



F1ULTRA R5 PRO

02

Thank you for purchasing the Exotek Racing F1ULTRA R5 PRO race kit!

KIT FEATURES

Your Exotek F1ULTRA R5 PRO is a cutting edge high-performance racing kit that features:

- New 2.5mm low CG 7075 1-piece chassis for superior high and low grip asphalt characteristics.
- New carbon fiber adjustable battery tray.
- New heavy duty alloy and carbon fiber rear wing mount system included for improved rear grip.
- New heavy duty extra long side links for less flex and more consistency.
- New heavy duty front alloy and steel off set axle steering hubs for improved handling.
- New +2mm front carbon fiber arms.
- New wide rear shock tower.
- New heavy duty alloy front pivot pin cups.
- Patented floating pod rear suspension system for superior forward and side traction.
- No center rear pod ball pivot means much improved chassis roll for unmatched corner speeds.
- Adjustable camber and caster via turnbuckles for easy and exact set up with no clumsy inserts.
- 3 oil filled shocks with all machined bodies and internals for velvety smooth operation and proper sealing.
- 1-piece 7075 alloy rear pod plate - improved durability, adds rear traction and improves motor cooling.
- High performance ball diff set with 1/4” steel axle and extra heavy duty oversized axle bearings.
- Simplified direct steering-to-servo design for reduced play, reduced parts count and precise steering feel.
- Heavy duty precision alloy front bulkhead comes standard for tweak-free running and easy roll center changes.
- Double sprung top shock for improved forward bite with rubber tires on asphalt.
- Super narrow main chassis for improved cornering due to less chassis scrubbing.
- Heavy duty steel rear axle and ball diff - a must have for added rear grip and durability.
- Integrated 30mm fan mount on the left pod.
- Heavy duty motor mount with upper and lower motor attachment for less motor flexing.
- Easy grip/ easy removal custom e-clips on the front suspension pins.
- 1 piece front suspension pins for less play.
- Direct servo horn and alloy servo mounts.
- Wider and lighter rear pod set for extra motor sensor wire clearance.
- Extra stiff alloy caster posts.
- Double bolt front wing mount.

REQUIRED TO COMPLETE

- 1:10 Scale Electric Motor
- Electronic Speed Control
- Steering Servo
- 3.7v-7.4v LiPo or 6.0v LiFe “Shorty” Battery
- Battery Charger
- 2-Channel Surface Radio System
- 1:10 Scale F1 Wheels and Rubber (or Foam) Tires
- 1:10 Scale Polycarbonate F1 Body
- Polycarbonate-Specific Spray Paint for Body
- Servo Tape (3M brand is best)

REQUIRED TOOLS

- High grade machined hex wrenches - 1.5, 2.0, 2.5mm
- Nut wrench- 5.5, 7.0
- 4mm turnbuckle wrench
- Hobby knife
- Calipers or a precision ruler
- Silicone glue (goop)
- Body scissors
- Reamer/hole punch
- Long-style ride height gauge
- Needle nose pliers

03



M3x6 BHCS (x4)



R4041
Pivot Ball (x2)



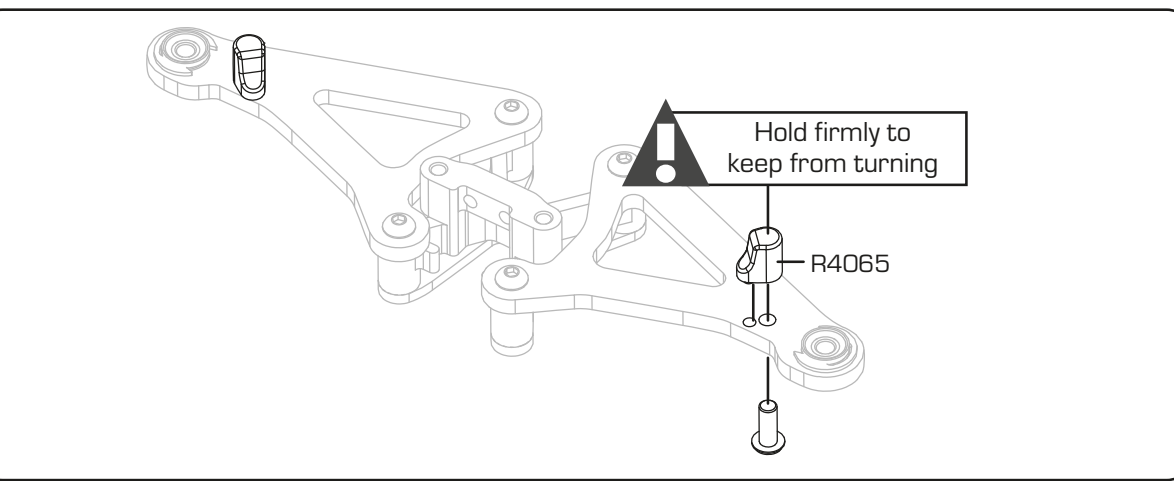
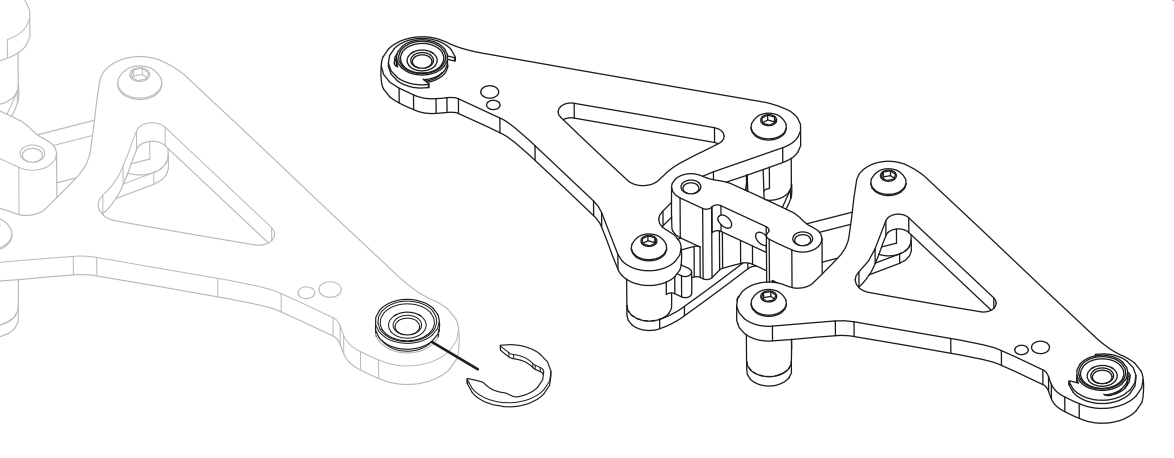
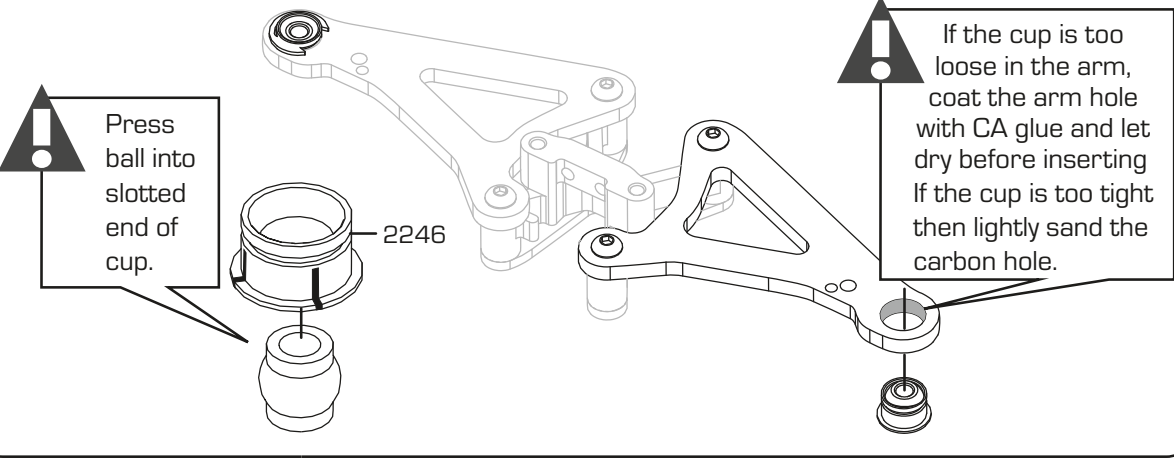
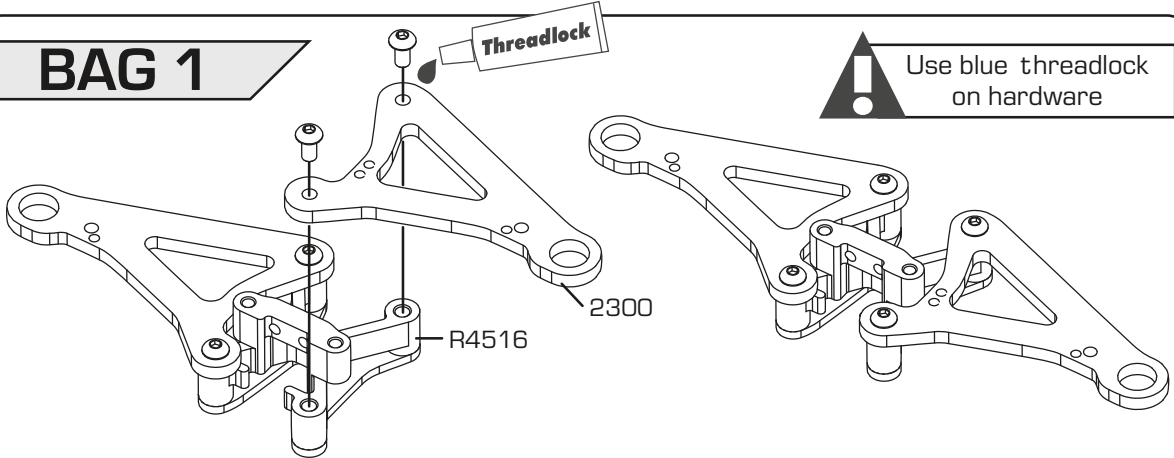
2097
Suspension Clip (2X)



