

RC B
TEAM B4.2e KIT

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



TEAM ASSOCIATED



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

#80955 RC10B4.2e Team Kit



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 RC8B4.2e Kit:

- New molded height-adjustable gearboxes front and rear
- New offset hubs and updated rear suspension arms to accommodate new hub geometry
- New high-volume center differential
- New high-downforce wing
- Now includes FT hard-anodized aluminum shock bushings
- RWB/FWB adjustable weight bias chassis
- Soft blend material suspension arms
- 8-degree KPI steering blocks included
- 44/13 ring and pinion gear sets
- 92mm universal driveshafts with 17mm outdrives
- Both 19mm and 20mm diameter HTC internal differential gear sets included
- 47T machined steel spur gear included
- Centralized drivetrain and chassis configuration optimized for shorty-style batteries
- Adjustable battery tray design with hook and loop strap for retaining batteries
- Includes both stiff shock bladders and emulsion seals

:: Additional

Your new RC8B4.2e Kit comes as a kit. There are items you will need to complete your kit (refer to the website for suggestions):

- | | | |
|---|---------------------------|-------------------------|
| • 2 or 3 channel radio/transmitter (2.4GHz recommended) | • Transmitter batteries | • Steering servo |
| • Two 2s or One 4s LiPo Battery Pack | • 1/8th scale sized motor | • 1/8th scale sized ESC |
| • Polycarbonate-specific paint | • Thread-locking compound | • Needle-nose pliers |
| • 1:8 scale buggy tires and wheels | • CA (cyanoacrylic) glue | • Hobby knife |
| • Reamer / hole punch | • Ride height gauge | |

:: Other Helpful Items

- | | |
|--|---|
| • Silicone Shock/Diff Fluids (Refer to the website for complete listings): | • Body Scissors (AE #1737) |
| • Shock Pliers | • FT Hex Wrenches / Nut Drivers - (#1519) |
| • Reamer / Hole Punch - (#1499) | • Calipers or a Precision Ruler |
| • Ride Height Gauge | • Wheel Nut Wrench 17mm - (#1571) |
| • FT Hex Wrenches - (#1506, 1518) | |
| • Wire Cutters | |
| • Turnbuckle Wrench - (#1114) | |

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

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)
	6x12x4mm (91561)
	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

1..... Cover	16 - 18.....Rear End Build (Bags 7.1, 7.2, 7.3)
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3..... 1:1 Hardware "Fold Out"	20 - 21.....Center Bulkhead Build (Bag 9.1)
4..... Table of Contents	21 - 22.....Radio Tray Build (Bag 10.1, 11.1)
5 - 7.....Differentials Build (Bags 1.1, 1.2)	22 - 23.....Battery Tray Build (Bag 12.1)
7 - 8.....Shocks Build (Bag 2.1)	24.....Wheels / Tires / Body (Misc.)
9.....Turnbuckles Build (Bags 3.1)	25.....Droop Settings
10 - 11.....Steering / Chassis Build (Bag 4.1)	26.....Back Cover
11 - 14.....Front Gearbox Build (Bags 5.1, 5.2, 5.3)	
14 - 15.....Steering Blocks Build (Bags 6.1)	

:: 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.



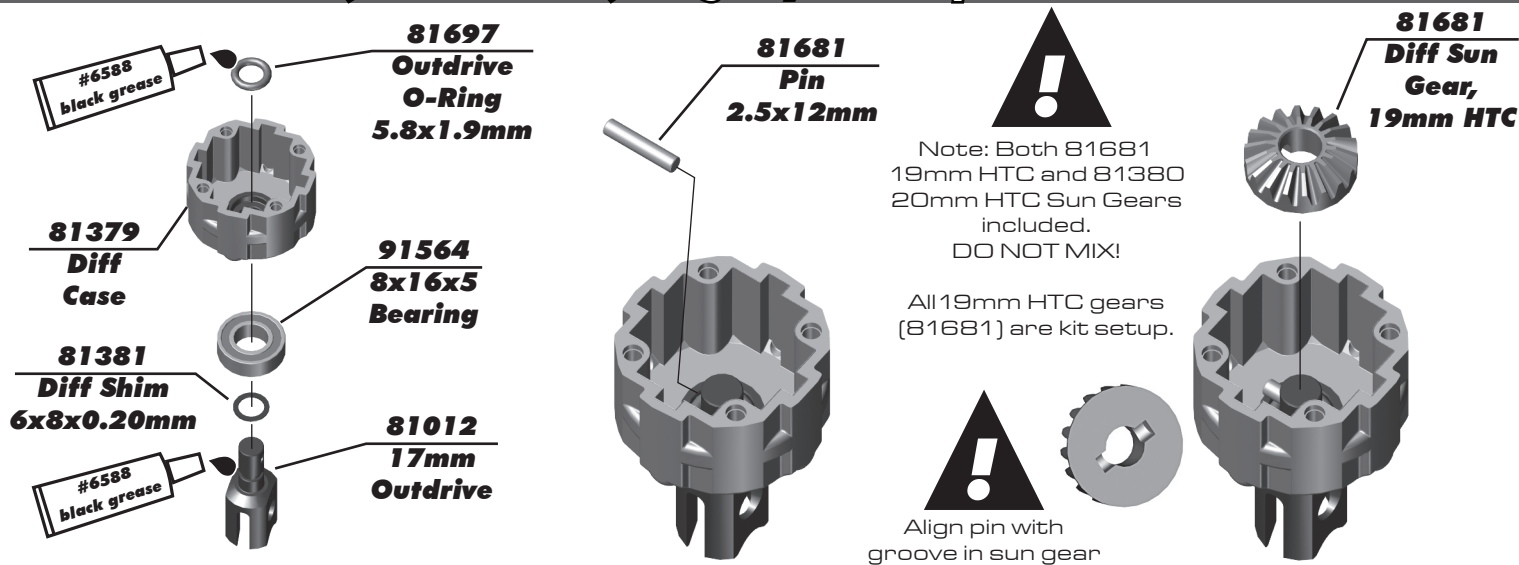
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

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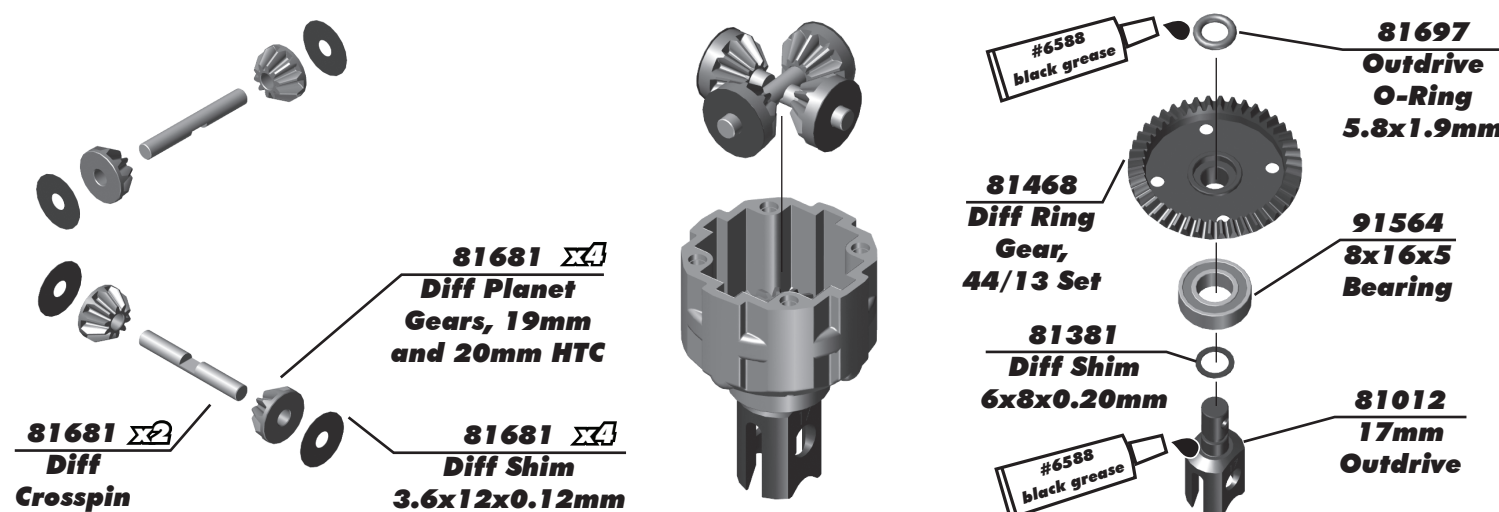


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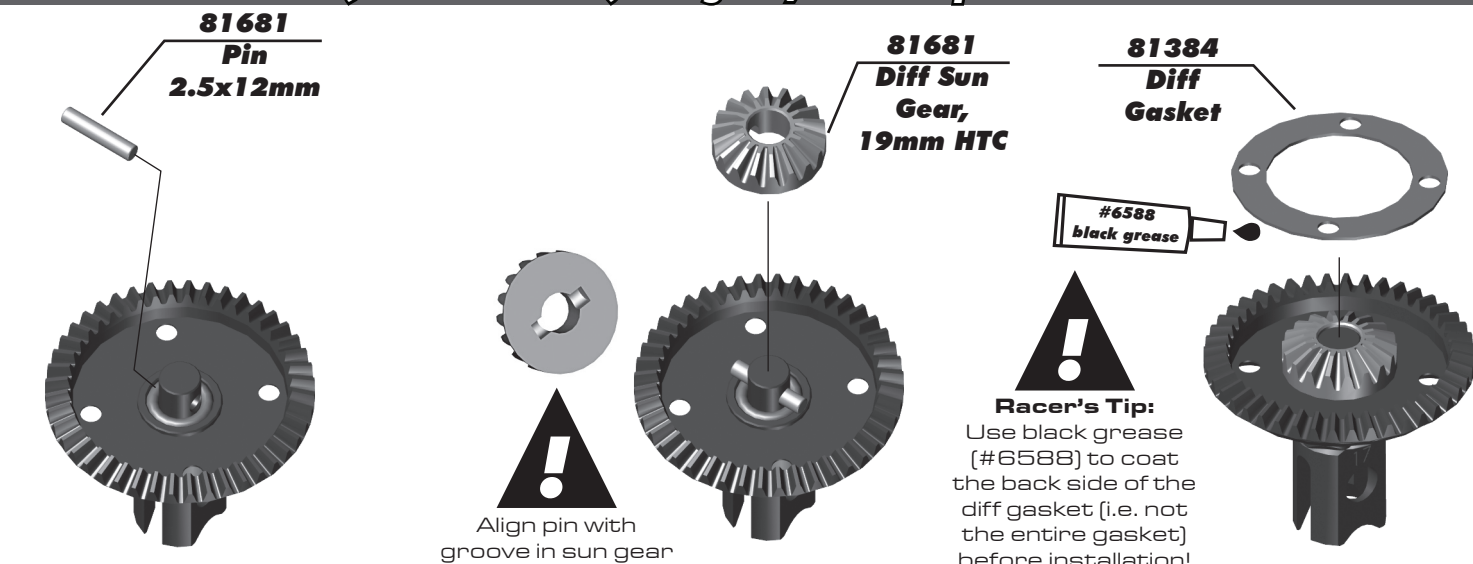
:: Differential Build (Front and Rear) - Bag 1.1, 1.2 - Step 1



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



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

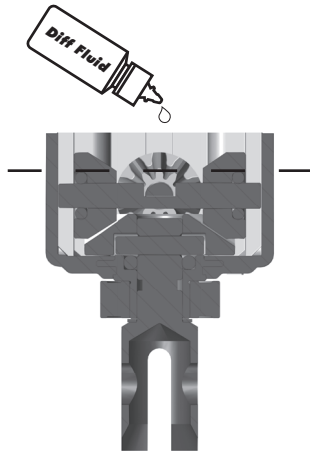


:: Differential Build (Front and Rear) - Bag 1.1, 1.2 - Step 4



Racer's Tip:

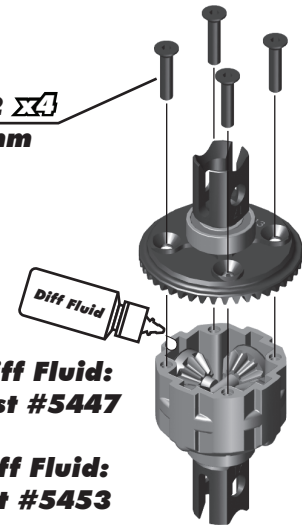
Fill diff above the cross pins, below the planet gears as shown.



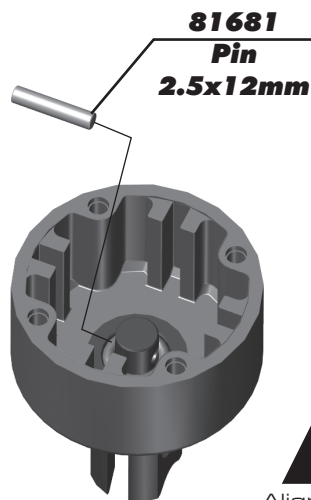
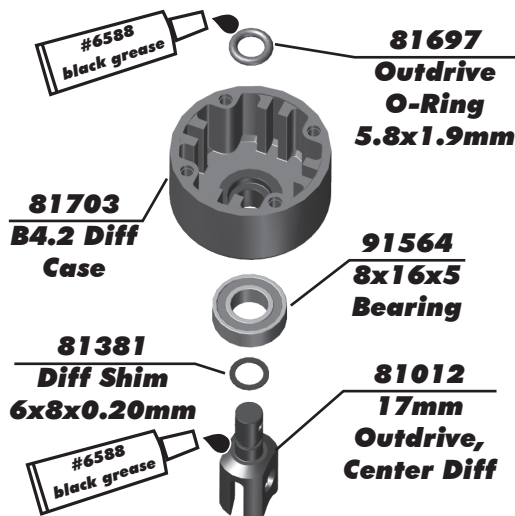
25202 x4
M3x10mm
FHCS

Front Diff Fluid:
15,000cst #5447

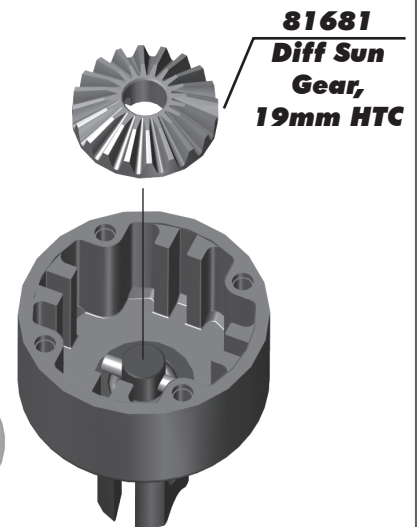
Rear Diff Fluid:
5,000cst #5453



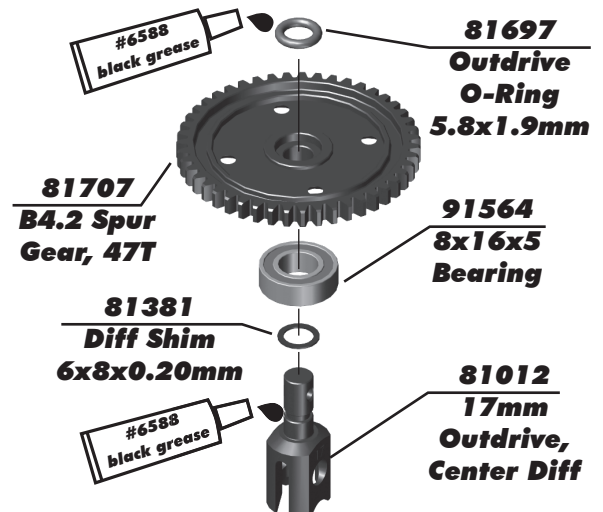
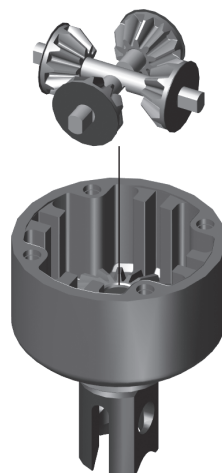
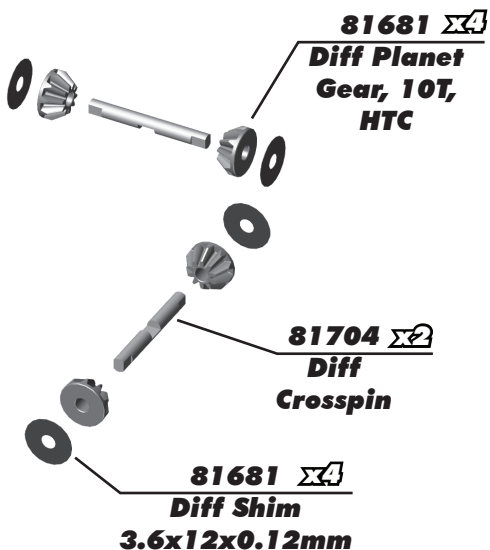
:: Differential Build (Center) - Bag 1.1, 1.2 - Step 5



