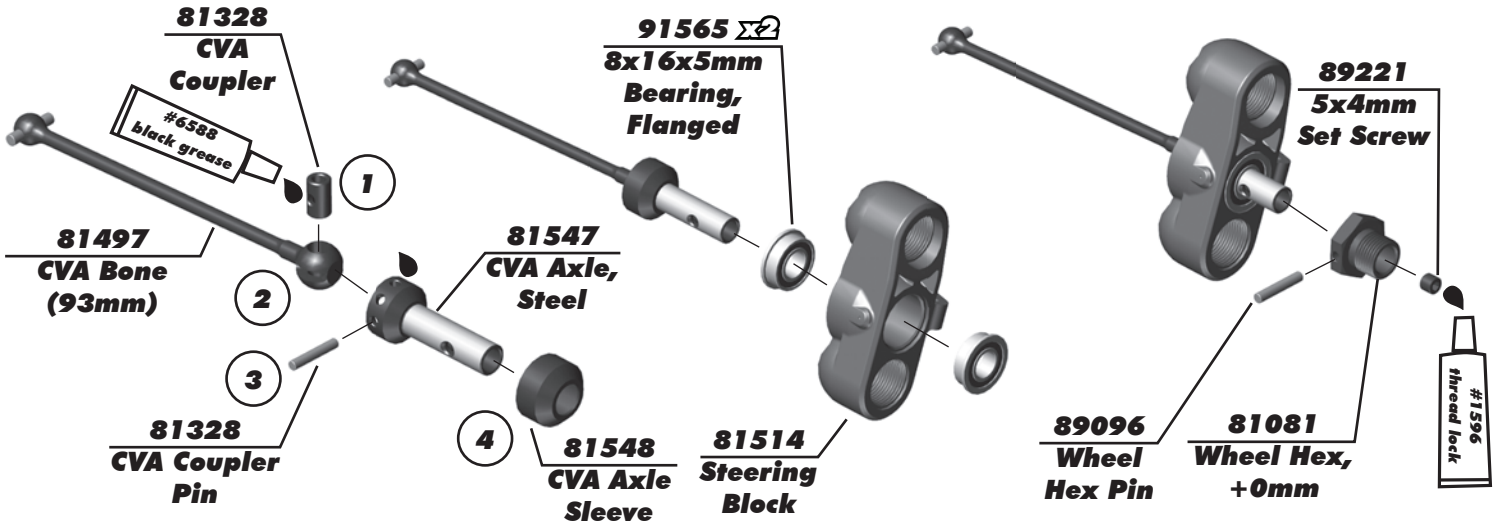
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 9

Build left and right side!



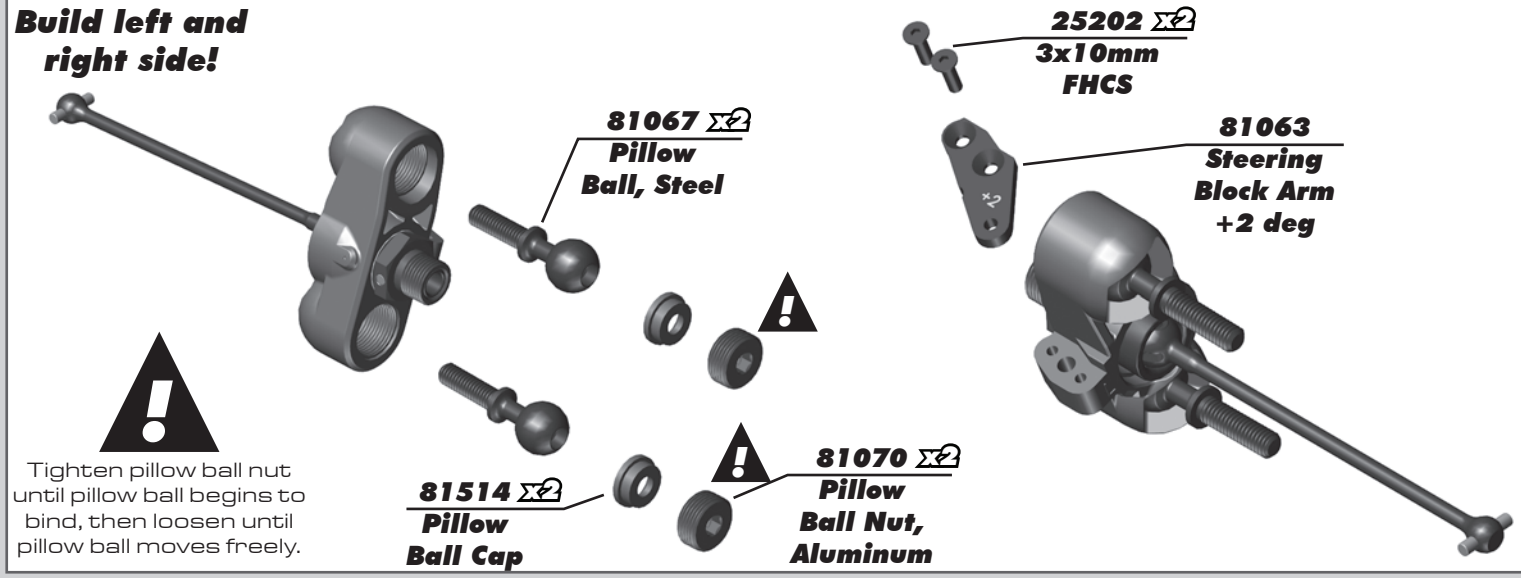
:: Steering Blocks Build - Bag 6.1 - Step 1

Build left and right side!

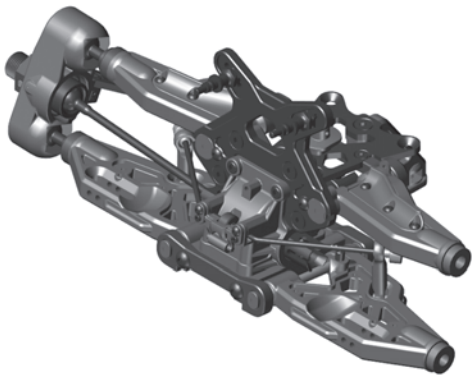


:: Steering Blocks Build - Bag 6.1 - Step 2

Build left and right side!

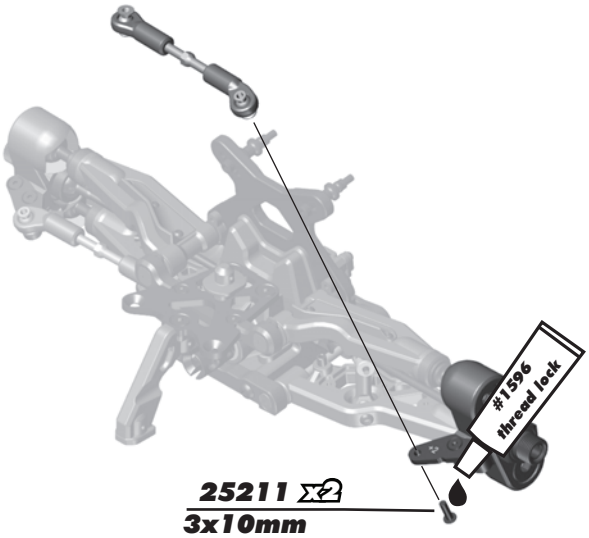


:: Steering Blocks Build - Bag 6.1 - Step 3

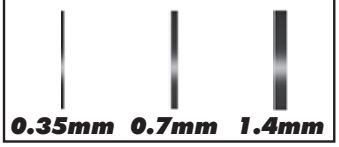


81056 x2
Suspension Arm Endcap

81072
Pillow Ball Shim (1.4mm)



Pillow Ball Shims



81072
Pillow Ball Shim (0.35mm)

25211 x2
3x10mm BHCS

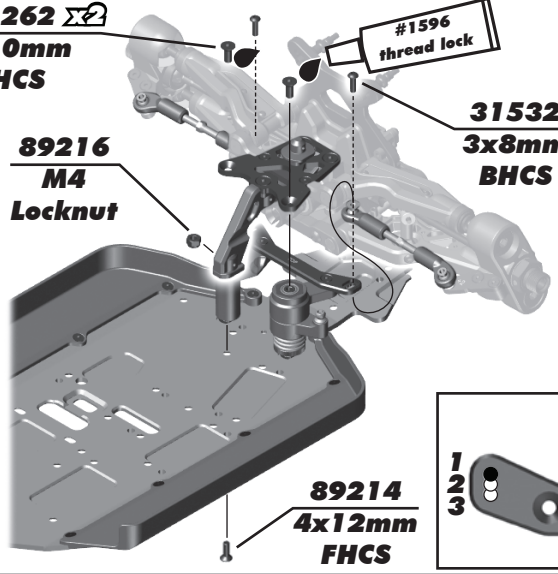
:: Steering Blocks Build - Bag 6.1 - Step 4

81262 x2
4x10mm FHCS

#1596 thread lock

31532 x2
3x8mm BHCS

89216
M4 Locknut

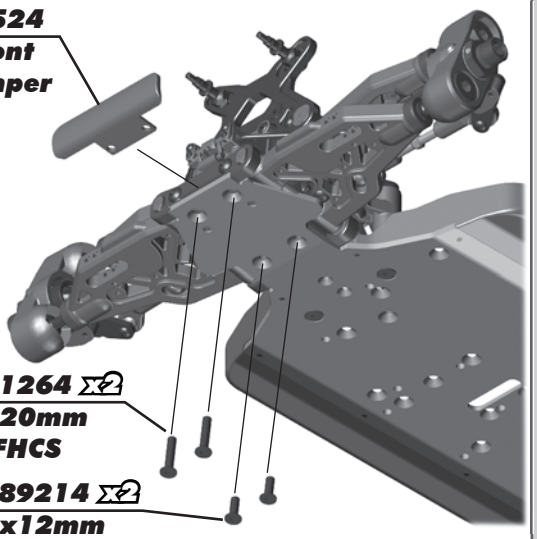


89214
4x12mm FHCS

For attaching steering link to steering rack

Kit Setup:

81524
Front Bumper

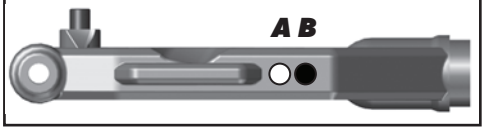


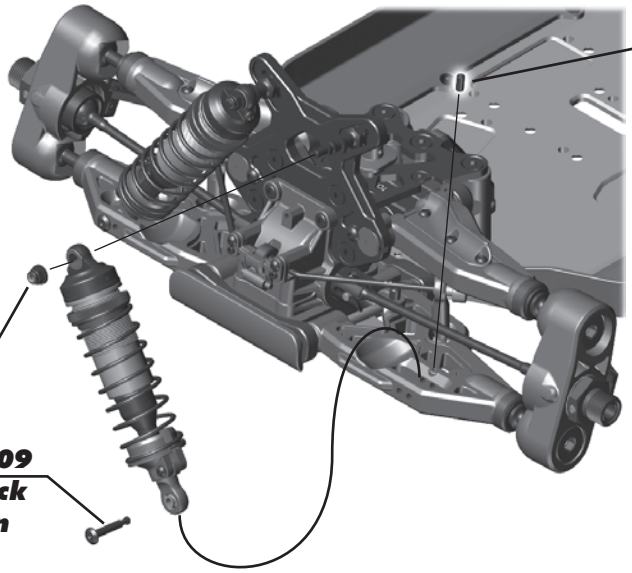
81264 x2
4x20mm FHCS

89214 x2
4x12mm FHCS

:: Steering Blocks Build - Bag 6.1 - Step 5

Kit Setup:
Mount the front shock in the outside hole on the front arm.