M3x8 BHCS (x2)

EXOTEK

BAG 1



04



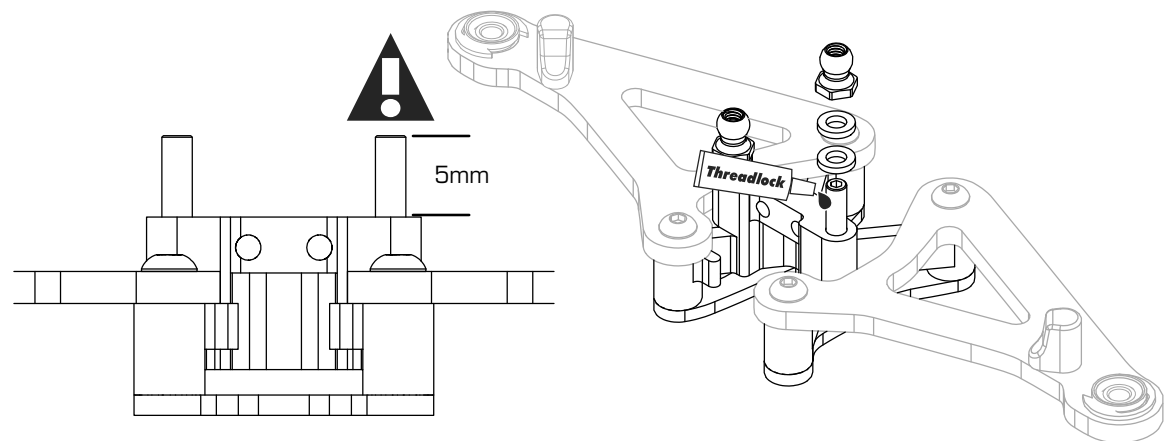
R4061
Ball Nut (x2)



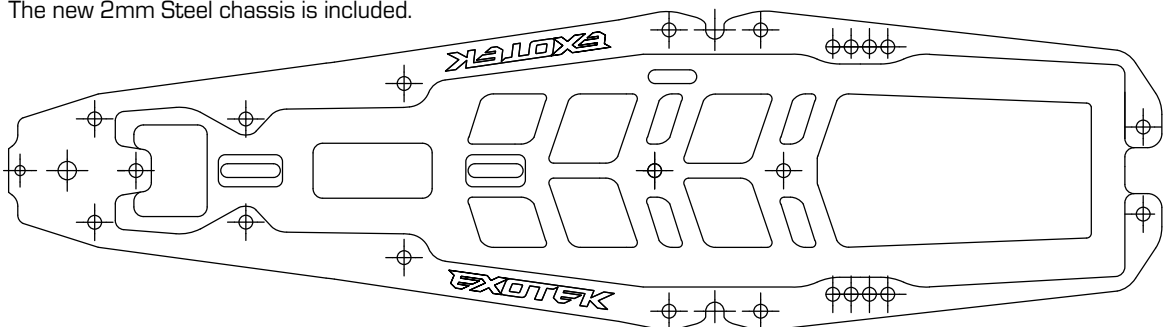
R4114
1mm Blue Spacer (x4)



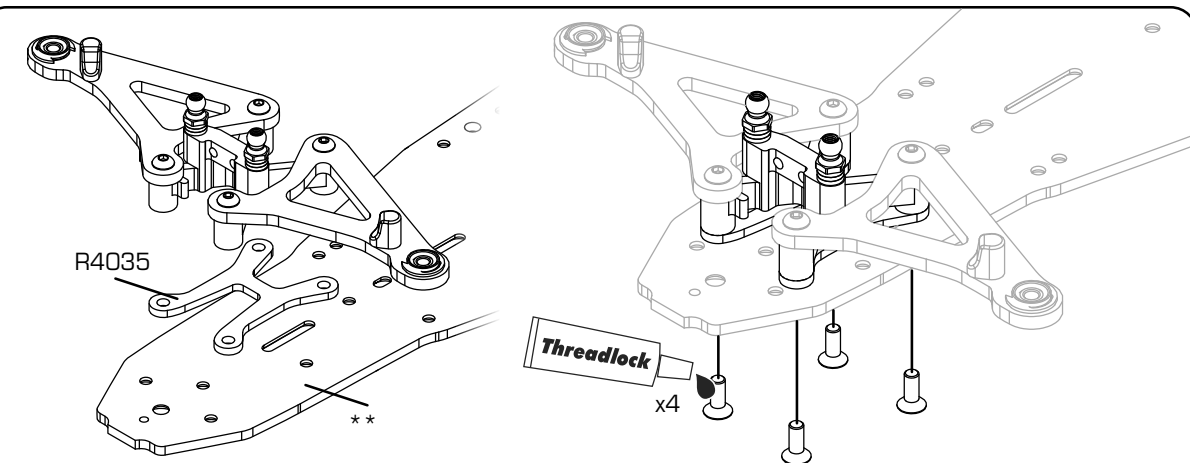
R4103
M3x10 Set Screw (x2)



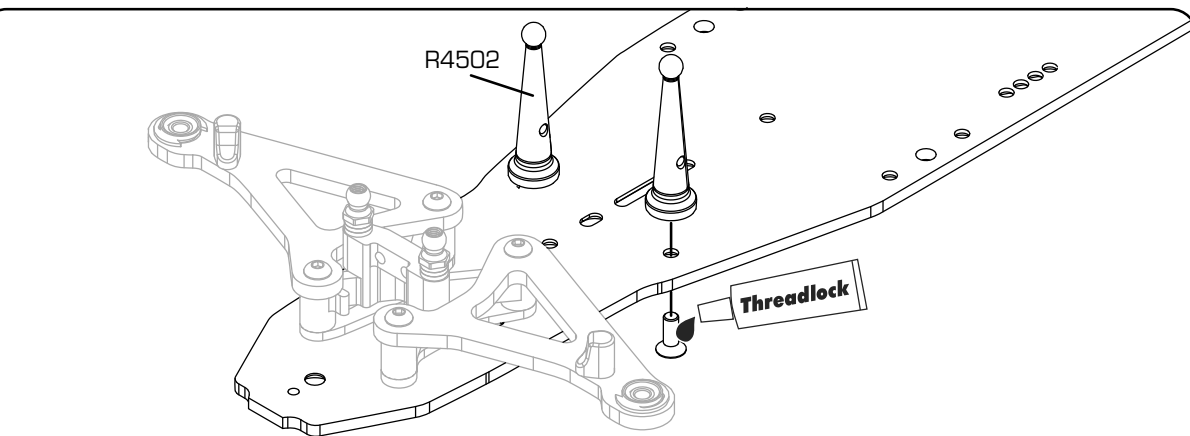
The new 2mm Steel chassis is included.