Align pin with
groove in sun gear



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



81162
**Shock Body,
26.5mm
(Front)**

81163
**Shock Body,
36.5mm
(Rear)**

81185
**Shock Body
O-Ring**

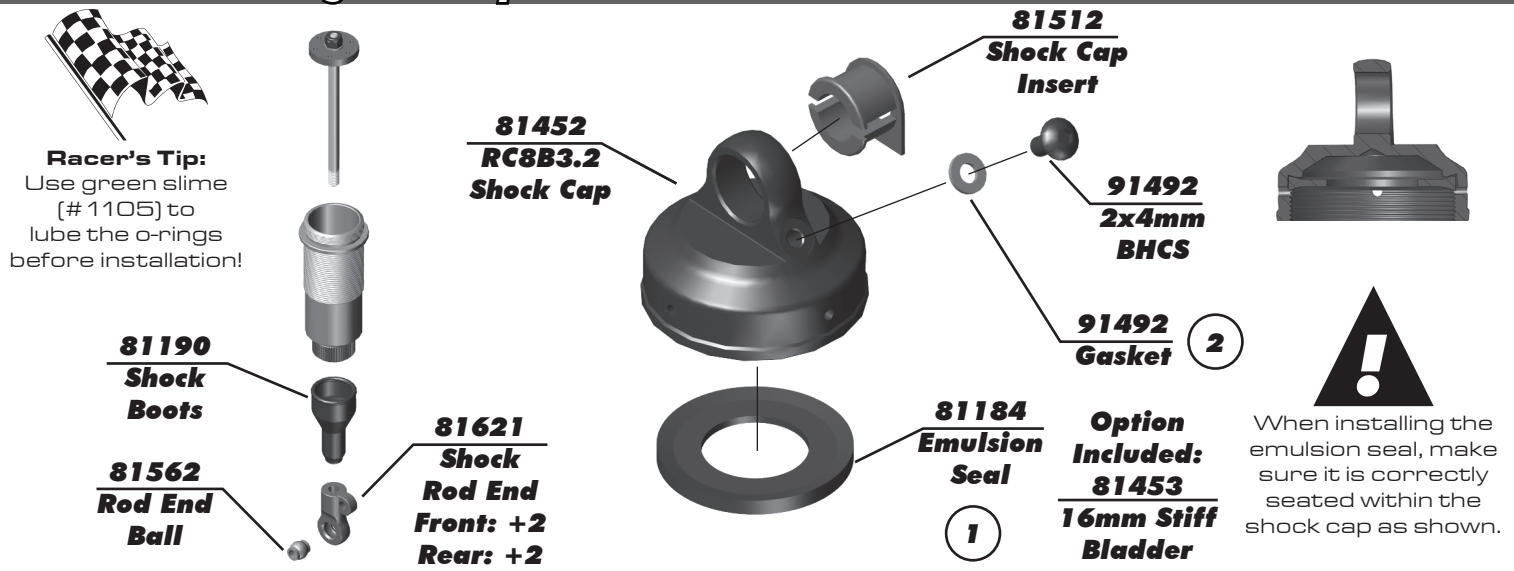
81185
**O-Ring Hat
Bushing**

81188
**Shock Body
Seal
Retainer**

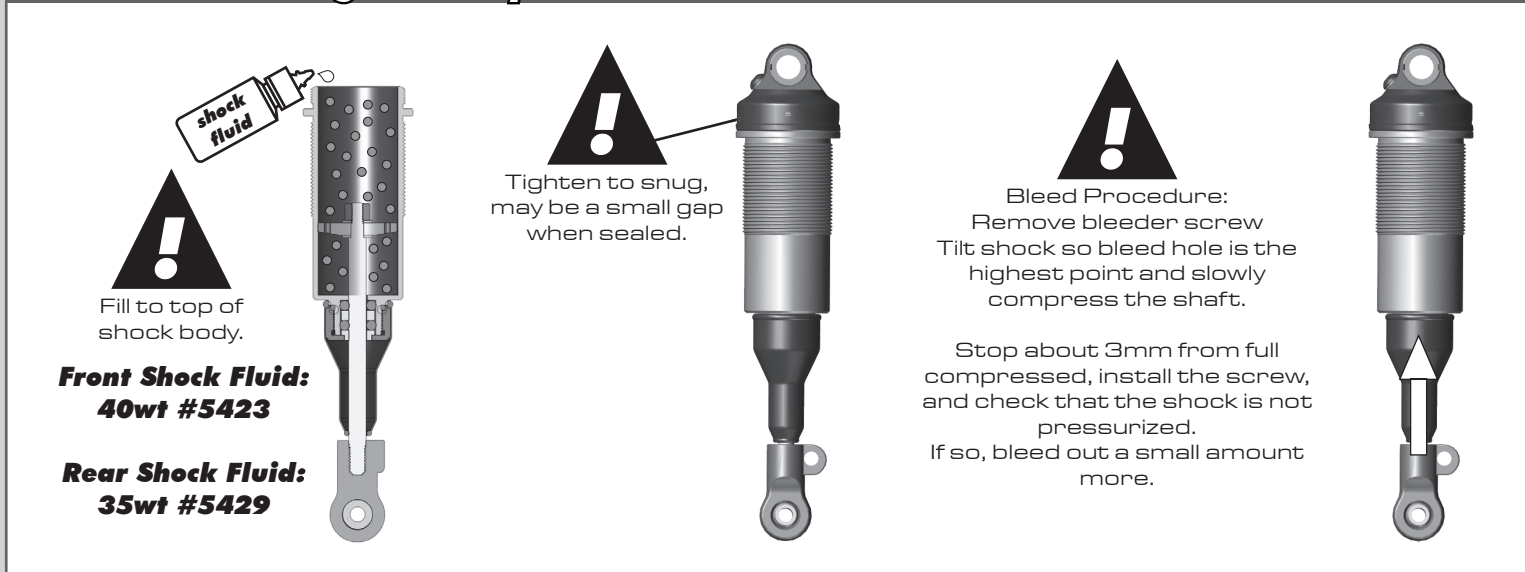
81186 
**Shock
O-Ring**

81185
**O-Ring
Spacer**

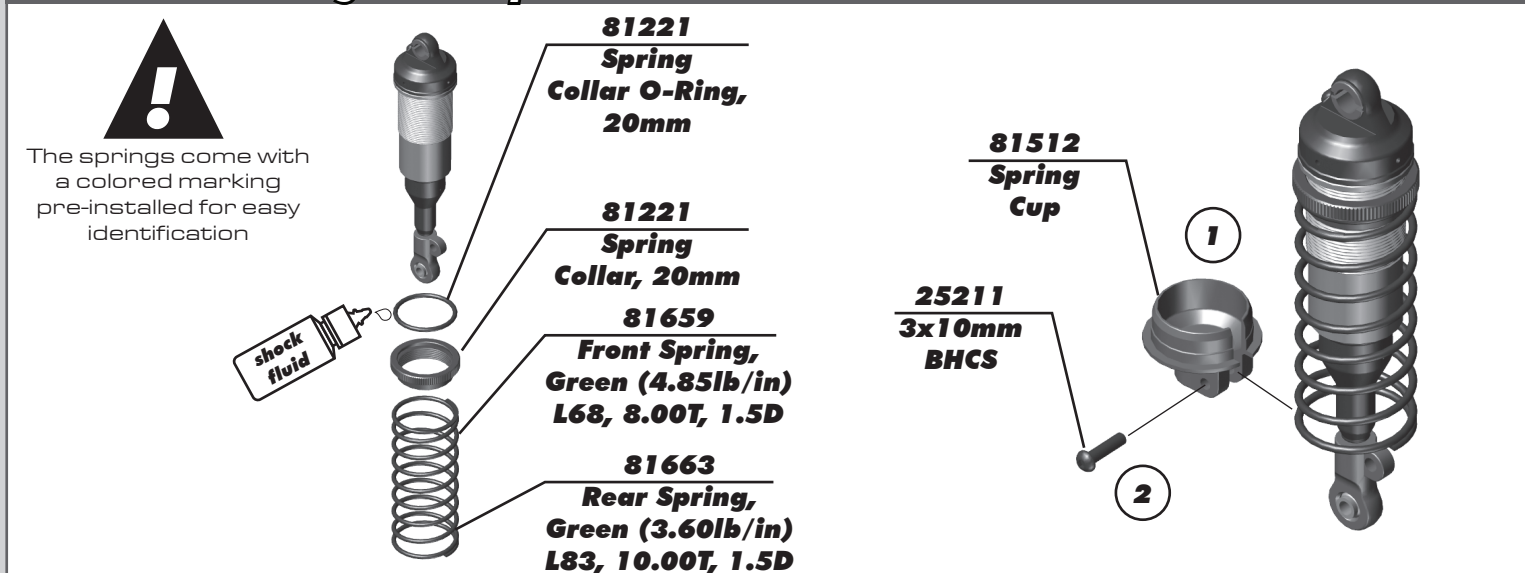
:: Shocks Build - Bag 2.1 - Step 2



:: Shocks Build - Bag 2.1 - Step 3

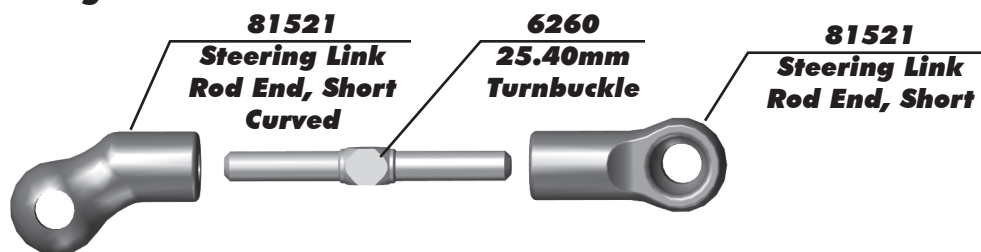


:: Shocks Build - Bag 2.1 - Step 4



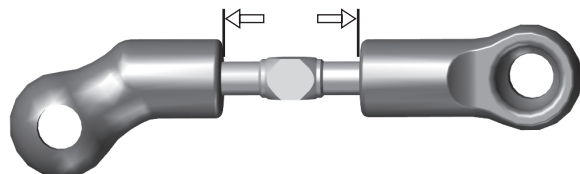
:: Turnbuckles Build - Bag 3.1 - Step 1

Steering Servo Turnbuckle



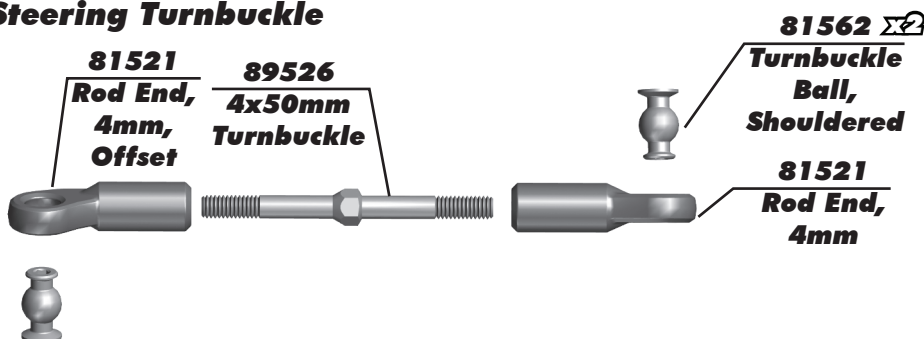
Set aside until page 22

11.50mm (0.45")



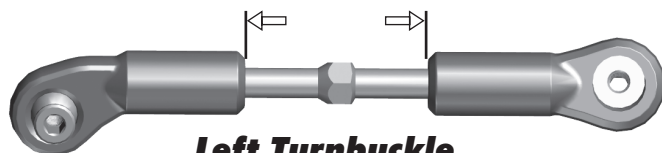
:: Turnbuckles Build - Bag 3.1 - Step 2

Steering Turnbuckle

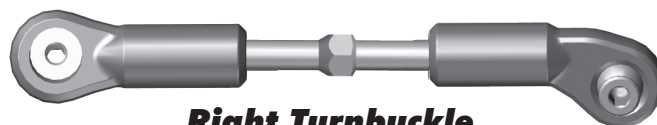


Note the direction of turnbuckle ball

24.20mm (0.952")



Left Turnbuckle



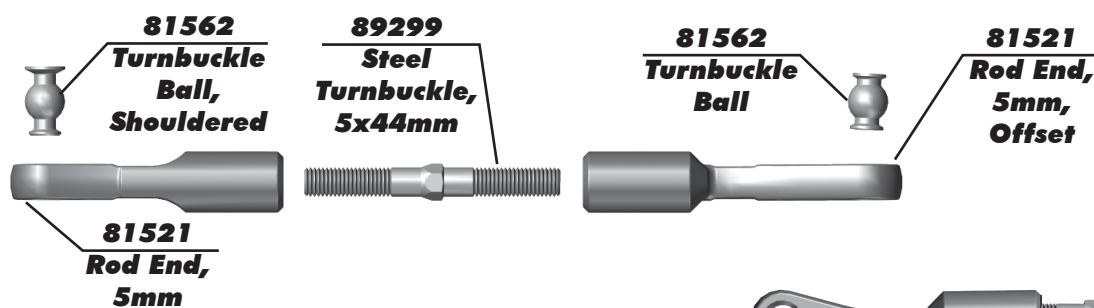
Right Turnbuckle



Set aside until page 15

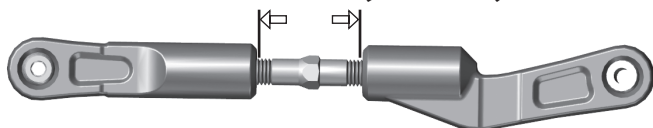
:: Turnbuckles Build - Bag 3.1 - Step 3

Rear Hub Turnbuckle

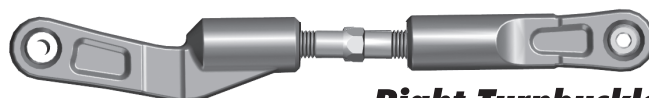


Set aside until page 19

13.70mm (0.539")

