

**ZQ1B™**

**ASSEMBLY INSTRUCTIONS**

**O'DONNELL**  
RACING

Every dream has a beginning and an end. This one just happened to start out in the O'Donnell family garage back in 1980. Young Steve O'Donnell wasn't satisfied with the mediocre products that the RC industry had to offer, so he set out to build the best engineered and manufactured products available. Lucky for us, his dream is far from over...

O'Donnell took his vast knowledge of nitro engine tuning and soon designed products that would complement his talents. First came his custom designed and machined aluminum cooling heads for the on-road racing scene. Finding another void in the industry, he also began producing custom tuned pipes to better utilize all of the power these nitro burning monsters could produce.

The efforts of O'Donnell did not go overlooked. Some of the major R/C manufacturers went to O'Donnell Manufacturing to have their trick aluminum parts machined. O'Donnell's meticulous standards and overwhelming knowledge of the products made it a natural fit. Over the past 24 years, O'Donnell Manufacturing has produced parts for such notable companies as Team Associated and Team Losi.

O'Donnell Manufacturing took another major step forward in 1988 when they introduced O'Donnell Racing Fuel...the name that made them famous with racers around the world. Once again, O'Donnell saw a need — for a high-quality fuel specifically blended for the demands of nitro burning car engines. From that point on, O'Donnell Racing Fuel became synonymous with winning. To this day, no other fuel has won as many national championships as O'Donnell Racing Fuel.

To complement the racing fuel, O'Donnell set out in 2000 to design a glow plug that would out-perform and out-last all the competitors. The result? Two U.S. patents and a World Championship. Not bad for someone who started out in his parents' garage. Today, O'Donnell glow plugs are the choice of champions worldwide.

Not afraid to take chances on long shots, in 1999 O'Donnell spotted a little kid from the hills of California who had a great deal of driving talent. This kid would later become a National Champion in both electric and nitro. He would also go on to TQ and win the IFMAR World Championships. That kid was the one and only Jared Tebo. The name Tebo quickly became associated with O'Donnell and winning. He's known around the world for his race-winning talent.

O'Donnell's dreams moved to the next level when he embarked on the ultimate journey...the design and creation of a new 1/8 off-road nitro racing buggy. The plan was simple: Don't try to "re-invent the wheel", **just refine it...all of it.**

Now, after extensive development, refinement, testing, and on-track race-winning results, we are proud to introduce the Ultimate Racing Machine –

Designed by O'Donnell, Tested by Tebo....**the Z01-B.**

- O'Donnell® guarantees this kit to be free from defects in both material and workmanship at the date of purchase. O'Donnell will warranty this kit for 90 days after the purchase date. O'Donnell will repair or replace, at no charge, the incorrectly made part.
- Make sure you save the receipt or invoice you were given when you bought your model! It is your proof of purchase and we must see it before we can honor the warranty. Further, O'Donnell reserves the right to change or modify this warranty without notice.
- In that O'Donnell has no control over the final user assembly or material used for final user assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

To return your Z01B for repairs covered under warranty you should send your buggy to:

**Hobby Services**  
**3002 N. Apollo Drive Suite 1**  
**Champaign, Illinois 61822**  
**Attn: Service Department**  
**Phone: (217) 398-0007 9:00 am-5:00 pm Central Time M-F**  
**E-mail: [hobbyservices@hobbico.com](mailto:hobbyservices@hobbico.com)**  
**[www.hobbyservices.com](http://www.hobbyservices.com)**

**If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.**

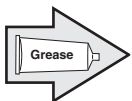
Use care and good sense at all times when operating this radio controlled buggy. Failure to use this vehicle in a safe, sensible manner can result in injury or damage to property. You and you alone must insure that the instructions are carefully followed and all safety precautions are obeyed.

- Do not operate the Z01B near people. Spectators should be behind the driver or at a safe distance away from the vehicle.
- Water can cause the electronics to short out and can cause permanent damage.
- Always turn on the transmitter before turning on the receiver.
- Fully extend the transmitter antenna before operating your vehicle.
- Before turning on your radio system, check to make sure that no one else is running on the same frequency.
- The engine and exhaust produce quite a bit of noise. Do not run this vehicle when or where it can disturb others.
- The engine and exhaust can become very hot. Avoid touching any of these parts during use and until they have cooled down.
- Model engine fuel is poisonous. Make sure you read and follow all of the precautions on the fuel container. Keep fuel out of the reach of children.
- Model engine fuel is flammable and when ignited has a flame that is difficult to see. Avoid sparks, flames, smoking, or any other ignition source when fuel is near.
- The engine emits harmful fumes just like real vehicles. Do not operate this model indoors.
- Avoid running the buggy in cold weather. The plastic and metal parts can become brittle at low temperatures. In addition, grease and oil become thick, causing premature wear and poor performance.

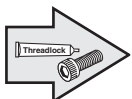
- Read the instructions carefully before starting assembly.
- We recommend building the kit on a towel to help prevent small parts and screws from rolling off your work surface.
- Before turning on your radio system, check to make sure that no one else is running on the same frequency.
- Do not use an electric screwdriver/drill for assembling the kit. This could cause parts to strip out from overtightening.
- Use a quality threadlock where specified in the manual.



- Parts for step included in this parts bag.



- Apply grease to part(s) indicated. **Note:** Always use black moly grease on areas indicated.



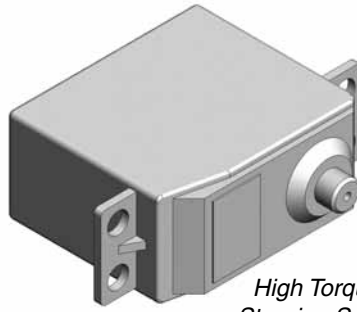
- Apply threadlock to screw(s) indicated. **IMPORTANT:** Clean oil or film from screws before applying threadlock.

**REQUIRED ACCESSORIES**

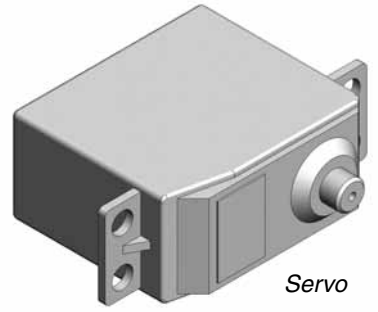
V



Transmitter



High Torque Steering Servo



Servo



Receiver



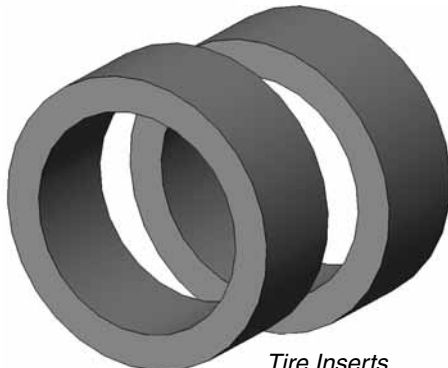
5-Cell Receiver Hump Pack



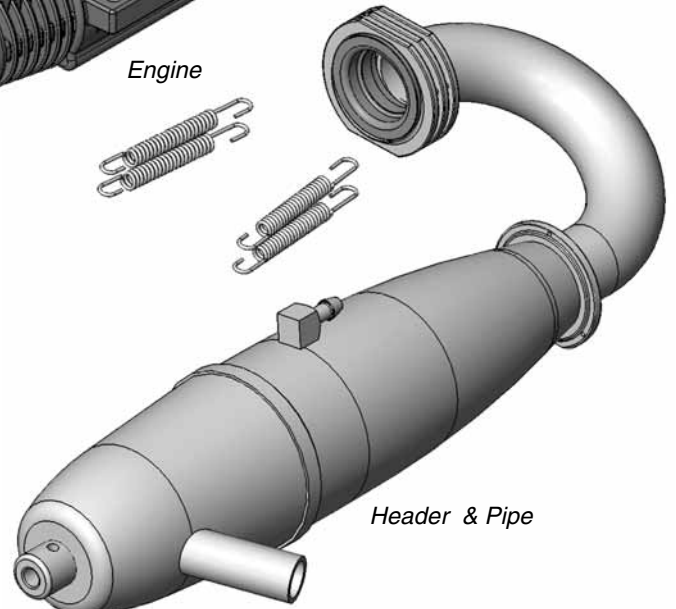
Engine



Tires



Tire Inserts



Header & Pipe



Threadlock



CA Tire Glue



Diff, Shock & Air Filter Oils



Fuel Bottle



Glow Plug (and spares)



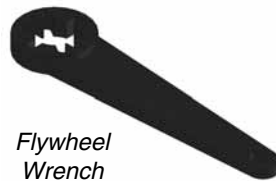
1.5mm Hex Wrench    2.0mm Hex Wrench    2.5mm Hex Wrench



Hobby Knife



Clutch Tool



Flywheel Wrench



Fuel



Body Scissors



Glow Plug Ignitor



4-Way Wrench

# 1

## DIFF HOUSING

### HARDWARE



(x3)

8x16mm Bearing



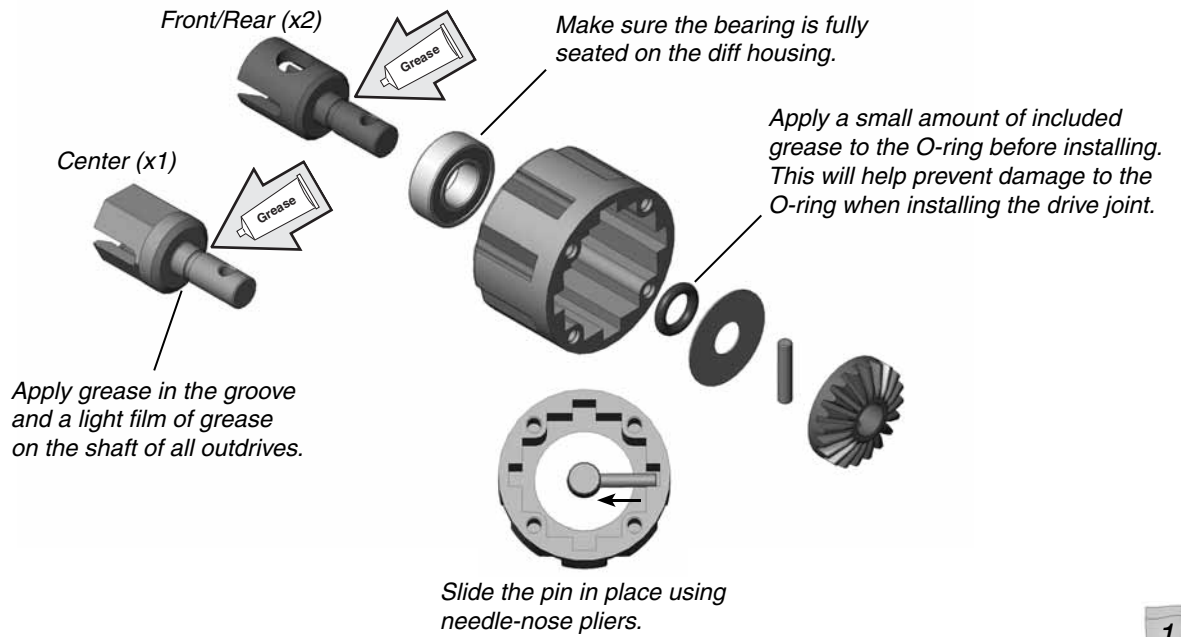
(x3)

Diff Outdrive O-Ring



(x3)

Sun Backing Washer



1

# 2

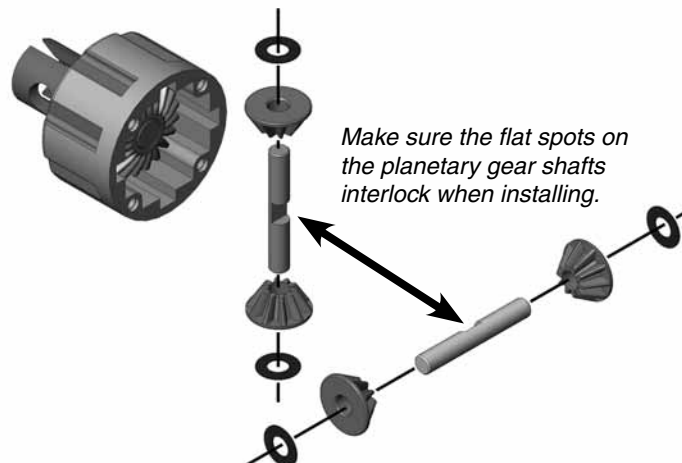
## DIFF PLANETARY GEARS

### HARDWARE



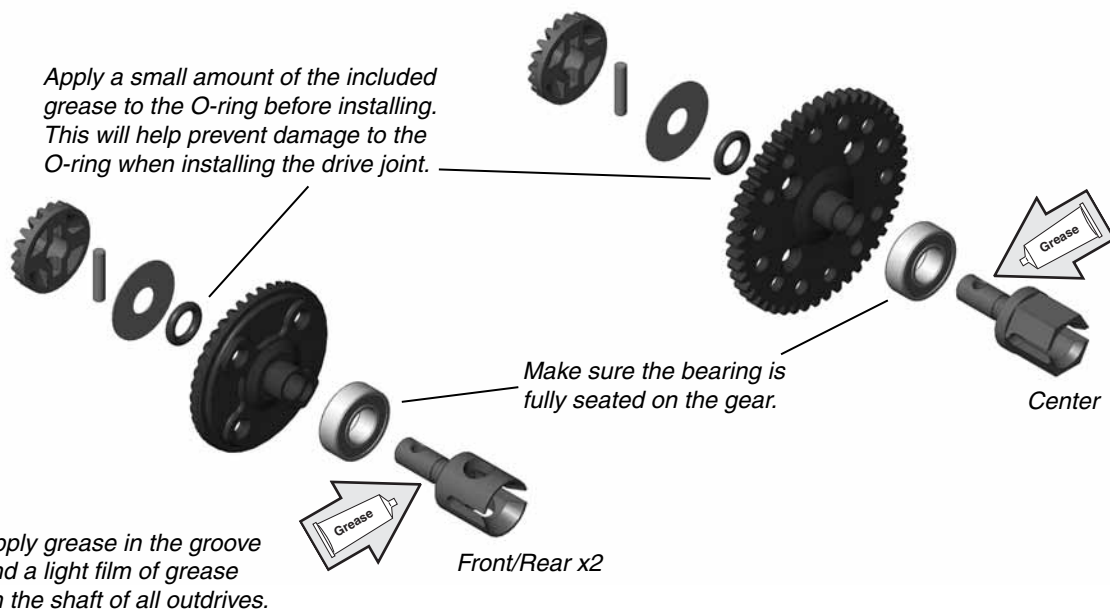
(x12)

Satellite Backing Washer

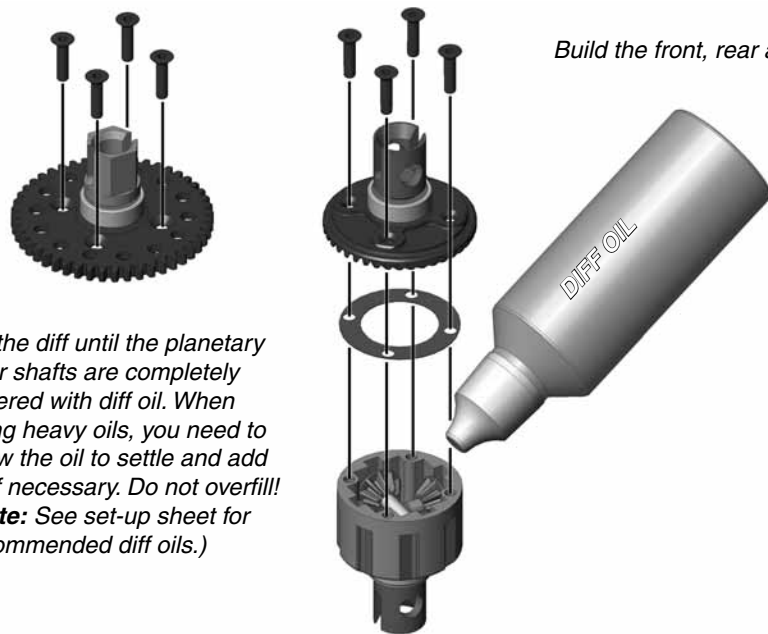
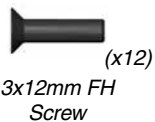


1

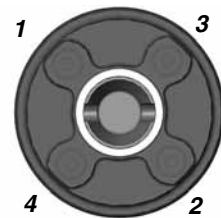
HARDWARE



HARDWARE



Fill the diff until the planetary gear shafts are completely covered with diff oil. When using heavy oils, you need to allow the oil to settle and add oil if necessary. Do not overfill! (Note: See set-up sheet for recommended diff oils.)



Finish tightening the diff gear screws in order. This will help make sure the gear is mounted flat on the diff housing and the housing is properly sealed.

# 5

## CENTER DIFF MOUNTS

### HARDWARE



(x2)

3x6mm FH  
Screw

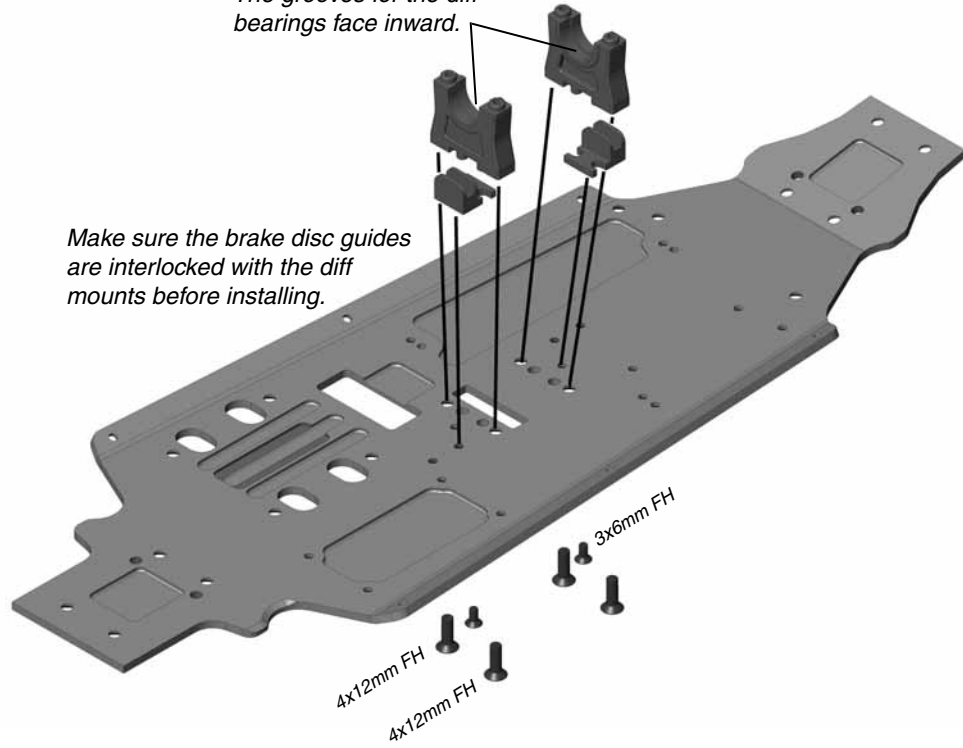


(x4)

4x12mm FH  
Screw

**IMPORTANT!**  
The grooves for the diff  
bearings face inward.

Make sure the brake disc guides  
are interlocked with the diff  
mounts before installing.