M3x8 FHCS (x4)



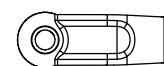
R4107
M3x8 FHCS (x2)



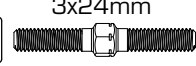
05

BAG 2

R4043



R4039
3x24mm

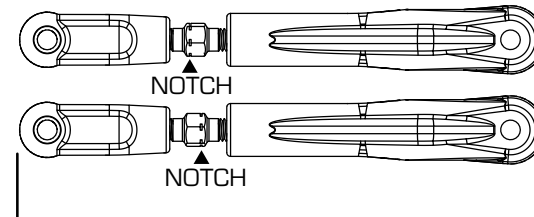


R4093



Make 2 Sets

This is not the set up. This is to assemble the parts.

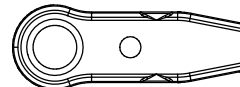


70mm



This arm hole is very tight. Open it up by threading an M3 screw in the hole first and then attach turnbuckle with some grease.

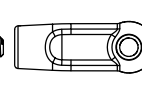
R4086



R4039
3x24mm

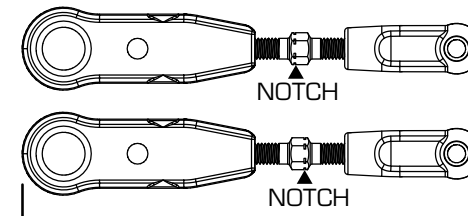


R4043



Make 2 Sets

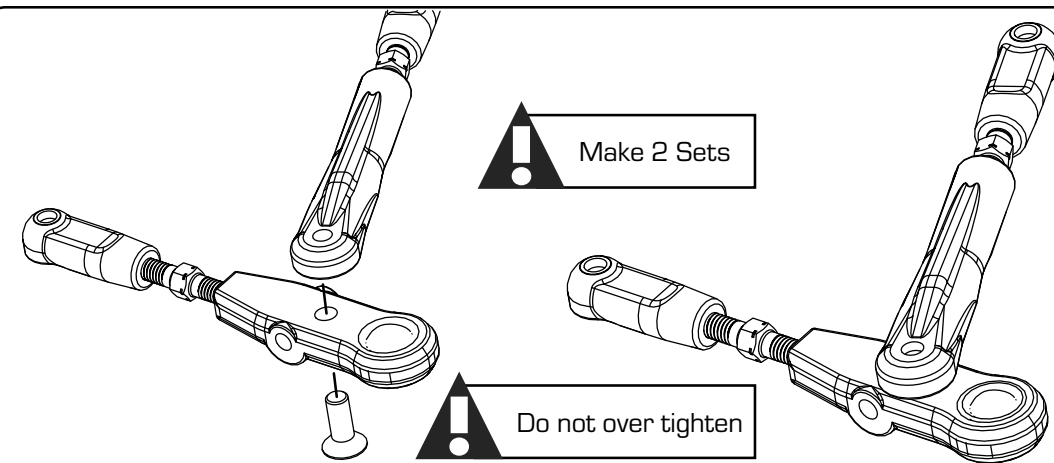
This is not the set up. This is to assemble the parts.



62mm



M3x10 FHCS (x2)

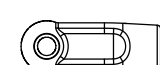


Make 2 Sets



Do not over tighten

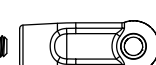
R4043



R4083
3x36mm

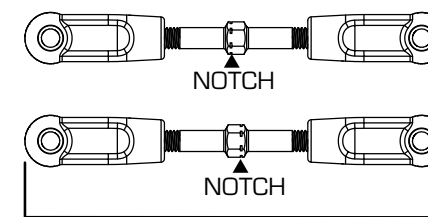


R4043



Make 2 Sets

This is not the set up. This is to assemble the parts.



56mm

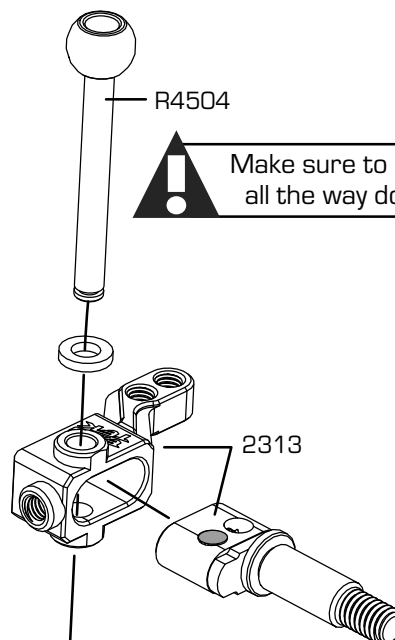
EXOTEK

EXOTEK

06



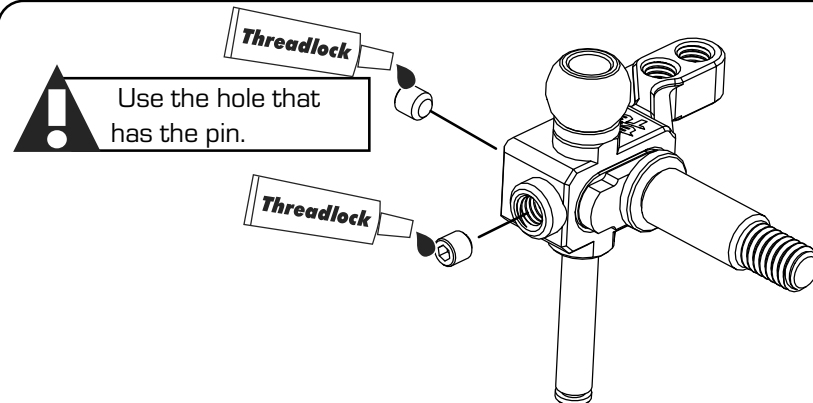
R4519
1mm Silver Shim (x2)



! Make sure to push all the way down



M3x3 Set Screw (x4)



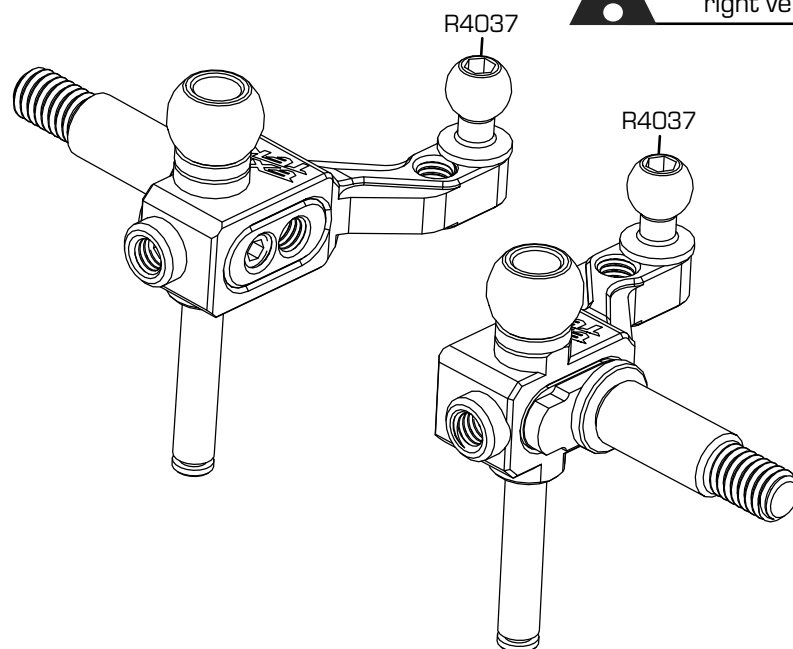
Threadlock

! Use the hole that has the pin.