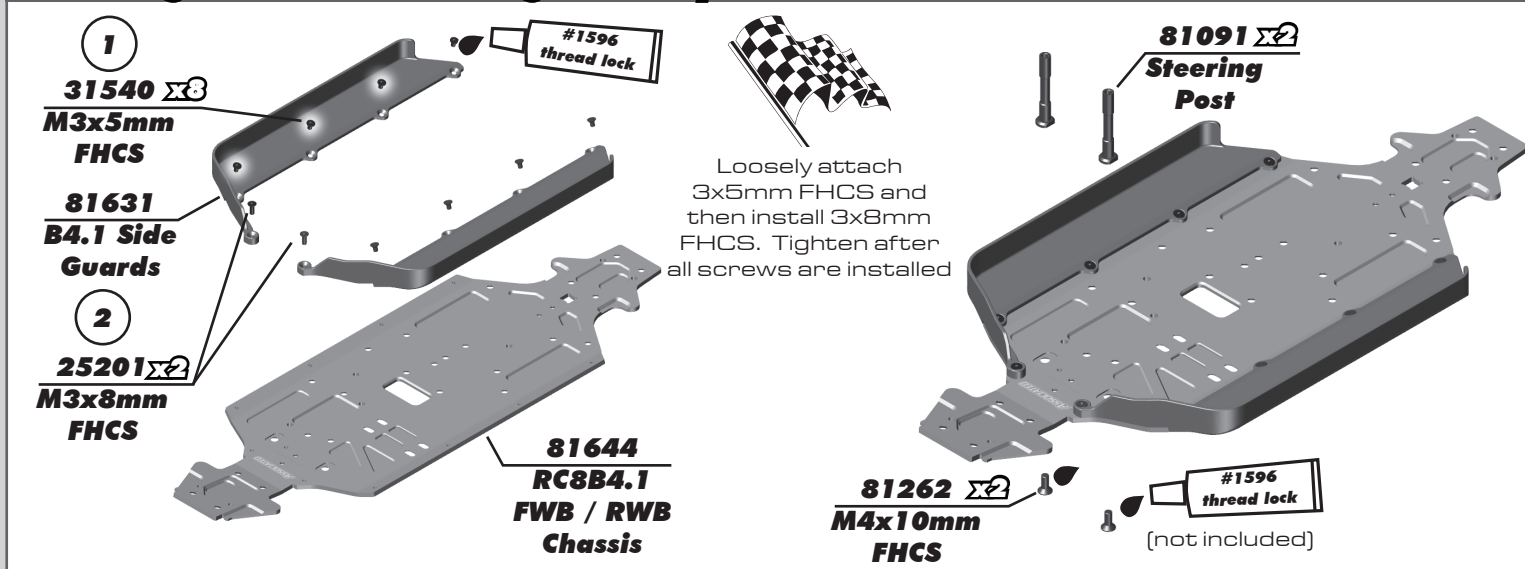


Left Turnbuckle

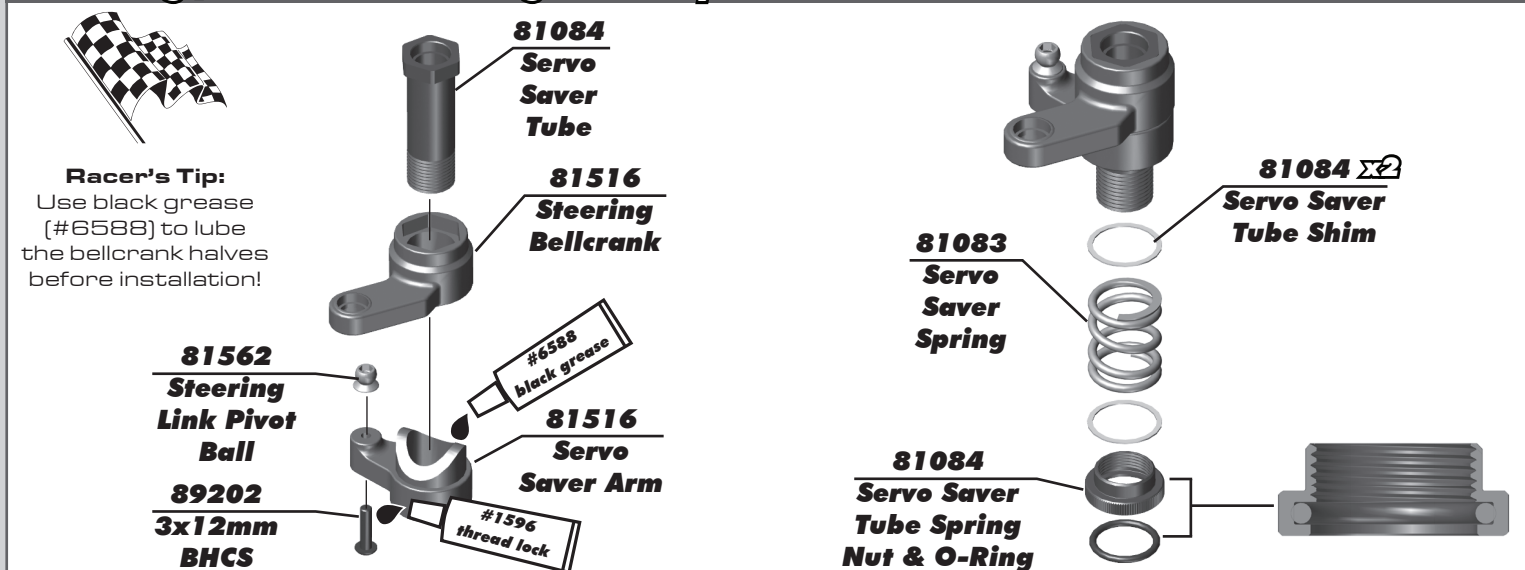


Right Turnbuckle

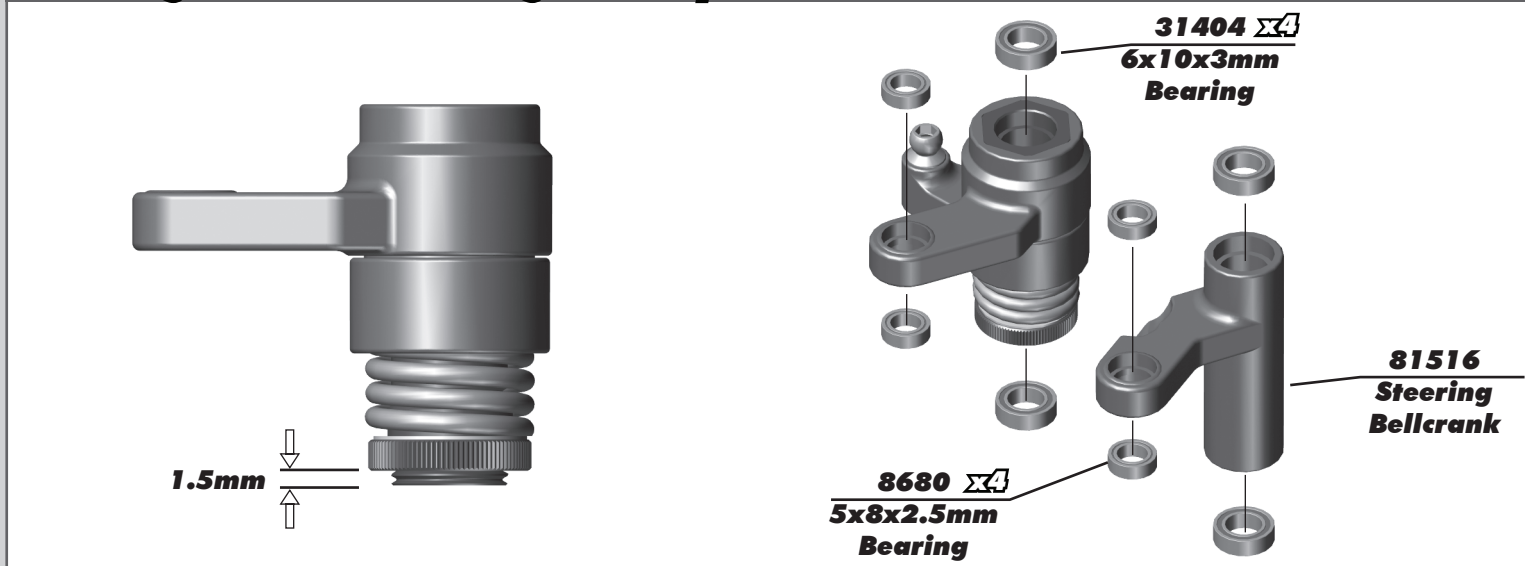
:: Steering / Chassis Build - Bag 4.1 - Step 1



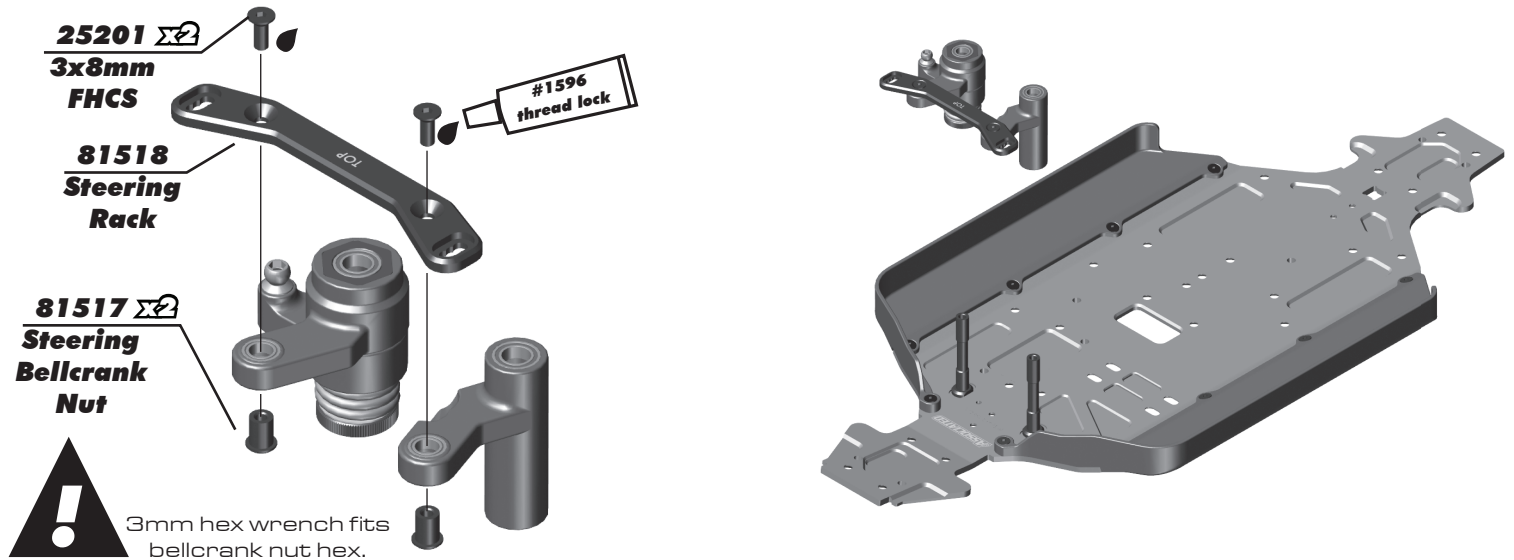
:: Steering / Chassis Build - Bag 4.1 - Step 2



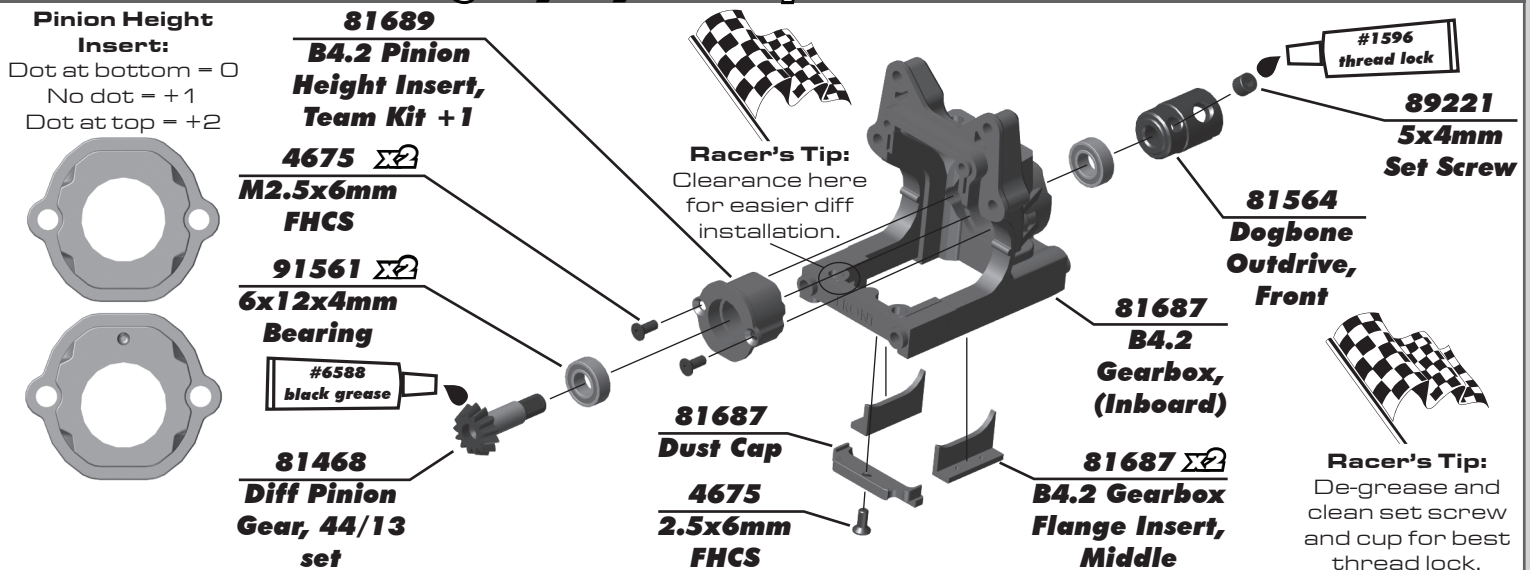
:: Steering / Chassis Build - Bag 4.1 - Step 3



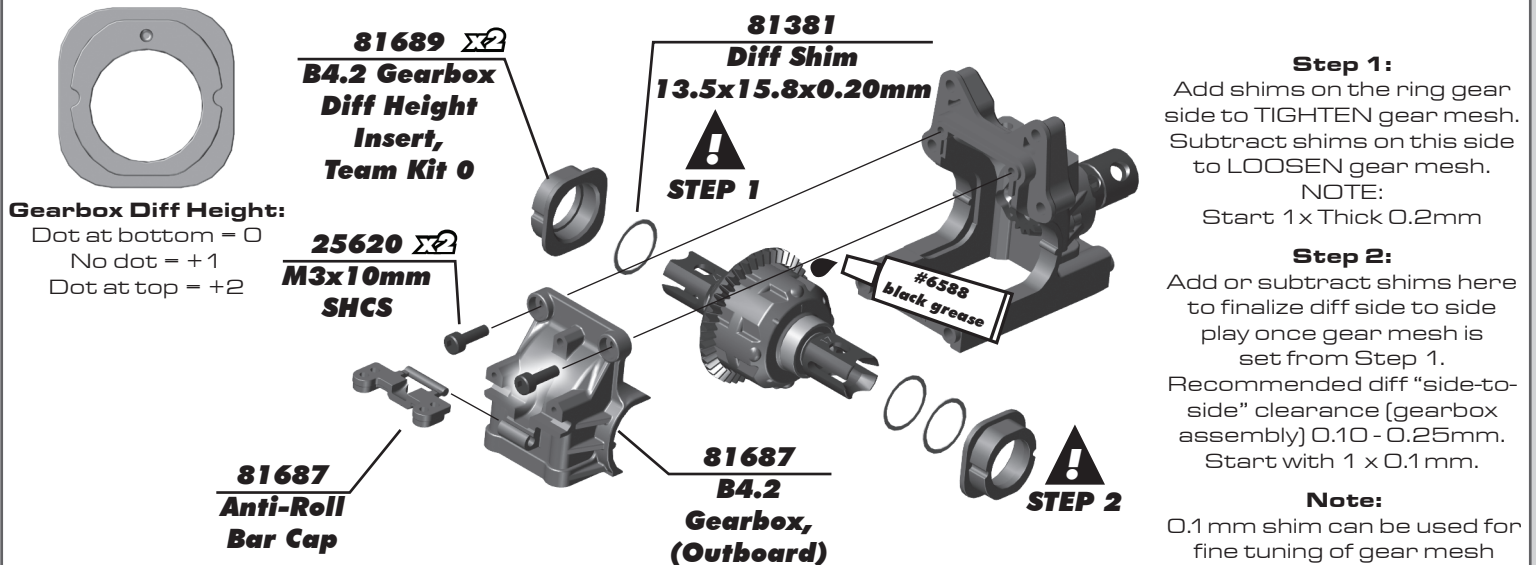
:: Steering / Chassis Build - Bag 4.1 - Step 4



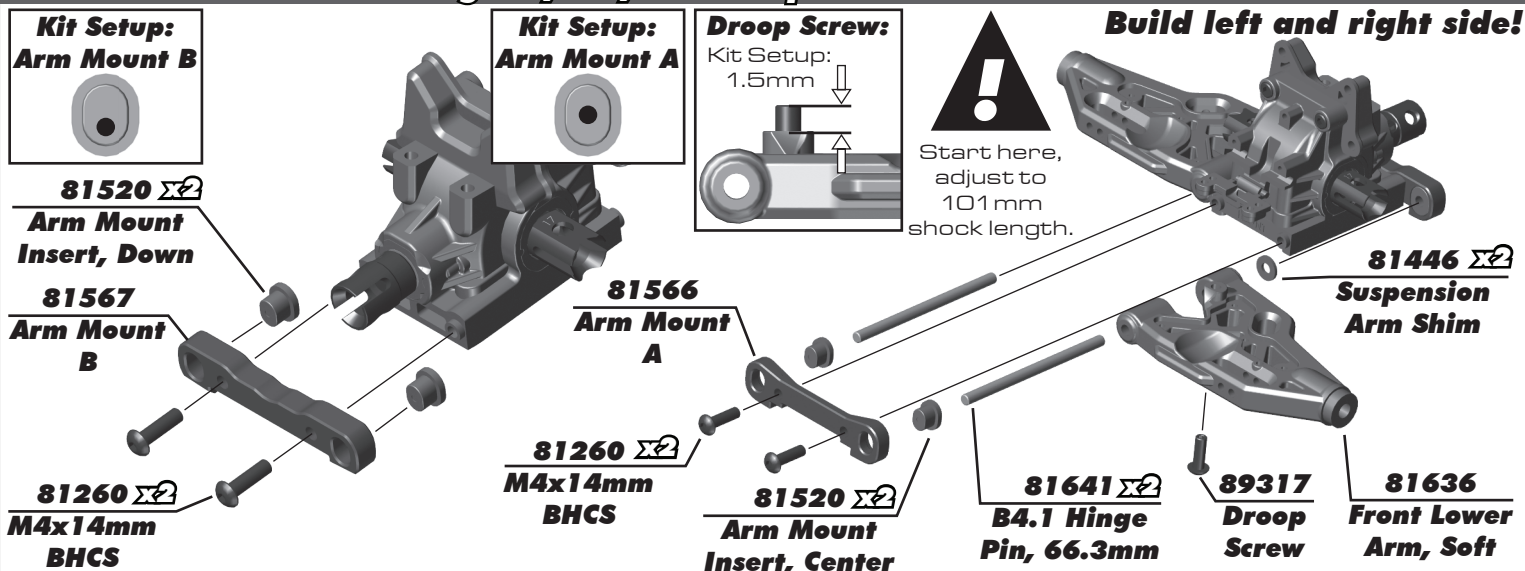
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 1