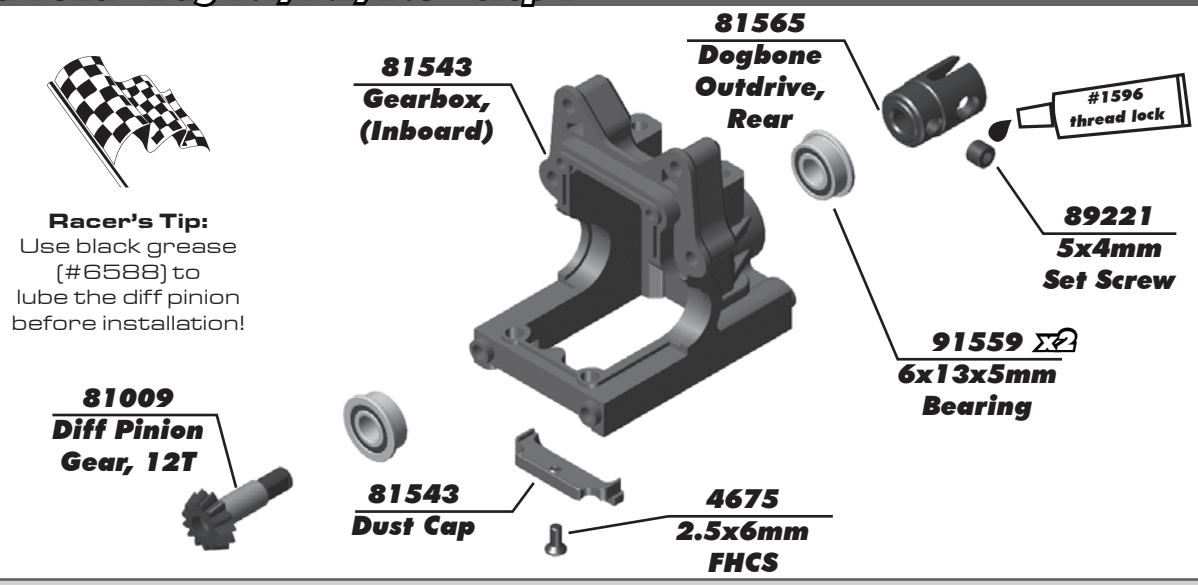


81257
3x6mm Set Screw

25612
M3 Locknut W/ Flange

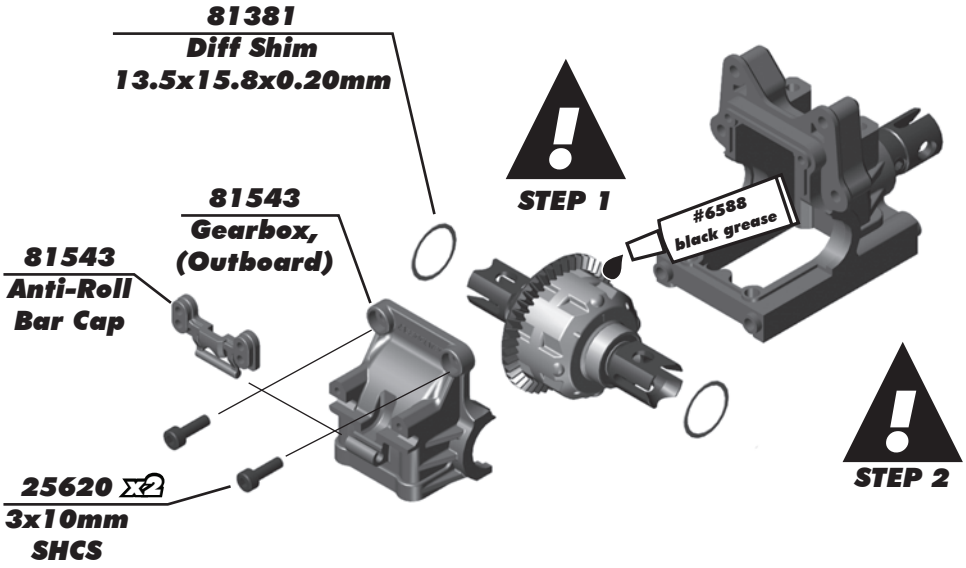
81509
Shock Pin

:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 1



Racer's Tip:
Use black grease (#6588) to lube the diff pinion before installation!

:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 2



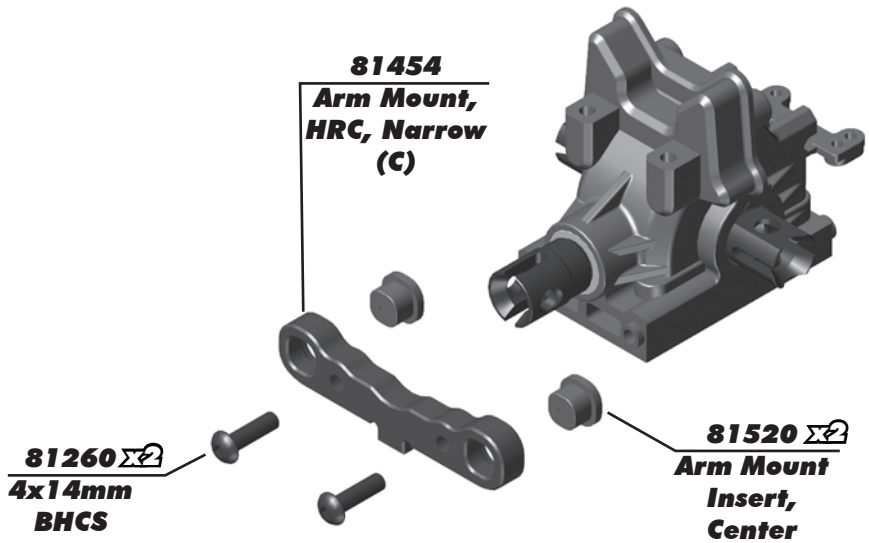
Step 1:
Add shims on the ring gear side to TIGHTEN gear mesh. Subtract shims on this side to LOOSEN gear mesh.
NOTE:
Start 1 x Thick 0.2mm

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

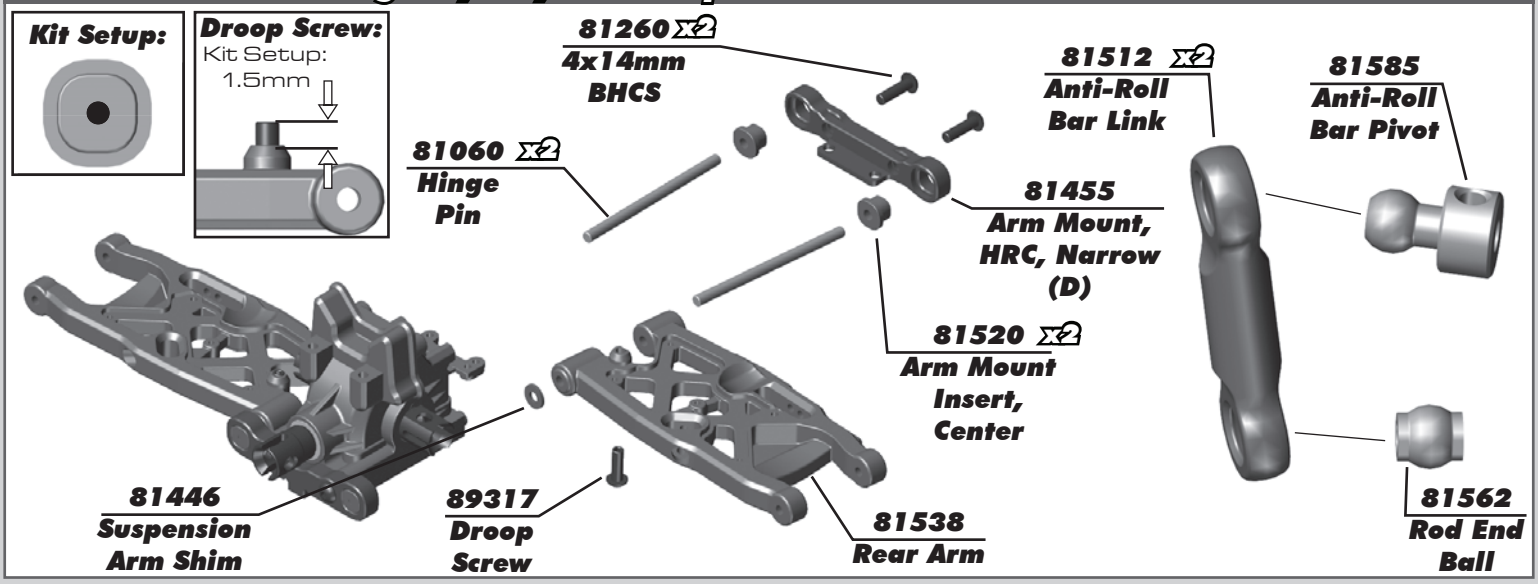
Note:
0.1 mm shim can be used for fine tuning of gear mesh

:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 3

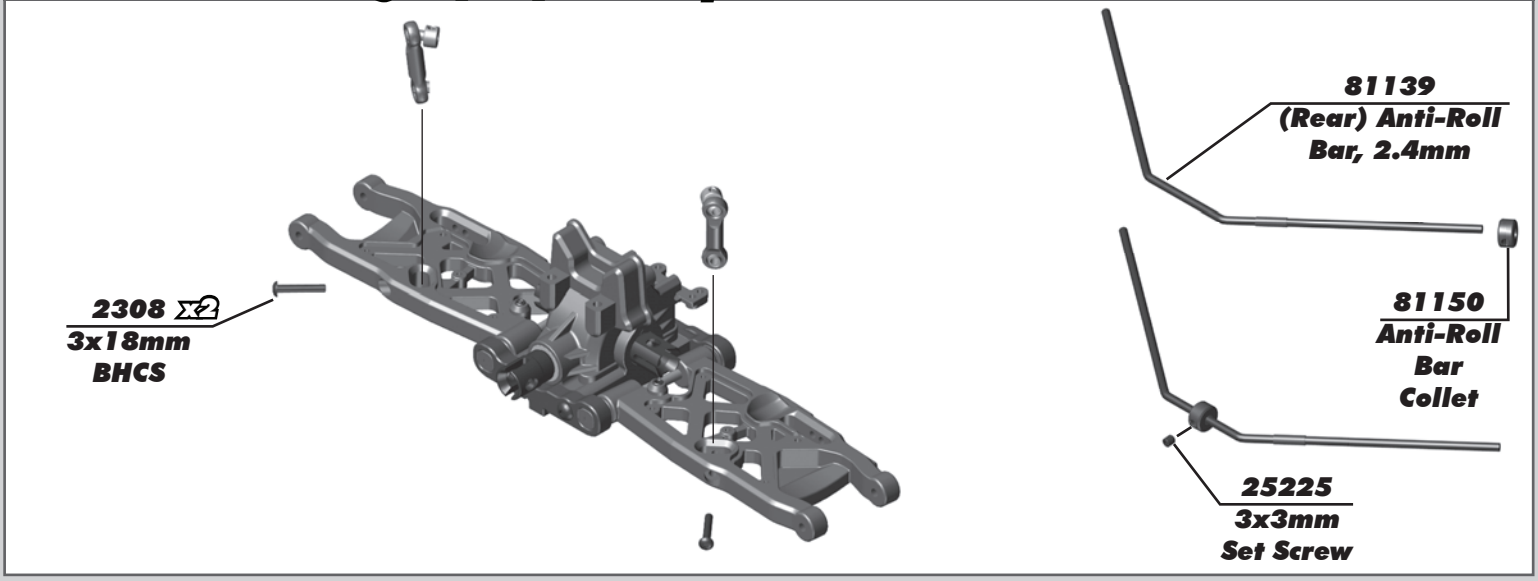
Kit Setup:



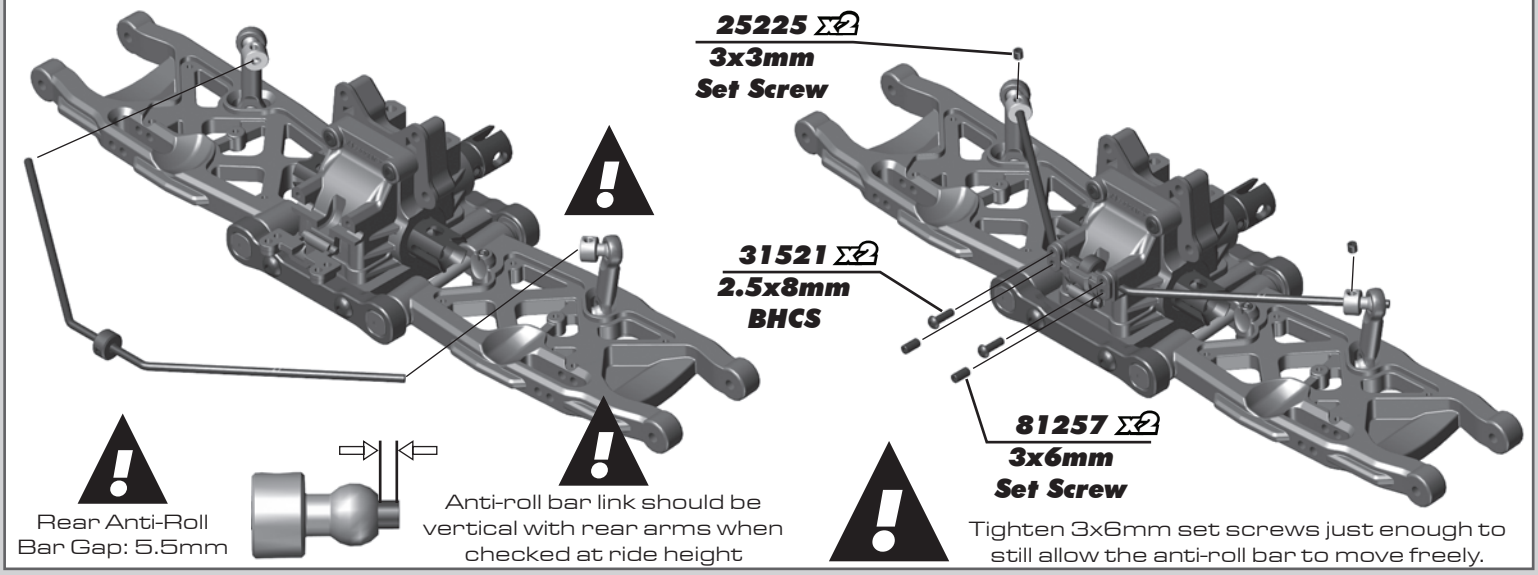
:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 4