Threadlock



R4037
Ball Stud (x2)



! Make a left and right version

R4037

R4037

07



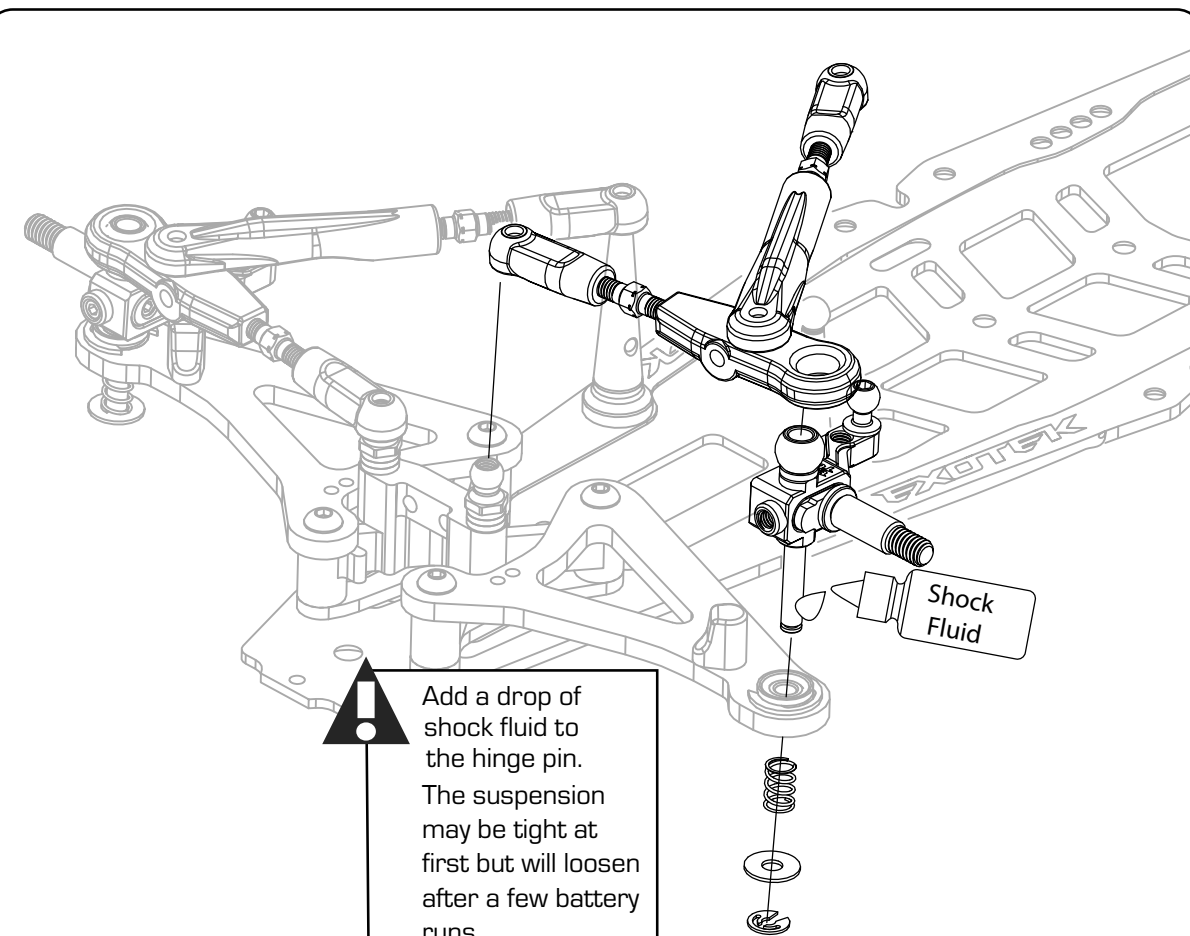
R4101
Thin Shim (x2)



R4087
.45 Silver Spring (x2)



R4505
Spring E-Clip (x2)

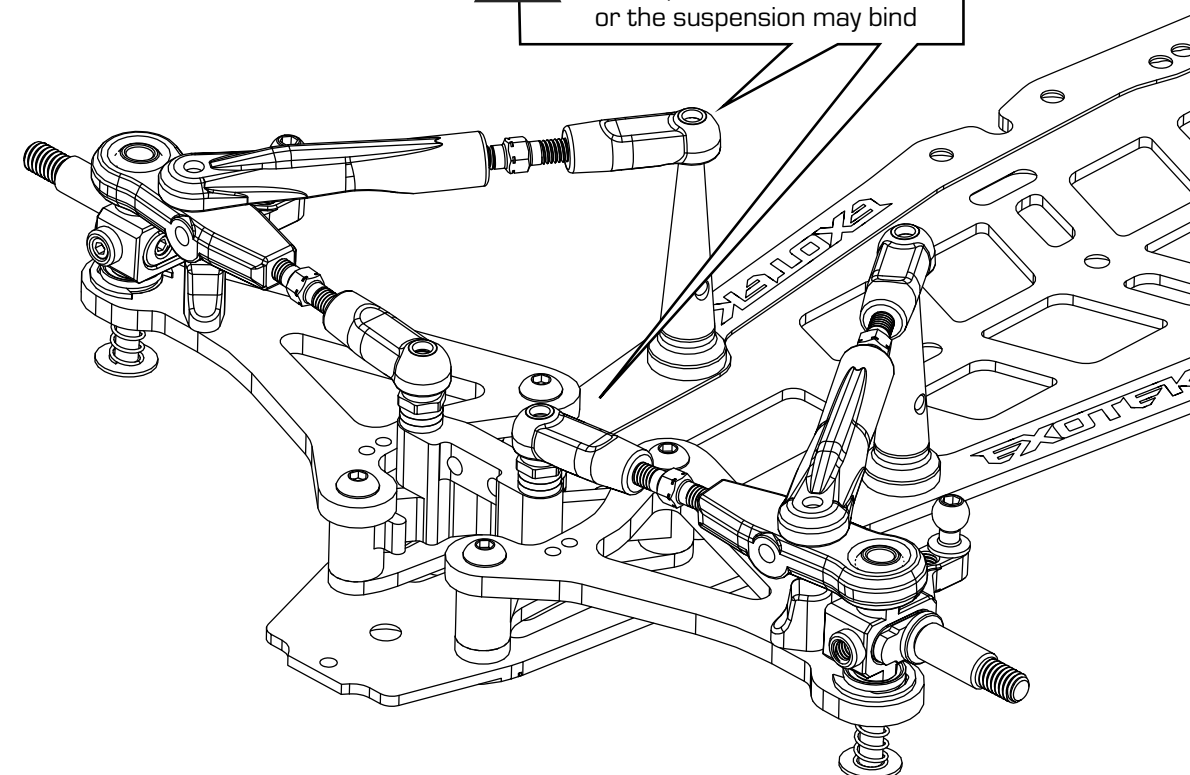


! Add a drop of shock fluid to the hinge pin. The suspension may be tight at first but will loosen after a few battery runs.