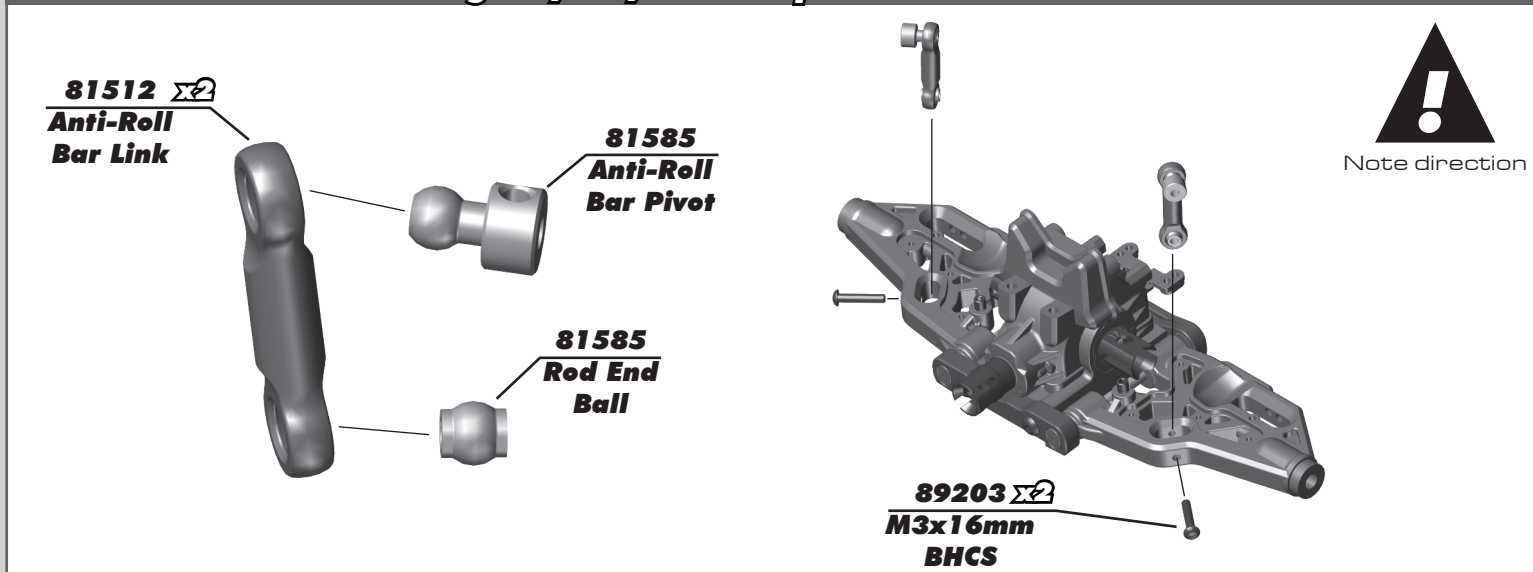
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 2



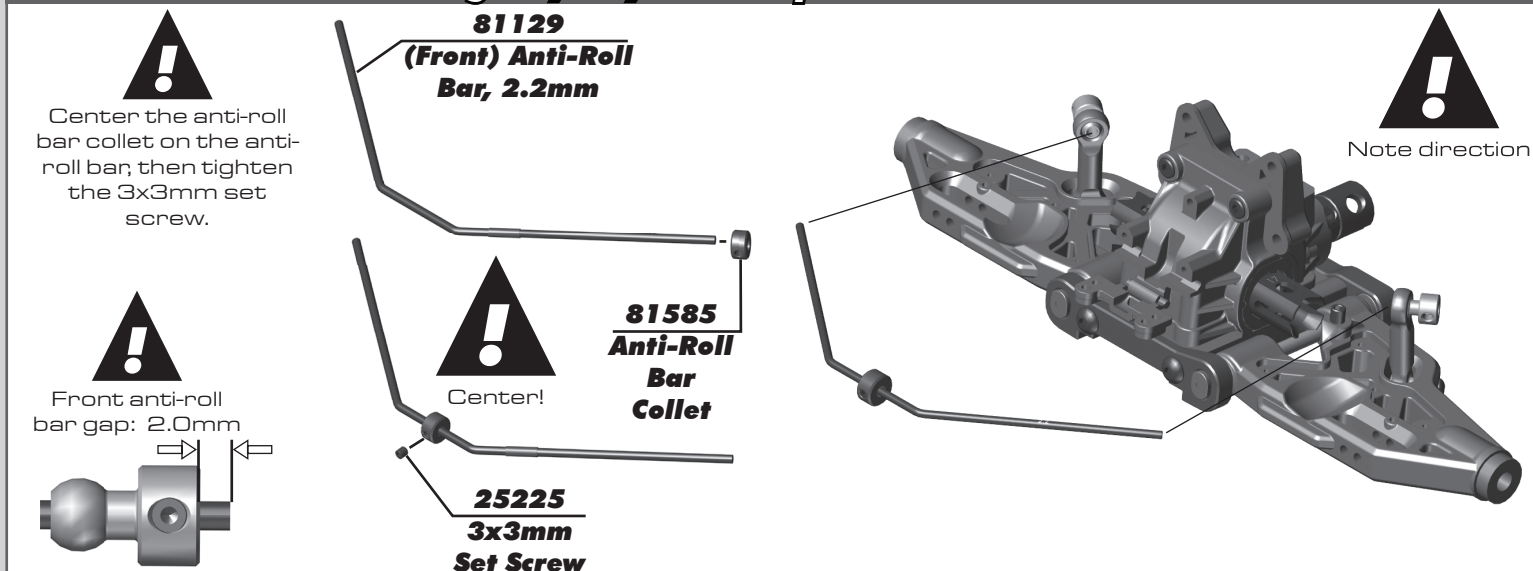
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 3



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



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

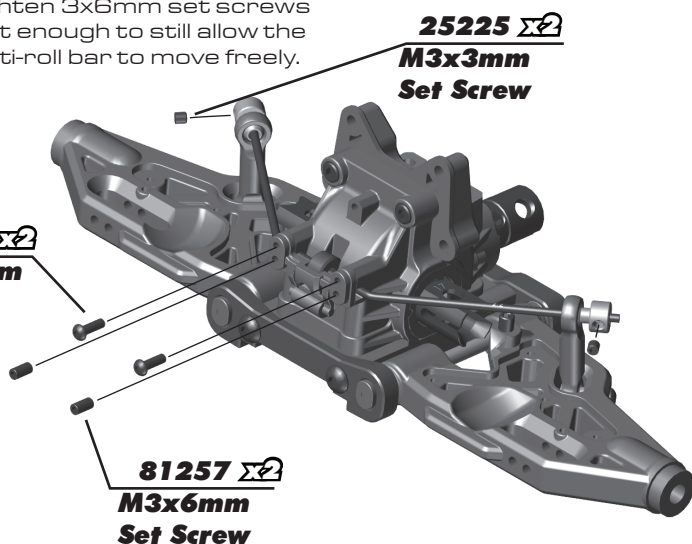


:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 6



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

31521
M2.5x8mm
BHCS



25225
M3x3mm
Set Screw

81257
M3x6mm
Set Screw

89214
4x12mm
FHCS

89216
M4
Locknut

81524
Body Post,
Front

81576
RC8B4e
Top Plate

31532
3x8mm
BHCS

81525
Chassis
Brace,
Front

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

Kit Setup:

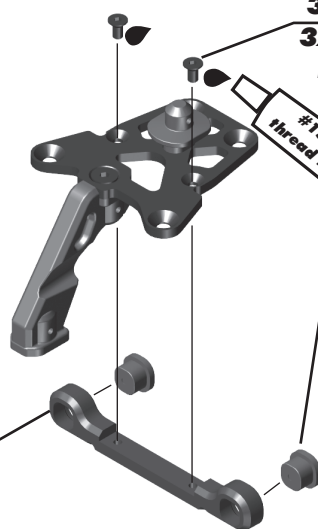


31541
3x6mm
FHCS

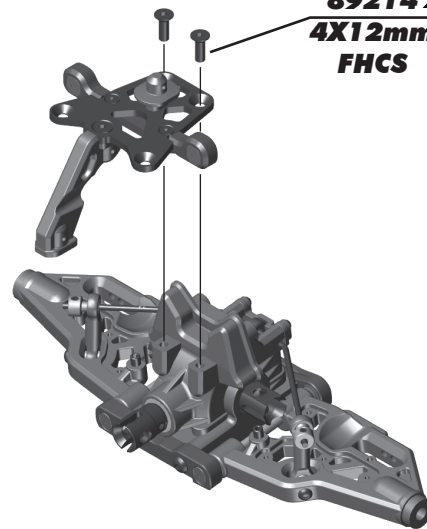


81520
Arm Mount
Insert,
Center

81647
B4.1 Upper
Link Mount,
Angled



89214
4X12mm
FHCS



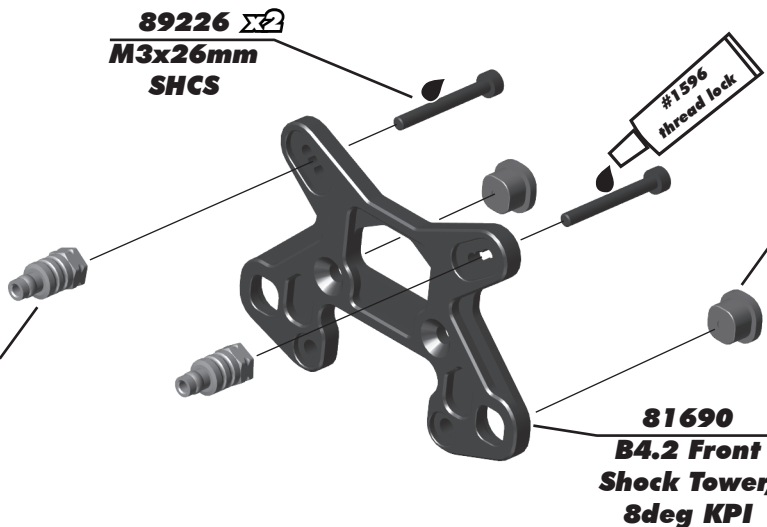
:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 8

Kit Setup:



89226
M3x26mm
SHCS

81591
FT Shock
Bushing,
14mm

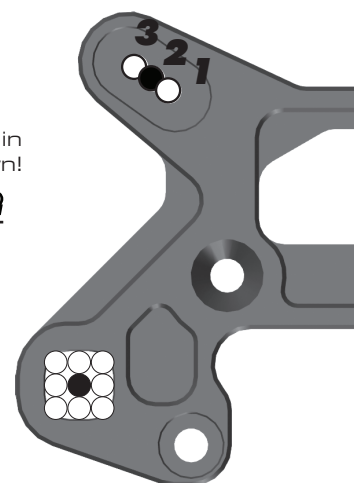


81690
B4.2 Front
Shock Tower,
8deg KPI



Install arm
mount inserts in
direction shown!

81520
Arm Mount
Insert,
Side

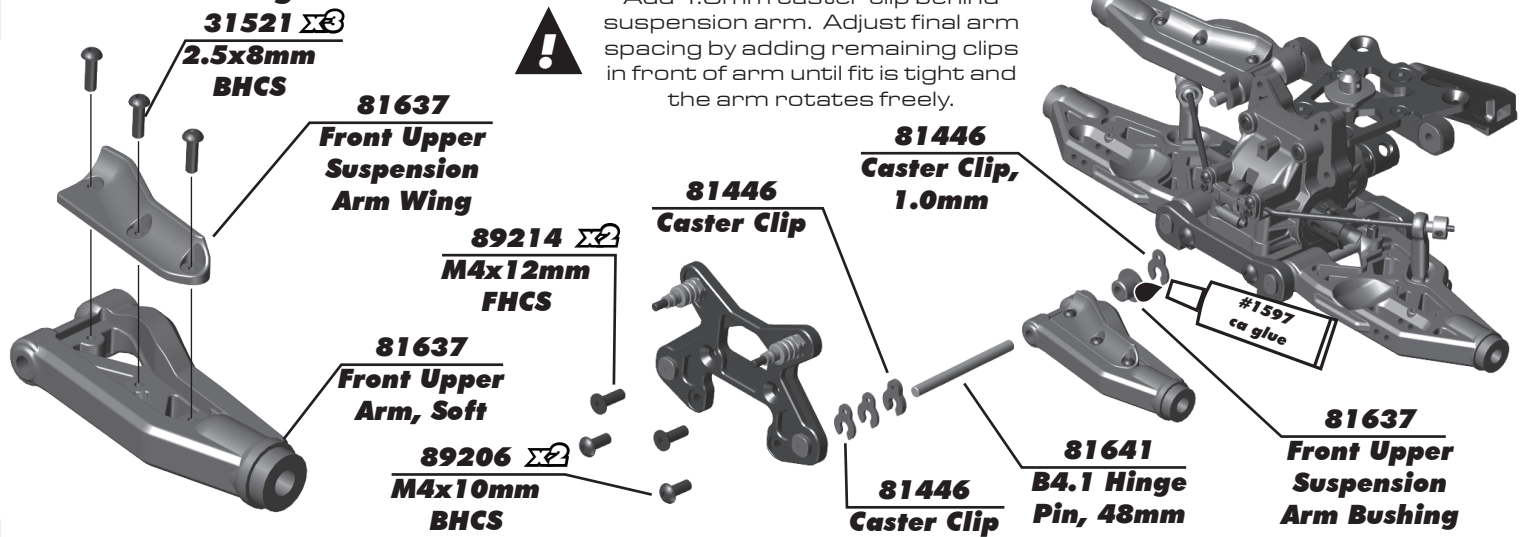


:: Front Gearbox Build - Bag 5.1, 5.2, 5.3 - Step 9

Build left and right side!

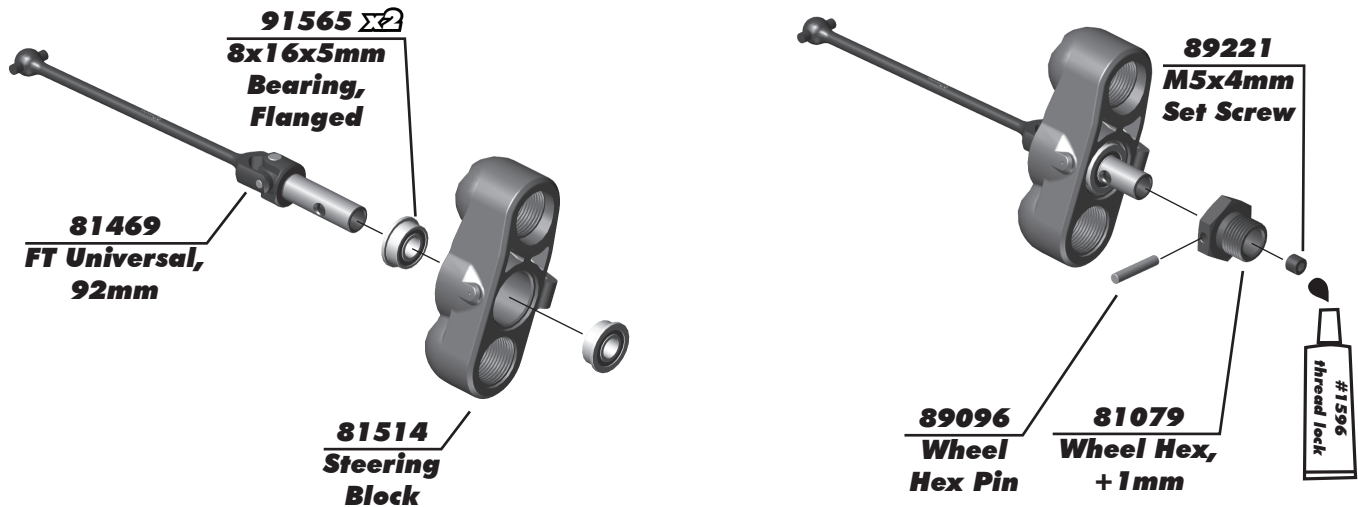


Add 1.0mm caster clip behind suspension arm. Adjust final arm spacing by adding remaining clips in front of arm until fit is tight and the arm rotates freely.



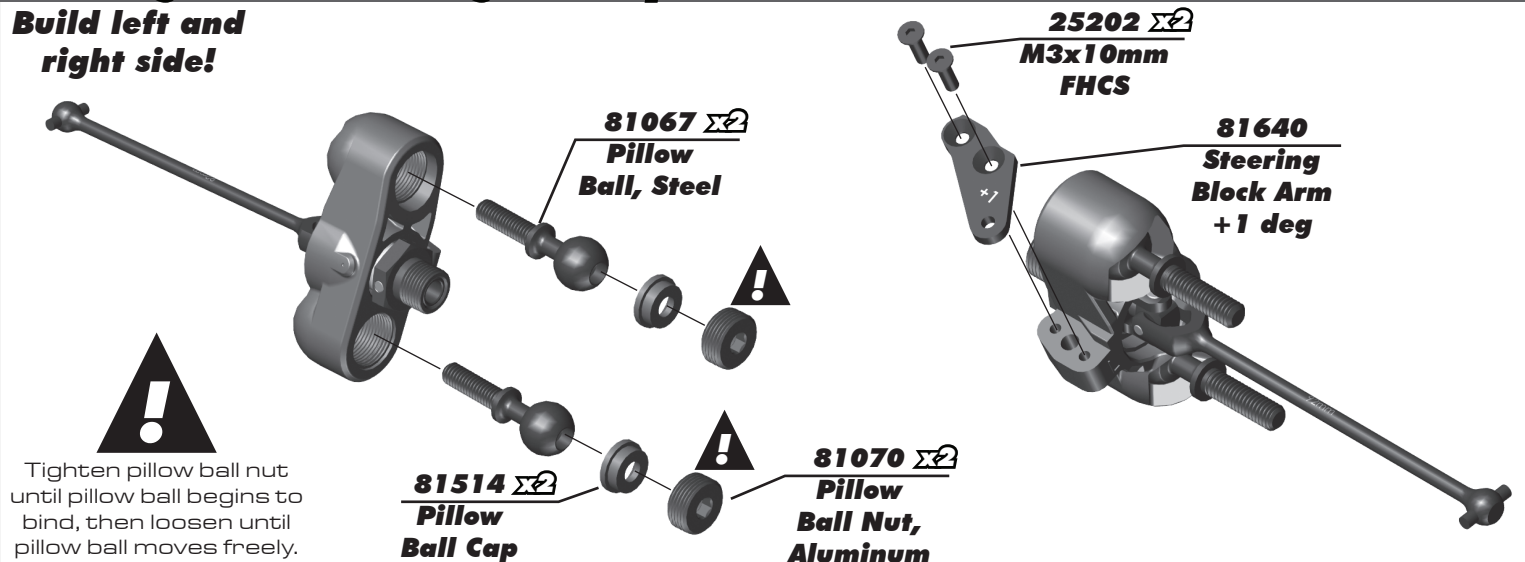
:: Steering Blocks Build - Bag 6.1 - Step 1

Build left and right side!