2

# 6

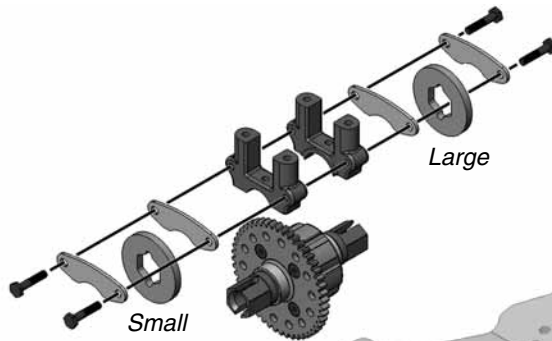
## MOUNT THE CENTER DIFF

### HARDWARE



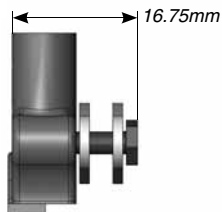
(x4)

Brake Pad Bolt

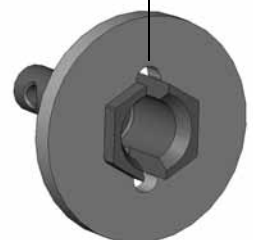


Front

**IMPORTANT!**  
Brake pad bolt adjustment  
must be correct.



Line up brake disc notch.



2



HARDWARE



(x4)

3x35mm BH Screw



(x2)

5x8mm Flanged Bearing



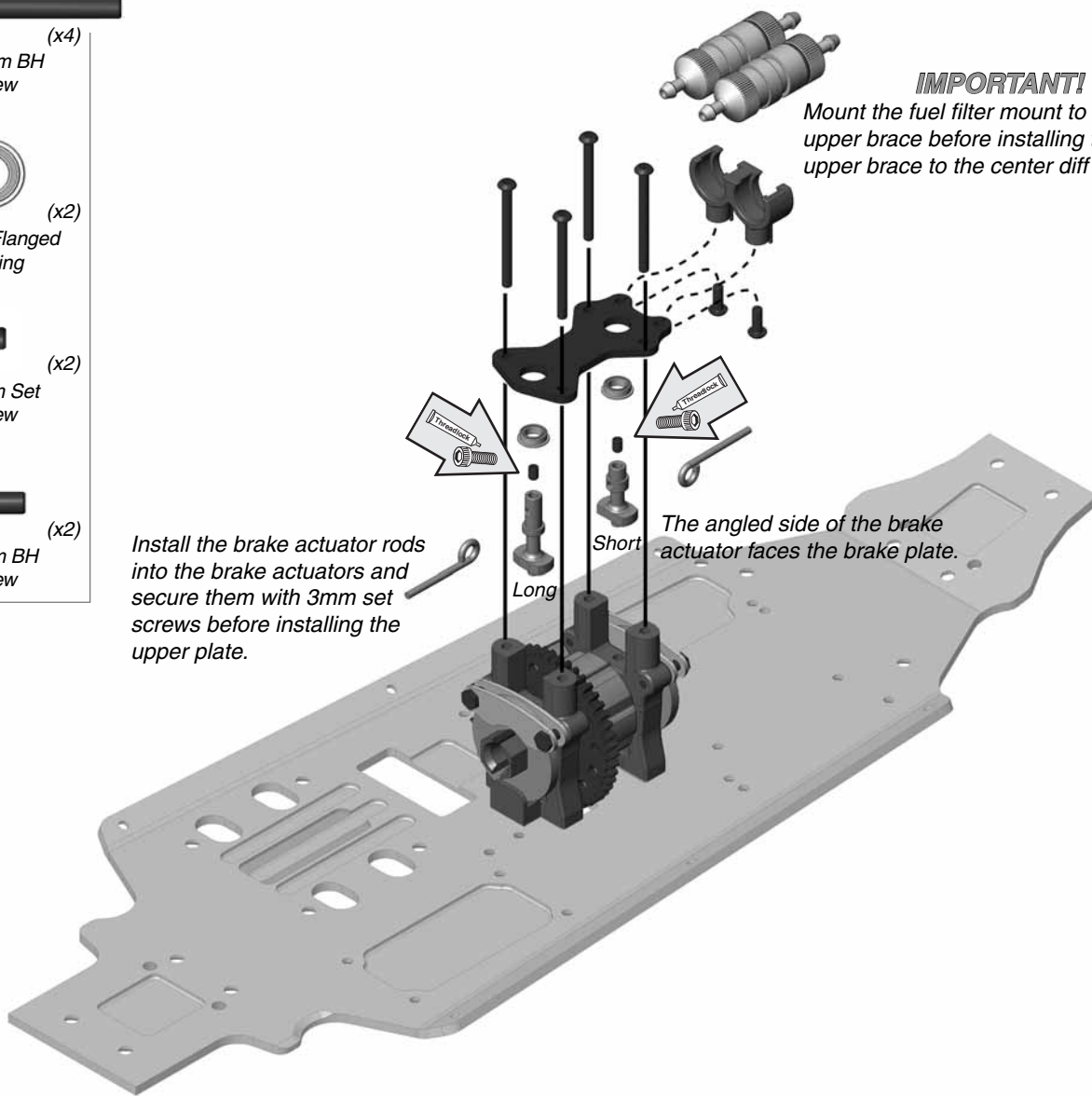
(x2)

3x4mm Set Screw



(x2)

3x8mm BH Screw

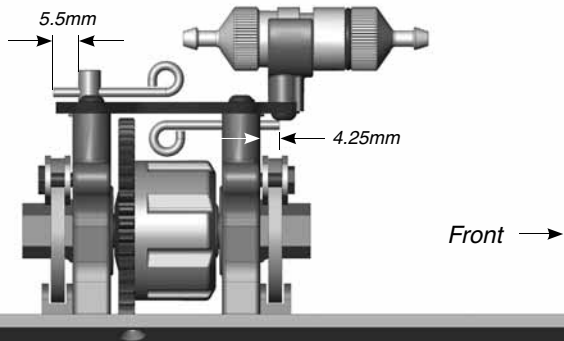


**IMPORTANT!**

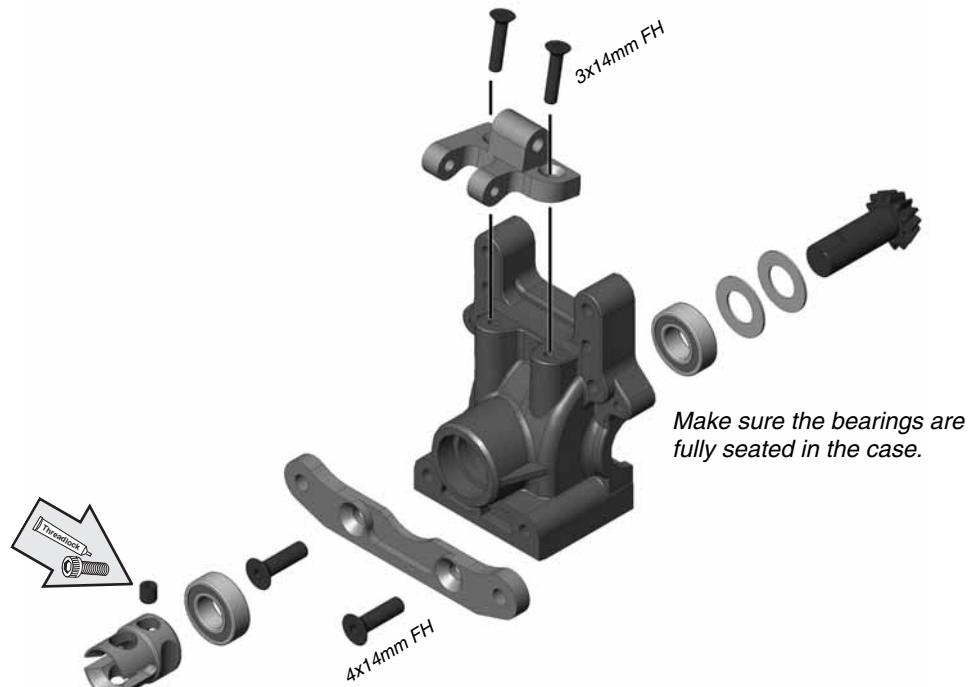
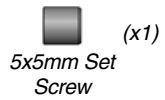
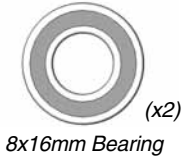
Mount the fuel filter mount to the center upper brace before installing the center upper brace to the center diff mounts.

Install the brake actuator rods into the brake actuators and secure them with 3mm set screws before installing the upper plate.

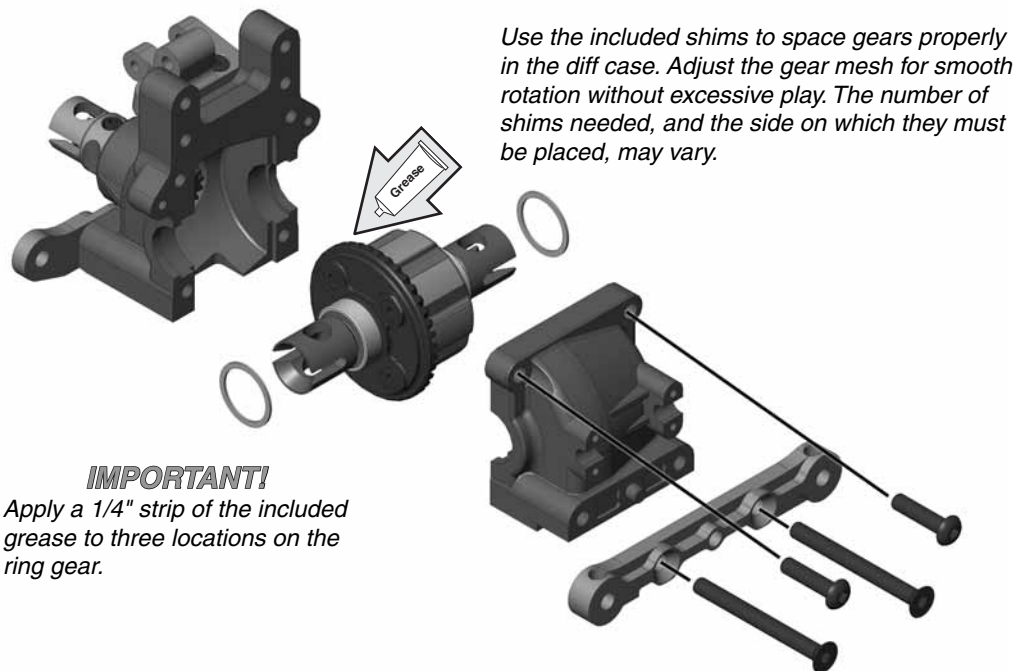
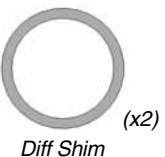
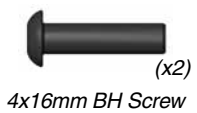
The angled side of the brake actuator faces the brake plate.



HARDWARE









HARDWARE

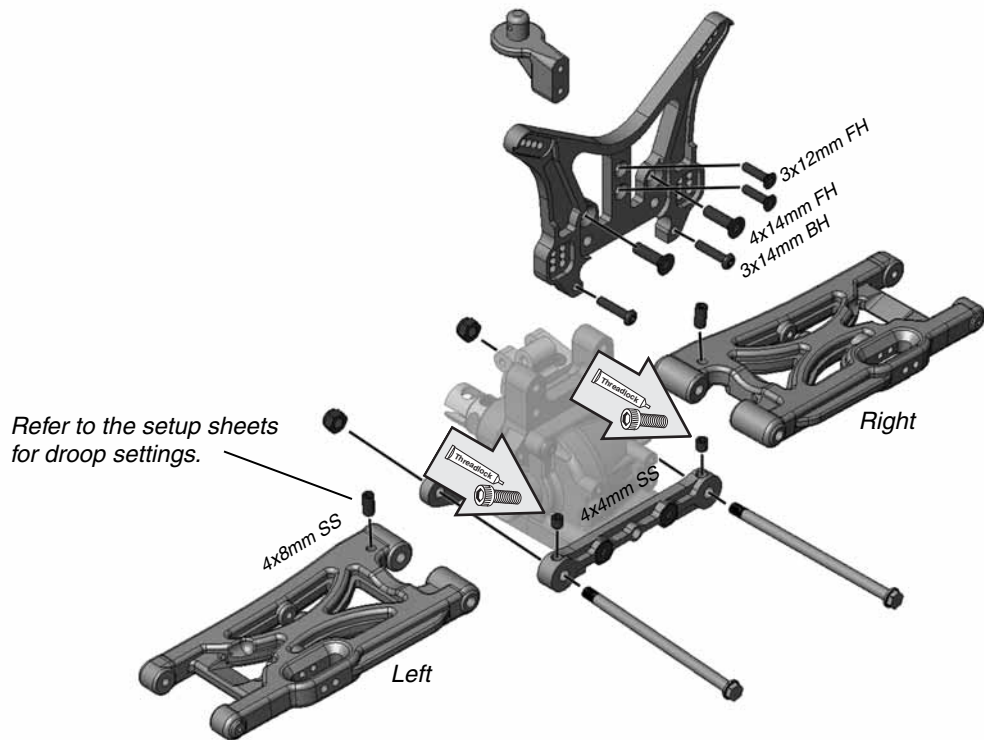


# 10

## REAR SHOCK TOWER

### HARDWARE




-  (x2)  
4x14mm FH Screw
-  (x2)  
3x12mm FH Screw
-  (x2)  
4x4mm Set Screw
-  (x2)  
4x8mm Set Screw
-  (x2)  
4mm Lock Nut
-  (x2)  
3x14mm BH Screw

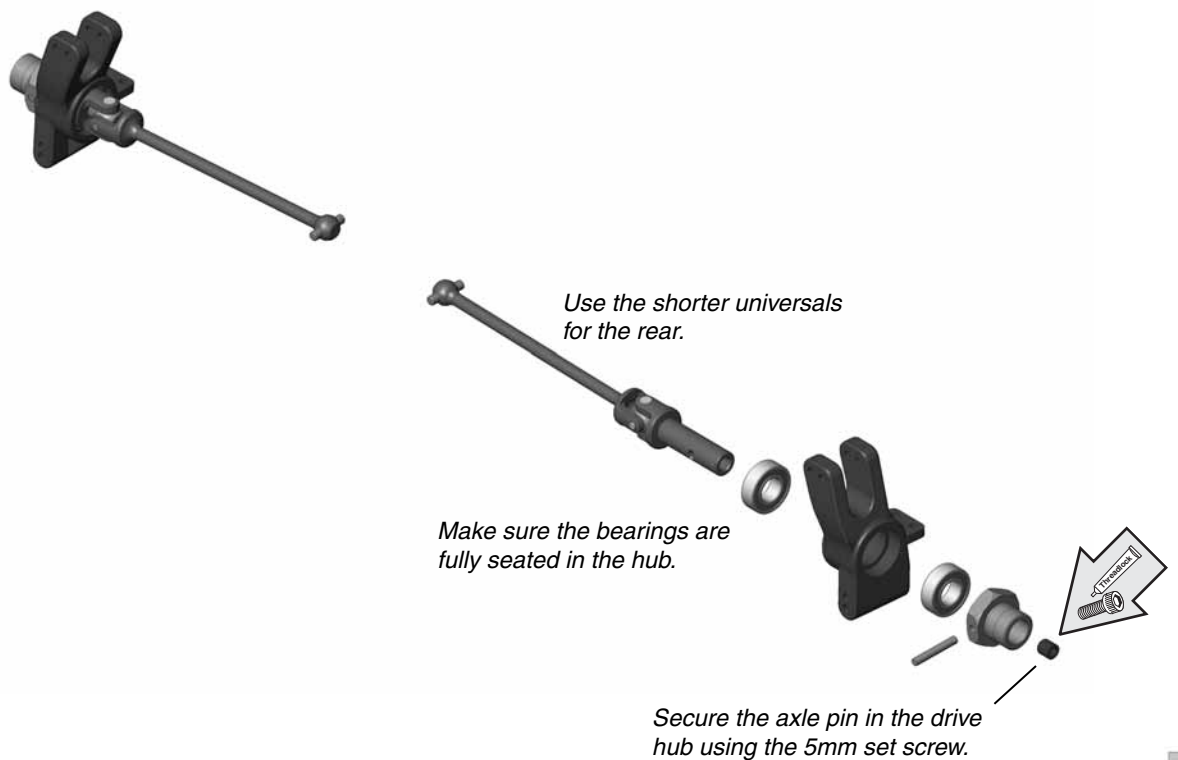


# 11

## REAR OUTDRIVES

### HARDWARE

-  (x2)  
Wheel Hub Pin
-  (x4)  
8x16mm Bearing
-  (x2)  
5x5mm Set Screw



# 12

## REAR UPPER LINK

### HARDWARE



(x2)

3x25mm BH Screw



(x2)

3x6mm BH Screw



(x2)

3mm Washer



(x2)