Shock Fluid



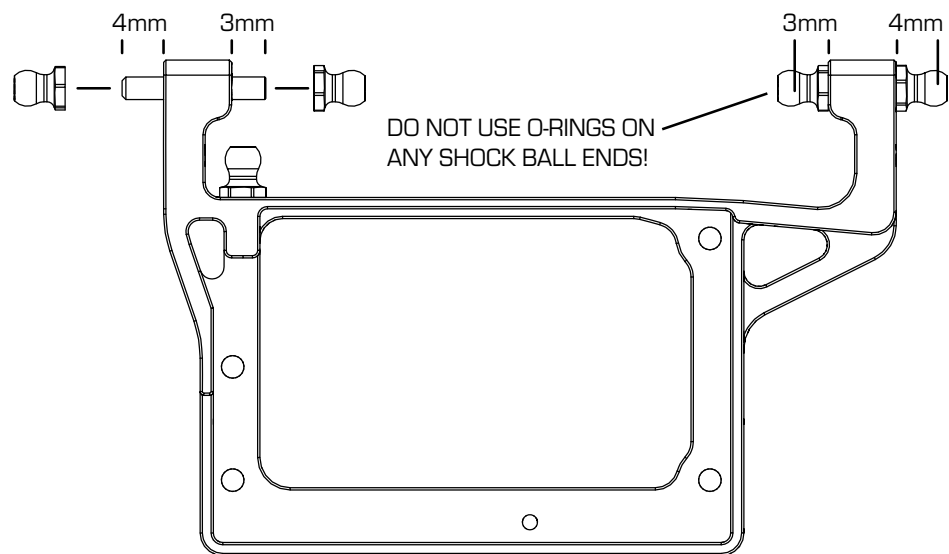
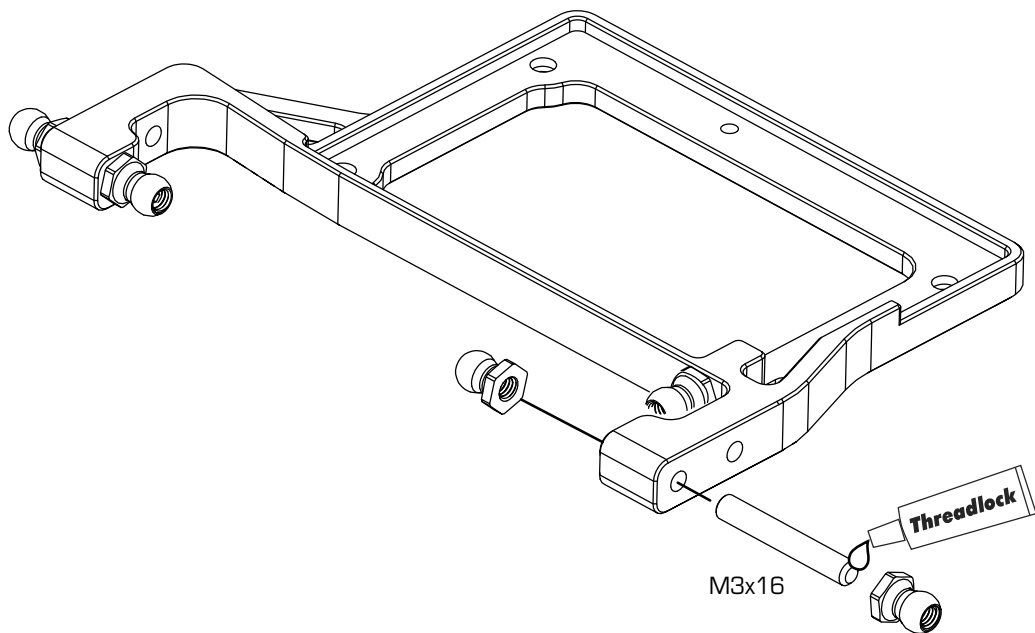
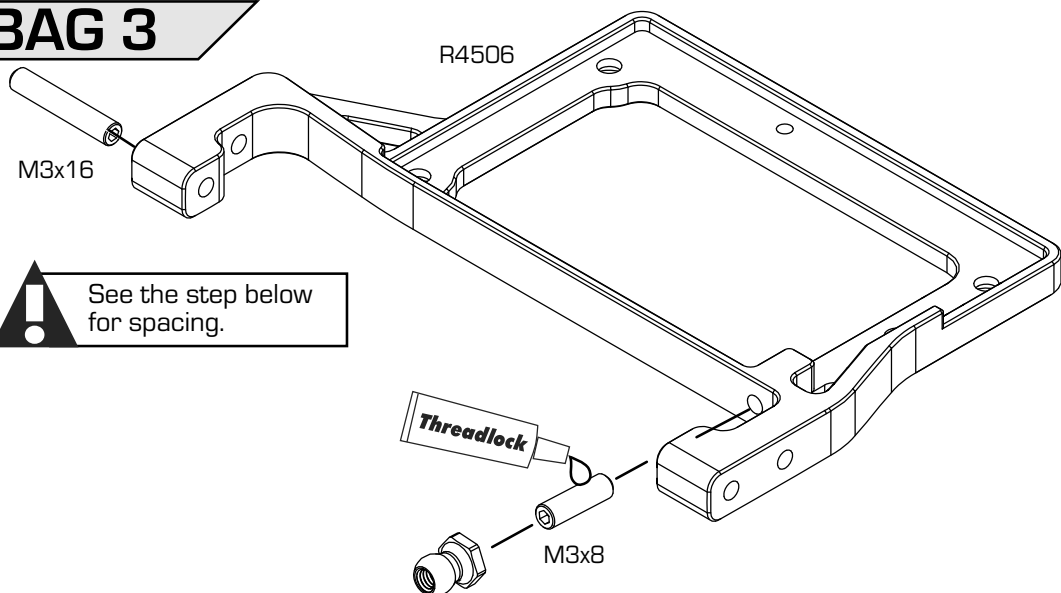
! Make sure all of the ball cups are level/flat on the metal balls or the suspension may bind



08

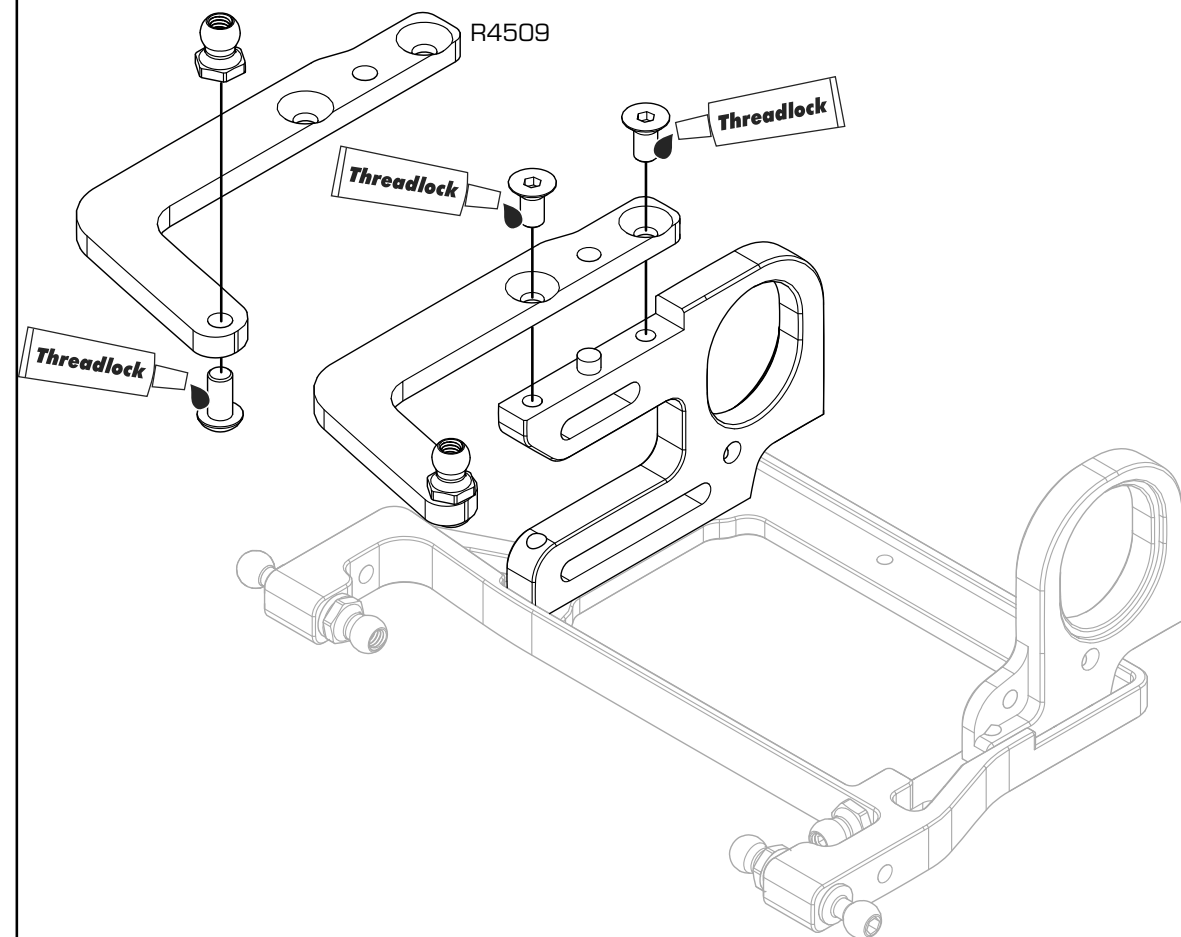
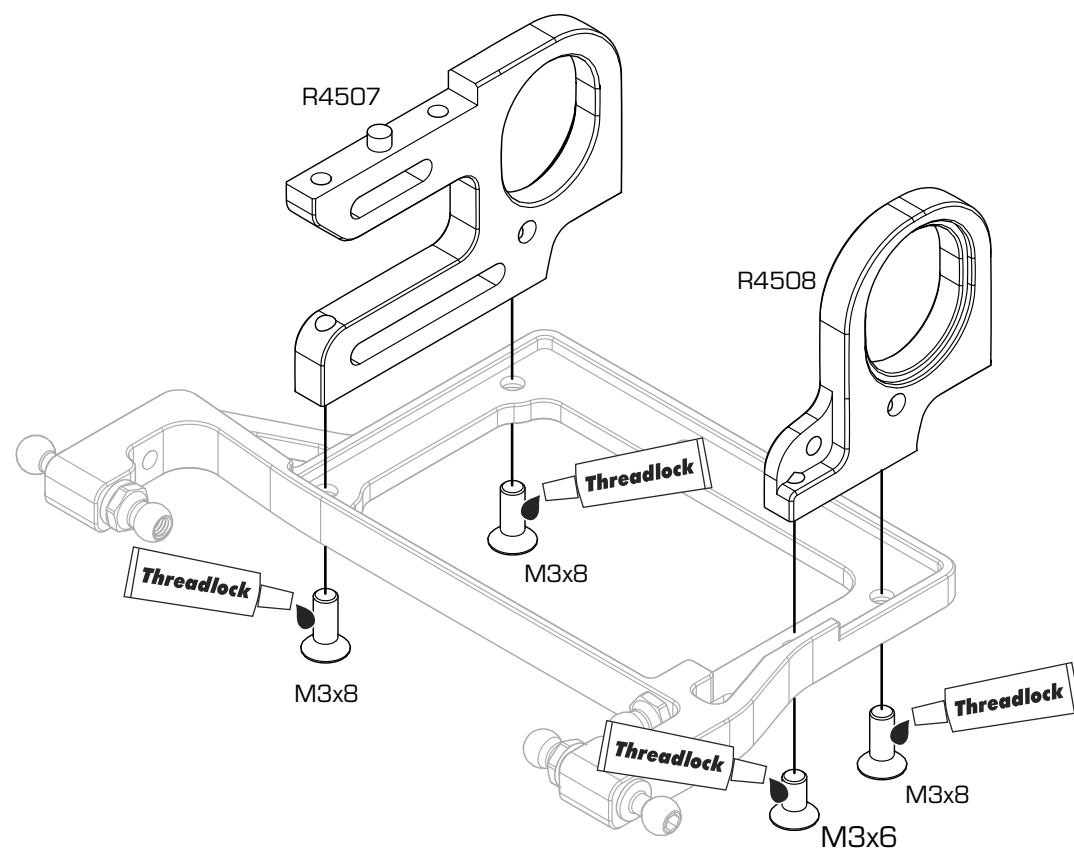
- M3x16 Set Screw (x2)
- R4061 Ball Nut (x5)
- M3x8 Set Screw 1