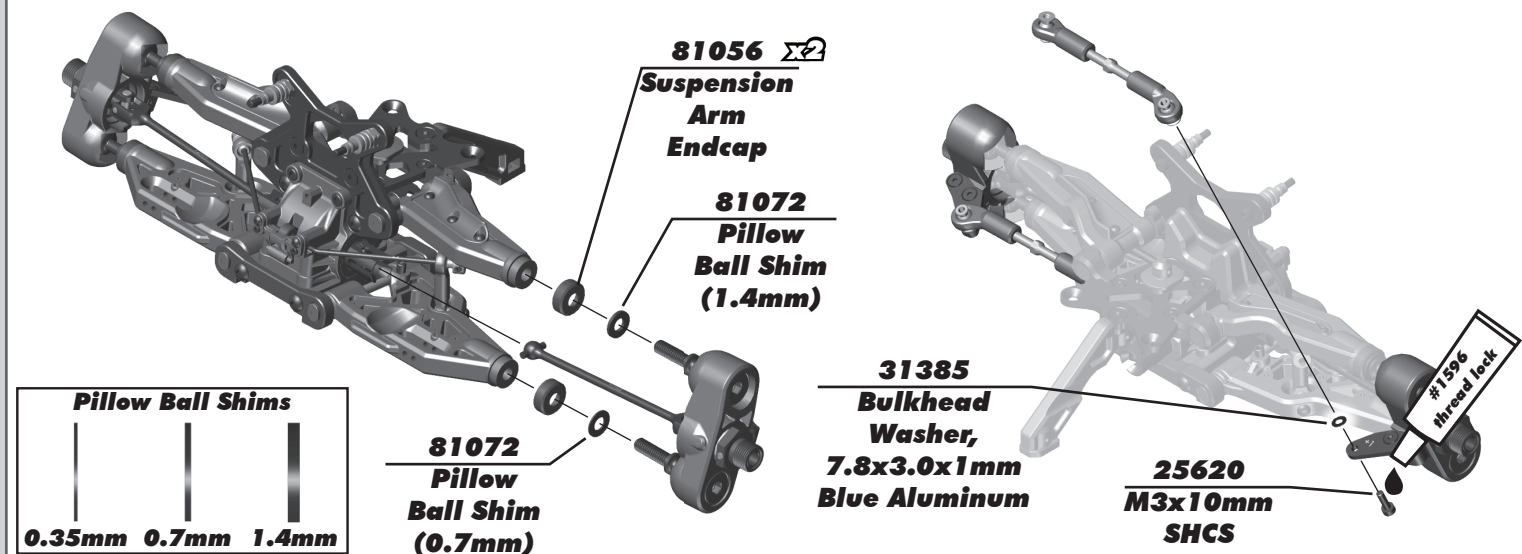
:: Steering Blocks Build - Bag 6.1 - Step 2

Build left and right side!

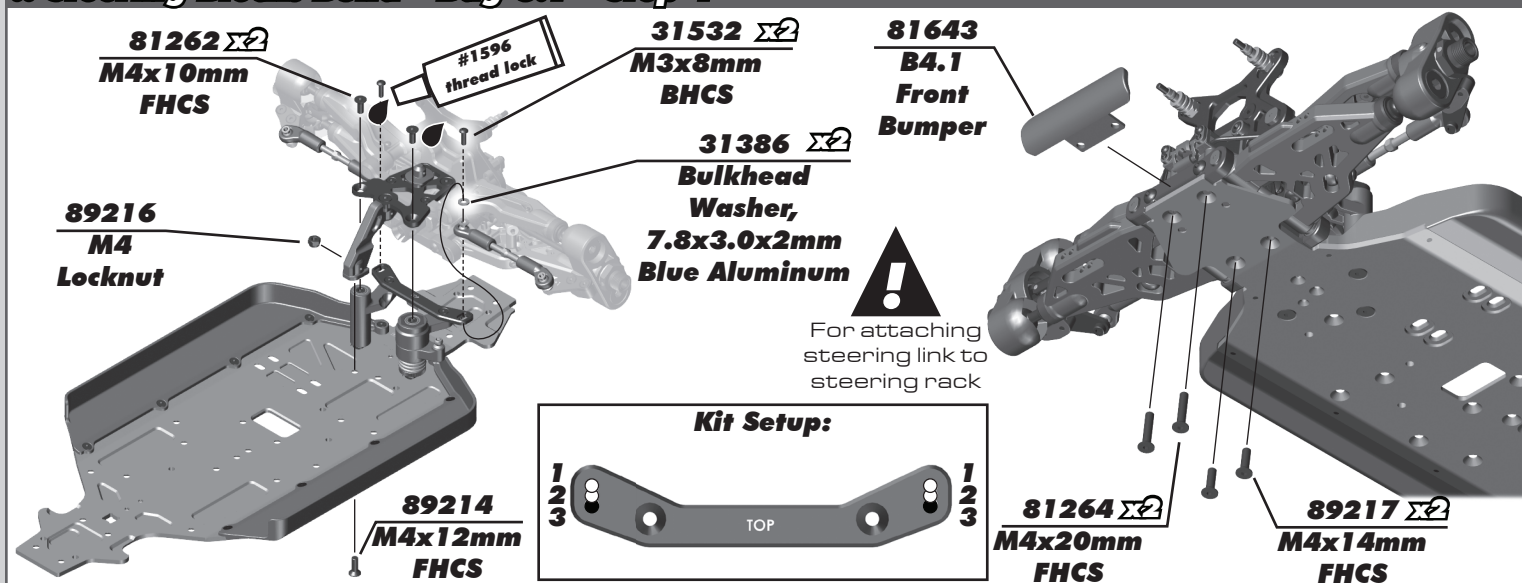


!
Tighten pillow ball nut until pillow ball begins to bind, then loosen until pillow ball moves freely.

:: Steering Blocks Build - Bag 6.1 - Step 3



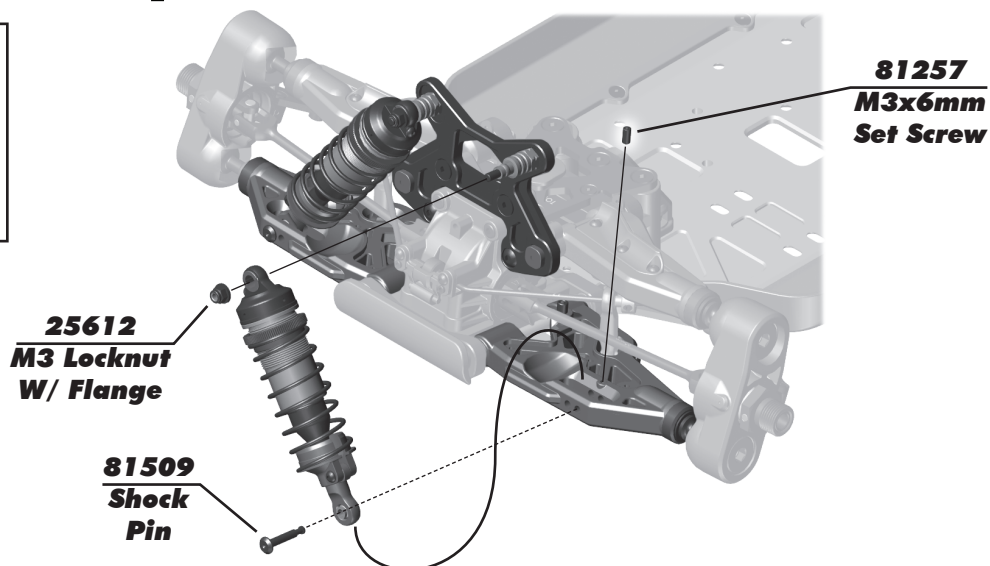
:: Steering Blocks Build - Bag 6.1 - Step 4



:: Steering Blocks Build - Bag 6.1 - Step 5

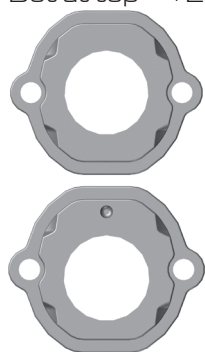
Kit Setup:

Mount the front shock in the outside hole on the front arm.



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

Pinion Height Insert:
 Dot at bottom = 0
 No dot = +1
 Dot at top = +2



81689
B4.2 Pinion Height Insert, Team Kit 0

Racer's Tip:
 Clearance here for easier diff installation.

4675
M2.5x6mm FHCS

#6588
black grease

81468
Diff Pinion Gear, 44/13 set

81688
Dust Cap

4675
M2.5x6mm FHCS

81688
B4.2 Gearbox, (Inboard)

81688
B4.2 Gearbox Flange Insert, Low

91561
6x12x4mm Bearing

81565
Dogbone Outdrive, Rear

#1596
thread lock
89221
M5x4mm Set Screw

Racer's Tip:
 De-grease and clean set screw and cup for best thread lock.

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



Gearbox Diff Height:
 Dot at bottom = 0
 No dot = +1
 Dot at top = +2

81689
B4.2 Gearbox Diff Height Insert, Team Kit 0

81381
Diff Shim 13.5x15.8x0.20mm

STEP 1

25620
M3x10mm SHCS

81688
Anti-Roll Bar Cap

81688
B4.2 Gearbox, (Outboard)

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

Note:

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

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

Kit Setup:

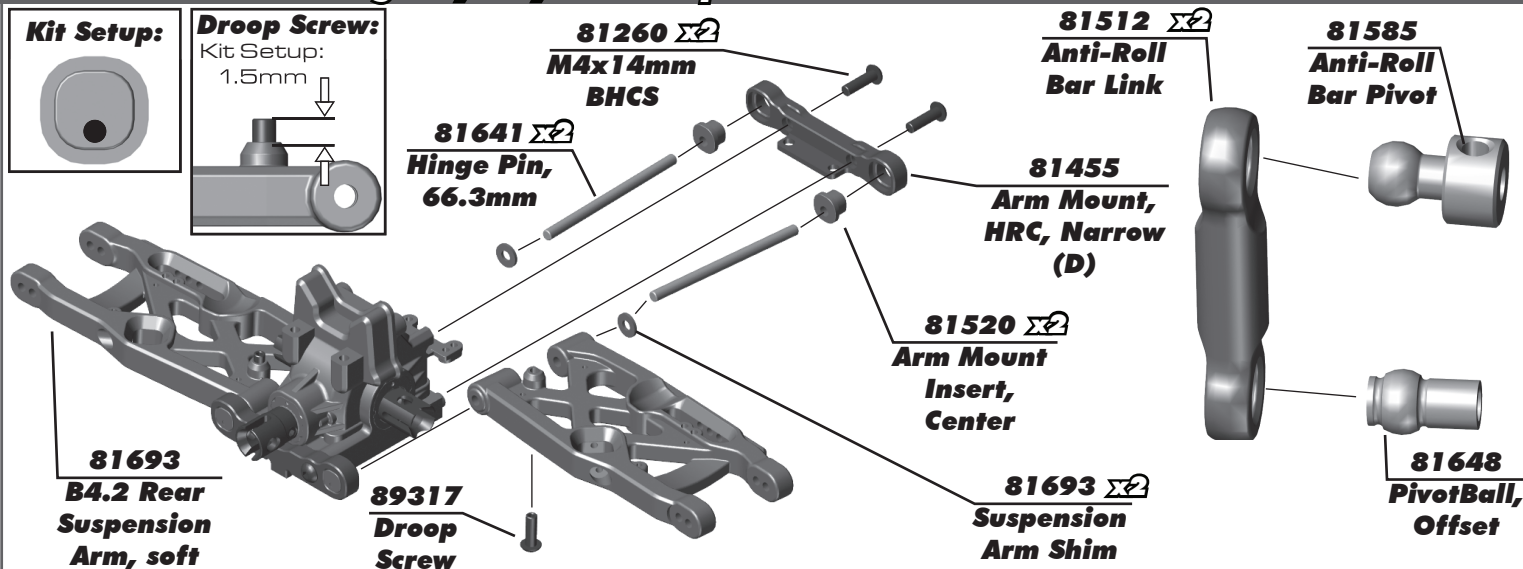


81454
Arm Mount, HRC, Narrow (C)

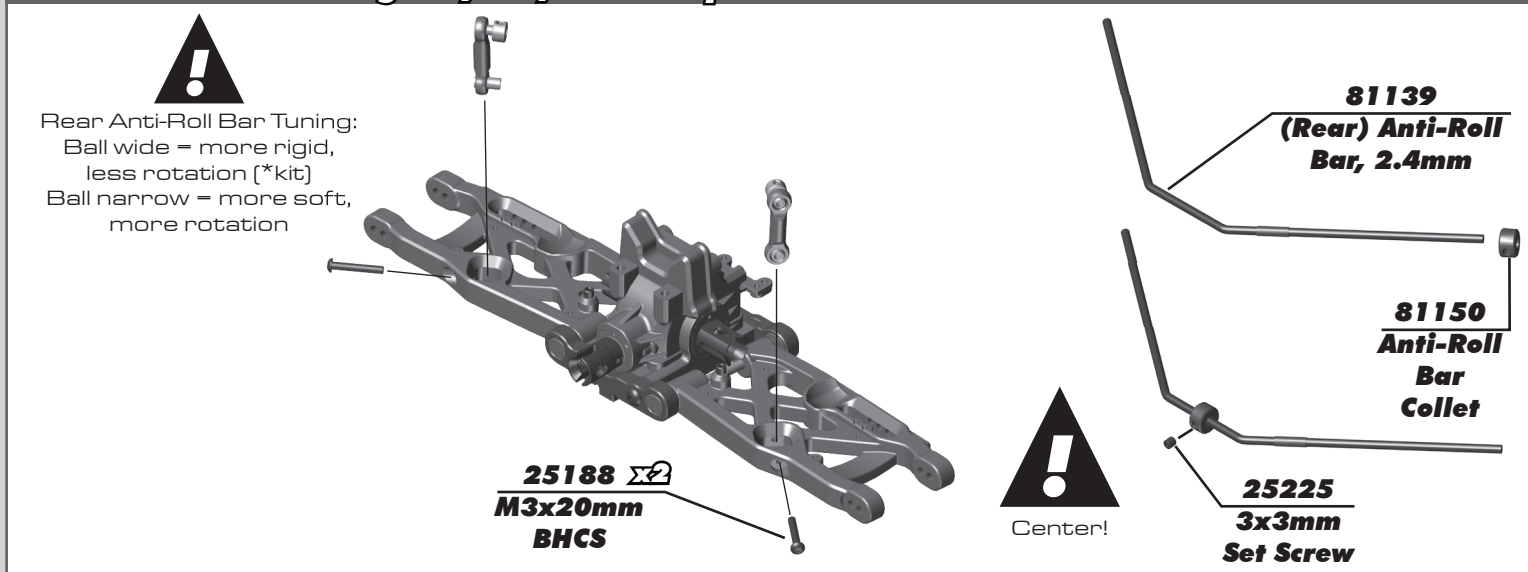
81260
M4x14mm BHCS

81520
Arm Mount Insert, Center

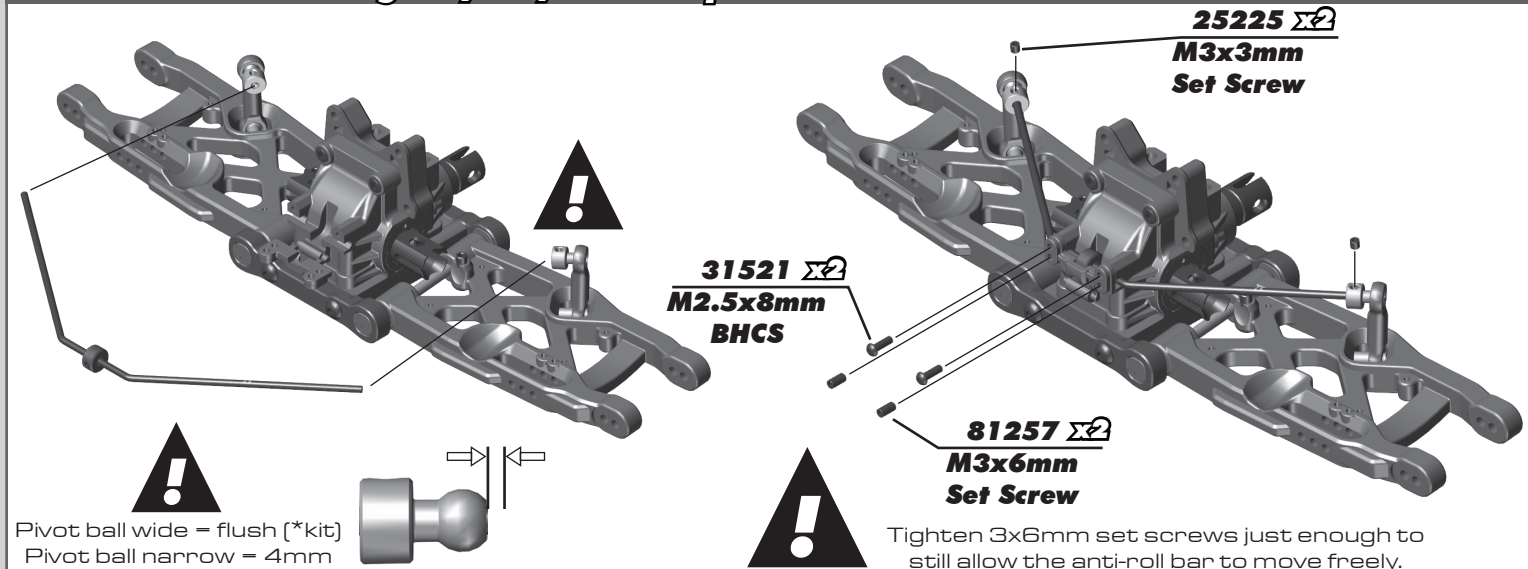
:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 4