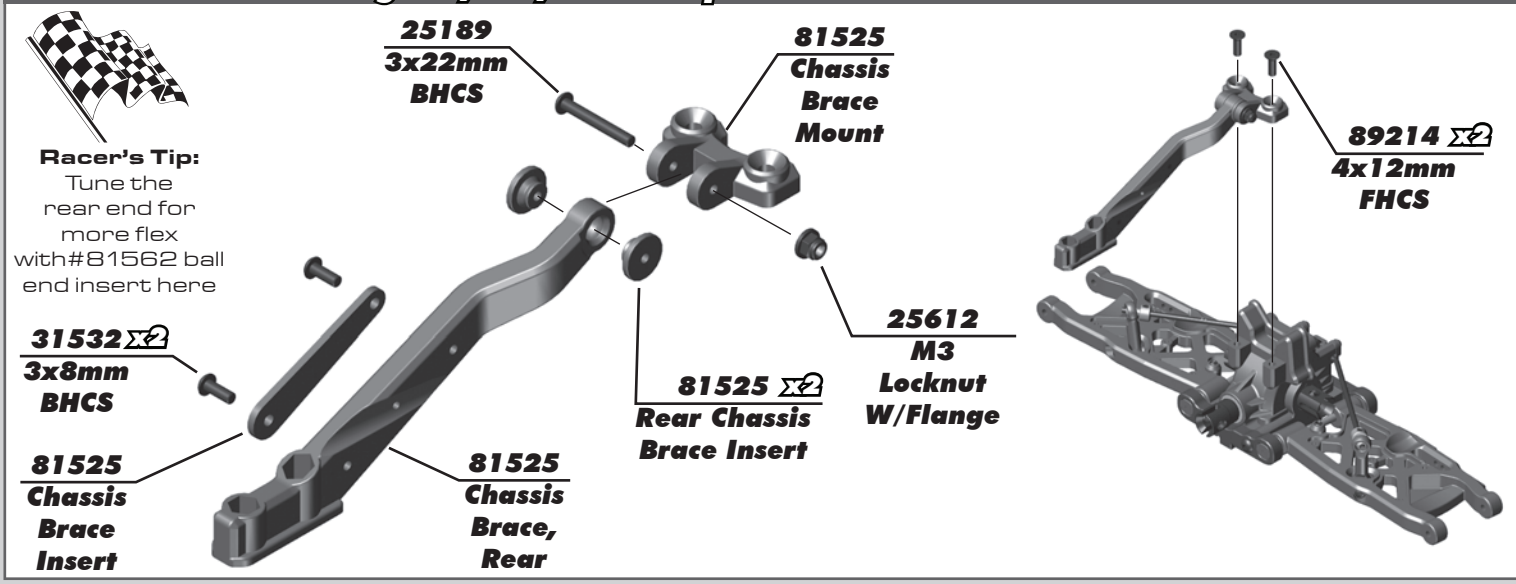
:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 5



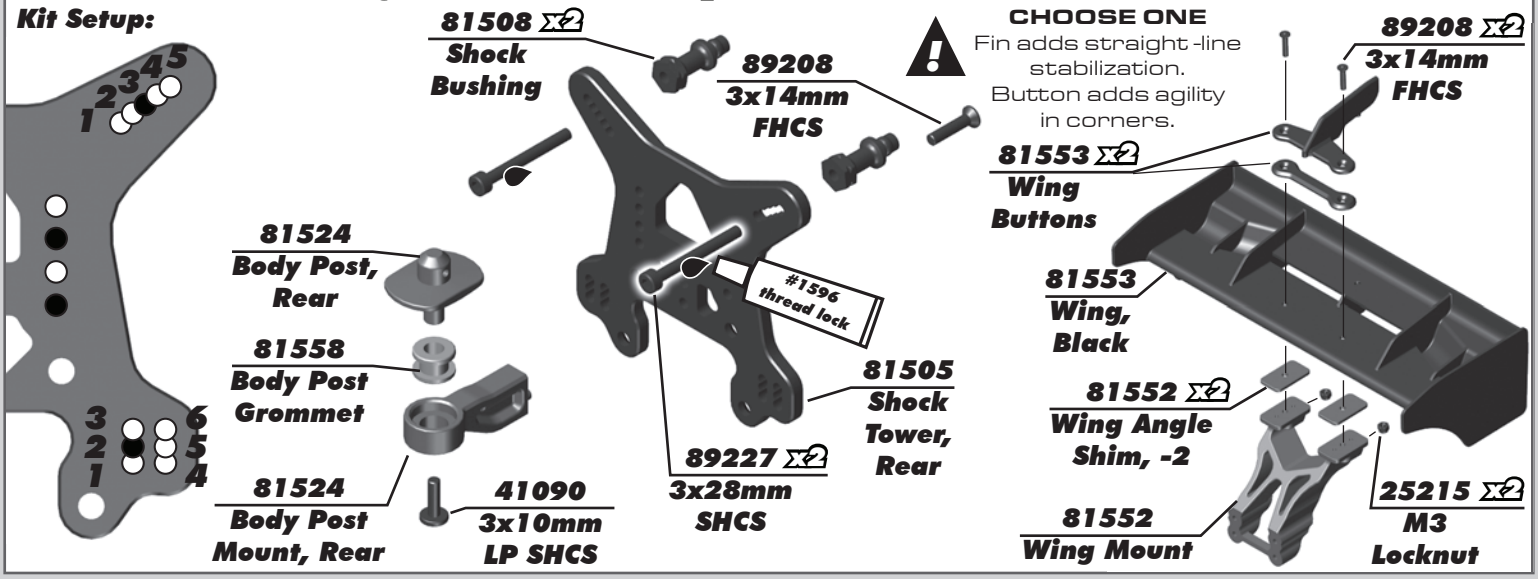
:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 6



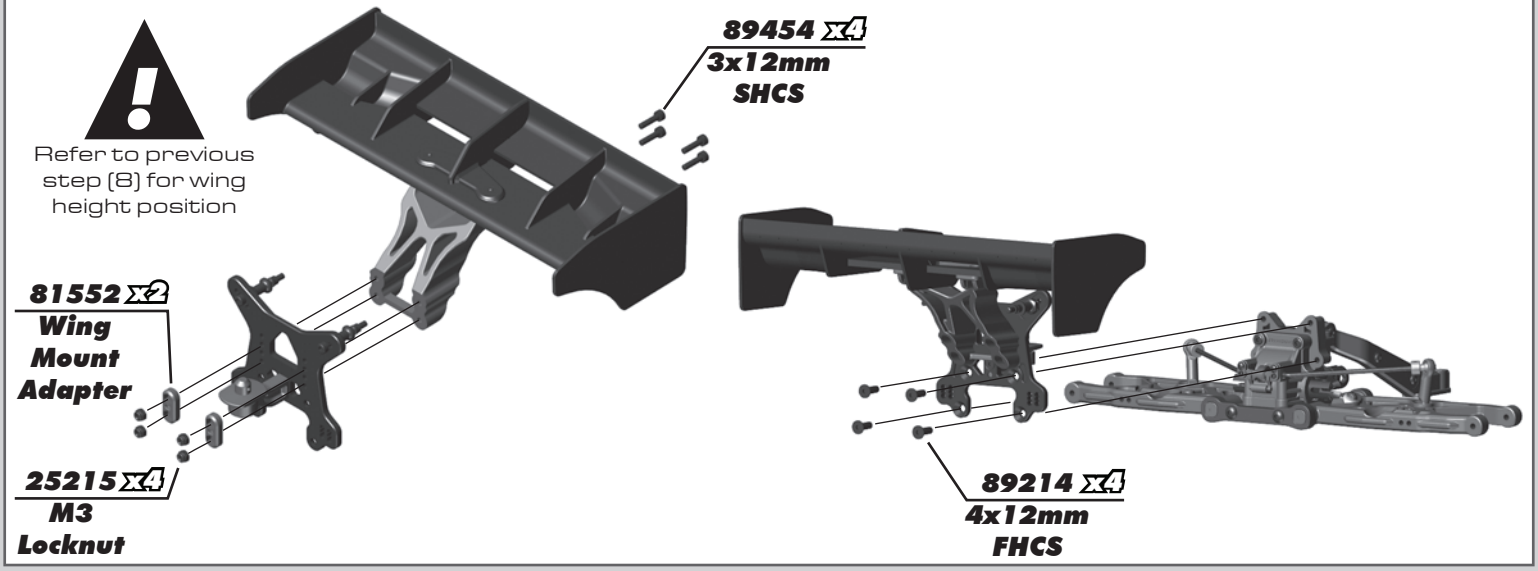
:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 7



:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 8

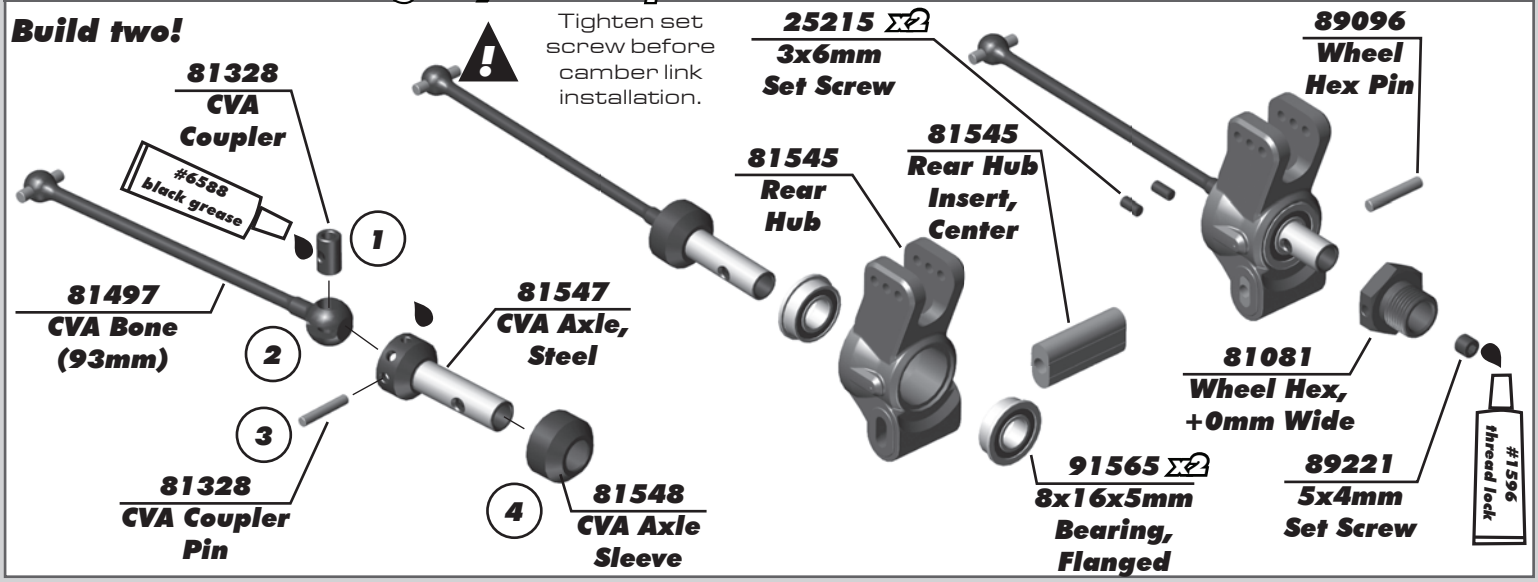


:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 9



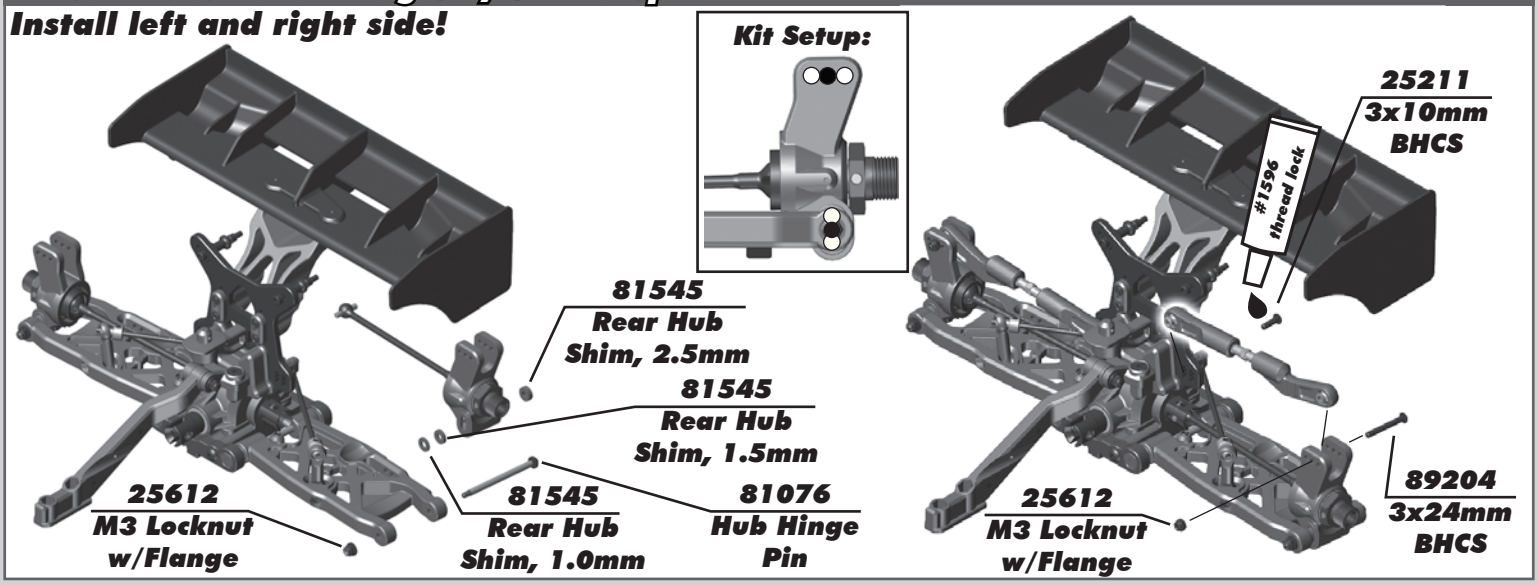
:: Rear Hubs Build - Bag 8.1, 8.2 - Step 1

Build two!