BAG 3



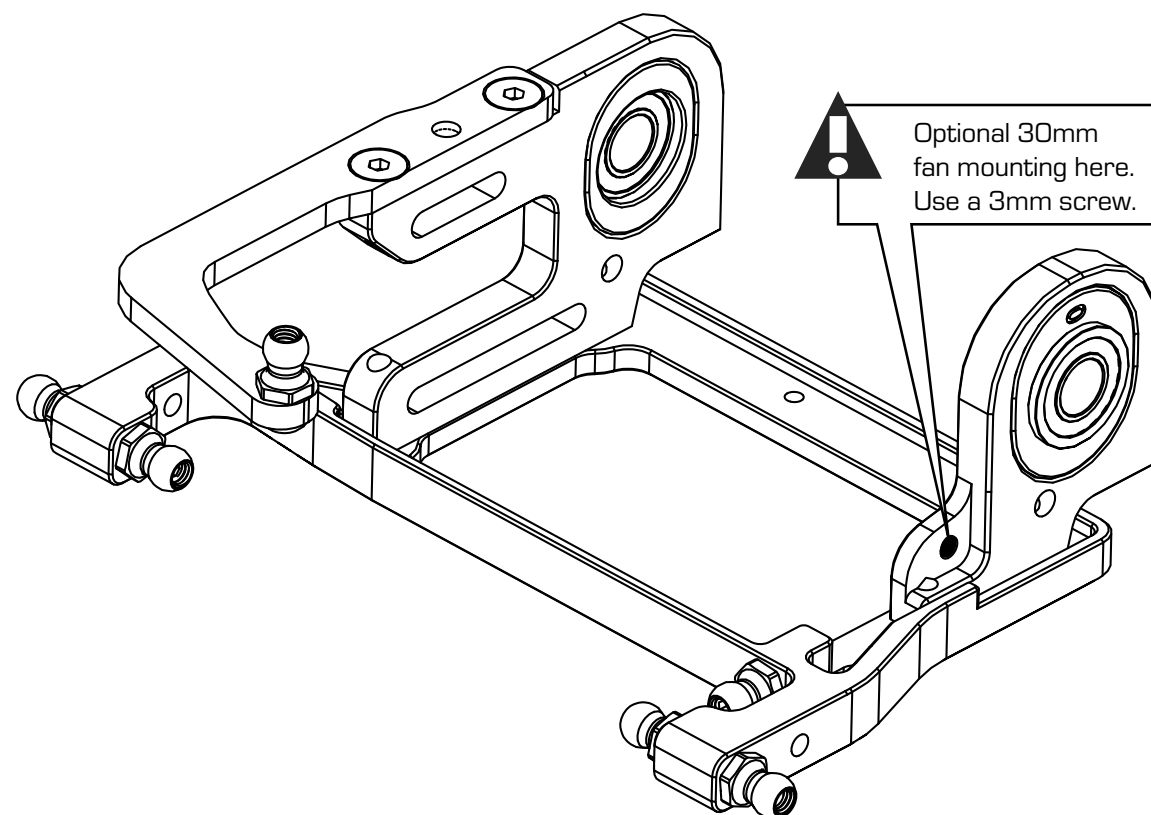
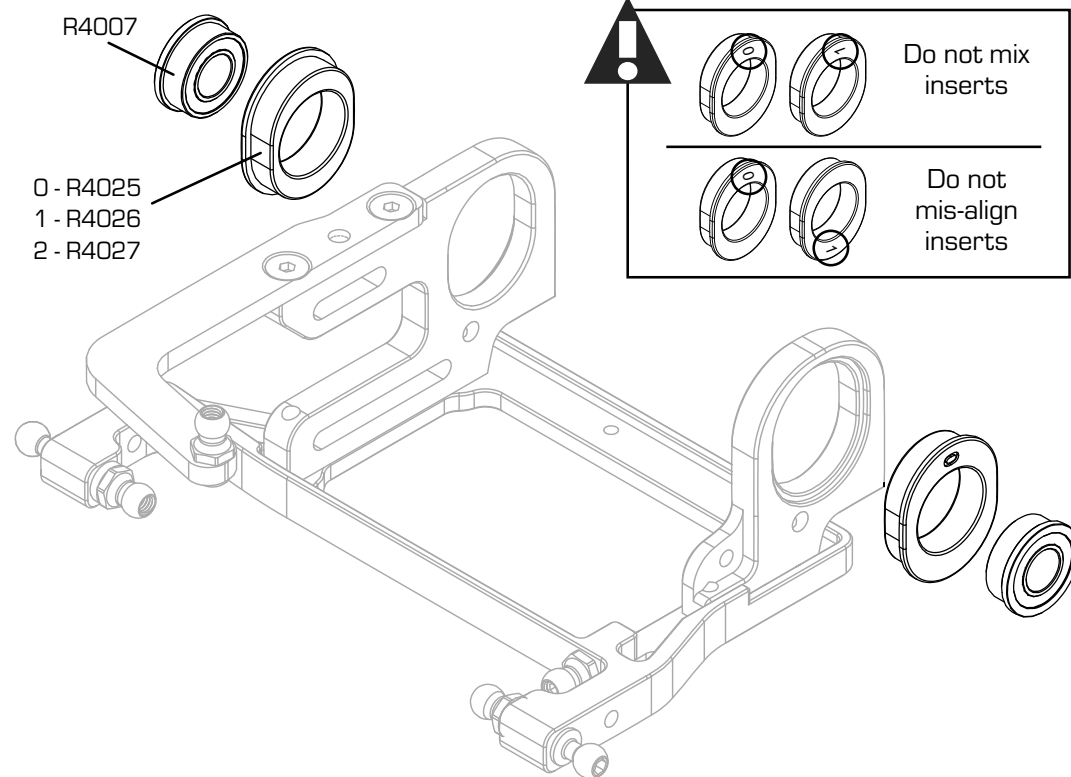
09

- M3x6 FHCS (x1)
- M3x8 FHCS (x3)