3x18mm SH Screw



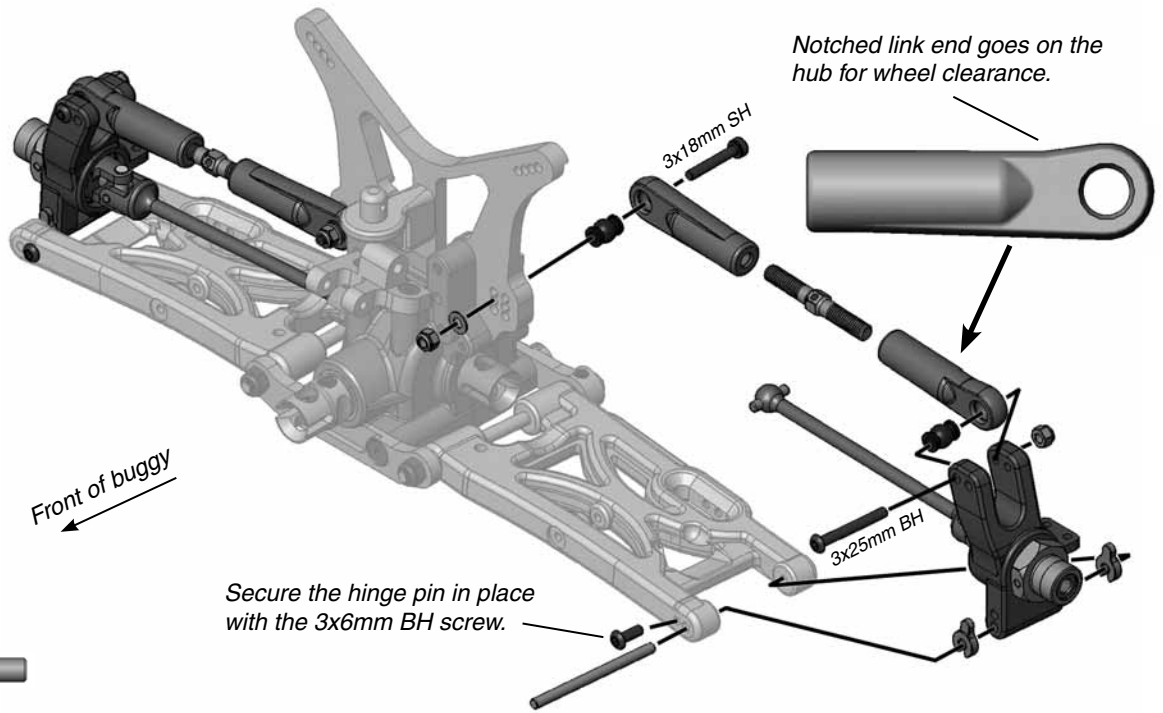
(x4)

3mm Lock Nut



(x2)

Outer Lower Rear Hinge Pin



3

# 13

## WING MOUNT

### HARDWARE



(x2)

3x10mm BH Screw



(x4)

3x25mm FH Screw

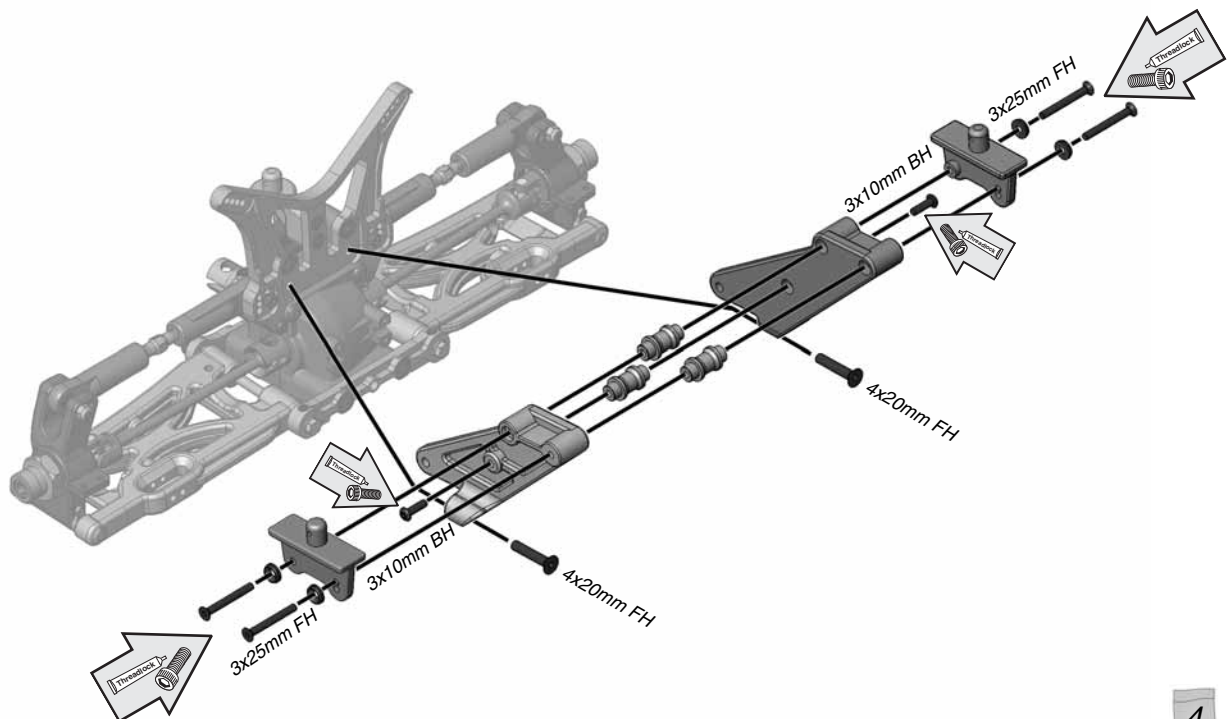


3mm Countersunk Washer



(x2)

4x20mm FH Screw



4

# 14

## REAR SWAYBAR

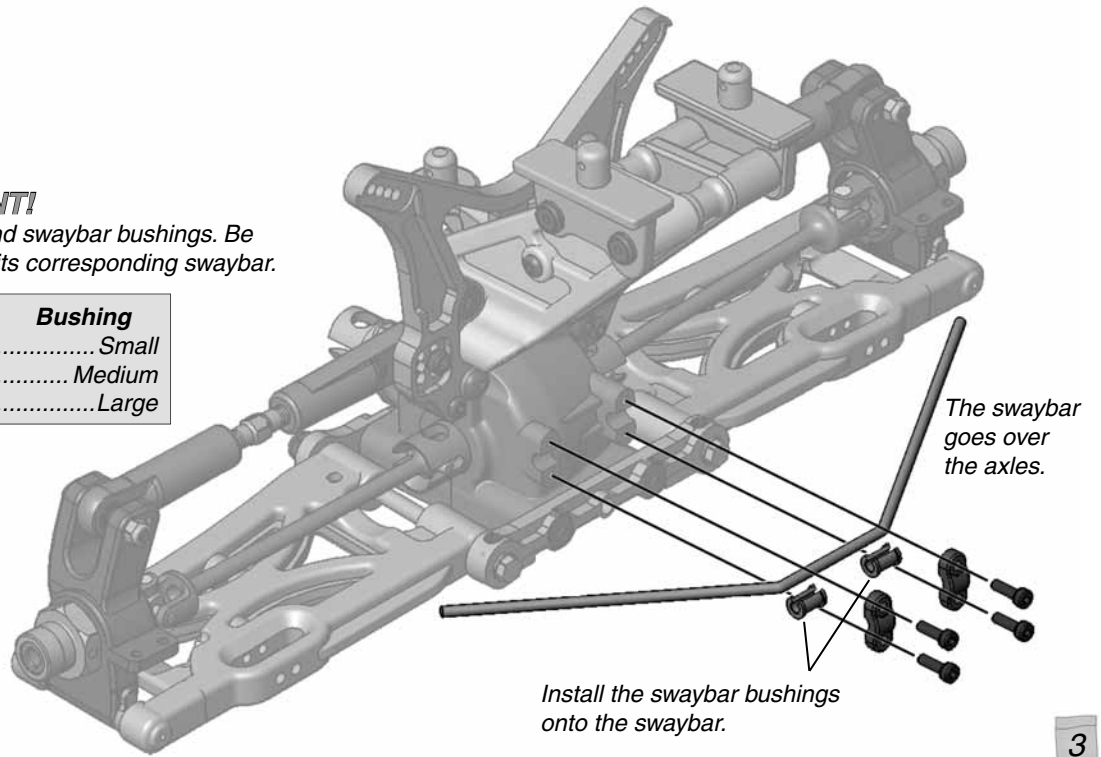
### HARDWARE



### IMPORTANT!

There are three sizes of swaybars and swaybar bushings. Be sure to use the correct bushing with its corresponding swaybar.

Rear Swaybar	Bushing
Soft .093" OD .....	Small
Medium .100" OD .....	Medium
Firm .105" OD .....	Large

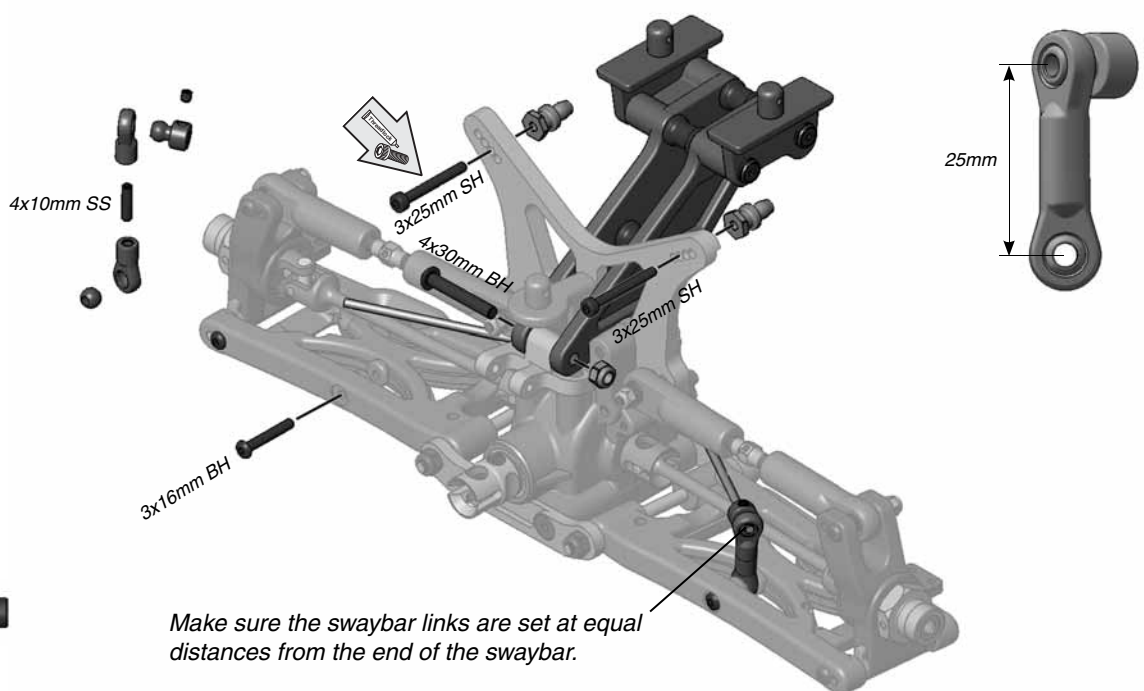
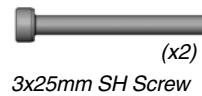
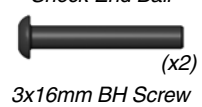


3

# 15

## REAR SWAYBAR LINKS

### HARDWARE



Make sure the swaybar links are set at equal distances from the end of the swaybar.

3

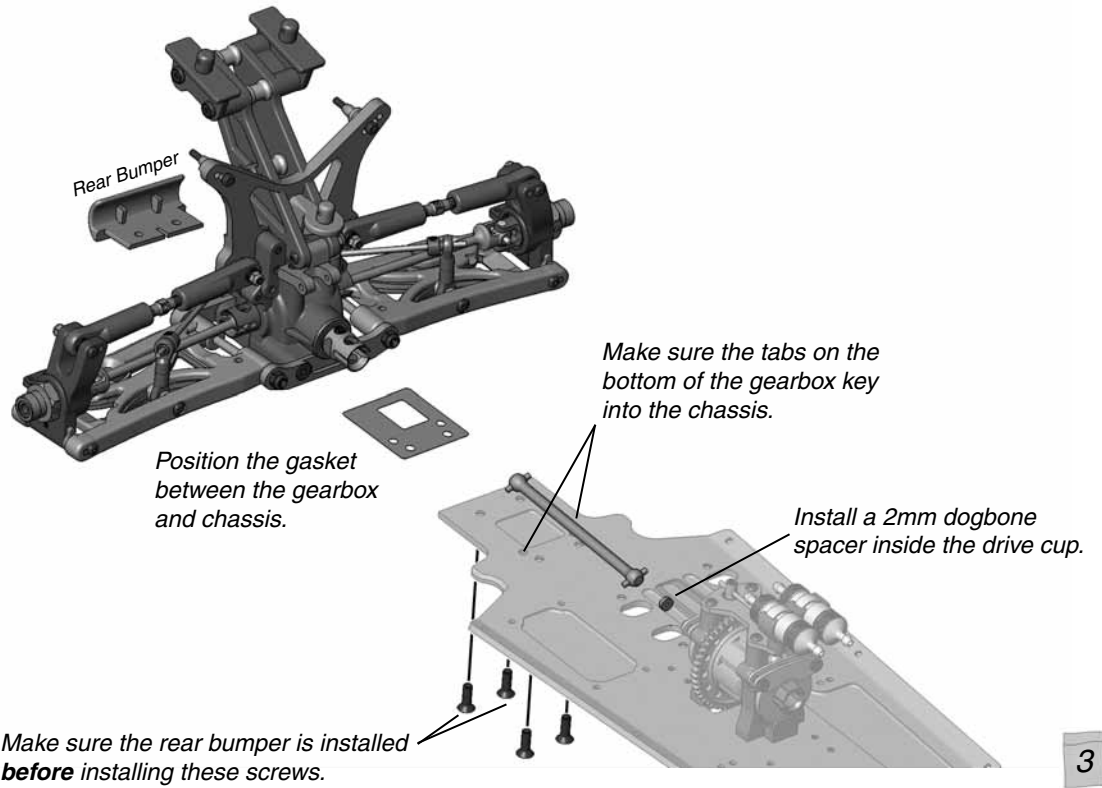
# 16

## REAR SUSPENSION

### HARDWARE



(x4)  
4x12mm FH Screw



# 17

## REAR CHASSIS BRACE

### HARDWARE



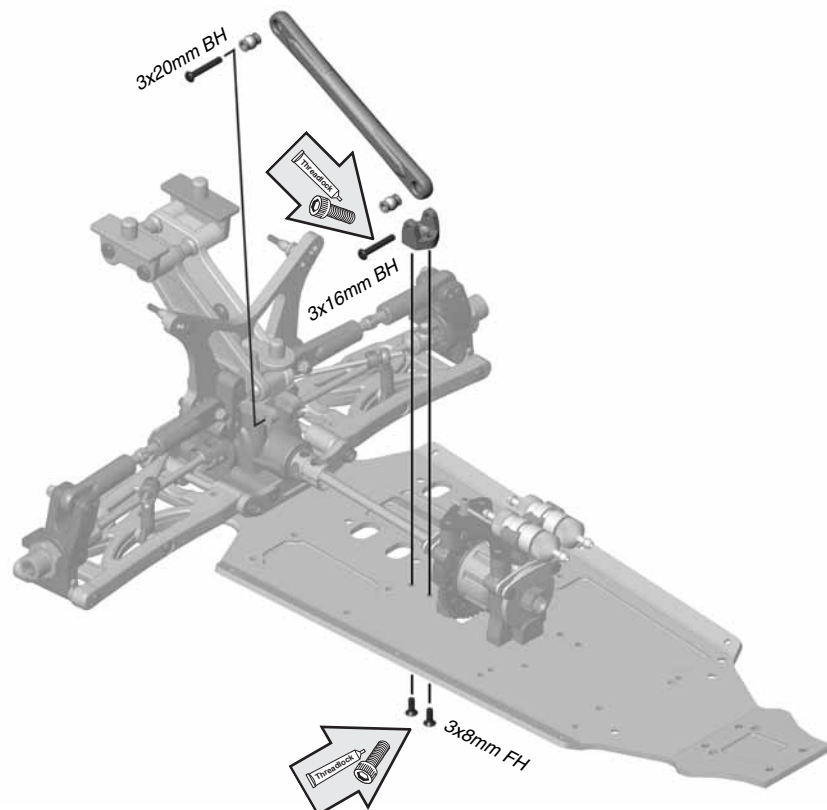
(x1)  
3x20mm BH Screw



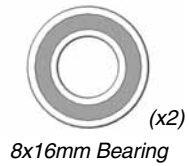
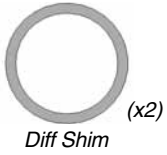
(x2)  
3x8mm FH Screw



(x1)  
3x16mm BH Screw



### HARDWARE

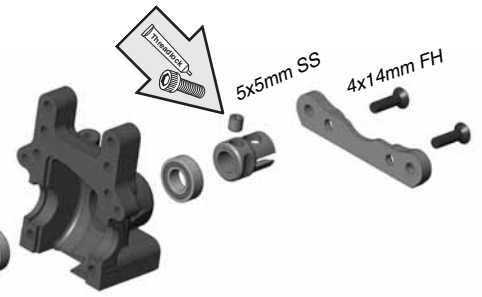


4x40mm FH Screw

### HARDWARE



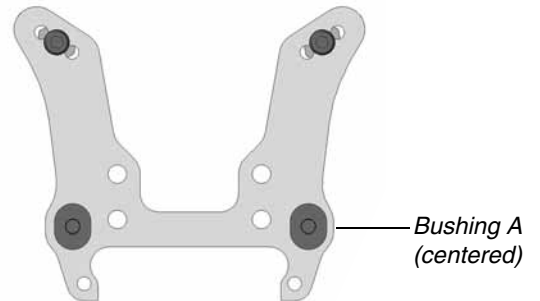
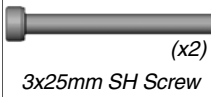
**IMPORTANT!**  
Apply a 1/4" strip of the included grease to three locations on the ring gear.



Make sure the bearings are fully seated in the diff housing.