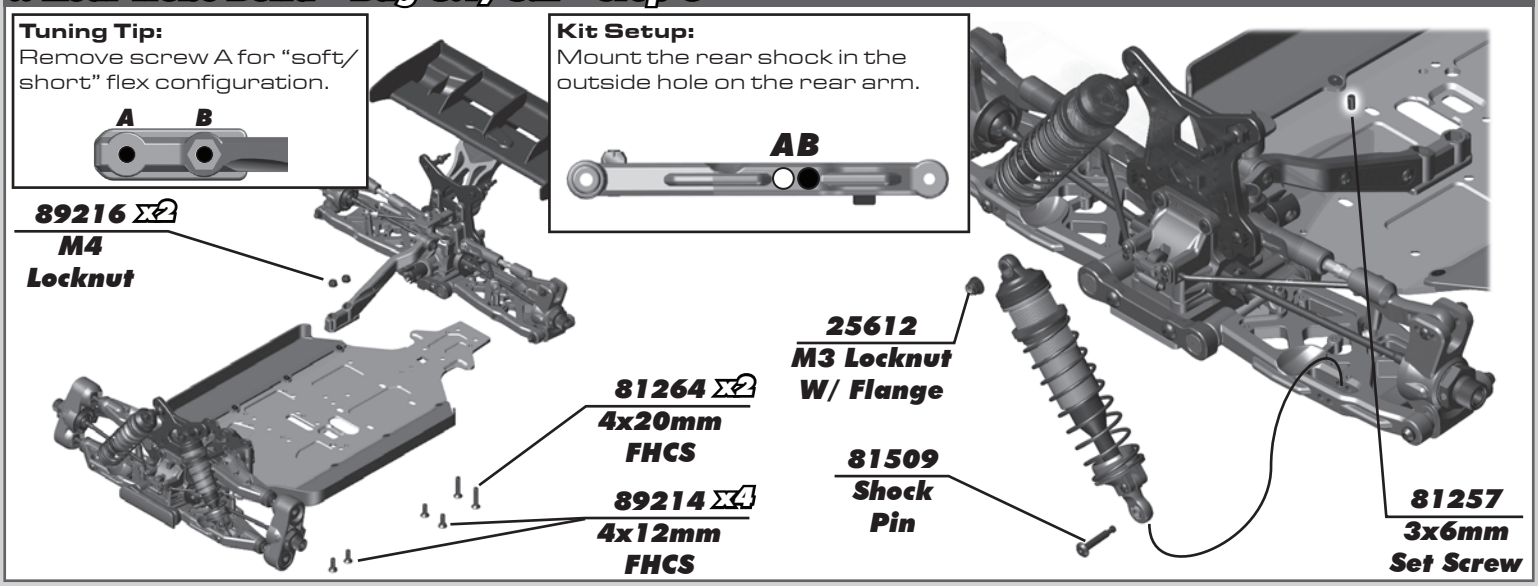


:: Rear Hubs Build - Bag 8.1, 8.2 - Step 2

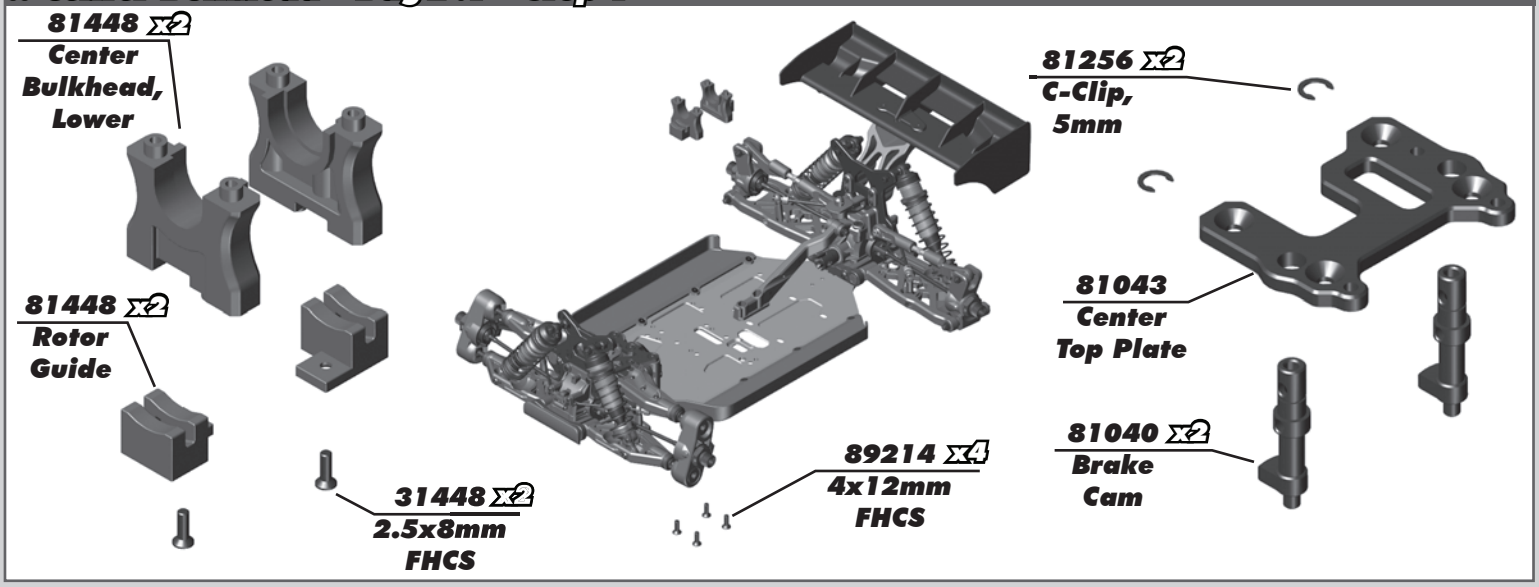
Install left and right side!



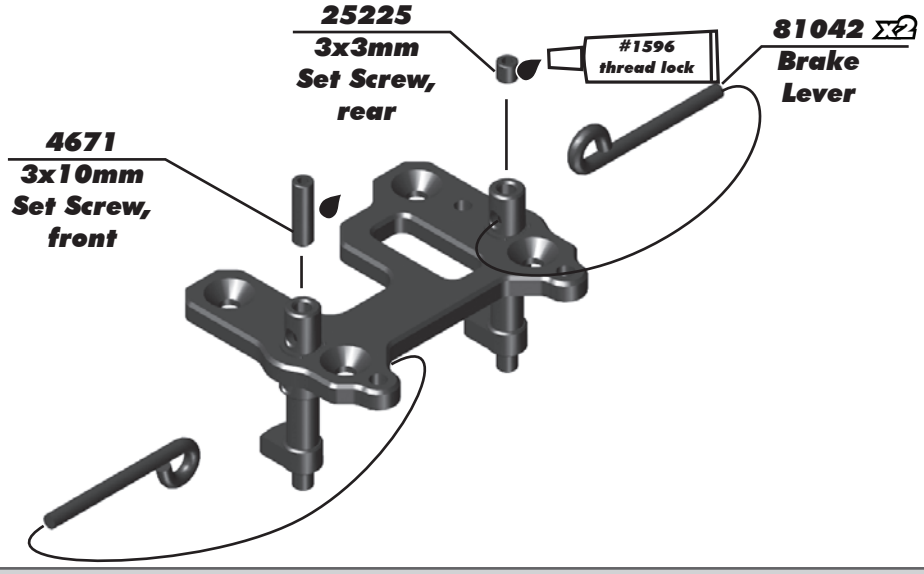
:: Rear Hubs Build - Bag 8.1, 8.2 - Step 3



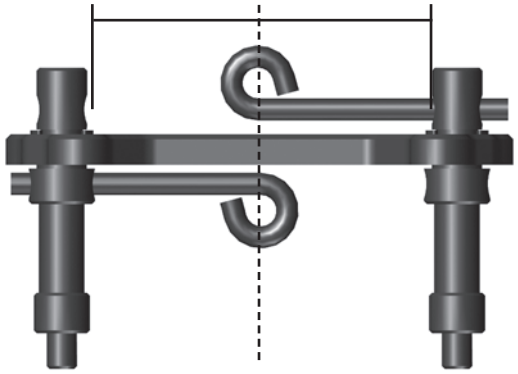
:: Center Bulkhead - Bag 9.1 - Step 1



:: Center Bulkhead - Bag 9.1 - Step 2

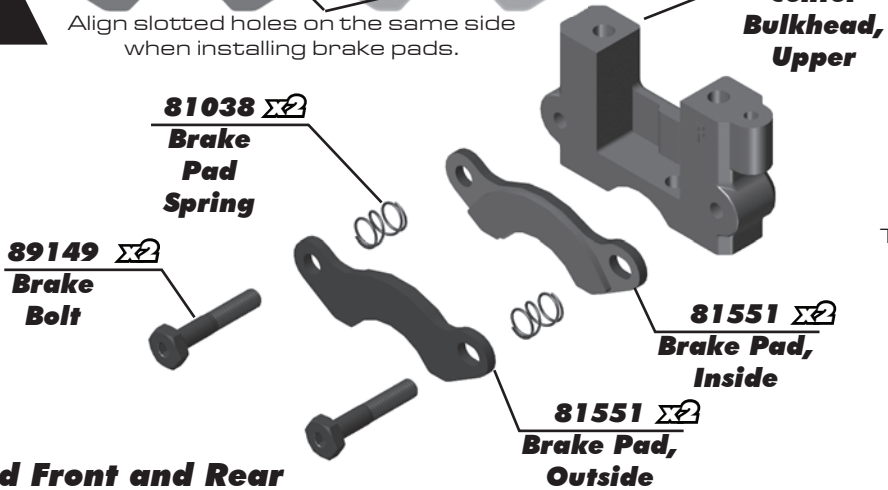


Center brake levers between the brake cams.

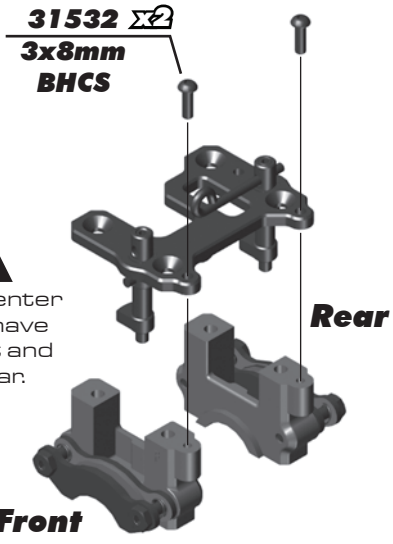


:: Center Bulkhead - Bag 9.1 - Step 3

Align slotted holes on the same side when installing brake pads.