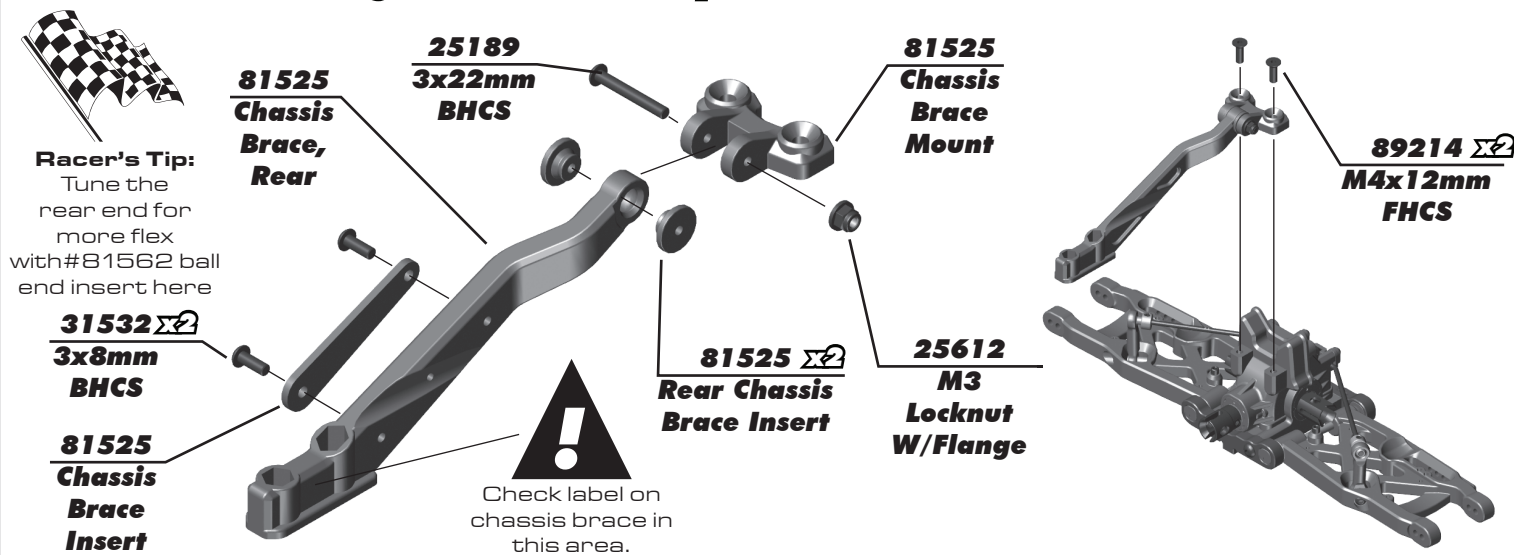
:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 5



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

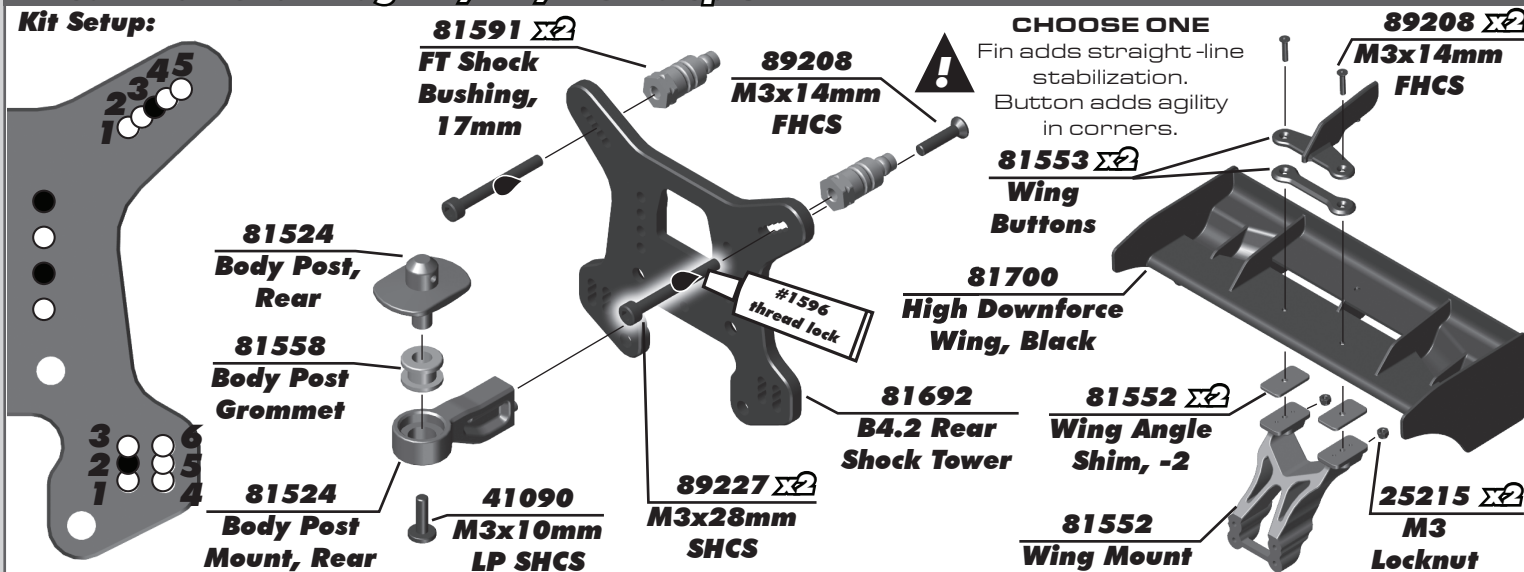


:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 7

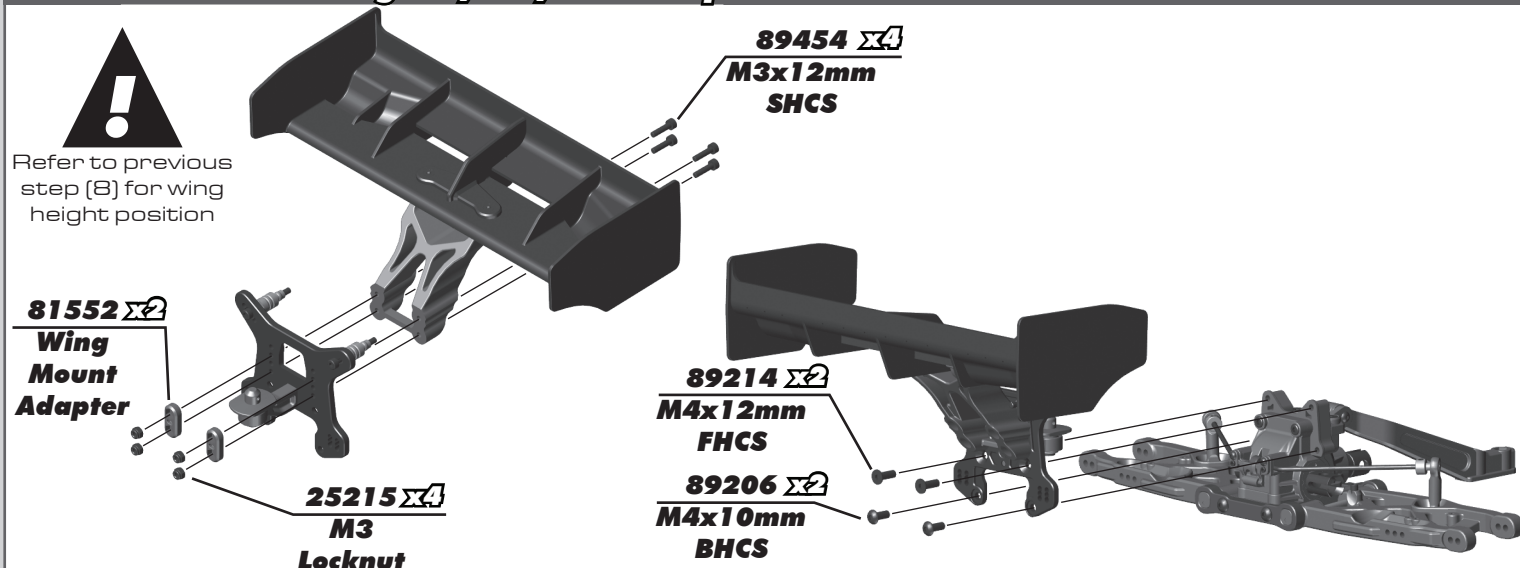


:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 8

Kit Setup:

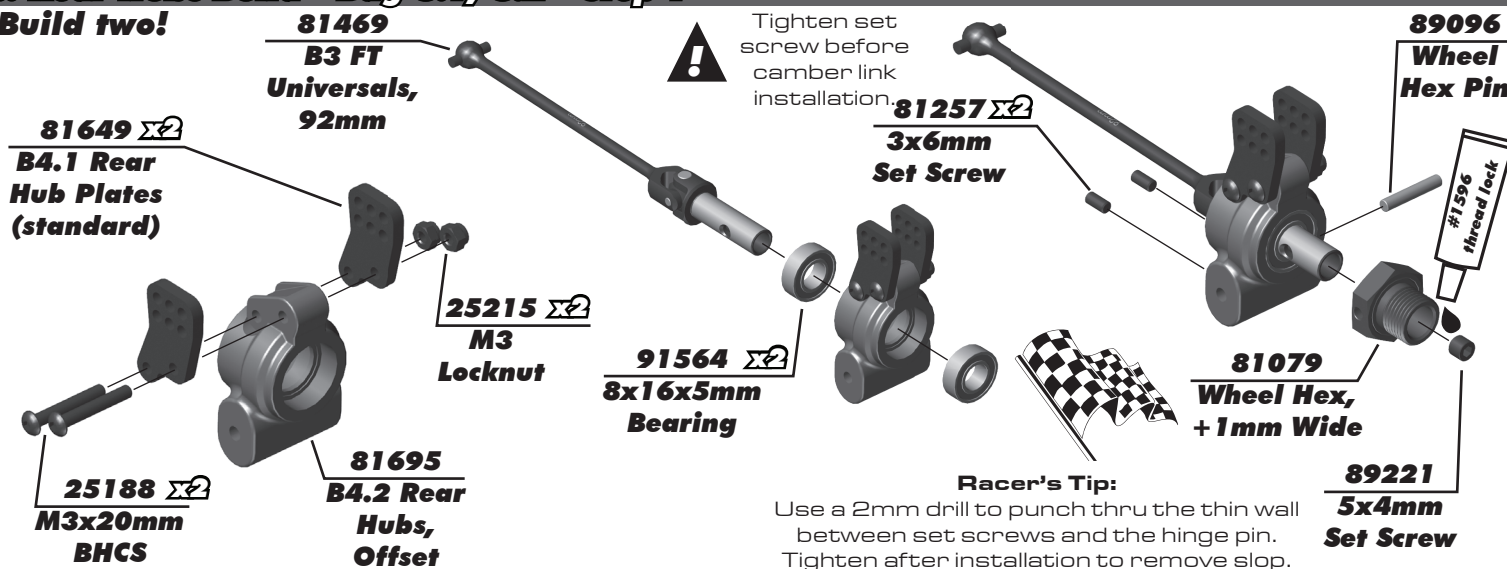


:: Rear End Build - Bag 7.1, 7.2, 7.3 - Step 9



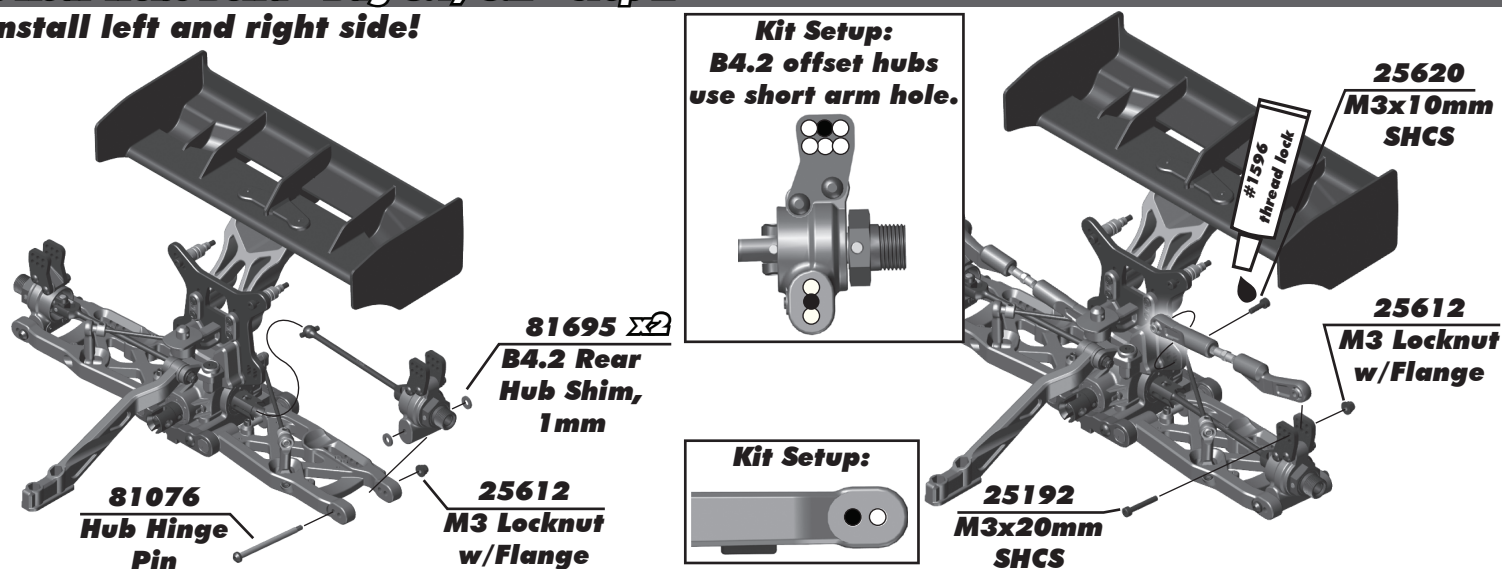
:: Rear Hubs Build - Bag 8.1, 8.2 - Step 1

Build two!



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

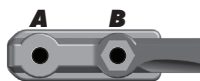
Install left and right side!



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

Tuning Tip:

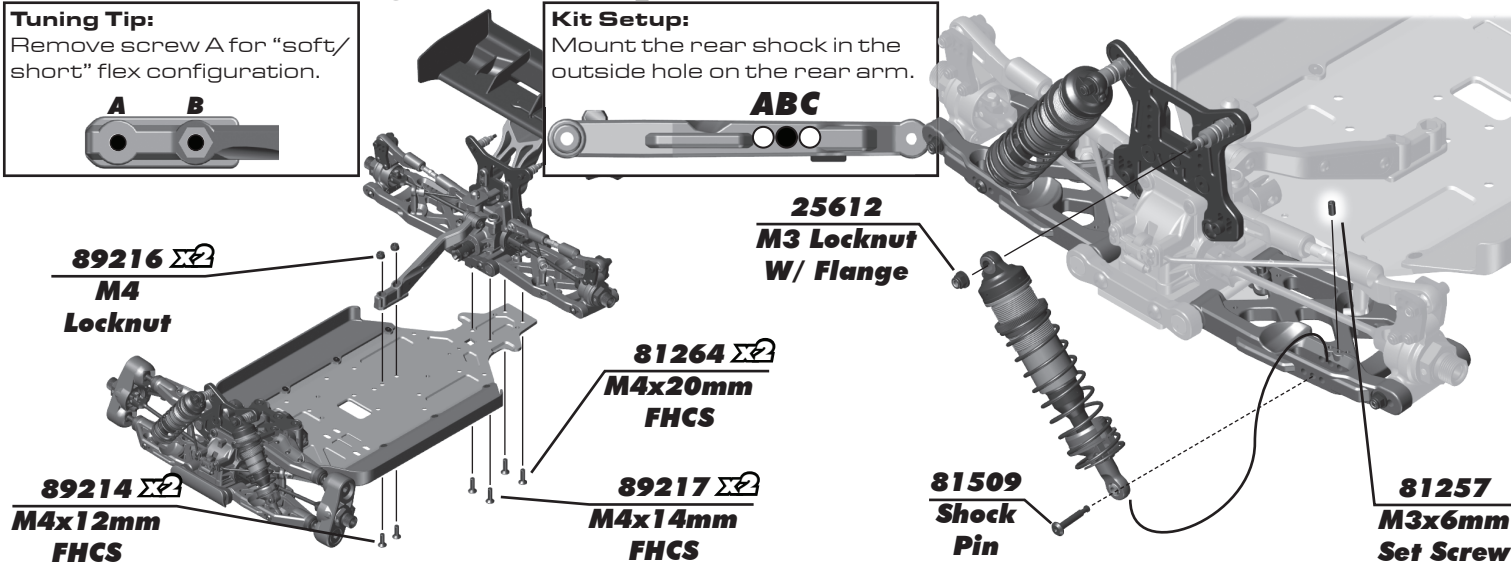
Remove screw A for "soft/short" flex configuration.