- M3x6 FHCS (x2)
- M3x6 BHCS
- R4061 Ball Nut

10

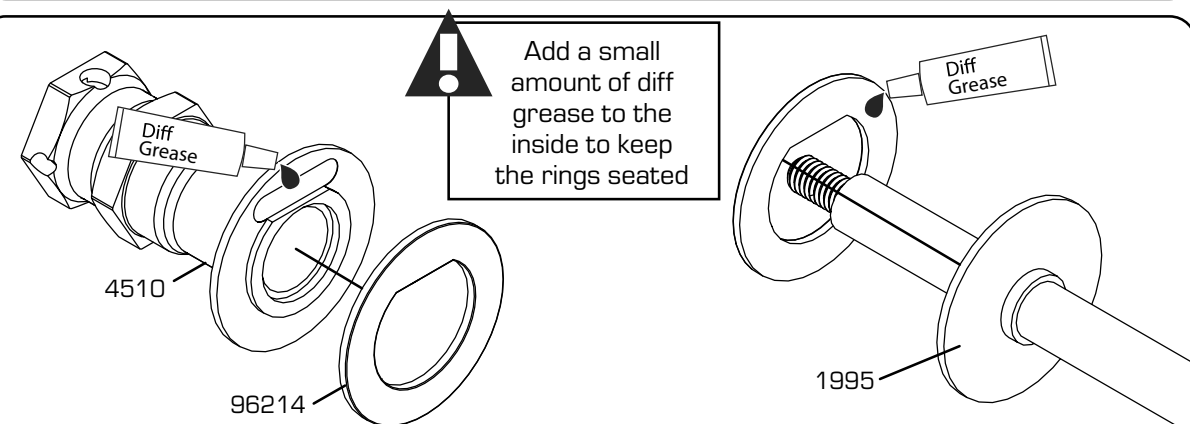
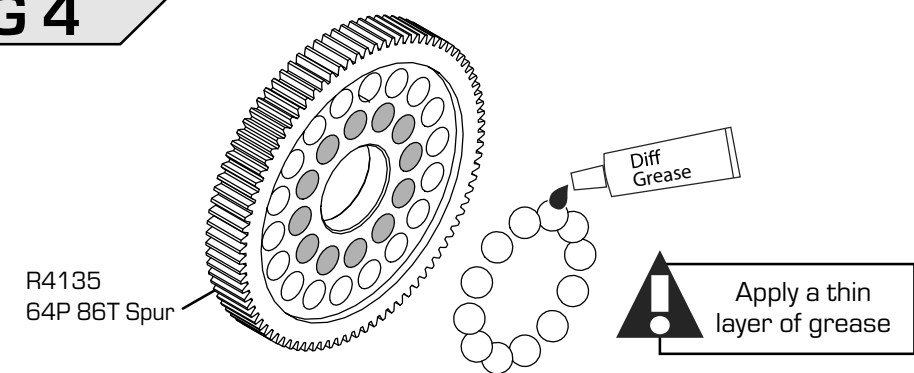


EXOTEK

11

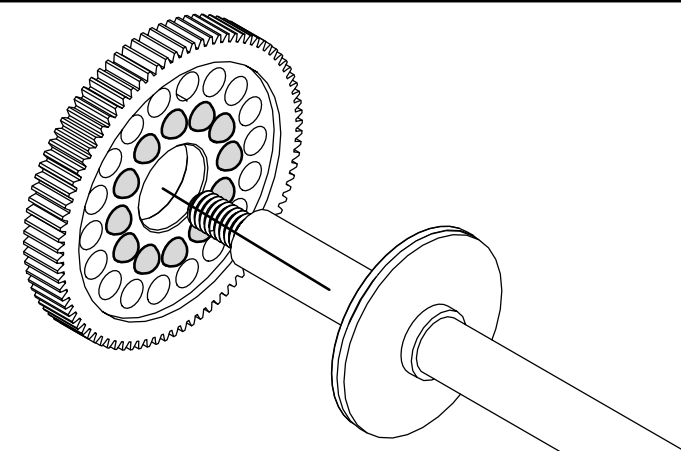
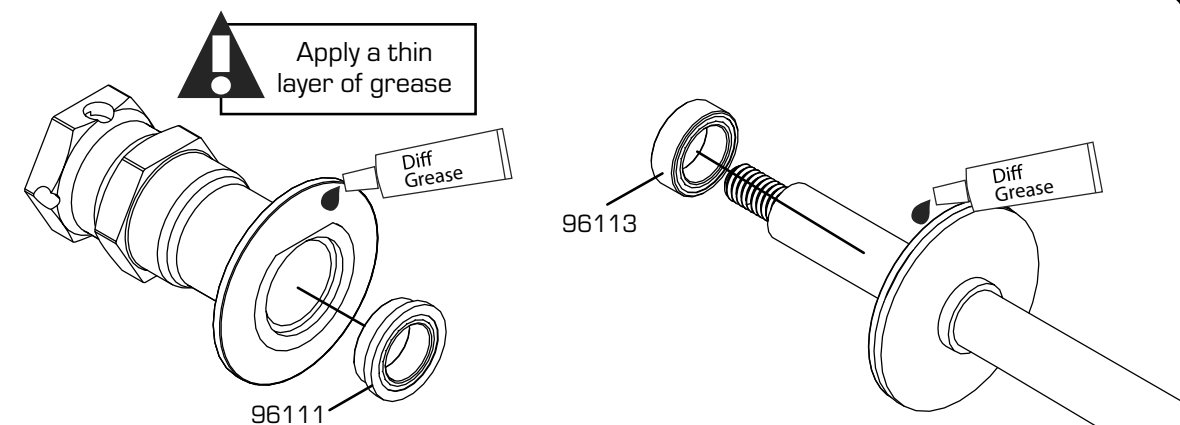
96109
1/8 Diff Balls (x12)