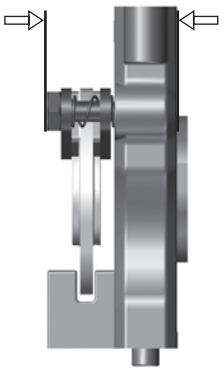


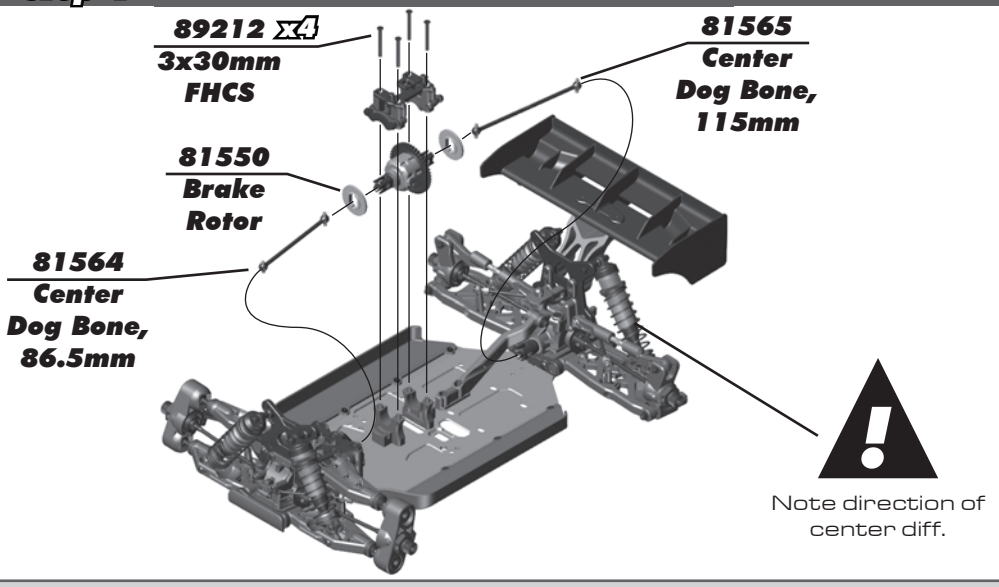
Build Front and Rear



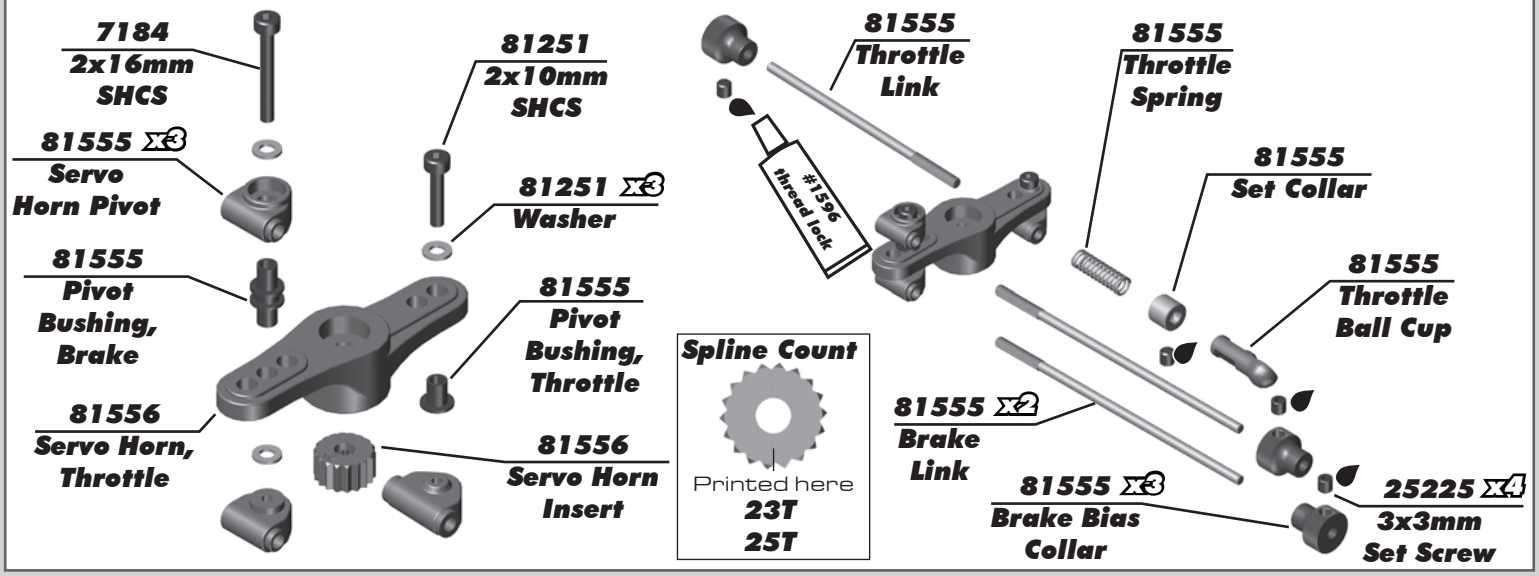
The upper center bulkheads have "F" for front and "R" for rear.

:: Center Bulkhead - Bag 9.1 - Step 4



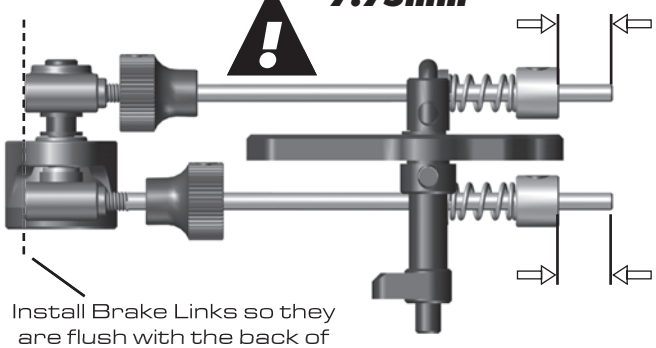


:: Linkages Build - Bag 10.1 - Step 1

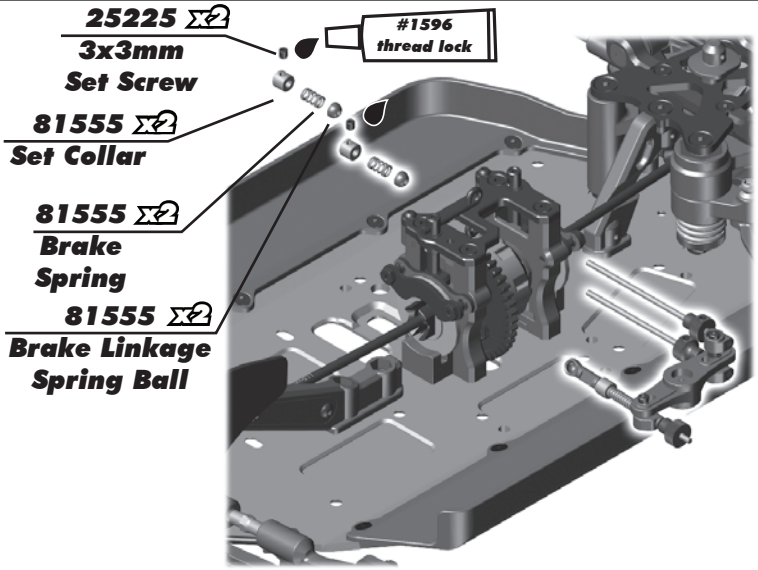


:: Linkages Build - Bag 10.1 - Step 2

Recommended Starting Positions:
Front Brake Gap
7.75mm



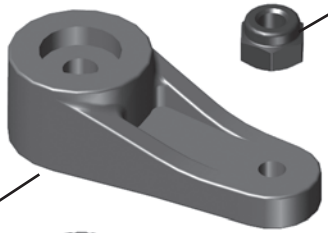
Rear Brake Gap
4.5mm



:: Linkages Build - Bag 10.1 - Step 3

Spline Count

Printed here
23T
25T

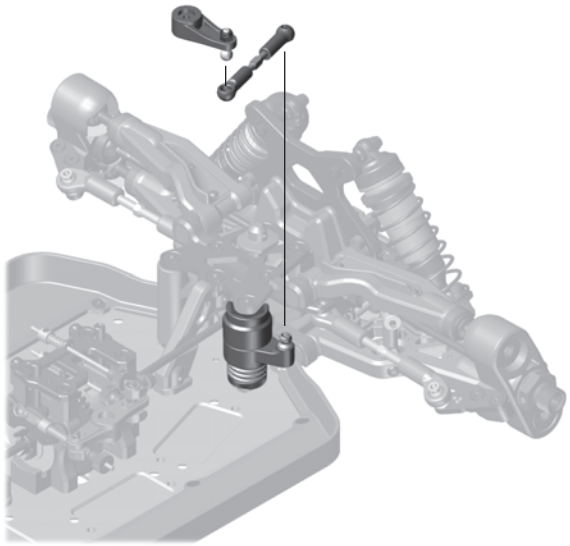


25215
M3
Locknut

81556
Servo Horn
(Steering)

81556
Servo Horn
Insert

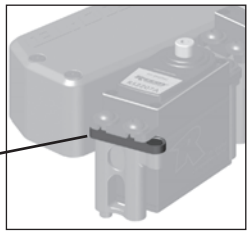
91048
HD Ball
Stud, 8mm



:: Radio Tray Build - Bag 11.1 - Step 1

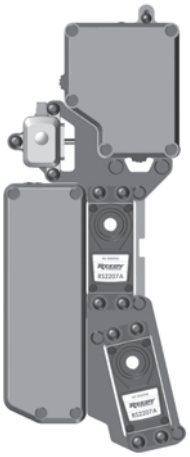
Radio Tray Configuration:
The radio tray on RC8B4 can be configured in four different ways. Each configuration changes the amount and location of flex in the chassis. Experiment with different configurations when running on different surfaces.

When removing either graphite radio tray brace or transponder mount, utillize included plastic shims to maintain proper servo height.



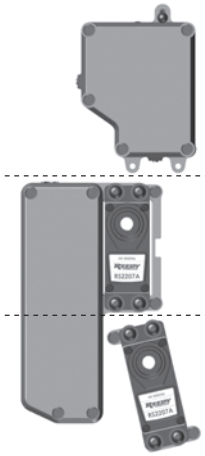
81433
Radio Tray
Spacer

Option 1



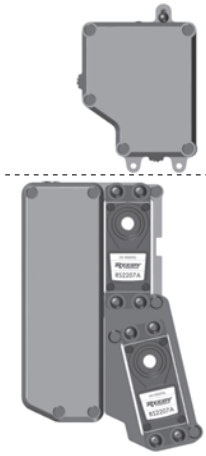
Least Flex
(Kit Setup)

Option 2



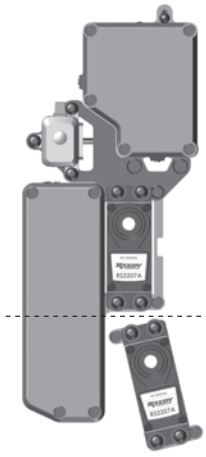
Most Flex

Option 3



More Rearward Flex

Option 4



More Frontward Flex

:: Radio Tray Build - Bag 11.1 - Step 2

31448 x4
2.5x8mm
FHCS

81561
Radio
Tray Brace

81433 x2
Radio
Tray Post

81450
Transponder
Mount

81432
Battery Box,
Bottom

41094 x4
3x14mm
LP SHCS

Servo not included!

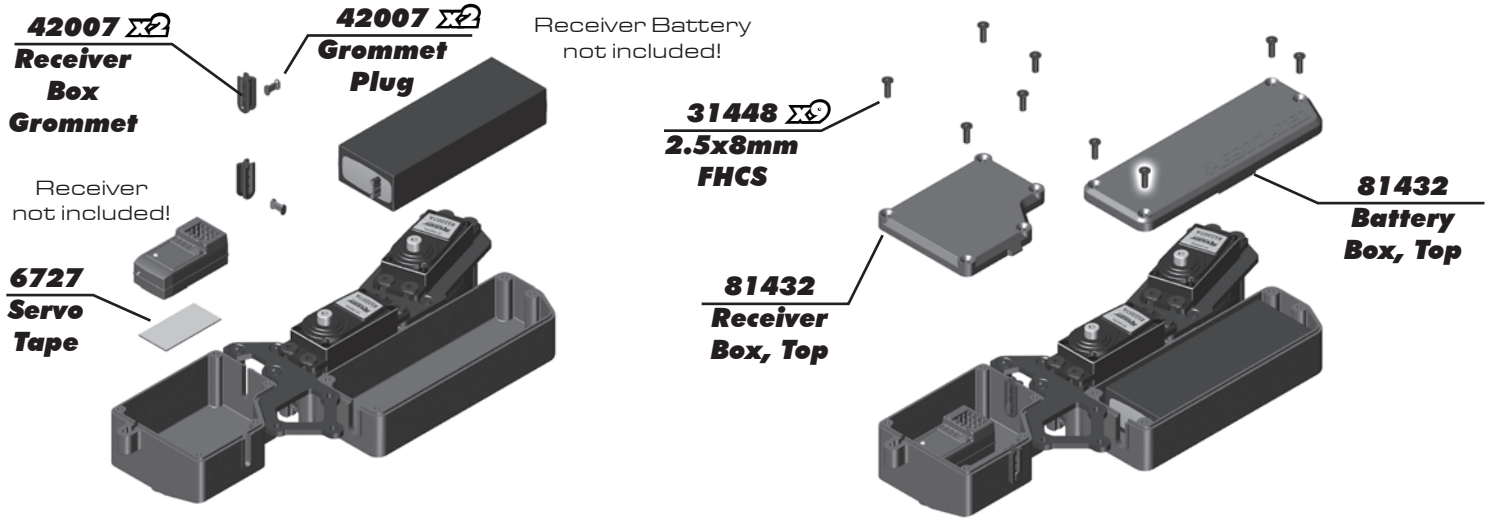
41094 x4
3x14mm
LP SHCS

Servo not included!