Kit Setup:

Mount the rear shock in the outside hole on the rear arm.

ABC



:: Center Bulkhead - Bag 9.1 - Step 1



Note: Do not use brake rotor guides on center bulkheads

Motor Direction on ESC to Reverse

Weight Bias Setting	FWD	RWB
Center Diff Adapter Position	FWD	RWD
Motor Clamp Position	FWD	RWD
Front Dogbone Shaft (mm)	96.5	104
Rear Dogbone Shaft (mm)	104	96.5

89216 $\Sigma 2$

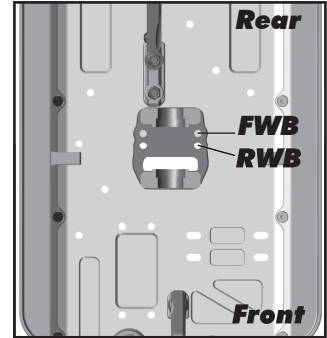
M4
Locknut

81448 $\Sigma 2$
Center
Bulkhead,
Lower

81645
FWB / RWB
Adapter
Plate

89214 $\Sigma 4$
4x12mm
FHCS

81262 $\Sigma 2$
4x10mm
FHCS



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

:: Center Bulkhead - Bag 9.1 - Step 2

89212 $\Sigma 4$
3x30mm
FHCS

81581
RC8B4e
Center
Dogbone,
104mm

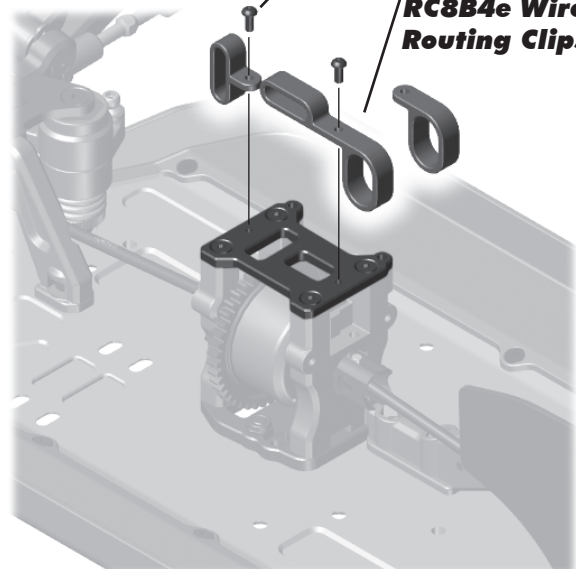
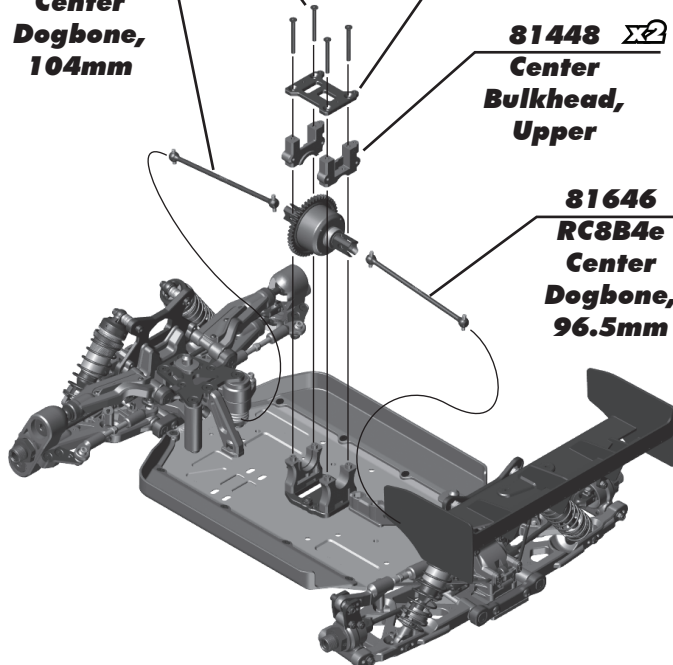
81578
RC8B4e
Front Top
Plate

81448 $\Sigma 2$
Center
Bulkhead,
Upper

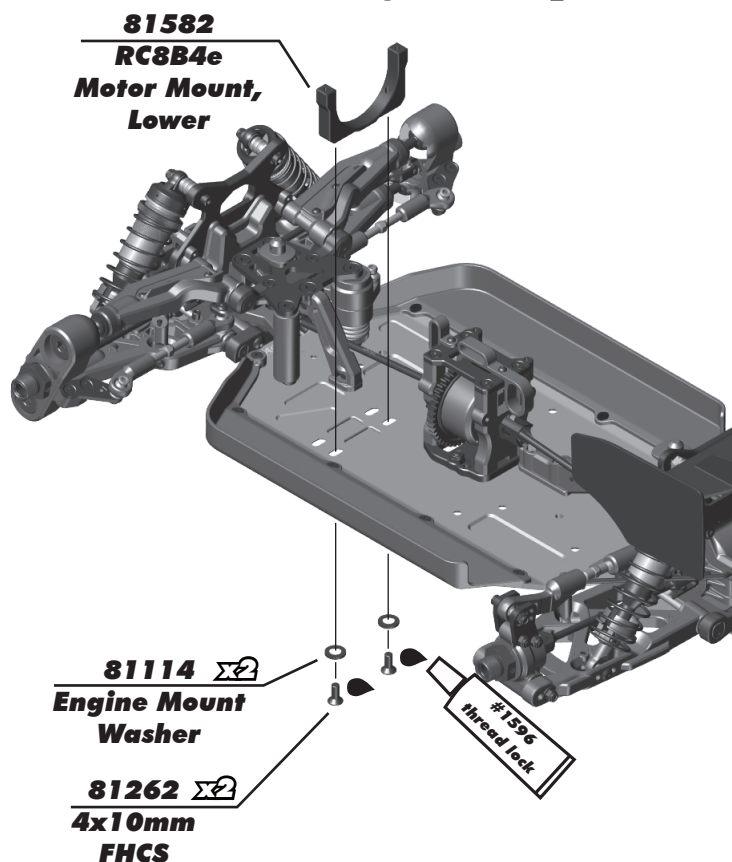
81646
RC8B4e
Center
Dogbone,
96.5mm

31521 $\Sigma 2$
2.5x8mm
BHCS

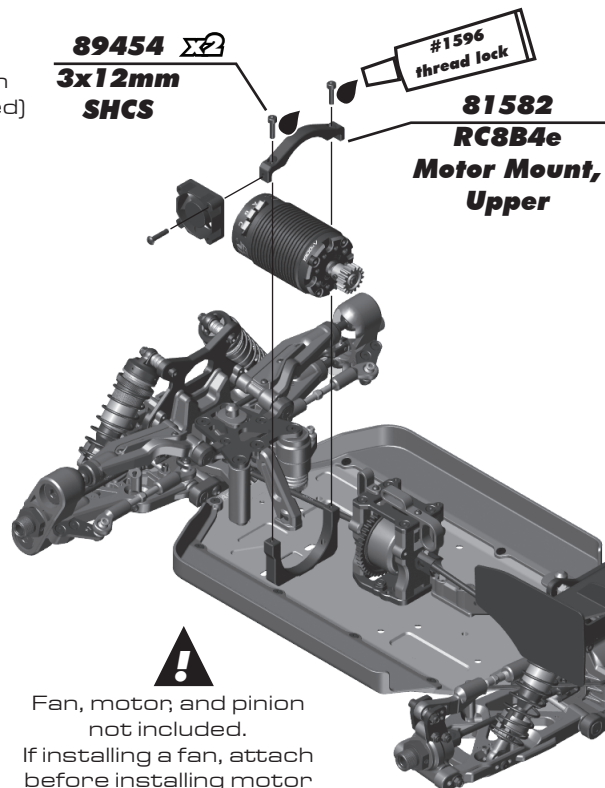
81572
RC8B4e Wire
Routing Clips



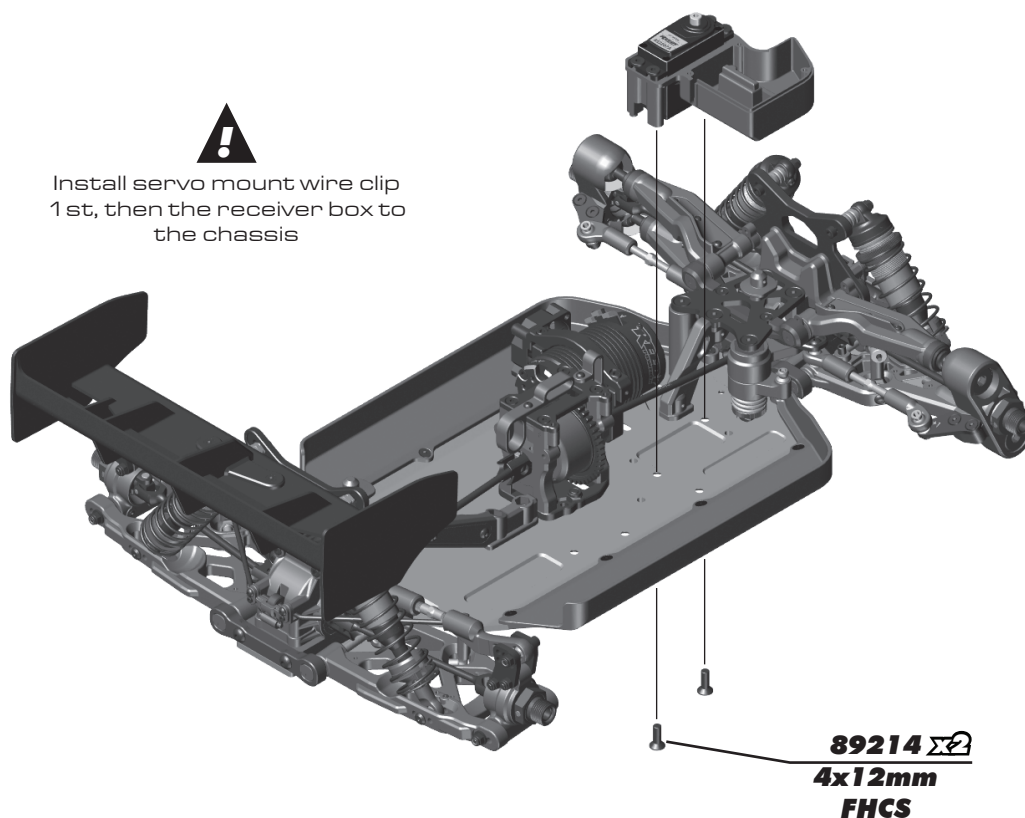
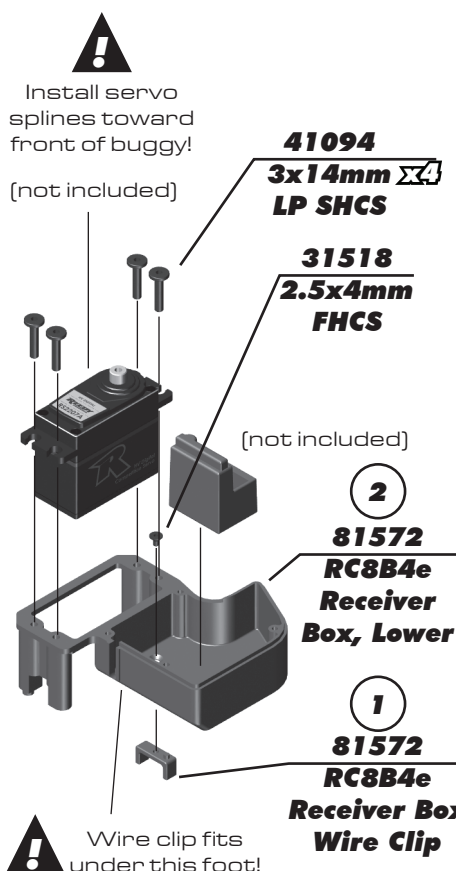
:: Center Bulkhead - Bag 9.1 - Step 3



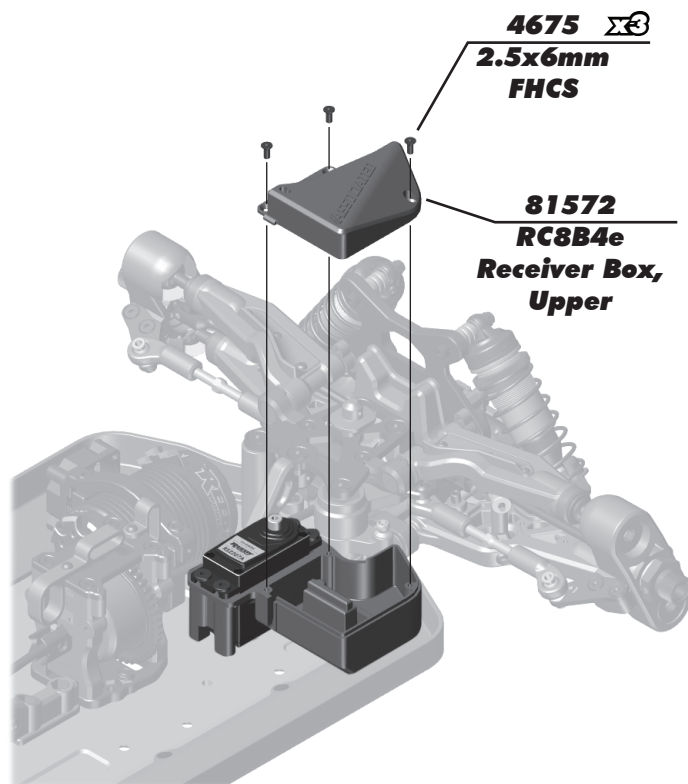
Optional!
30mm fan
(not included)