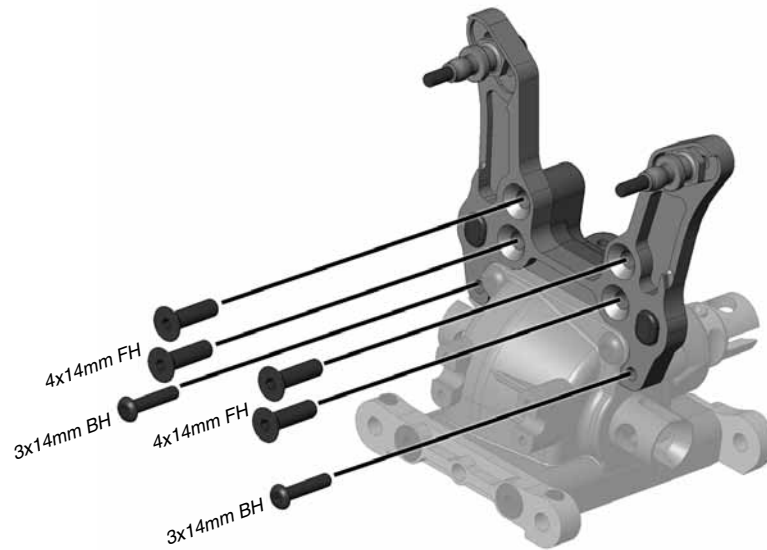
Use the included shims to space gears properly in the diff case. Adjust the gear mesh for smooth rotation without excessive play. The number of shims needed, and the side on which they must be placed, may vary.

### HARDWARE

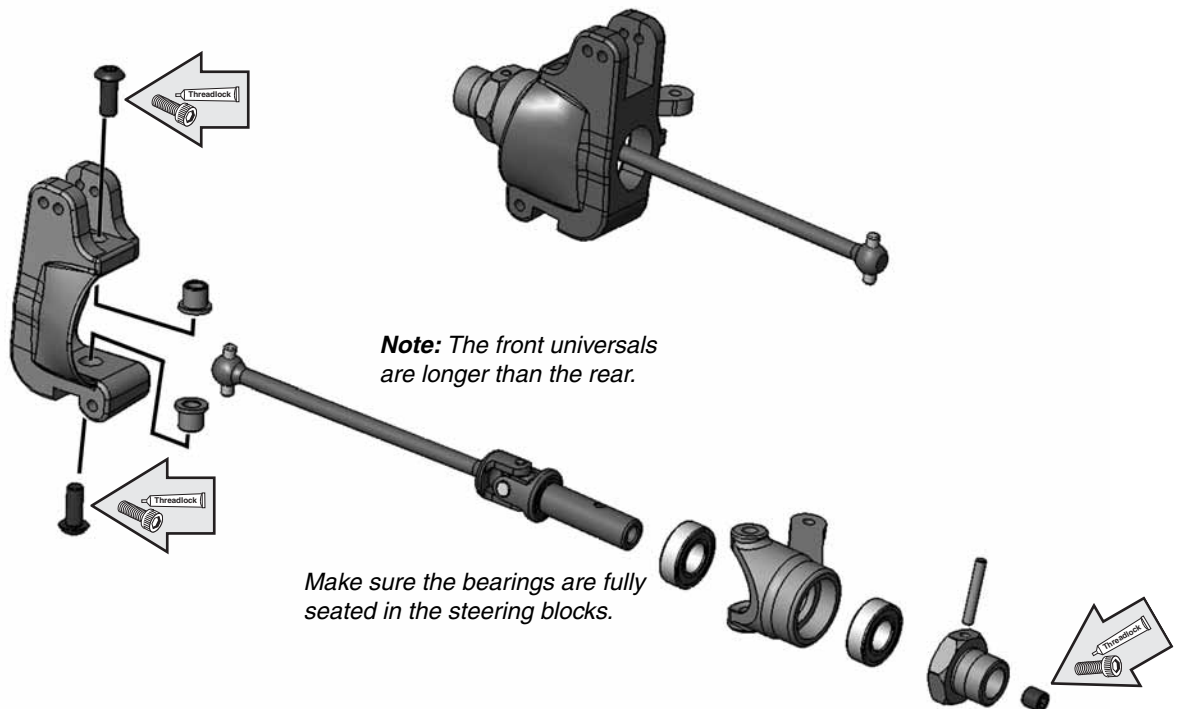
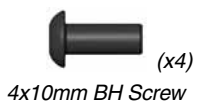
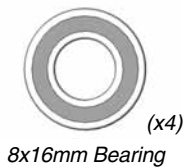


Make sure the inserts are fully seated in the shock tower.

### HARDWARE



### HARDWARE





### HARDWARE



(x2)

4mm Lock Nut



(x2)

4x4mm Set Screw

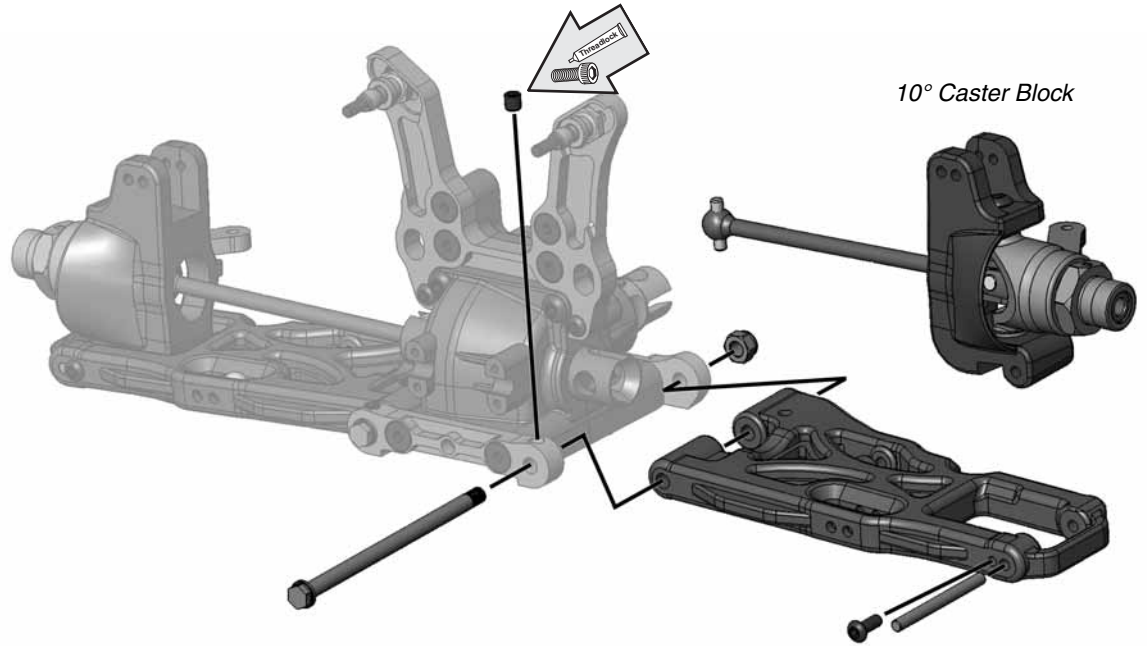


(x2)

3x6mm BH Screw

(x2)

Outer Lower Front Hinge Pin



### HARDWARE



(x2)

3x25mm BH Screw



(x1)

3x10mm BH Screw



(x6)

3x10mm FH Screw



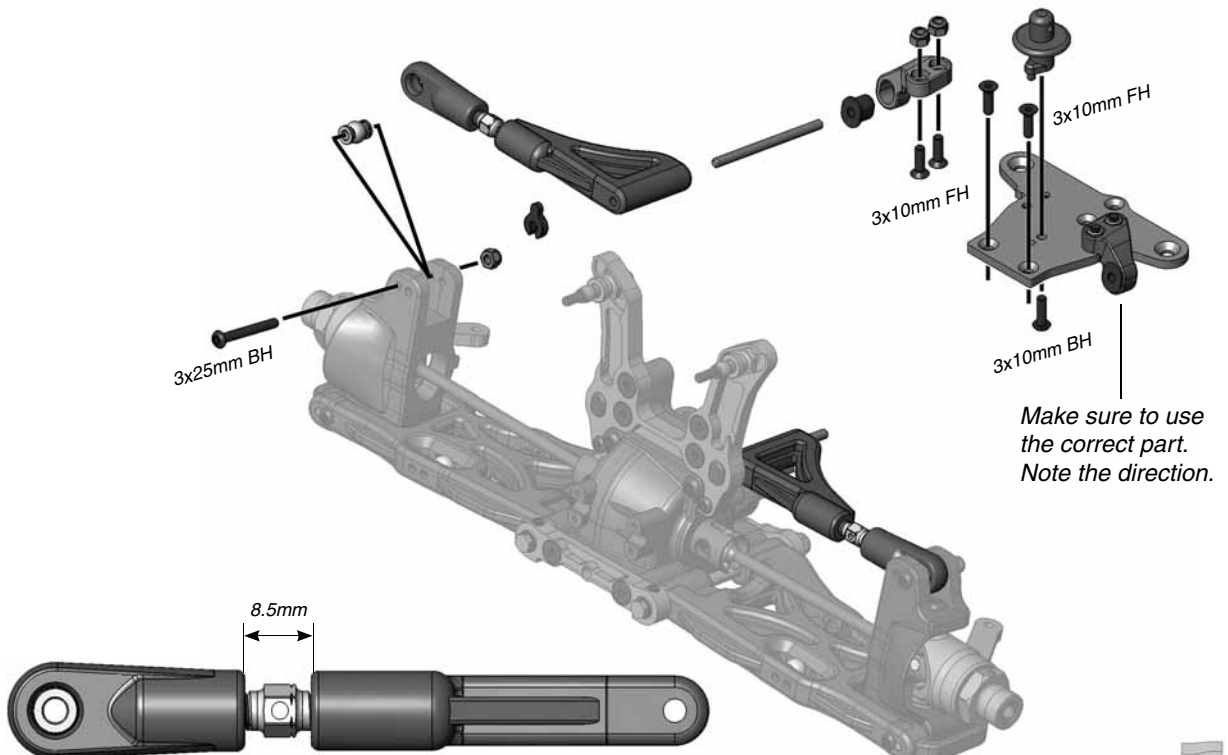
(x2)

Standard Rod End Ball



(x6)

3mm Lock Nut



Actual Size

HARDWARE



(x3)

3mm Lock Nut



(x1)

3x16mm FH Screw



(x4)

6x10mm Bearing



(x2)

3x14mm FH Screw



Shock End Ball



(x4)

Standard Rod End Ball



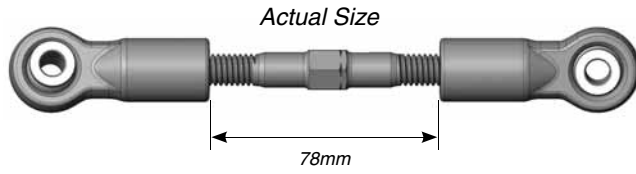
(x2)

4x8mm FH Screw



(x2)

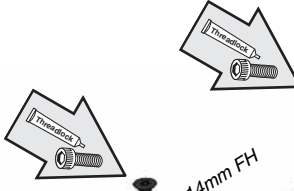
3x16mm BH Screw



Trim this edge if there is interference at full steering.

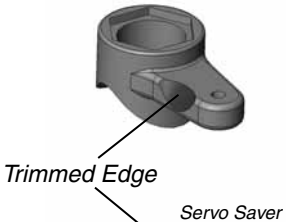
Note the direction of the arms.

Make sure the bearings are fully seated.



3x16mm BH

3x16mm FH




6.5mm

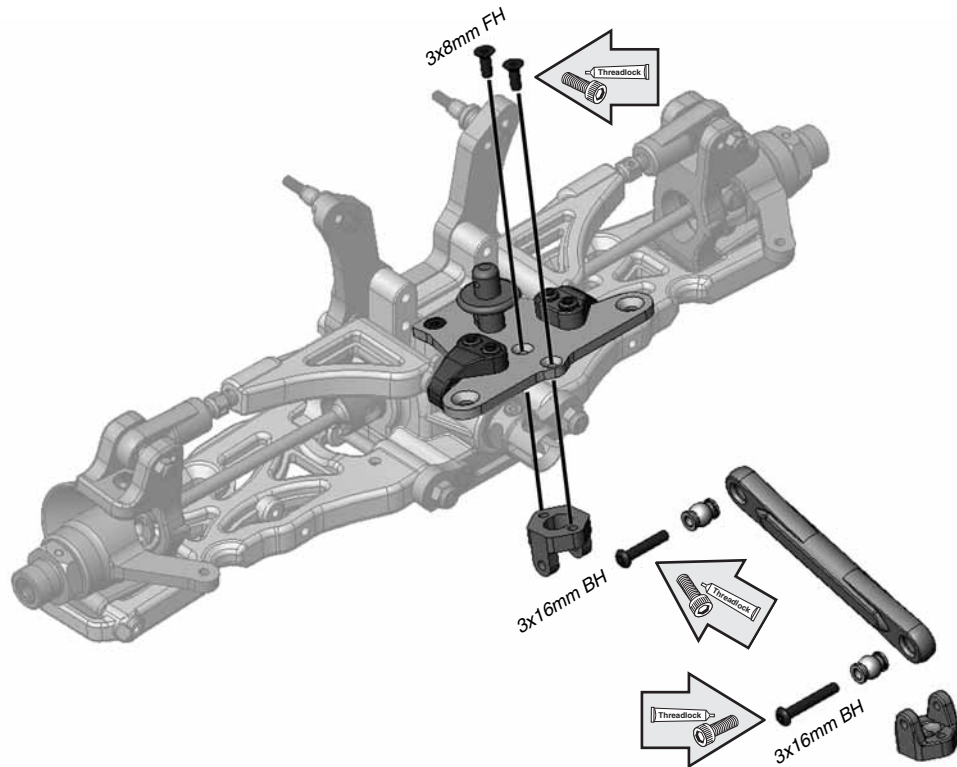
4x8mm FH

### HARDWARE

 (x2)  
3x8mm FH Screw

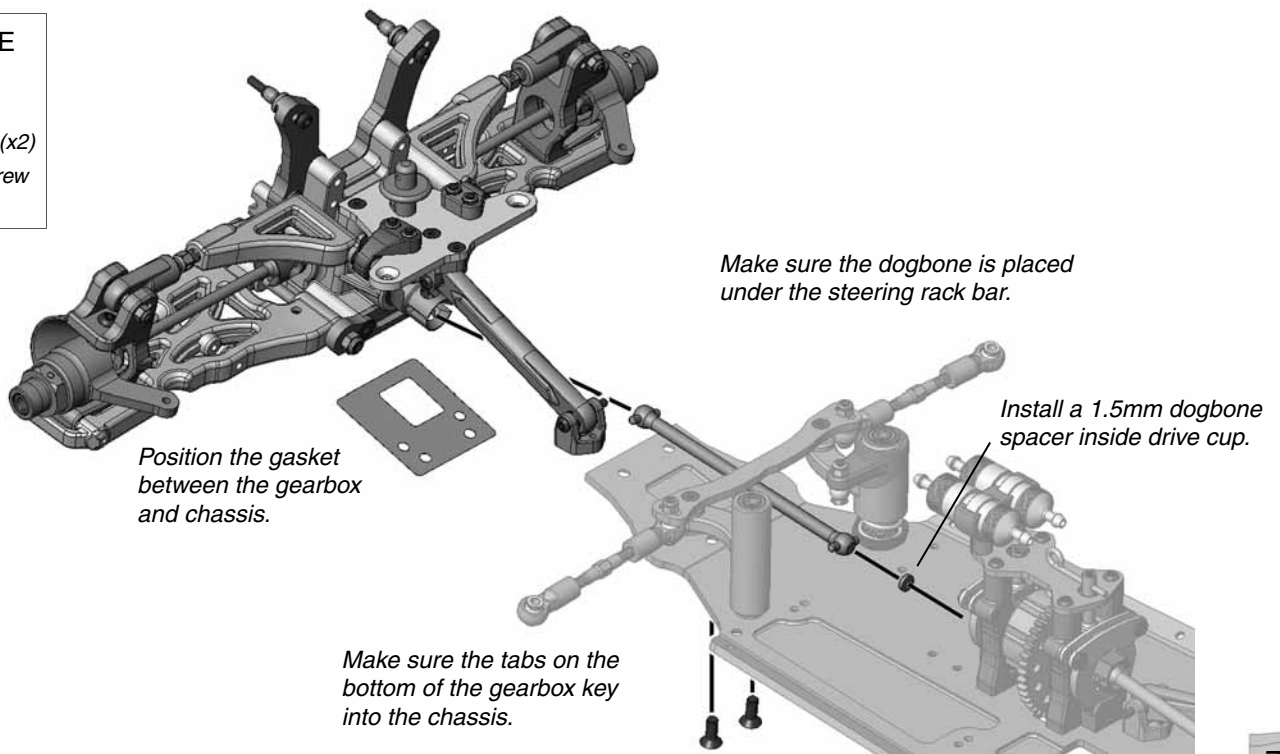
 (x2)  
3x16mm BH Screw

 (x2)  
Standard Rod End Ball



### HARDWARE

 (x2)  
4x12mm FH Screw



### HARDWARE

 (x4)  
2.5x8mm SH Screw

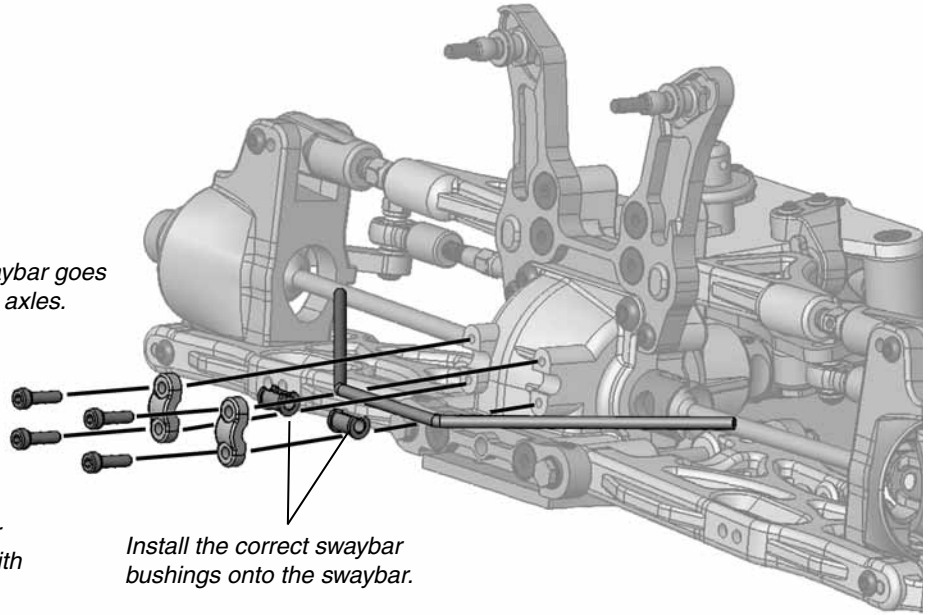
The swaybar goes over the axles.