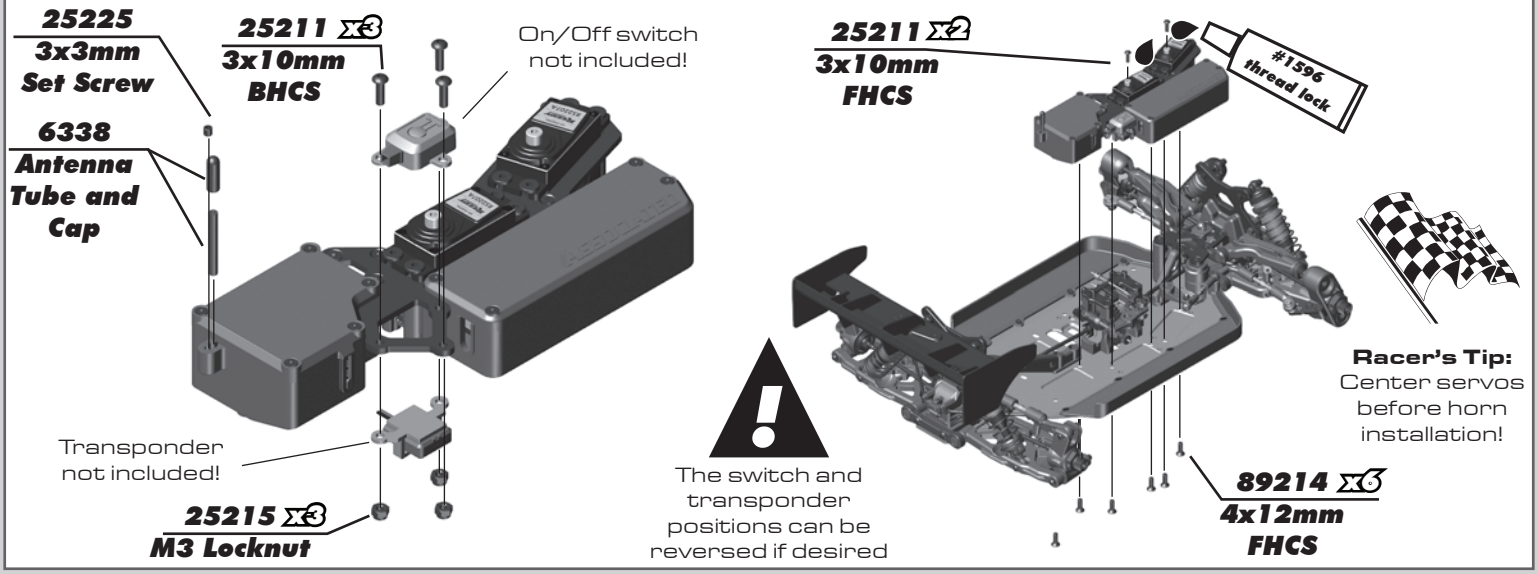
25201 x2
3x8mm
FHCS

81432
Receiver
Box, Bottom

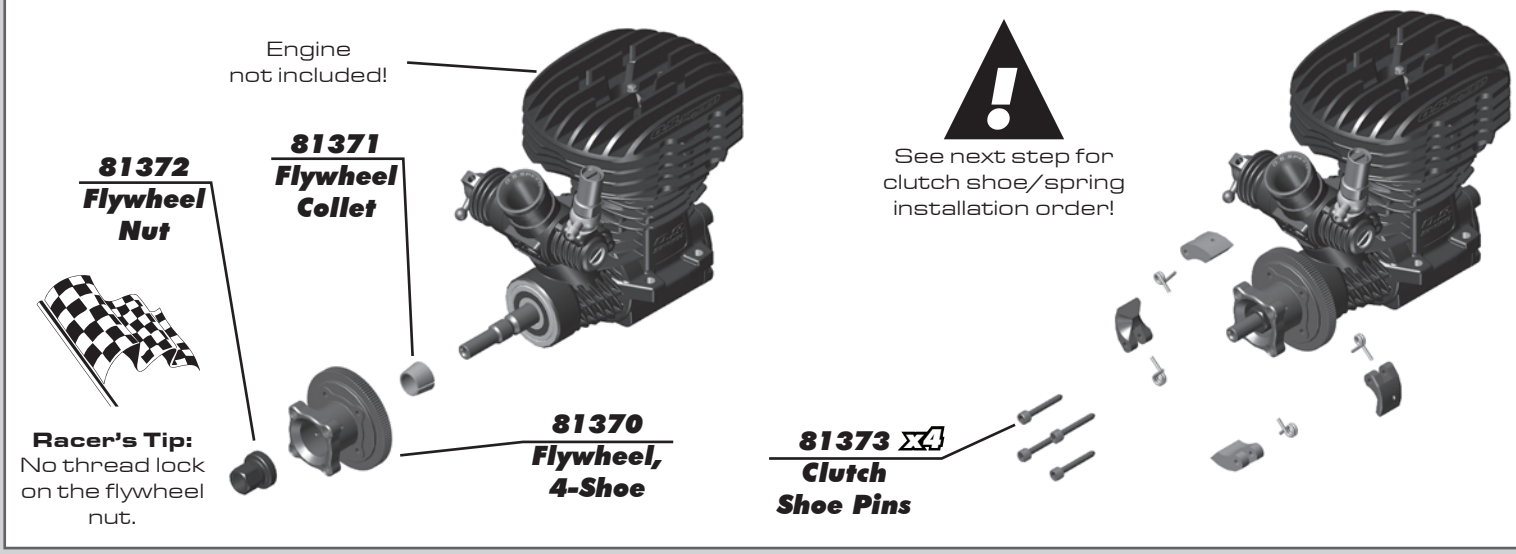
:: Radio Tray Build - Bag 11.1 - Step 3



:: Radio Tray Build - Bag 11.1 - Step 4



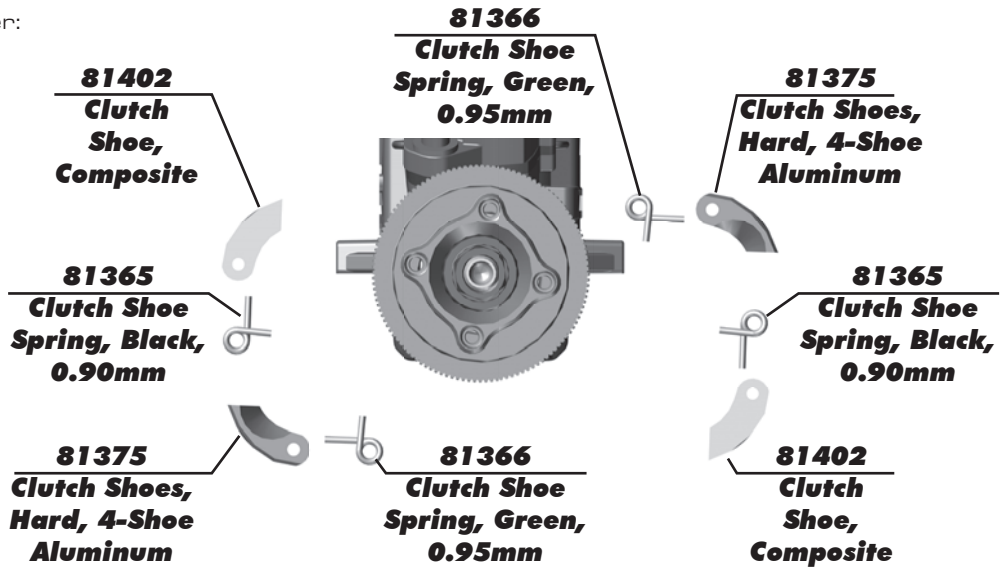
:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 1



:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 2

Clutch Shoe / Spring Installation Order:

Short end of clutch shoe spring installed into flywheel.
Long end of clutch shoe spring installed into clutch shoe.



:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 3

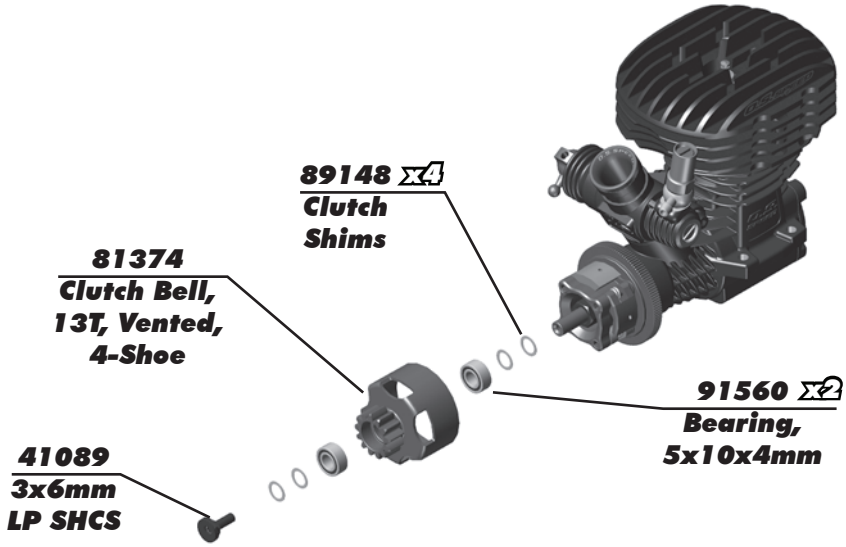
Clutch shimming instructions:

- Build assembly with shims as shown
- If clutch bell does not spin freely:
  Move shim from behind clutch bell to in front of clutch bell

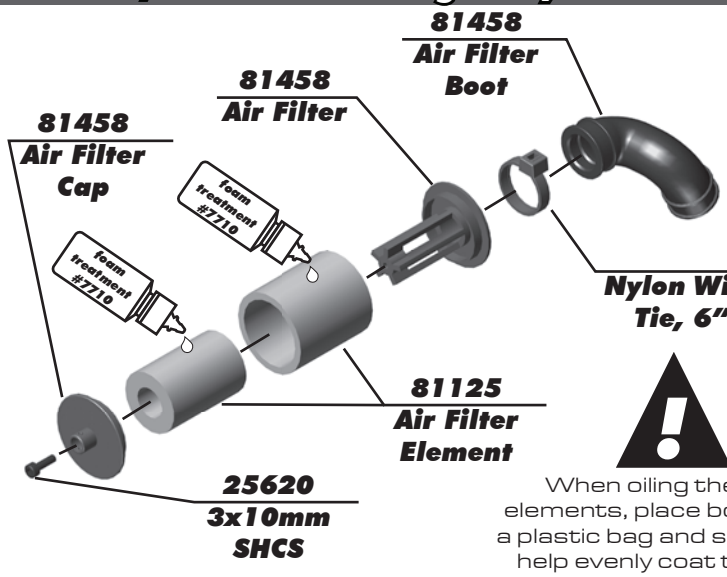
-OR-

  Remove one shim from front of clutch bell

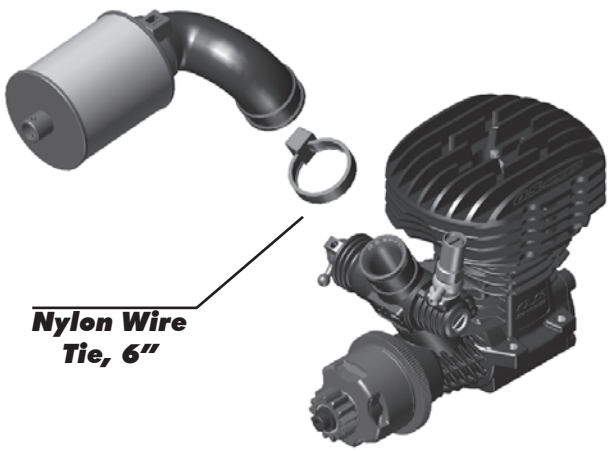
- Recommended axial play in clutch bell = 0.2mm - 0.5mm



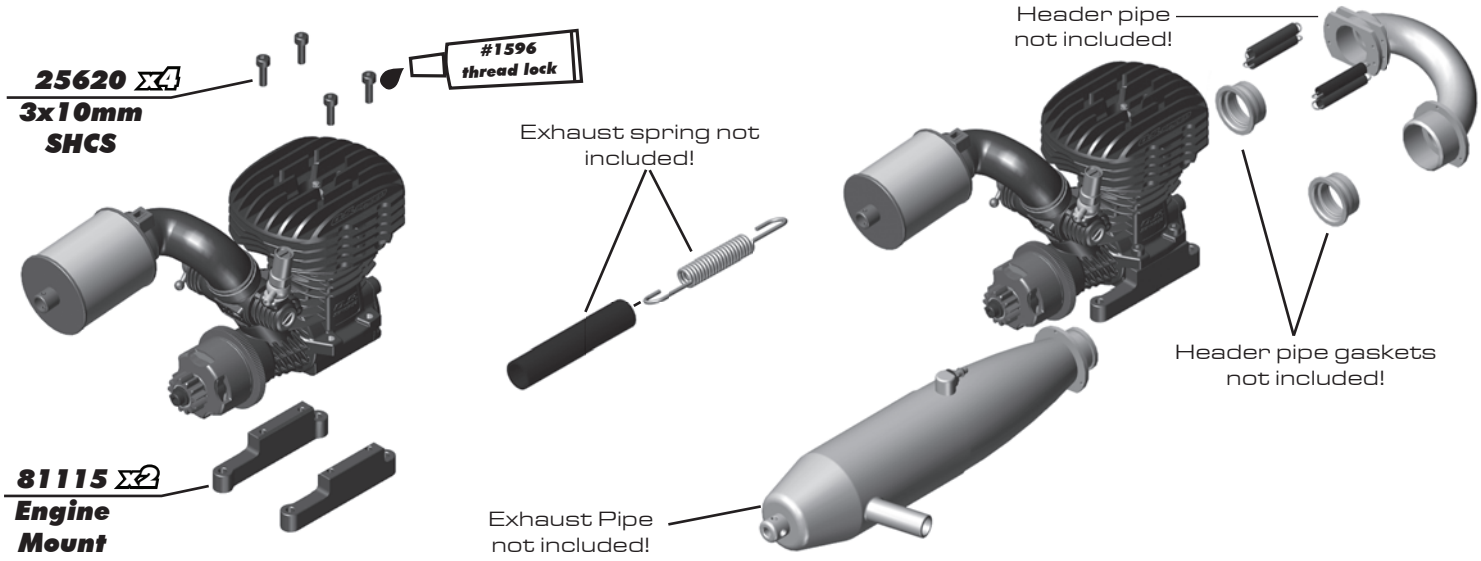
:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 4