:: Radio Tray Build - Bag 10.1, 11.1 - Step 1



:: Radio Tray Build - Bag 11.1 - Step 2



Spline Count



Printed here

23T

25T

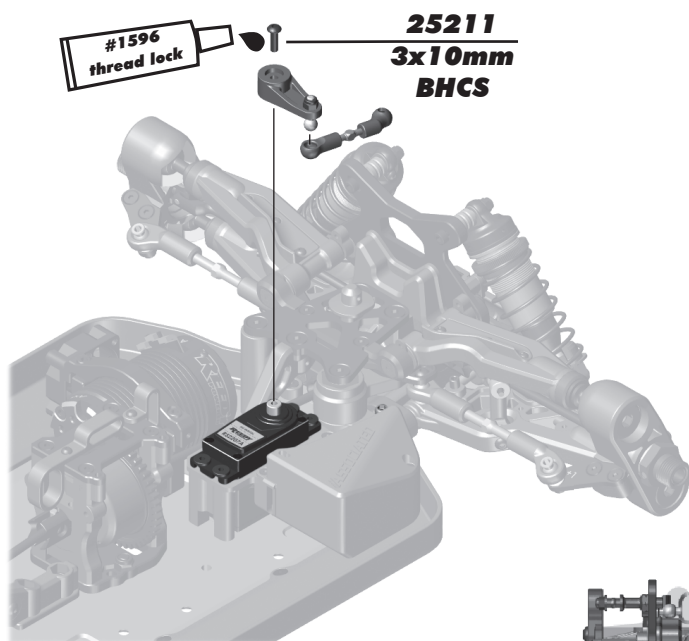
**81556
Servo Horn
(Steering)**

**25215
M3
Locknut**

**81556
Servo Horn
Insert**

**91048
HD Ball
Stud, 8mm**

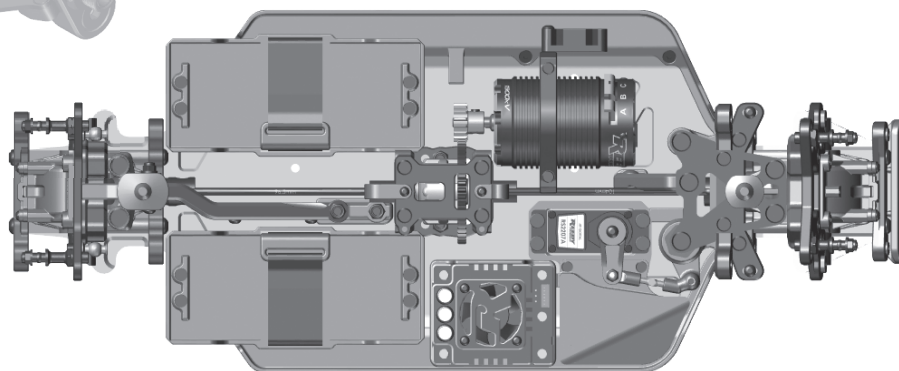
:: Radio Tray Build - Bag 11.1 - Step 3



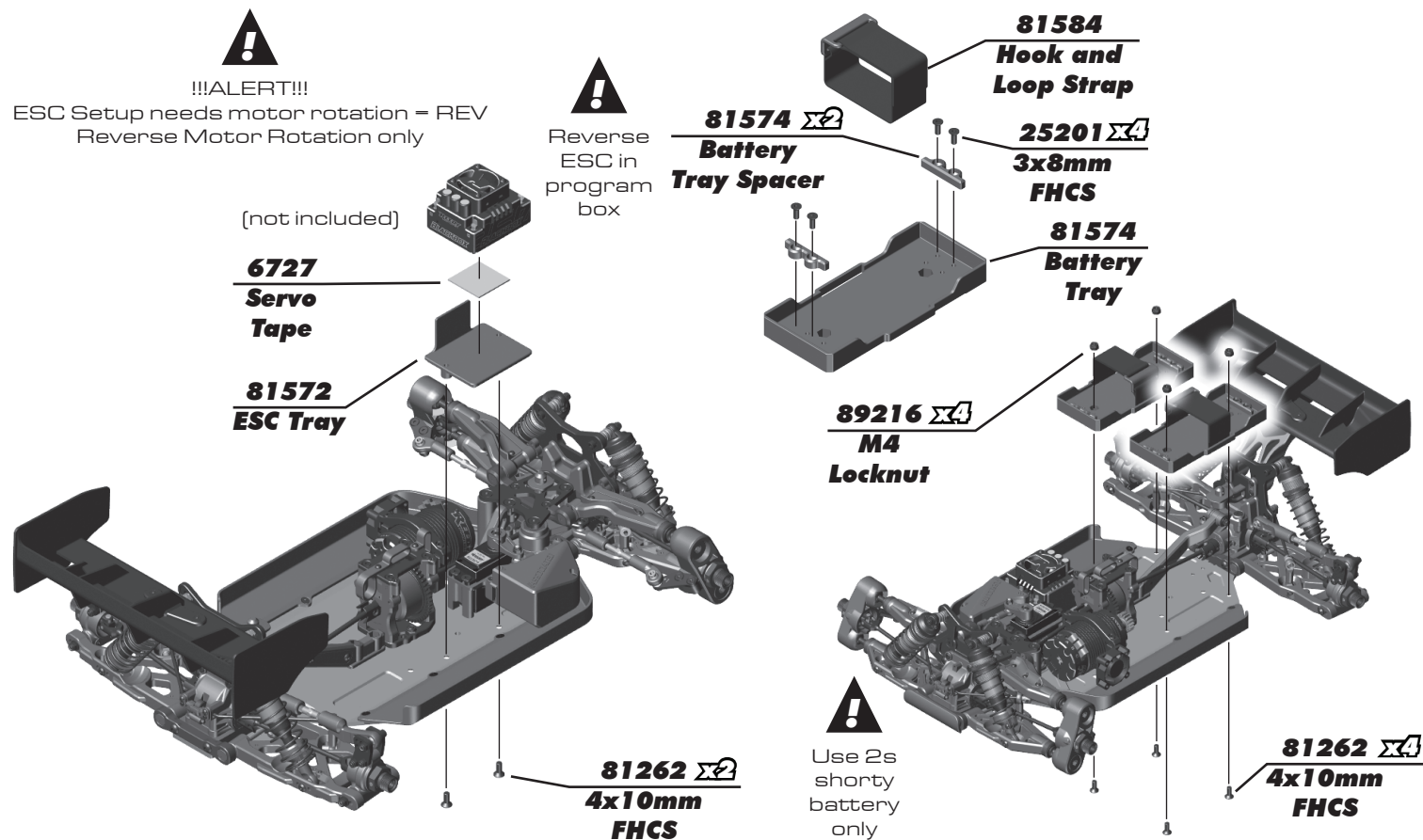
To build RC8B4.2e for use with two 2s shorty battery packs in a "saddle" configuration, follow the steps below.

To build RC8B4.2e for use with one 4s shorty battery pack, continue to "Battery Tray Build - Bag 12.1 - Step 2"

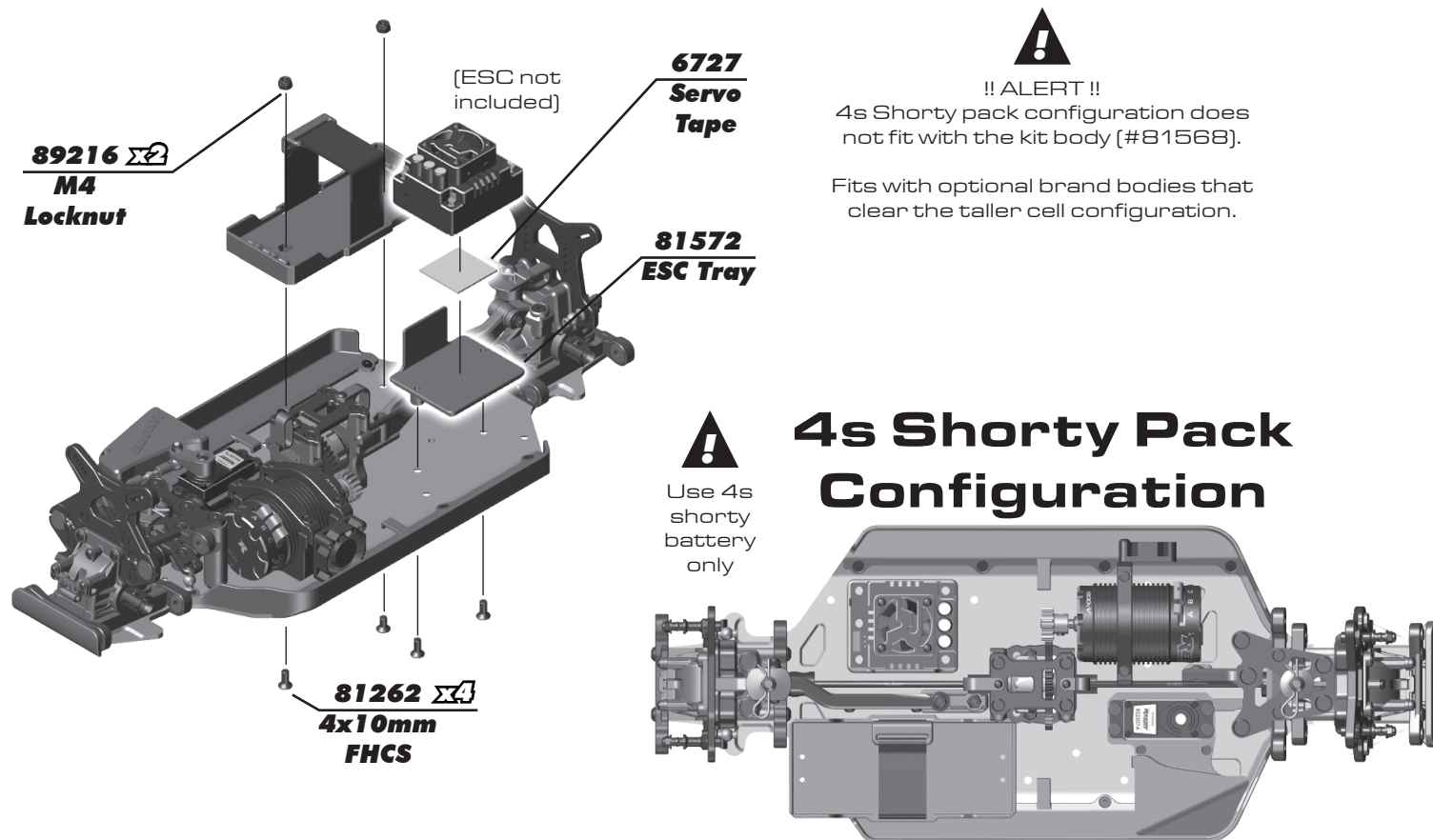
2s Shorty Pack Configuration



:: Battery Tray Build - Bag 12.1 - Step 1



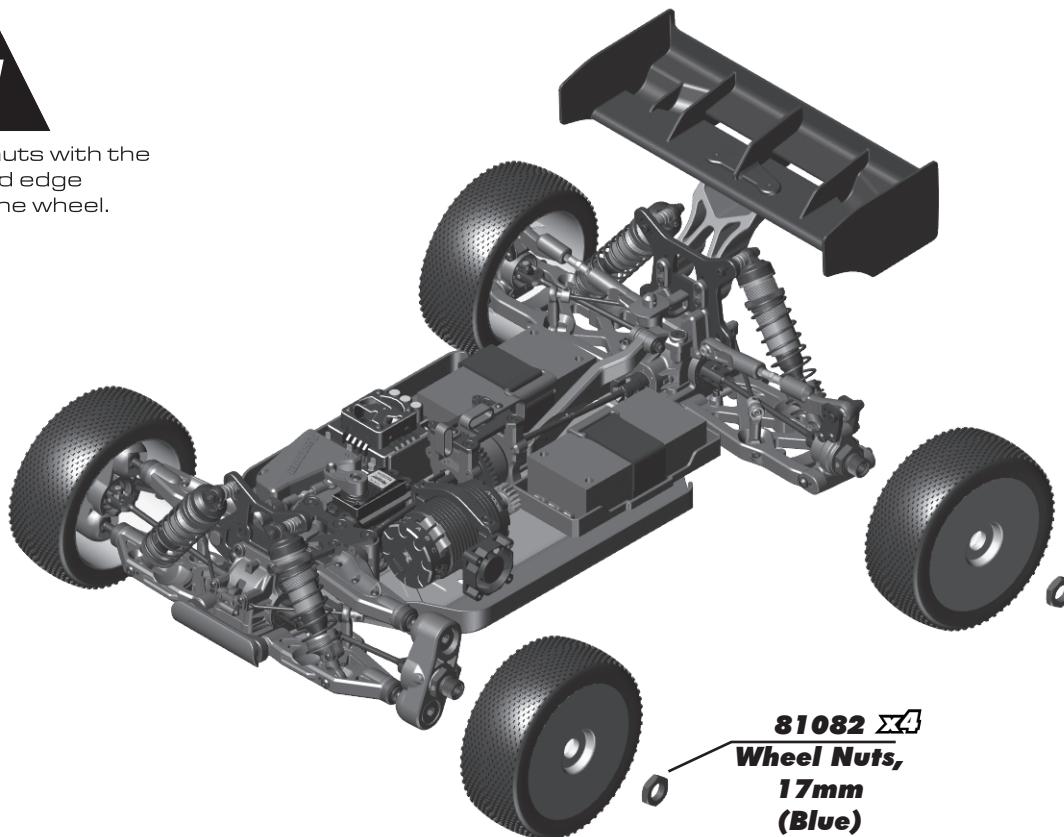
:: Battery Tray Build - Bag 12.1 - Step 2



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



Install wheel nuts with the serrated edge towards the wheel.



81082 
Wheel Nuts,
17mm
(Blue)

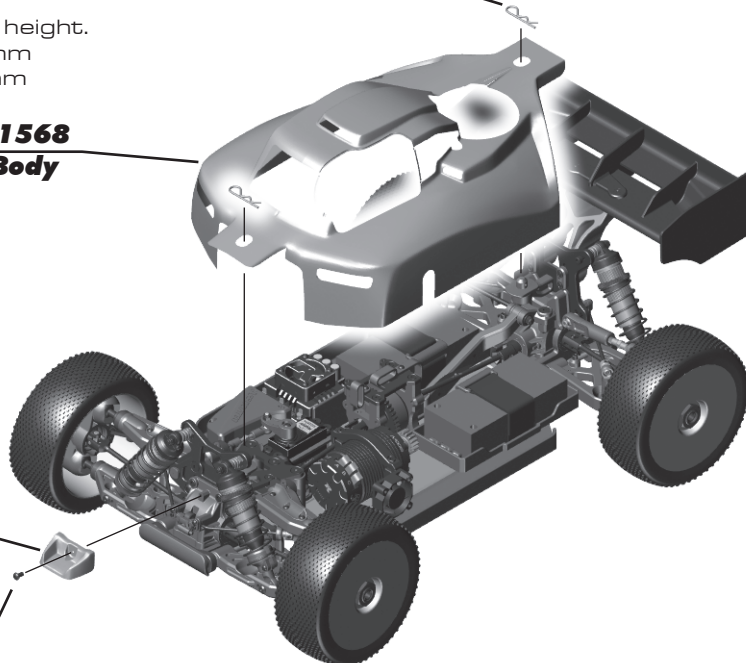
:: Wheels / Tires / Body - Misc. - Step 3



Final chassis ride height.
Front = 23mm
Rear = 26mm

2208 
Body Clip

81568
Body



81583
Nose
Cone

31531
3x6mm
BHCS

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. (R/C cars get painted from 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 R/C 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!

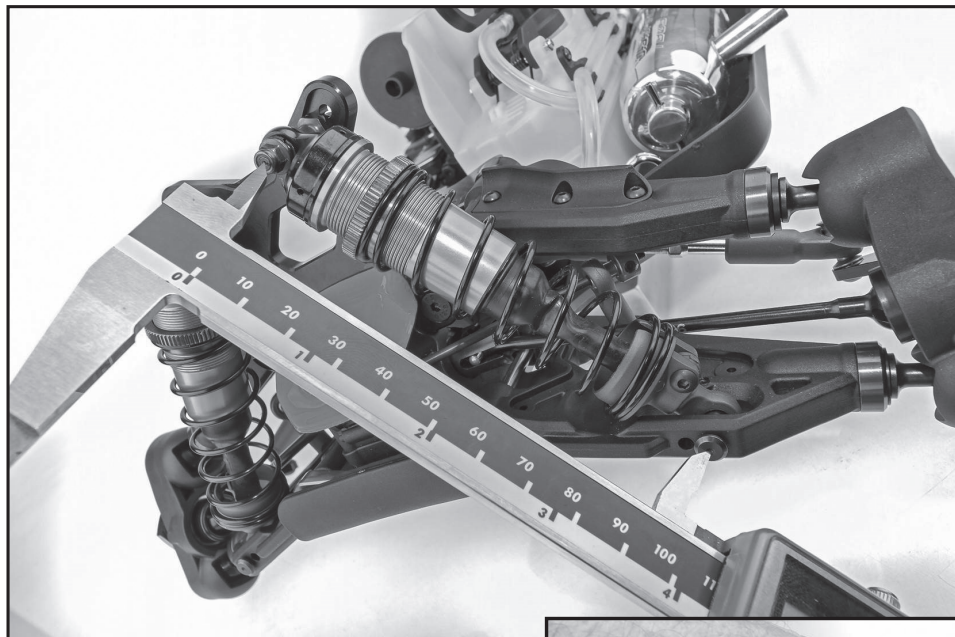
:: Droop Settings

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 101mm shock length, and 126mm shock length for the rear using "C" hole.

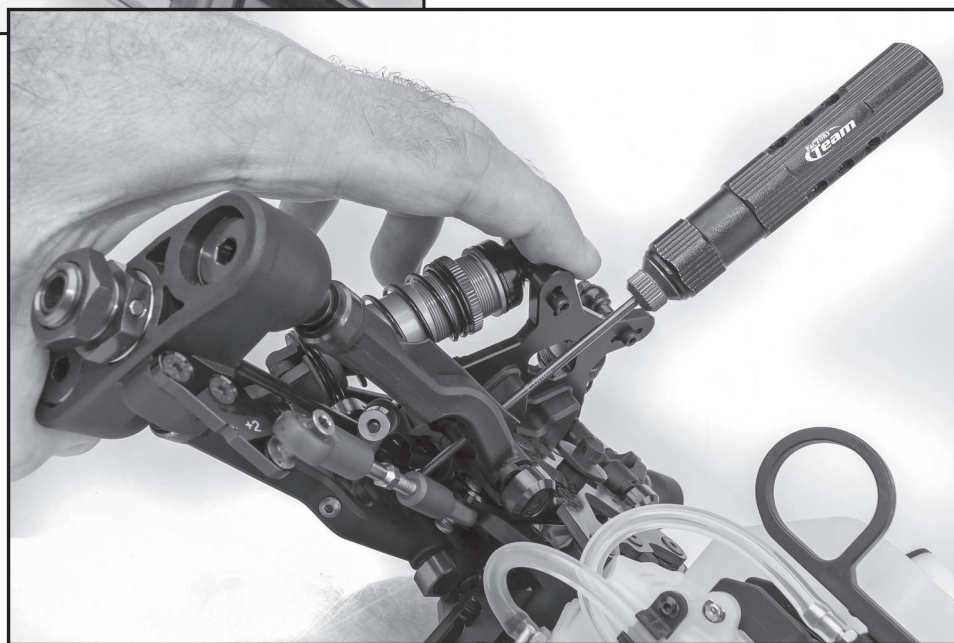
If the shock length is too long, adjust by turning the droop screws clockwise.

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.



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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

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