### IMPORTANT!

There are three sizes of swaybars and swaybar bushings. Be sure to use the correct bushing with its corresponding swaybar.

Front Swaybar	Bushing
Soft .093" OD .....	Small
Medium .100" OD .....	Medium
Firm .105" OD.....	Large

Install the correct swaybar bushings onto the swaybar.



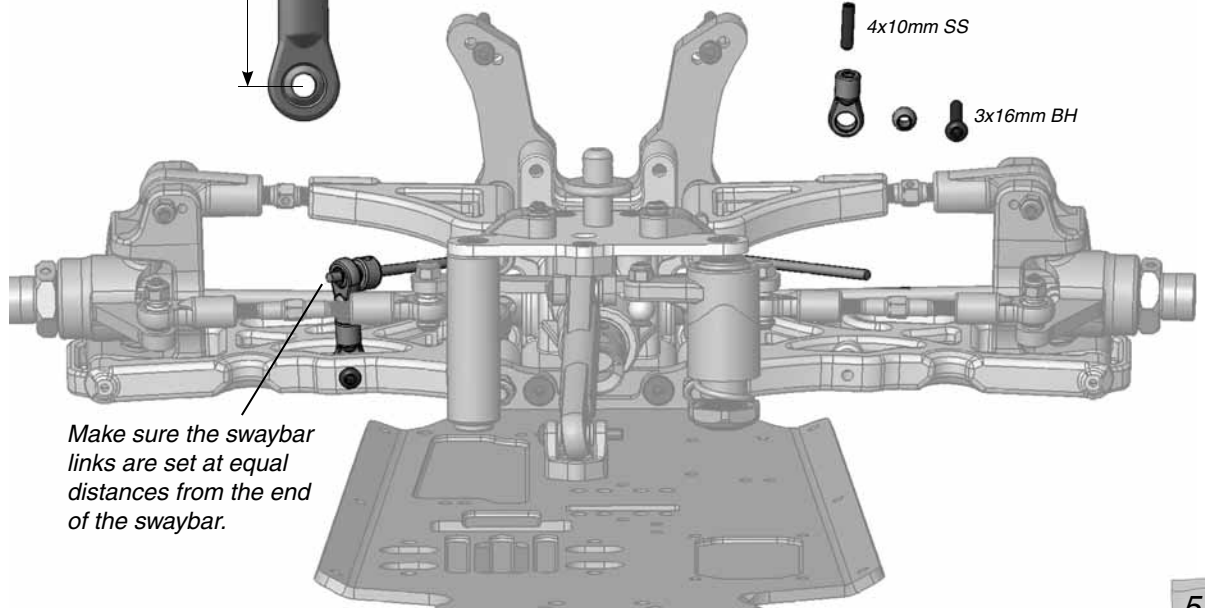
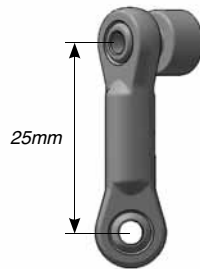
### HARDWARE

 (x2)  
4x10mm Set Screw

 (x2)  
3x3mm Set Screw







 (x2)  
Shock End Ball

 (x2)  
3x16mm BH Screw



Make sure the swaybar links are set at equal distances from the end of the swaybar.

### HARDWARE

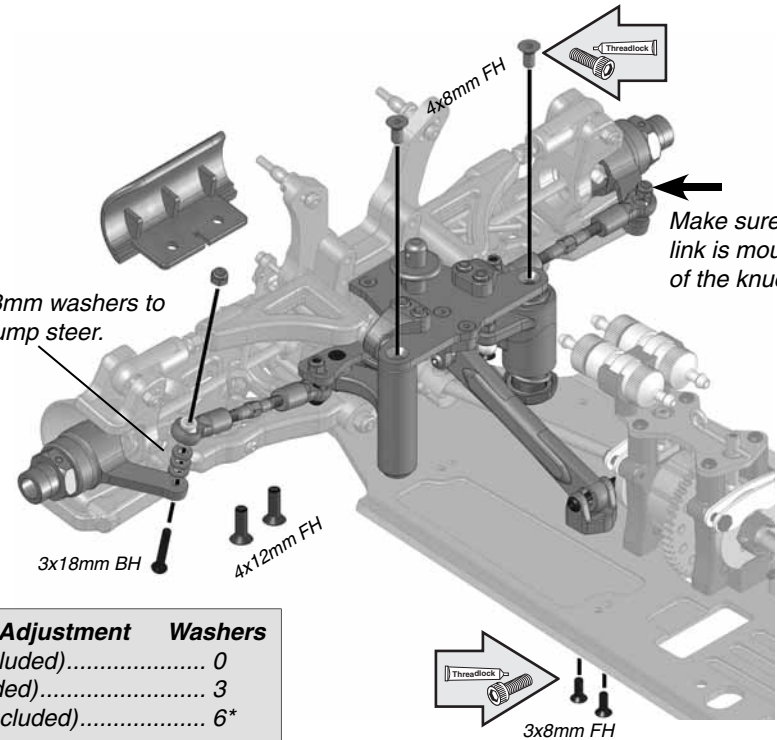
-  (x2)  
3x18mm BH Screw
-  (x2)  
3 Lock Nut
-  (x2)  
4x8mm FH Screw
-  (x6)  
3mm Washer
-  (x2)  
3x8mm FH Screw
-  (x2)  
4x12mm FH Screw

Use three 3mm washers to minimize bump steer.




Make sure the steering link is mounted on top of the knuckle arm.

Steering Link Adjustment	Washers
5° Hub (not included)	0
10° Hub (included)	3
15° Hub (not included)	6*

\* 4 at knuckle, 2 under steering rack bar.

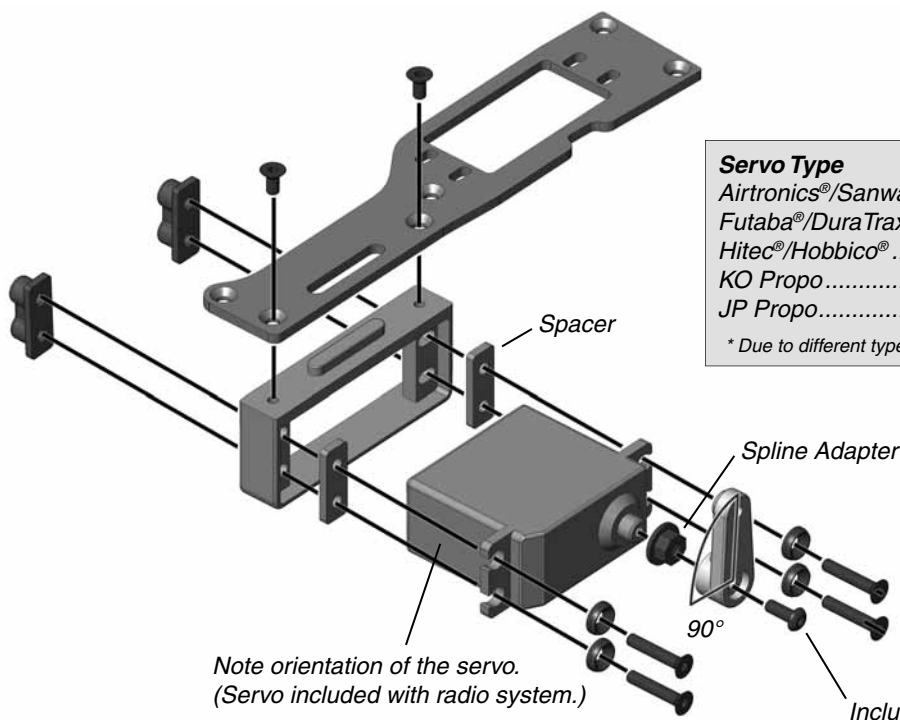


### HARDWARE

-  (x2)  
3x6mm FH Screw
-  (x4)  
3x16mm FH Screw
-  (x4)  
3mm Countersunk Washer

Servo Type	Spline Adapter	Spacer
Airtronics®/Sanwa	23T	2mm*
Futaba®/DuraTrax®	25T	2mm*
Hitec®/Hobbico®	24T	0*
KO Propo	23T	1mm*
JP Propo	23T	0*

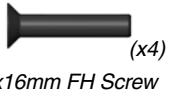
\* Due to different types of servos, spacer size may vary.



Note orientation of the servo. (Servo included with radio system.)

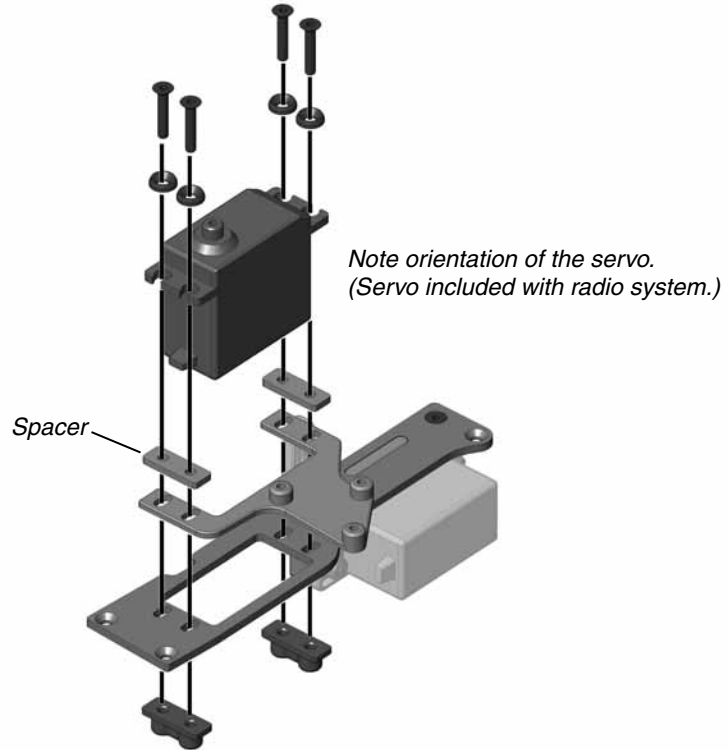
Included with radio system.

### HARDWARE

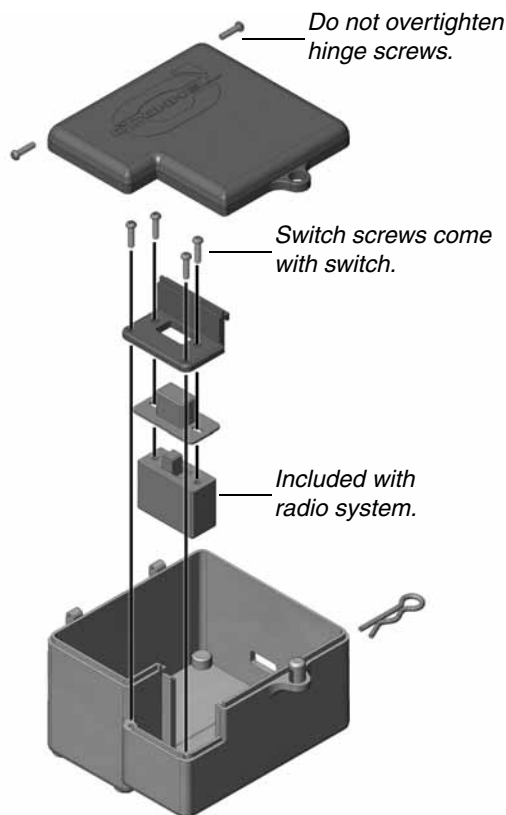


Servo Type	Spline Adapter	Spacer
Airtronics/Sanwa	.....23T	..... 2mm*
Futaba/Duratrax	.....25T	..... 2mm*
Hitec/Hobbico	.....24T	..... 0*
KO Propo	.....23T	..... 1mm*
JP Propo	.....23T	..... 0*

\* Due to different types of servos, spacer size may vary.



### HARDWARE

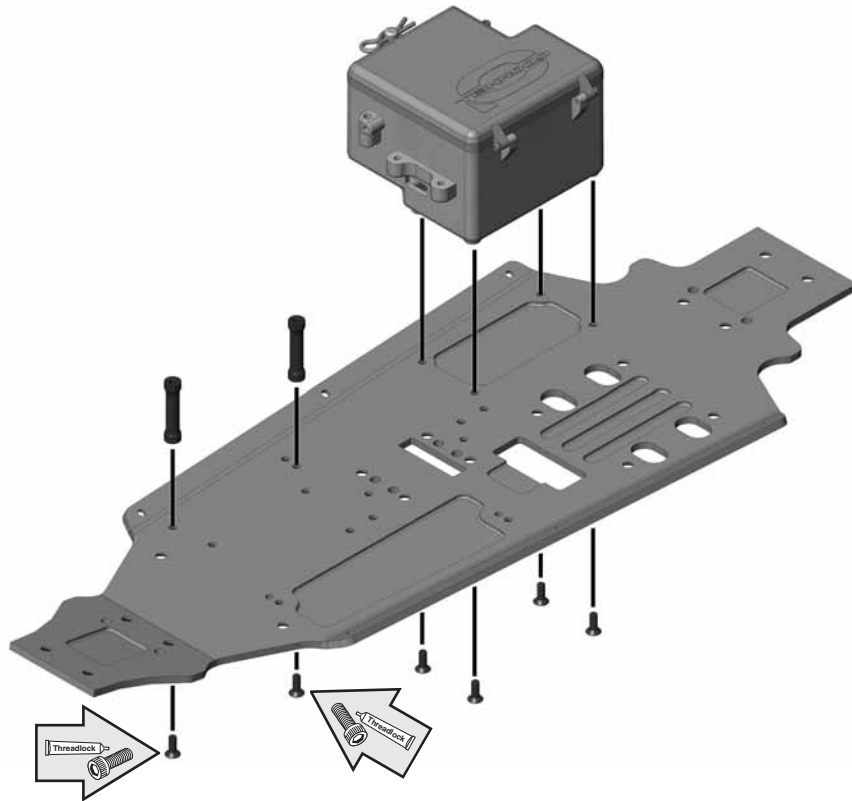


### HARDWARE



(x6)

3x8mm FH Screw



### HARDWARE



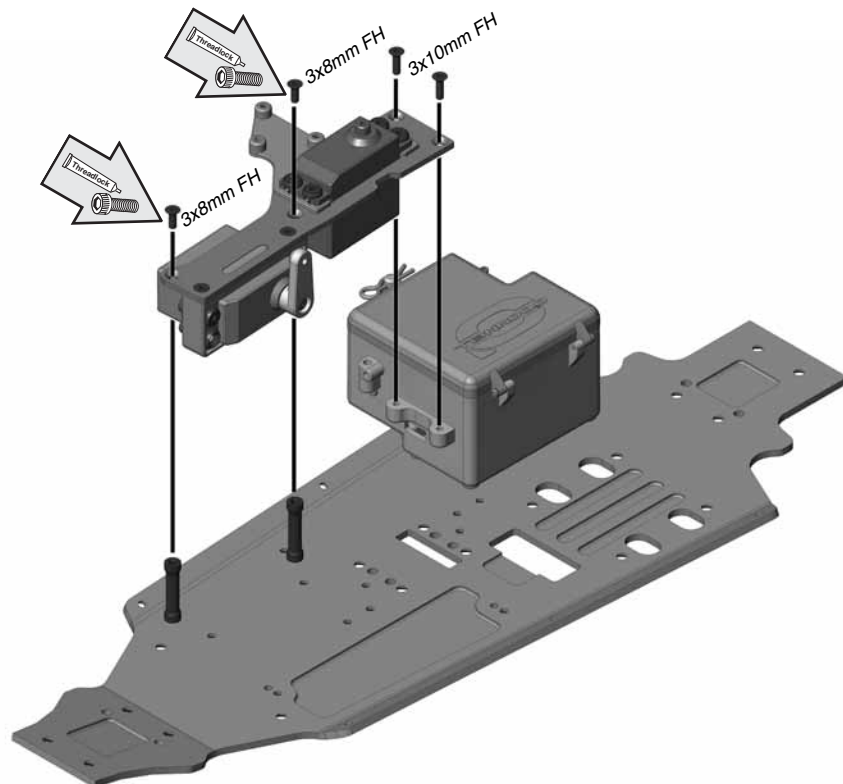
(x2)