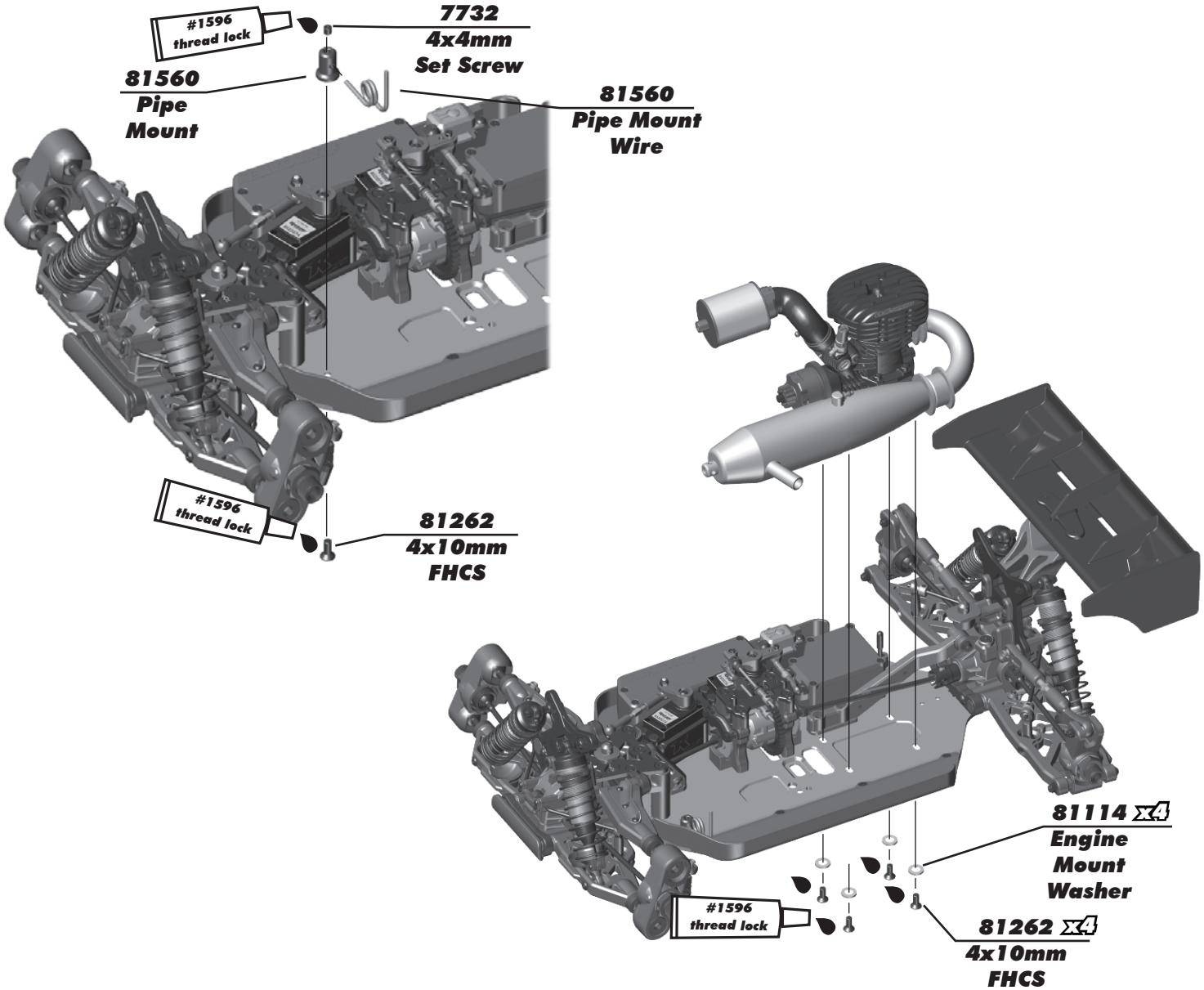
When oiling the filter elements, place both inside a plastic bag and squeeze to help evenly coat the filter.



:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 5

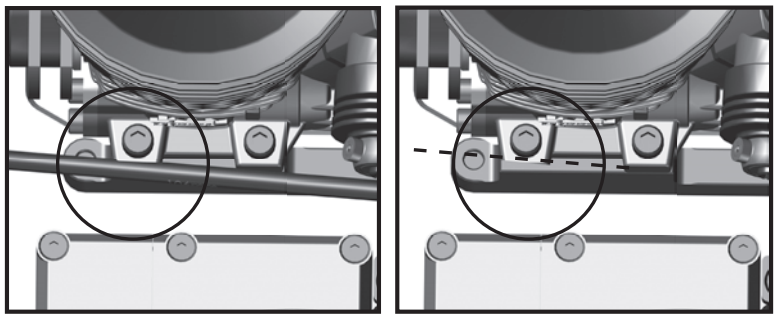


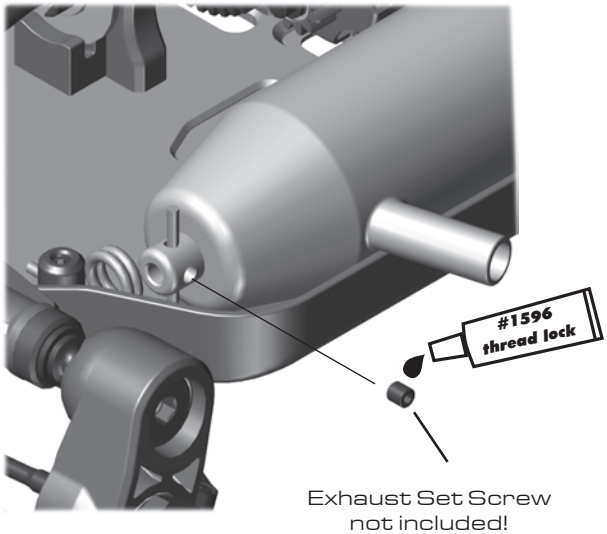
:: Clutch / Filter Build - Bag 12.1, 12.2 - Step 6



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

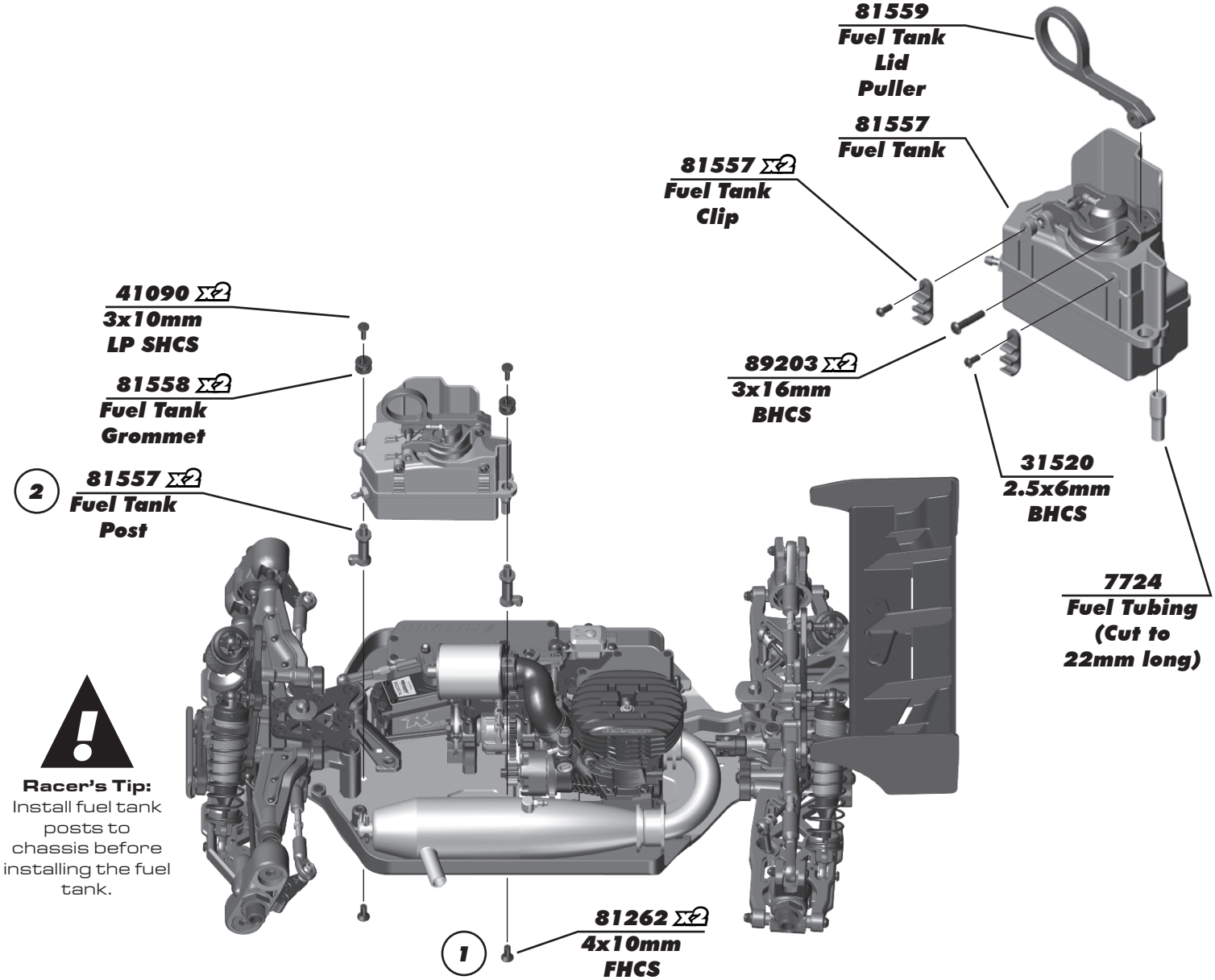
When installing your engine, make sure the rear drive shaft does not interfere with the engine block. You may need to remove material from the engine block for fitment.





Exhaust Set Screw
not included!

:: Fuel Tank Build - Bag 13.1, 13.2 - Step 1

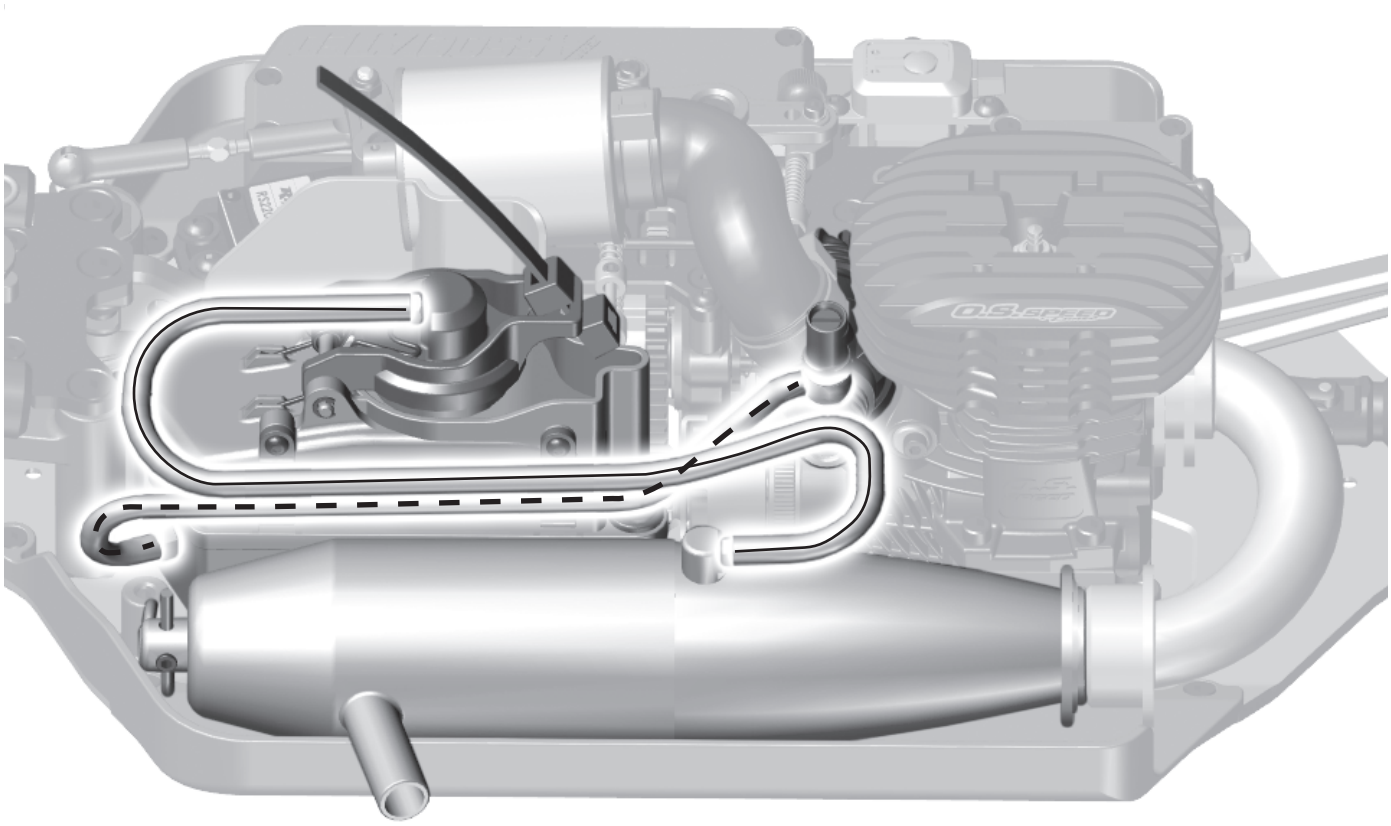


Racer's Tip:
Install fuel tank posts to chassis before installing the fuel tank.