3x8mm FH Screw




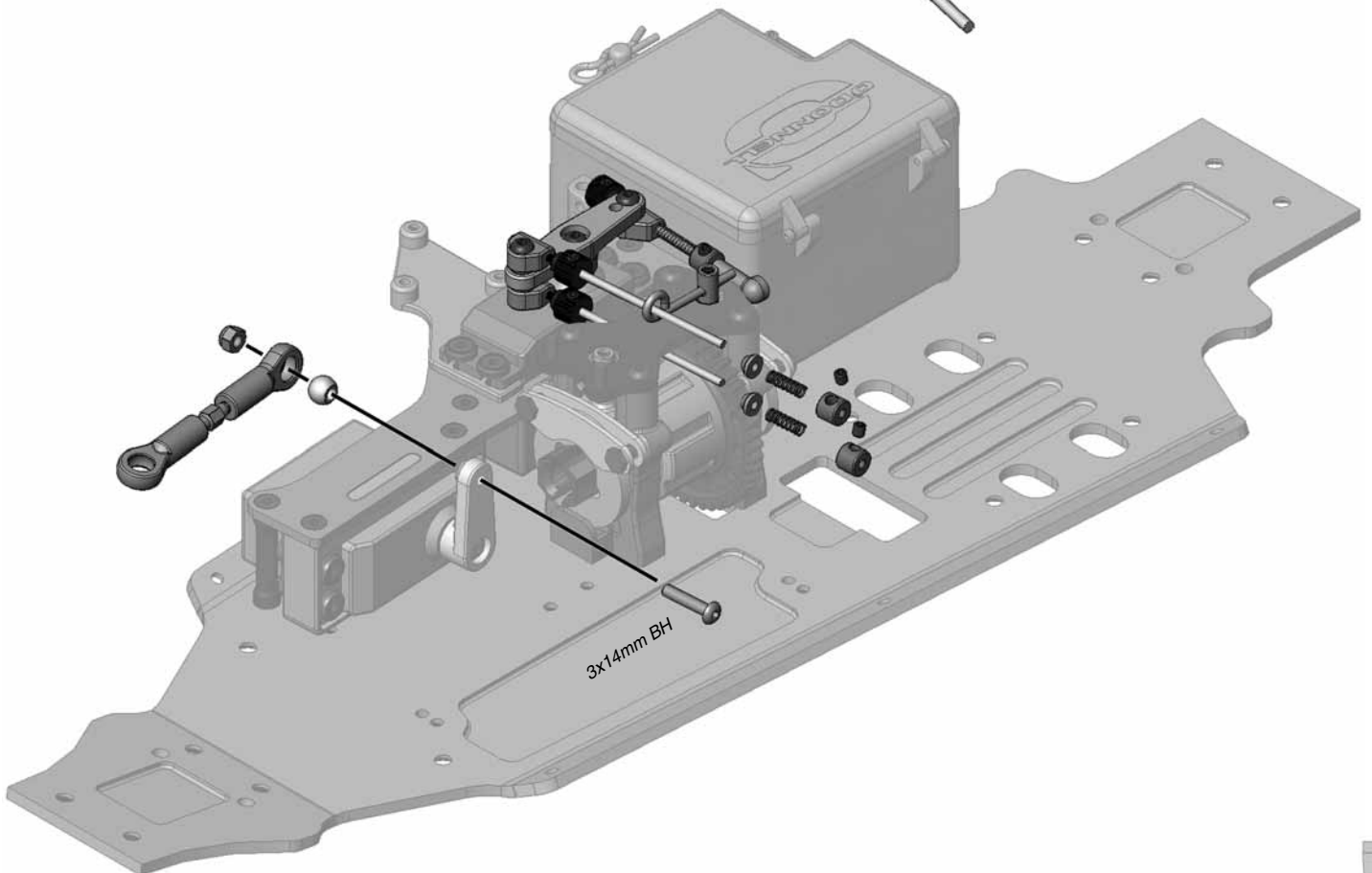
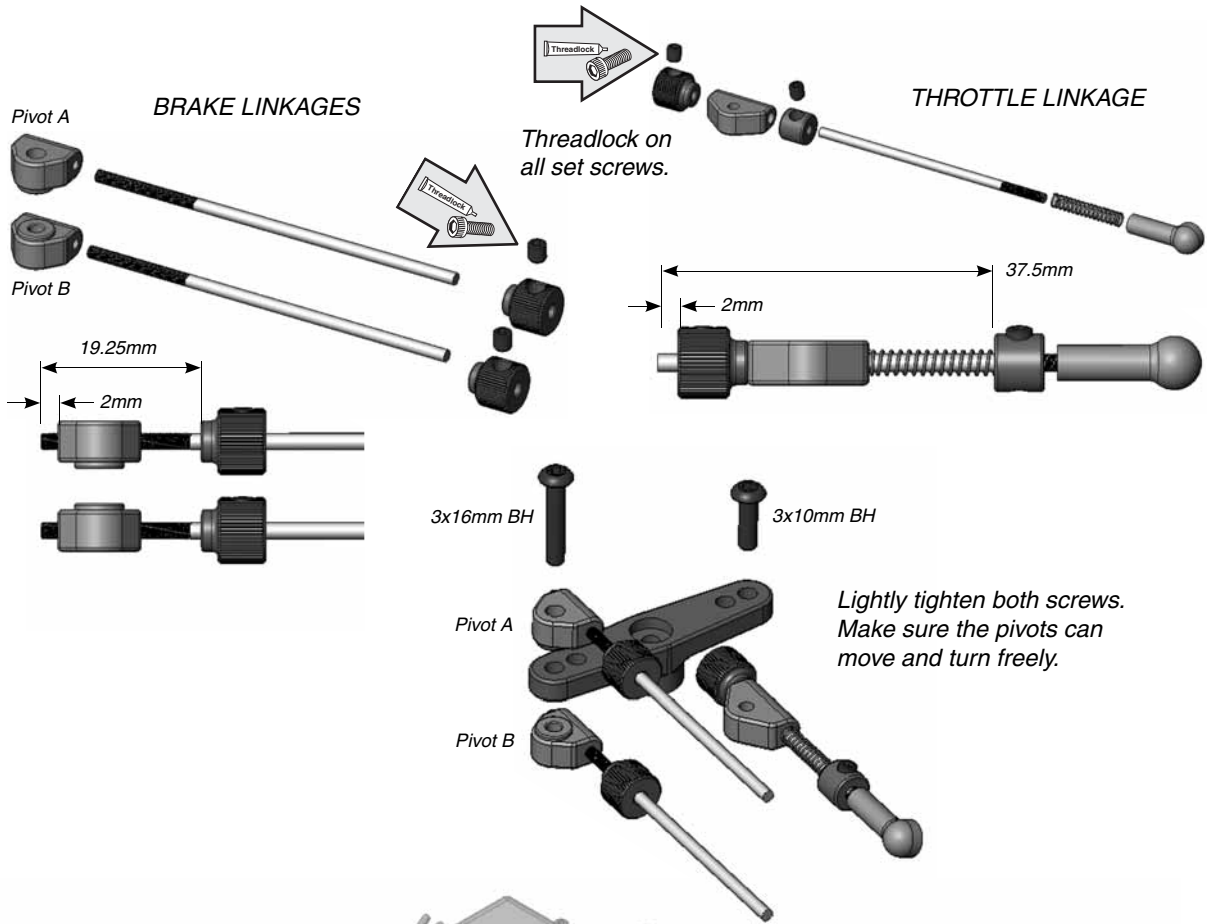
(x2)

3x10mm FH Screw



### HARDWARE

-  (x1)  
3x14mm BH Screw
-  (x1)  
Shock Ball End
-  (x1)  
3mm Lock Nut
-  (x1)  
3x16mm BH Screw
-  (x1)  
3x10mm BH Screw
-  (x6)  
3x3mm Set Screw



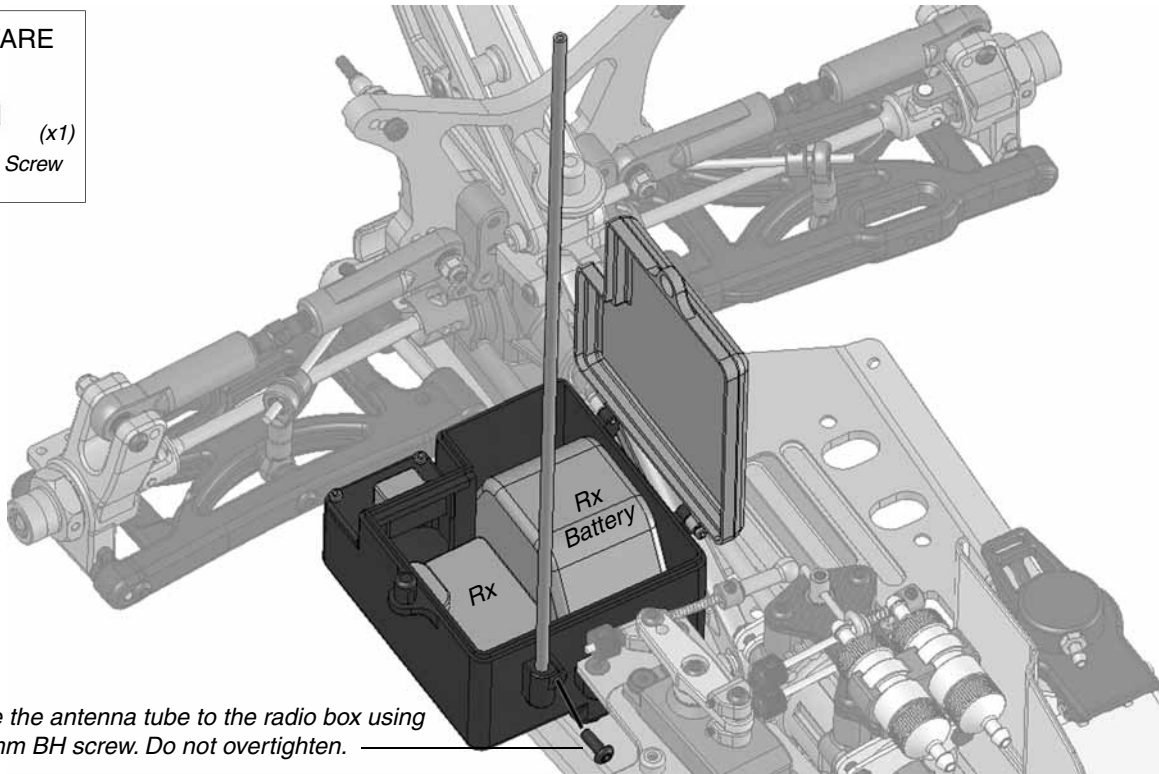


### HARDWARE



(x1)

3x6mm BH Screw



Secure the antenna tube to the radio box using a 3x6mm BH screw. Do not overtighten.

### HARDWARE



(x2)

3mm Countersunk Washer



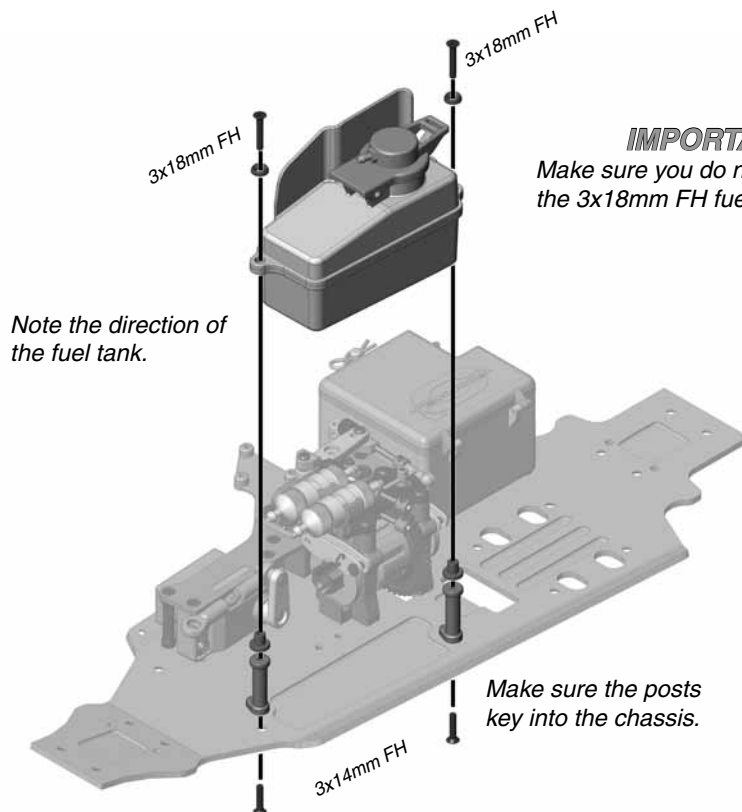
(x2)

3x18mm FH Screw



(x2)

3x14mm FH Screw



Note the direction of the fuel tank.

**IMPORTANT!**  
Make sure you do not overtighten the 3x18mm FH fuel tank screw.

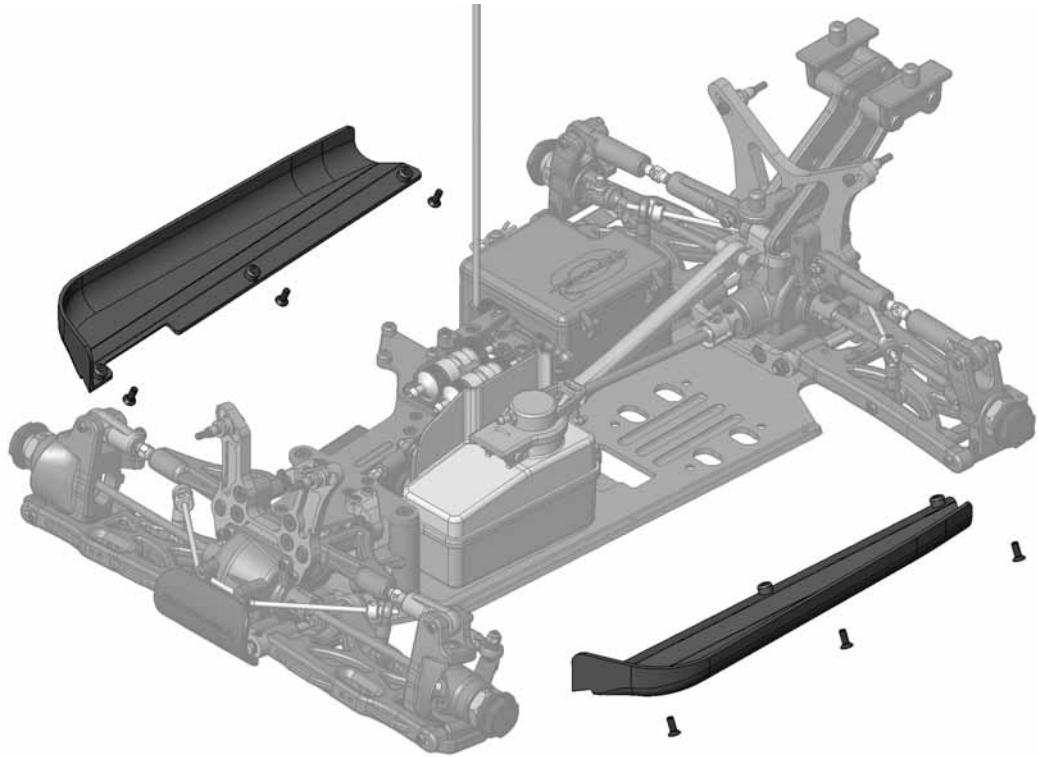
Make sure the posts key into the chassis.

### HARDWARE



(x6)

3x10mm FH Screw



### HARDWARE



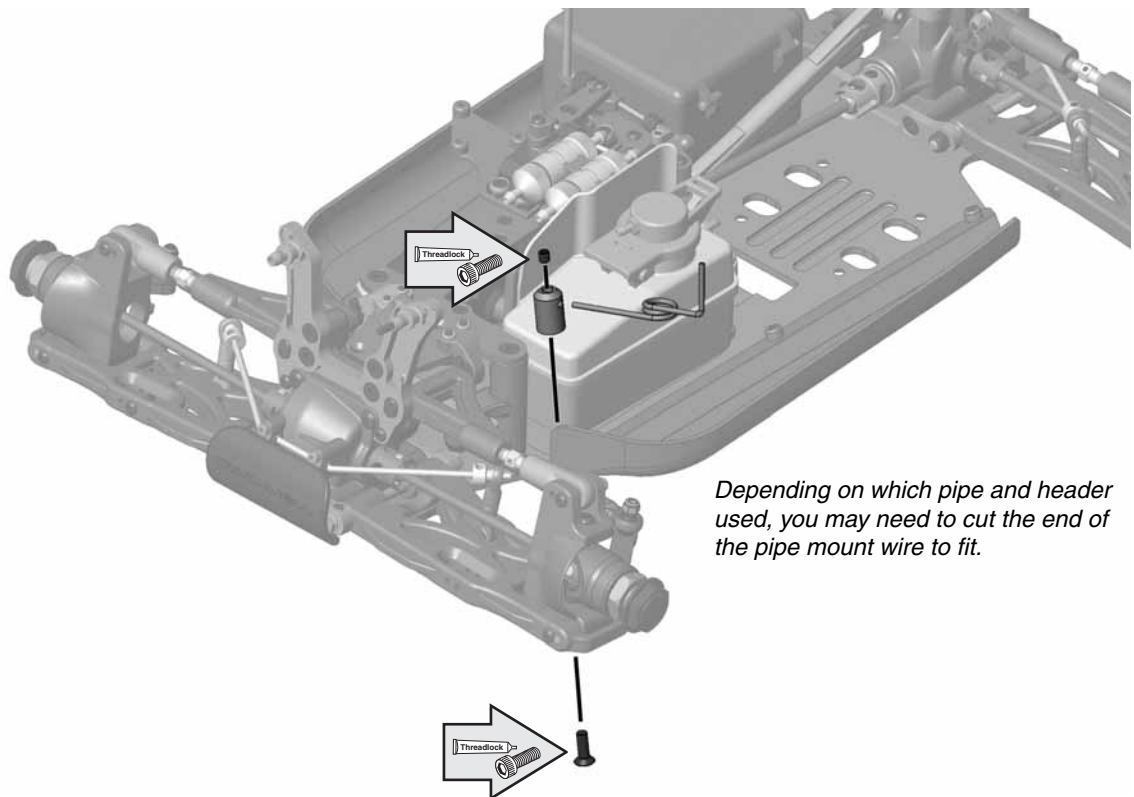
(x1)

4x4mm Set Screw



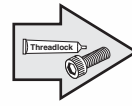
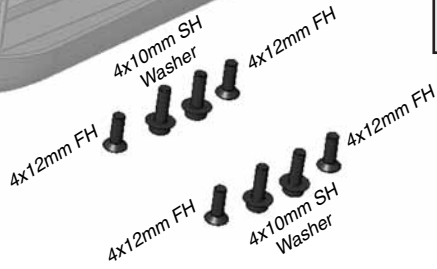
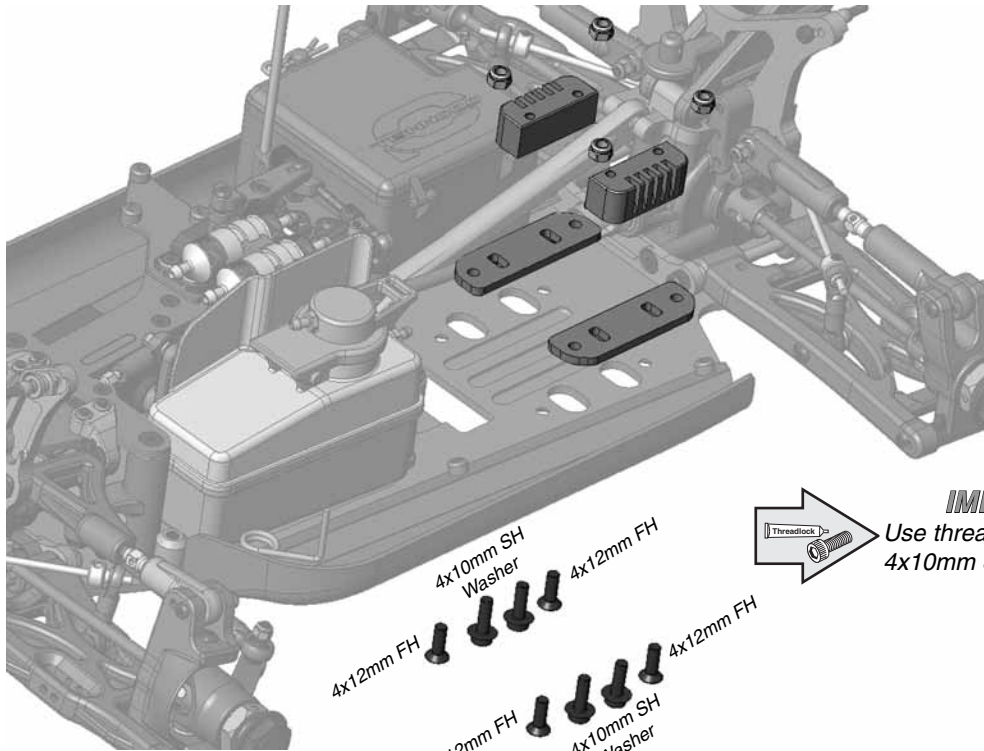
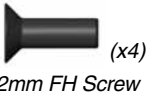
(x1)

4x12mm FH Screw



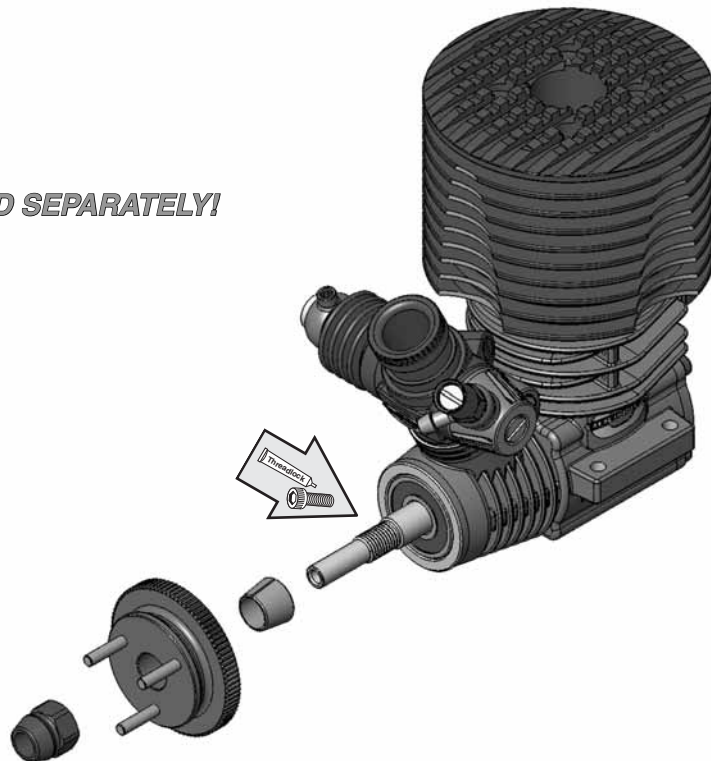
Depending on which pipe and header used, you may need to cut the end of the pipe mount wire to fit.

HARDWARE



**IMPORTANT!**  
Use threadlock on all four 4x10mm SH washer screws.

**ENGINE SOLD SEPARATELY!**

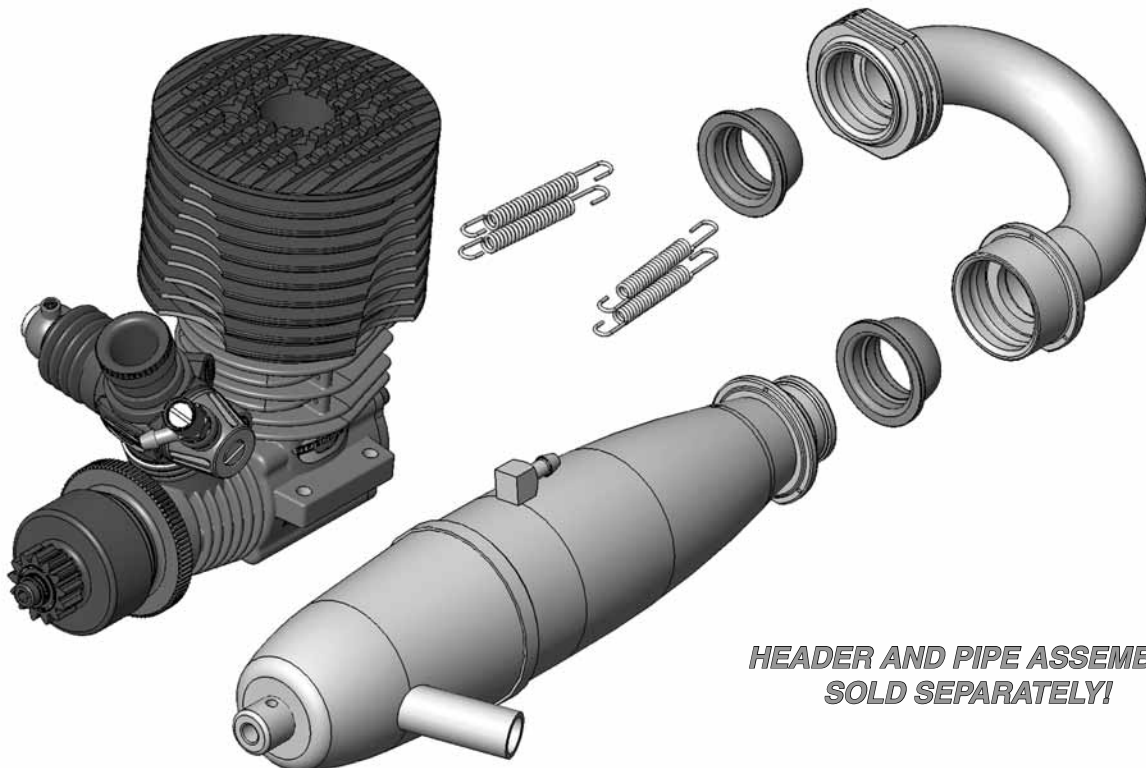
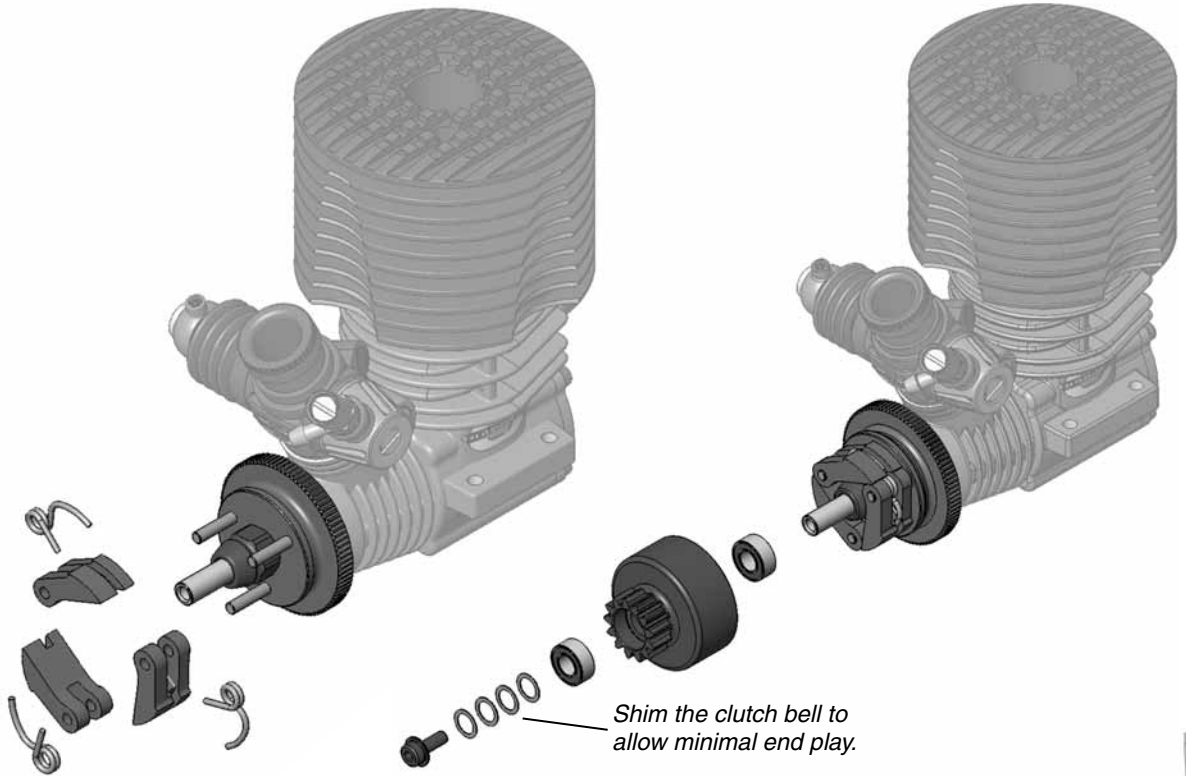


HARDWARE

 (x2)  
5x10mm Bearing


 (x4)  
Clutch Shim

 (x1)  
3mm SH Screw  
with Washer

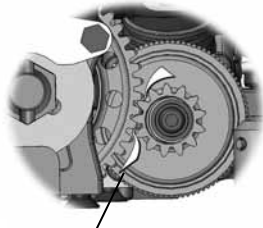


**HEADER AND PIPE ASSEMBLY  
SOLD SEPARATELY!**

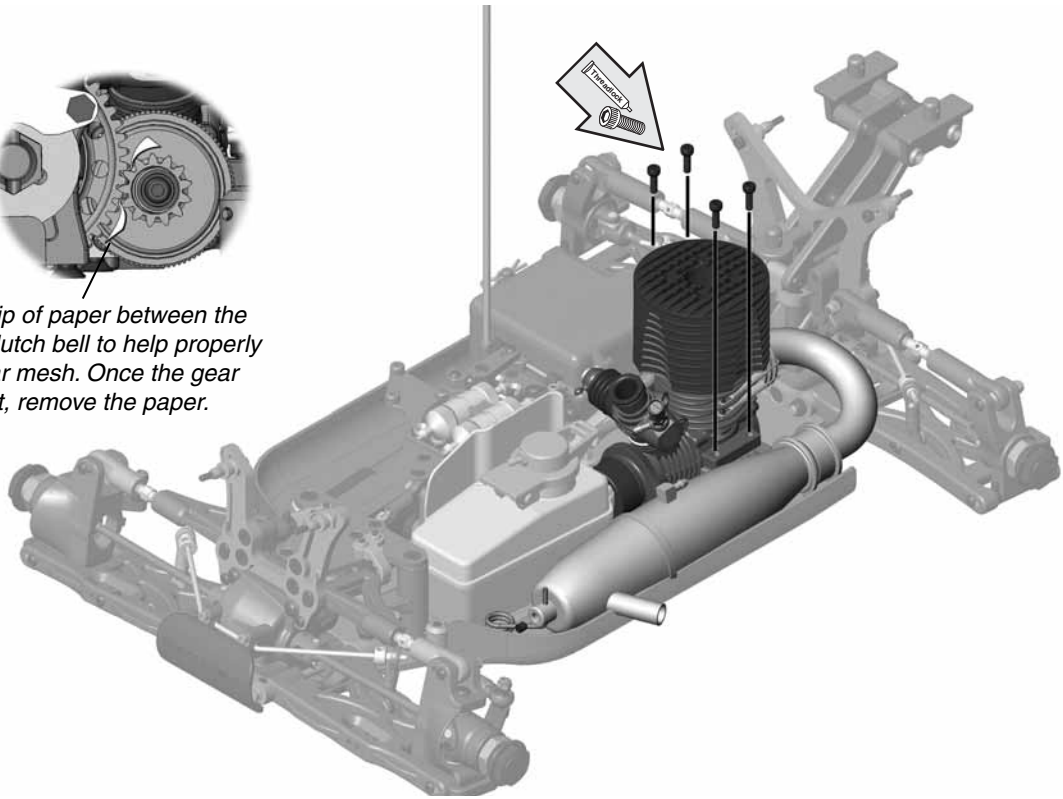
## HARDWARE



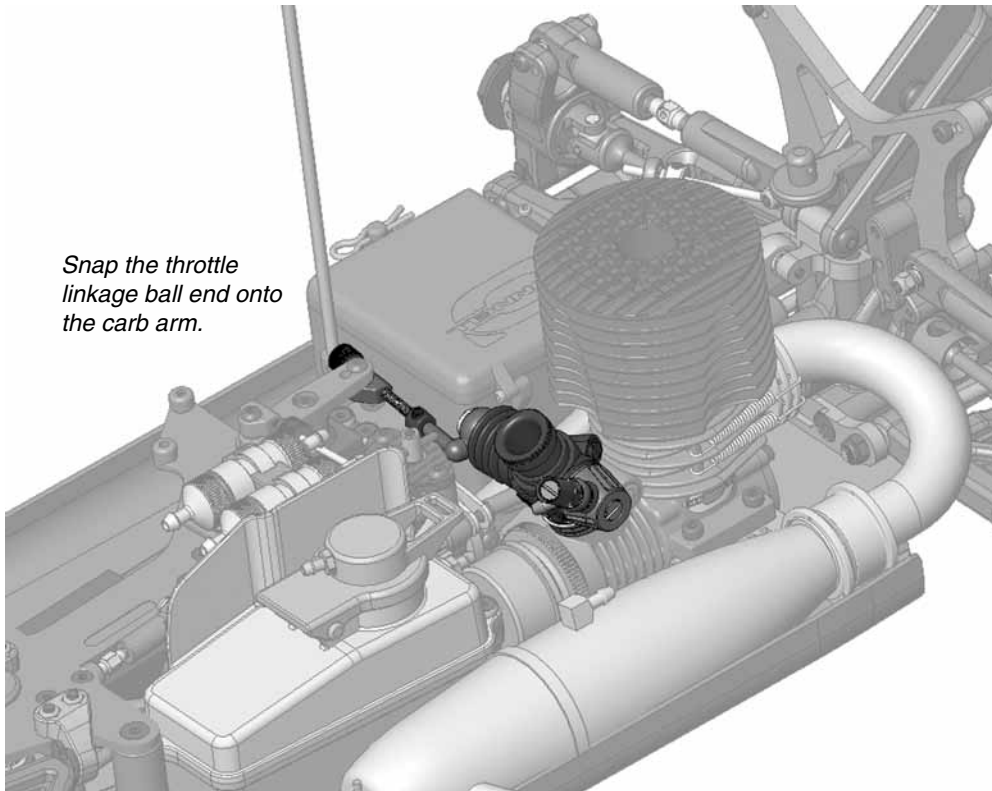
(x4)  
3x14mm SH Screw



Place a strip of paper between the spur and clutch bell to help properly set the gear mesh. Once the gear mesh is set, remove the paper.



Snap the throttle linkage ball end onto the carb arm.



HARDWARE



(x4)

3mm Lock Nut



(x4)

3mm Washer (Silver)

Do not overtighten the nut.

**Note:** The notch in the 3mm silver washer does not affect shock performance and can be positioned in any direction.

Rear (Long) x 2  
Front (Short) x 2

**IMPORTANT!**

Make sure the snap ring is securely seated in the groove.

To help prevent damage, apply a small amount of shock oil to the O-rings before installing the shock shaft.

HARDWARE



(x4)

Shock End Ball

Rear (Long) x 2  
Front (Short) x 2

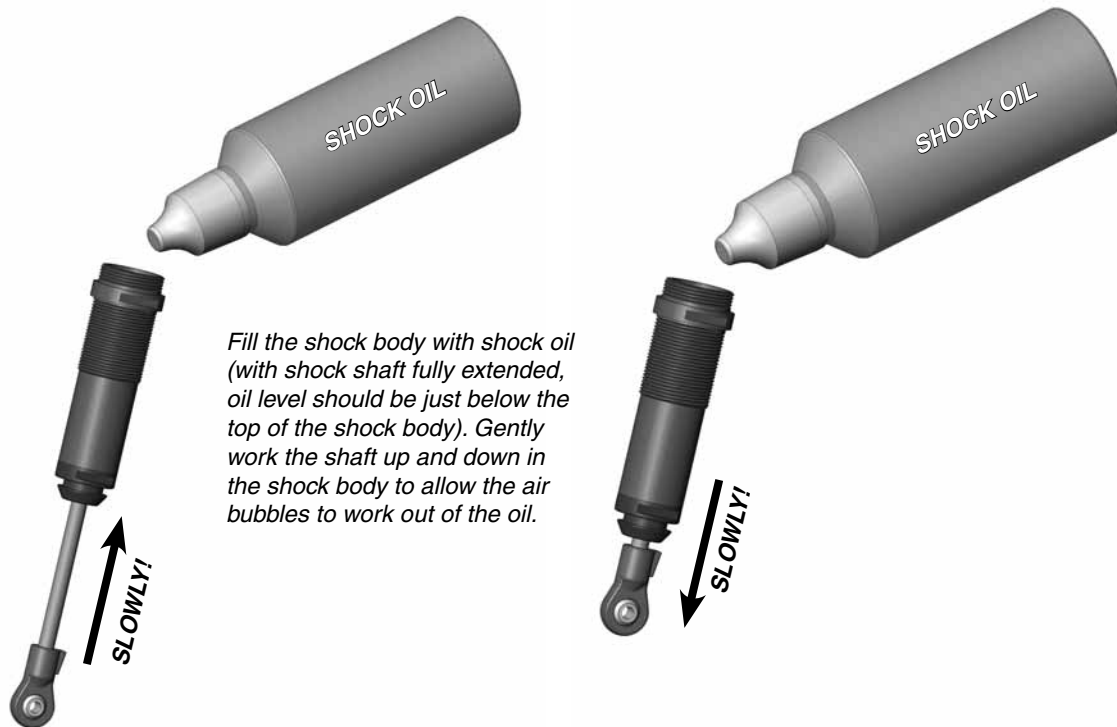
15mm Shock Wrench

11mm Shock Wrench

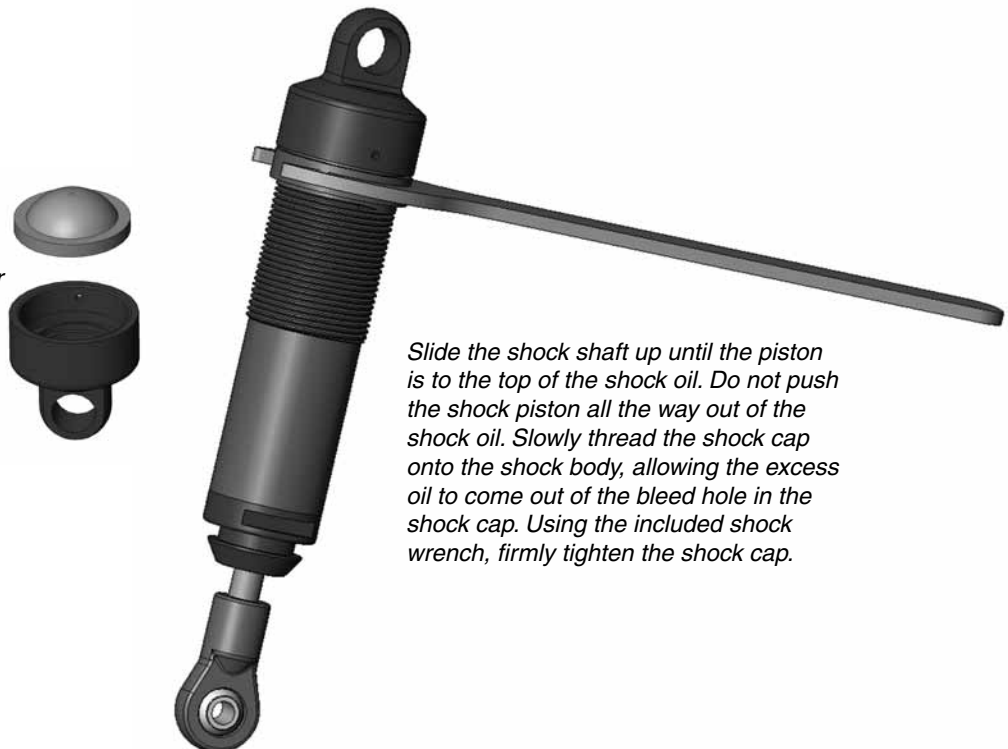
**Note:** Be sure to install the long shaft into the long body and the short shaft in the short body.