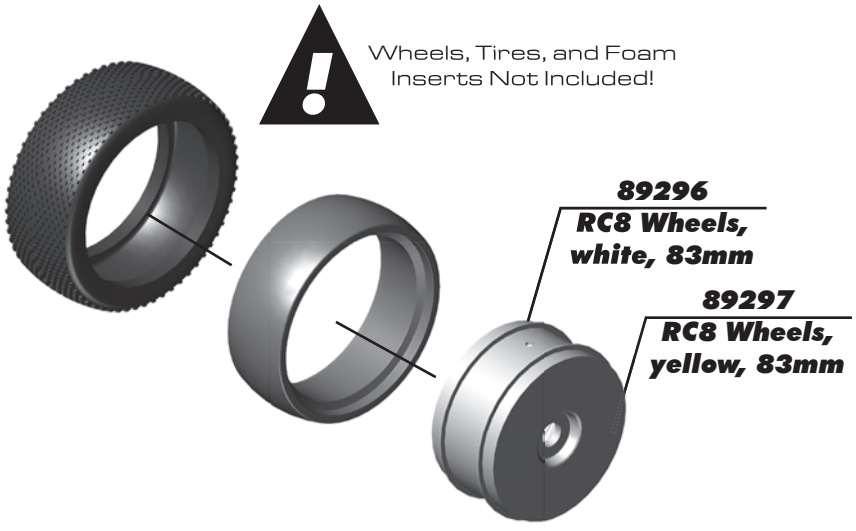
:: Fuel Tank Build - Bag 13.1, 13.2 - Step 2

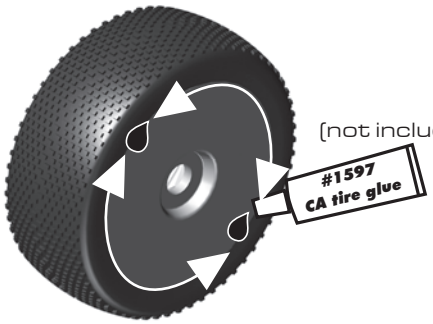
Pressure line from fuel tank lid to exhaust pipe

Fuel line from fuel tank to carburetor



:: Wheels / Tires / Body - Misc. - Step 1



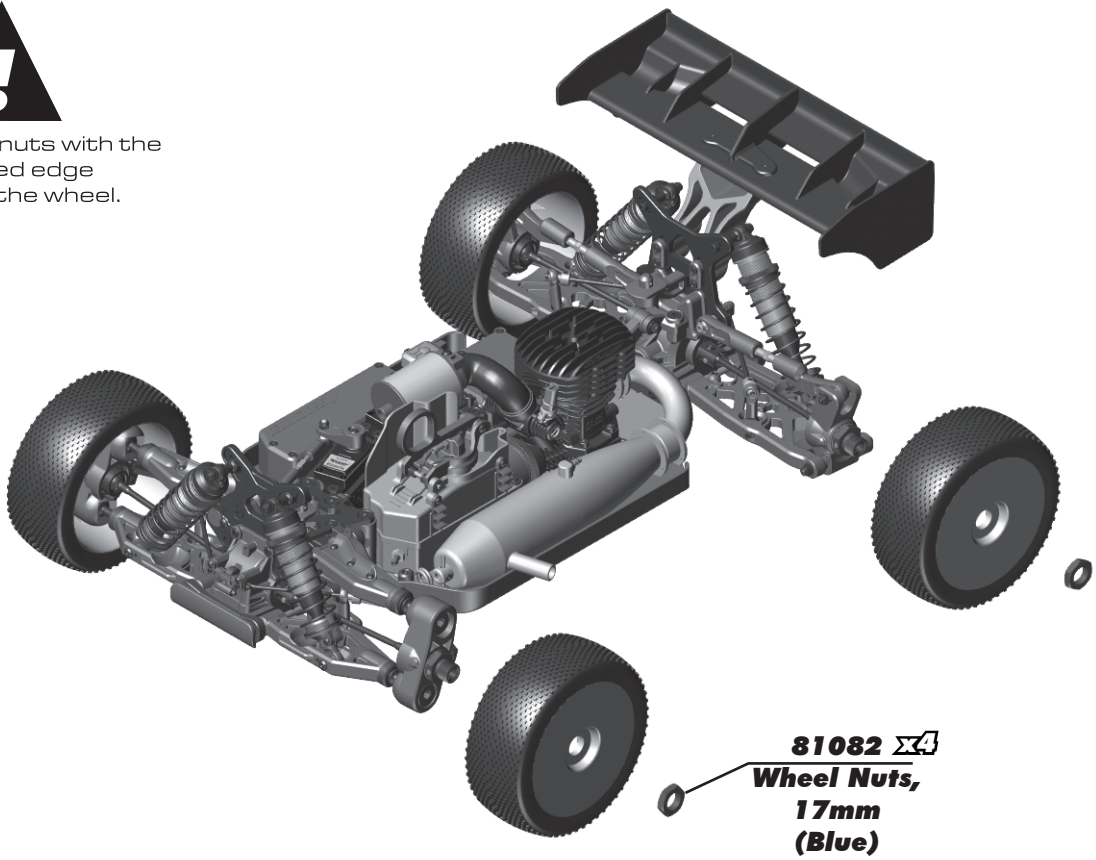


Build four wheels/ tires

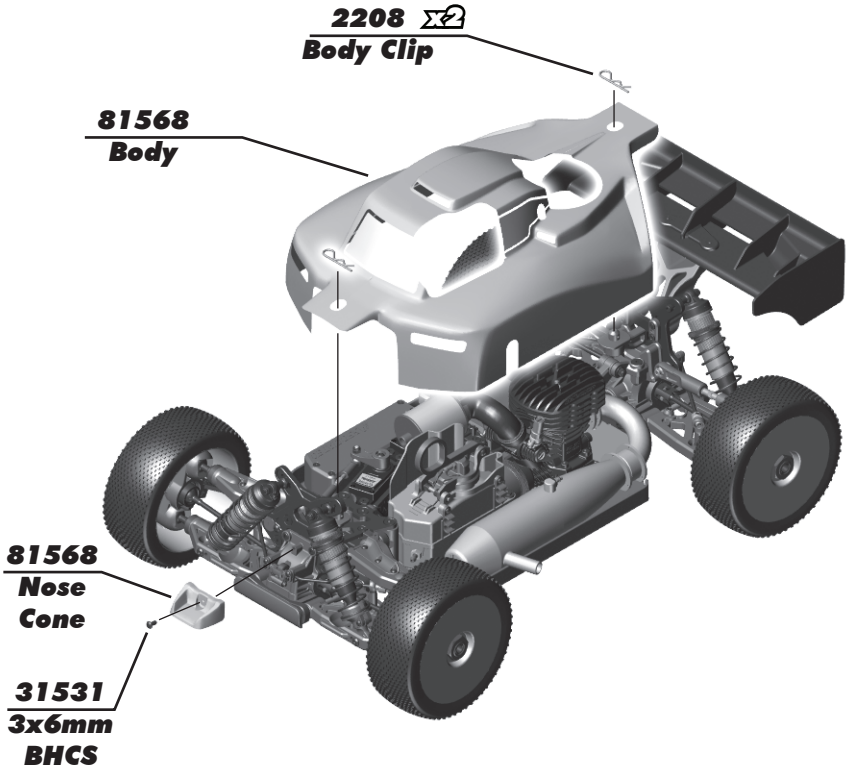
Tires:
When gluing tires to wheels, use a fast-curing tire glue (CA) (AE # 1597). This is available at your local hobby shop. Make sure to clean the mounting surface of the tire and wheel with alchohol for best adhesion.

:: Wheels / Tires / Body - Misc. - Step 2

Install wheel nuts with the serrated edge towards the wheel.



:: Wheels / Tires / Body - Misc. - Step 3



Painting Tips:

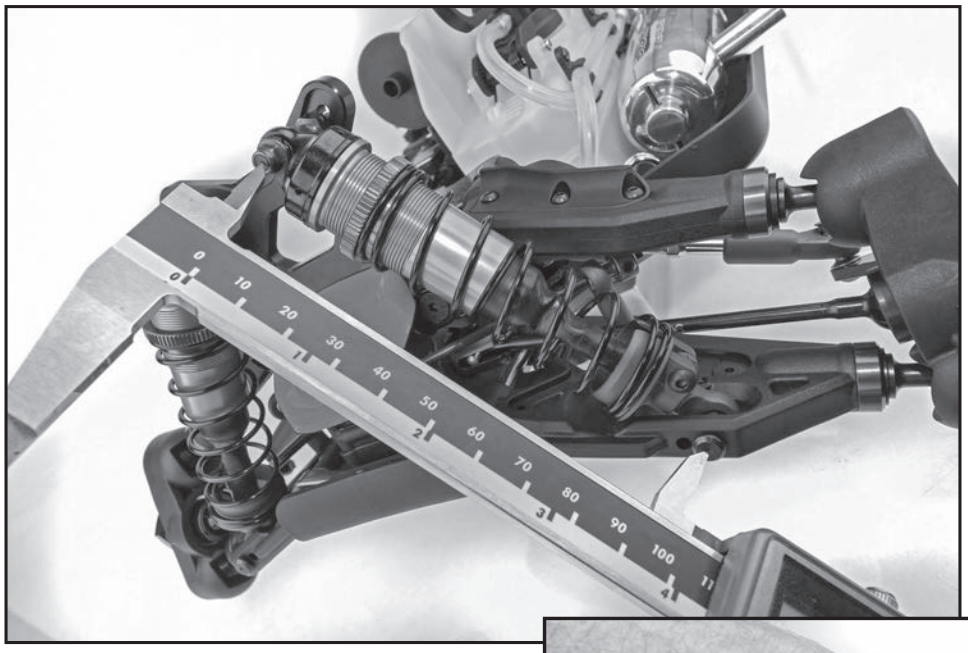
Your kit comes with a clear polycarbonate body. You will need to prep the body before you can paint it. Wash the inside thoroughly with warm water and liquid detergent. Dry the body using a clean, soft, lint-free cloth. Install the window masks on the inside of the body. (RC cars get painted on the inside). Using high quality masking tape, apply tape to the inside of the body to create a design. Spray (either rattle can or airbrush RC specific paint) the paint to the inside of the body (preferably dark colors first, lighter colors last).

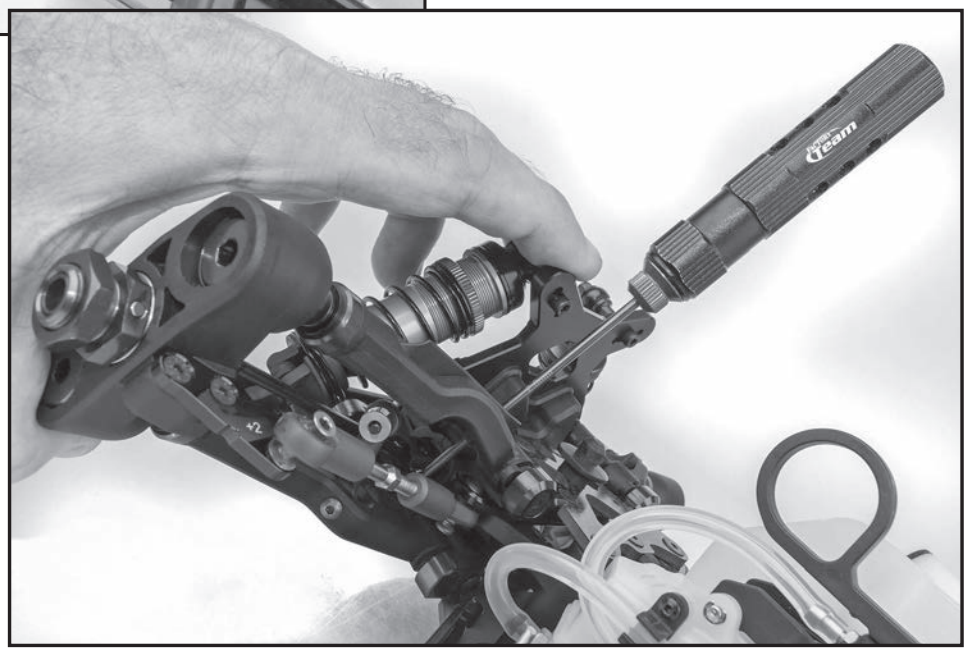
NOTE: use ONLY paint that is recommended for use with (polycarbonate) plastics. If you do not, you can destroy the polycarbonate body!

After painting, cut the body along the trim lines. Make sure to drill or use a body reamer to make the holes for the body mounts and antenna!

:: 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 105mm shock length, and 126mm shock length for the rear.
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.





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.

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