Be careful not to damage the shock shaft when installing the shock ends.

x 4



Make sure the bladder is fully seated in the shock cap groove.



Install the shock boot over the shock end and secure it in place on the shock body. Gently work the shock end out the bottom of the shock boot. The bottom of the shock boot should be firmly in place around the top of the shock end.



Be careful not to tear the shock boots during installation.

x 4

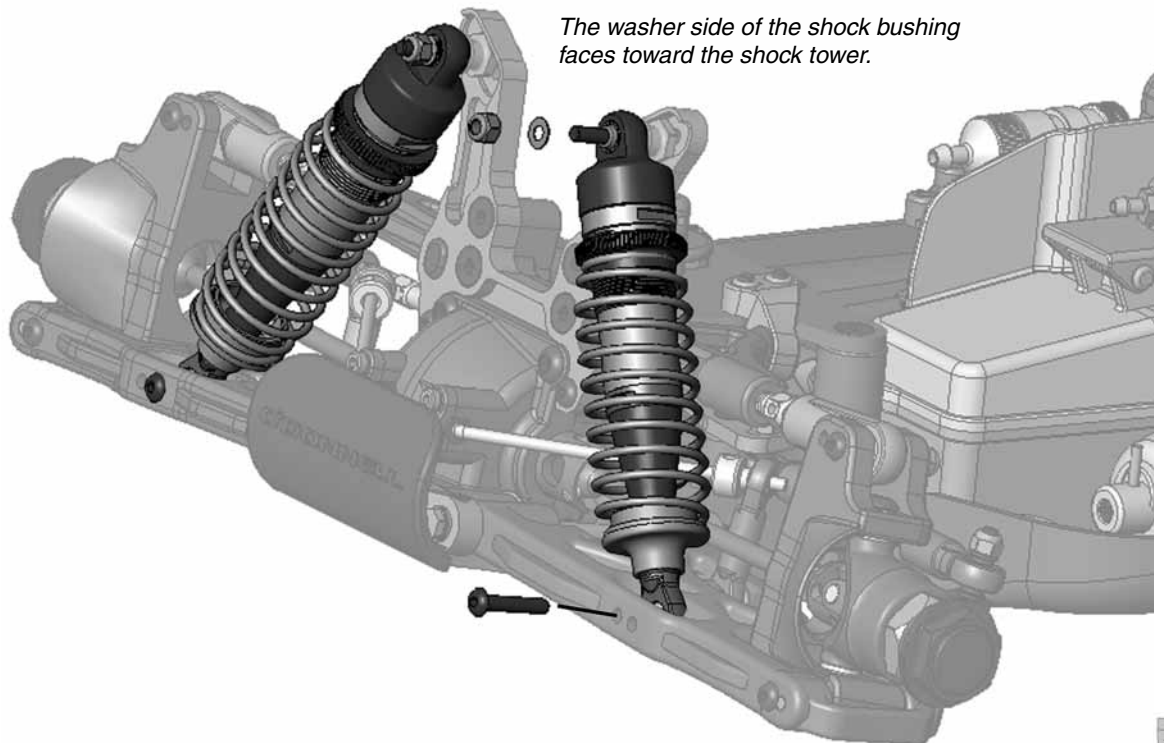
Thread the adjustable collar onto the shock body.



Make sure the spring retainer keys onto the tab on the shock end.

Rear (Long) x 2  
Front (Short) x 2

### HARDWARE



The washer side of the shock bushing faces toward the shock tower.



# 52

## REAR SHOCK INSTALLATION

### HARDWARE



(x2)

3x20mm BH Screw



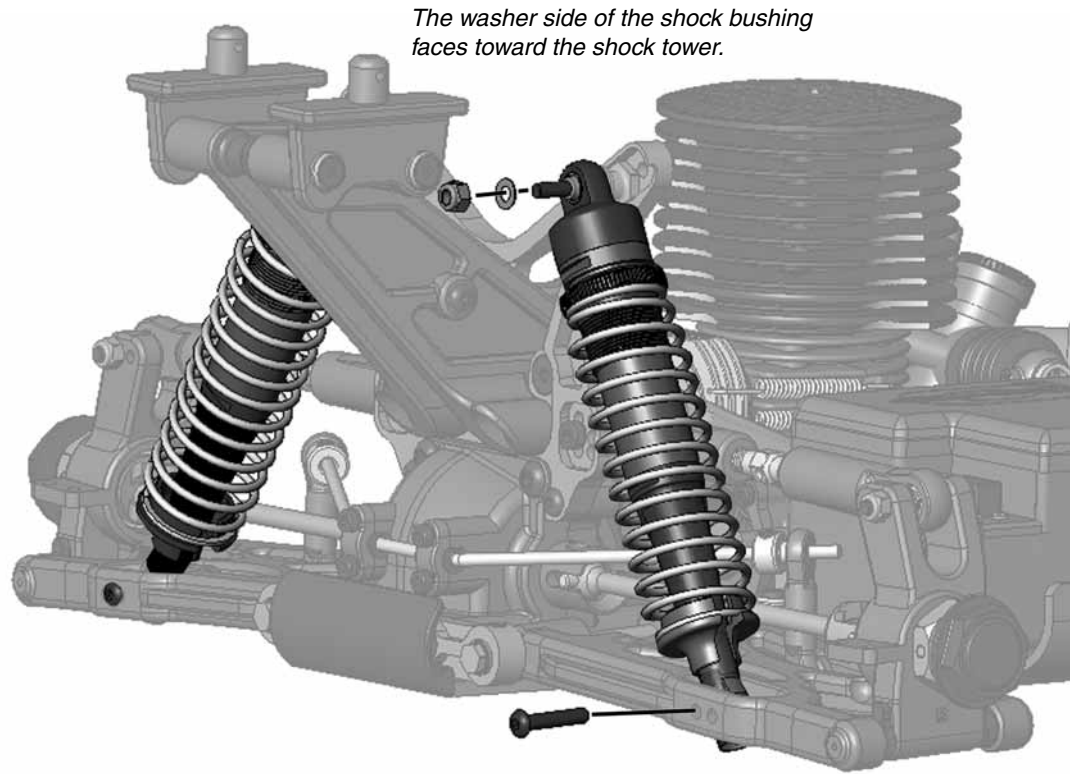
(x2)

3mm Lock Nut



(x2)

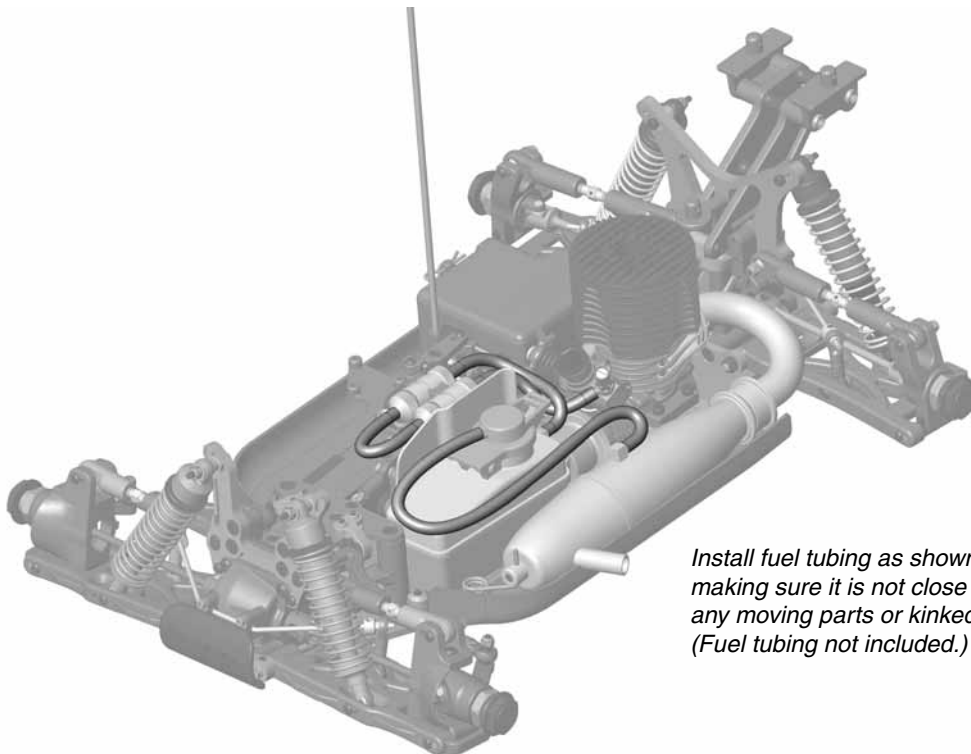
3mm Lock Nut



11

# 53

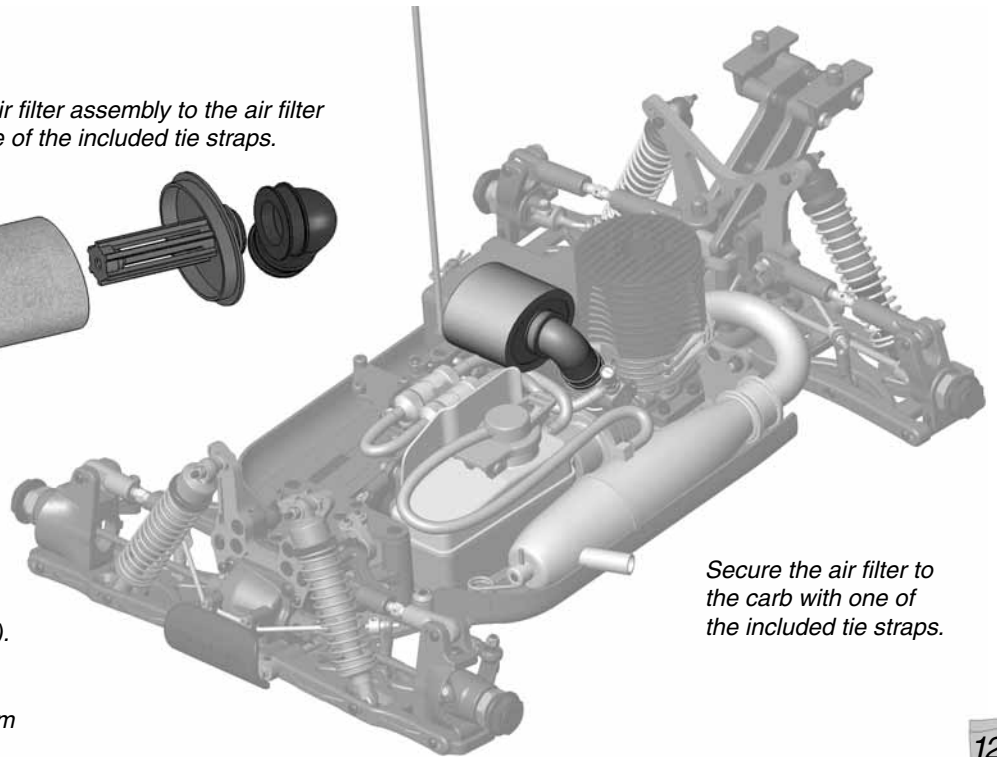
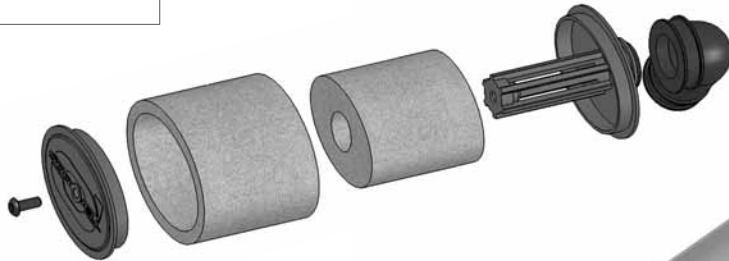
## FUEL TUBING



## HARDWARE

 (x1)  
3x8mm BH Screw

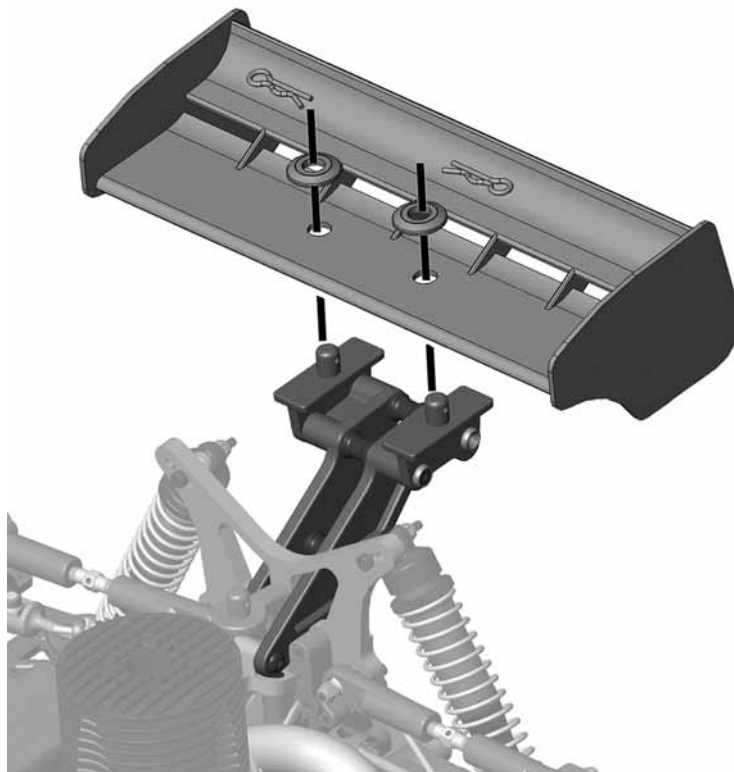
Secure the air filter assembly to the air filter boot with one of the included tie straps.

**IMPORTANT!**

Place the inner element into a small plastic bag and soak with air filter oil (not included). Work the oil into the element until it is completely saturated. Remove the element from the bag and remove the excess oil from the filter using a clean rag or paper towel.

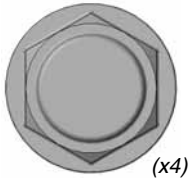
Secure the air filter to the carb with one of the included tie straps.

12



13

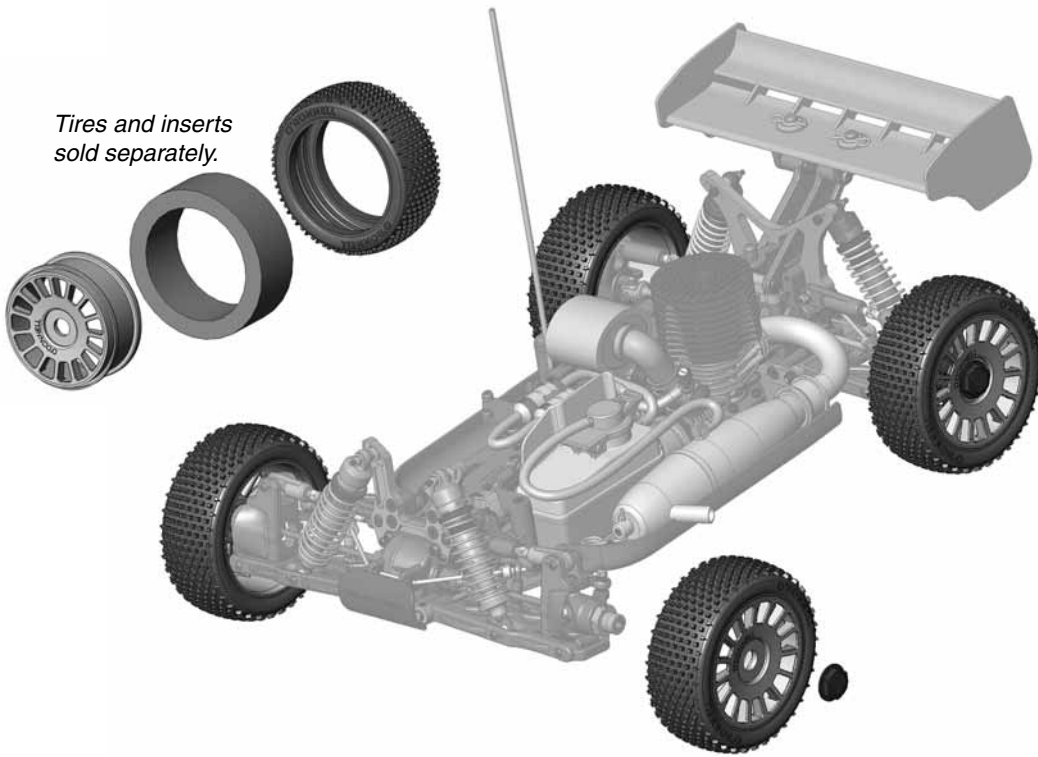
HARDWARE



(x4)

Wheel Nut

Tires and inserts  
sold separately.



Trim body as shown.