BAG 4



96113
1/4 Bearing

96111
1/4 Flanged Bearing

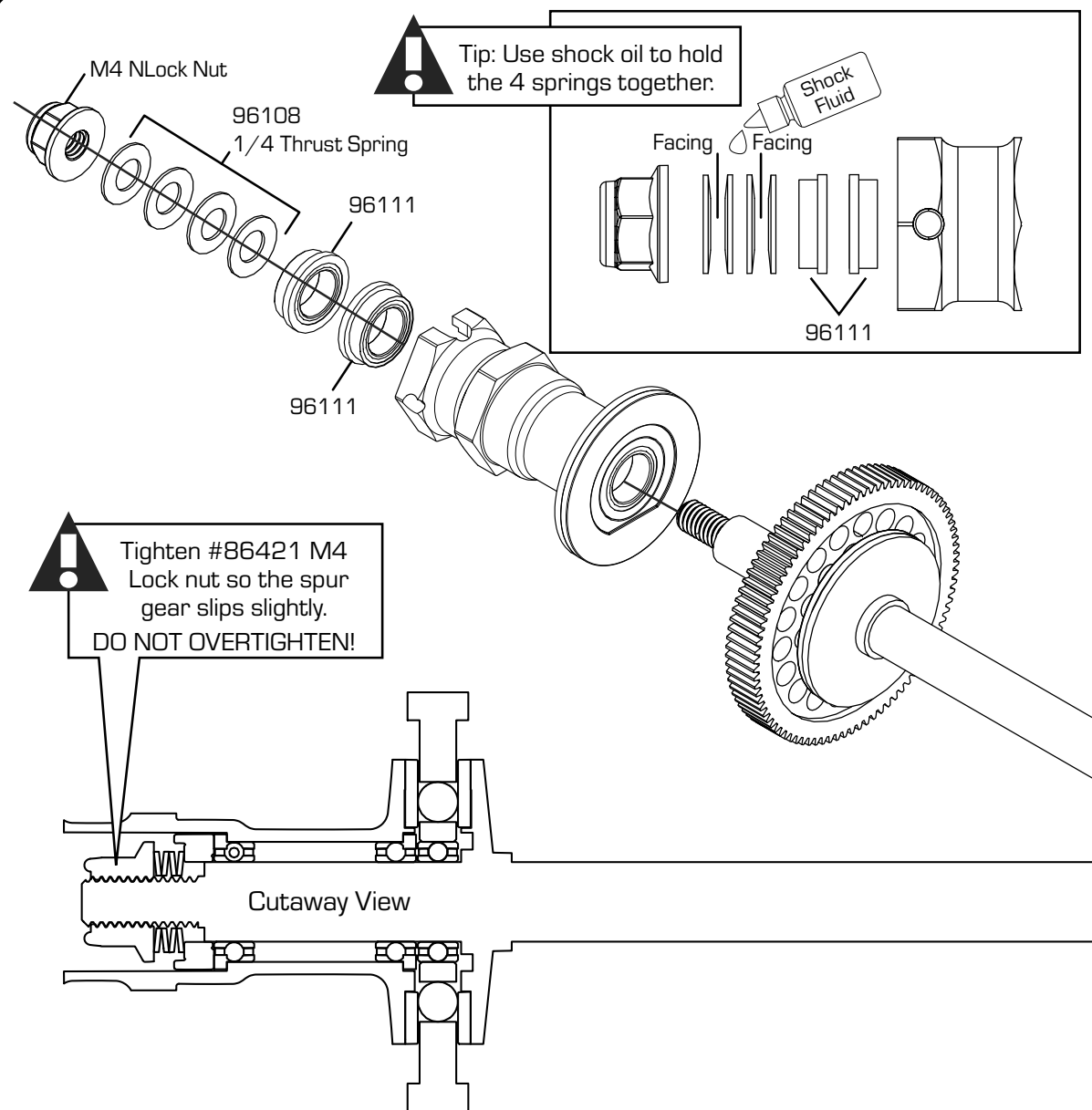


EXOTEK

12

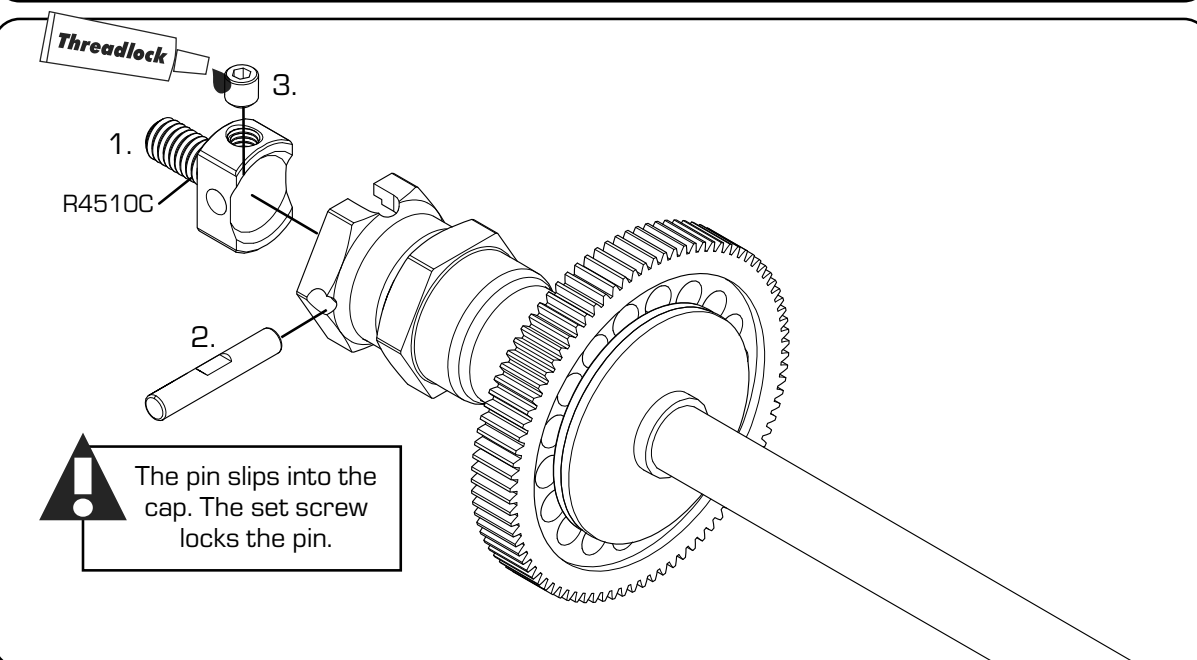


96111
1/4 Flanged Bearing (x2)



M3x3 Set Screw

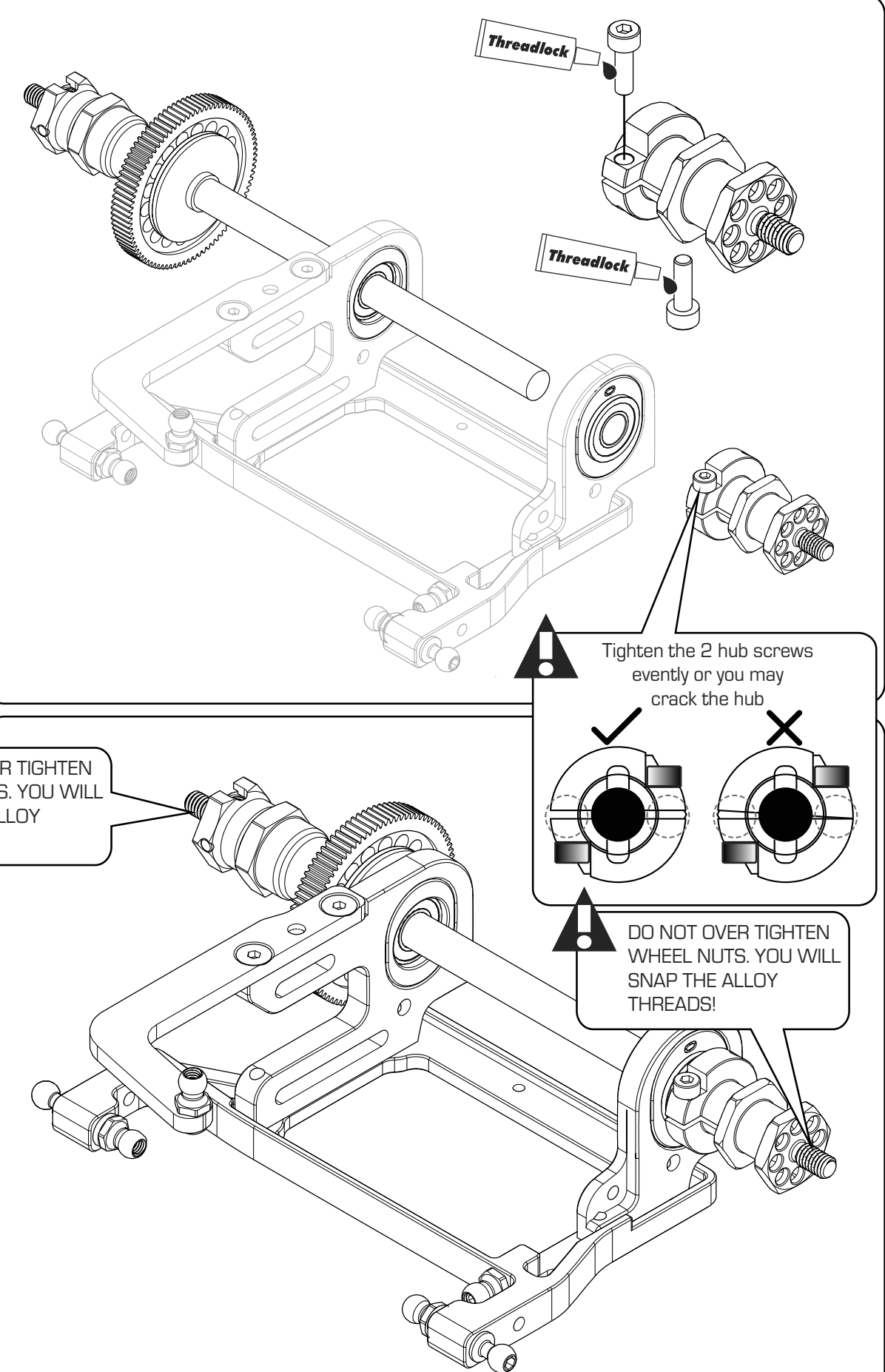
80530
Cross Pin



13



M2.5x8 SHCS (x2)



EXOTek

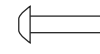
14



R4061
Ball Nut



R4116
2.5mm Spacer

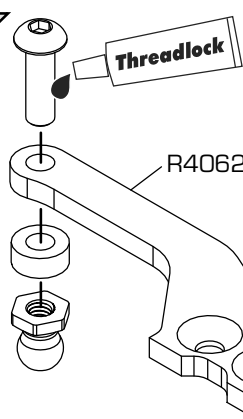


M3x10 BHCS



M3x6 FHCS (x2)

BAG 5



R4062

R4029

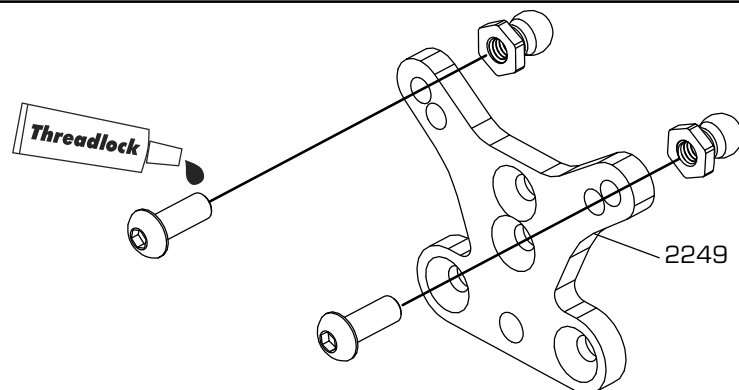
X2



R4061
Ball Nut (2)



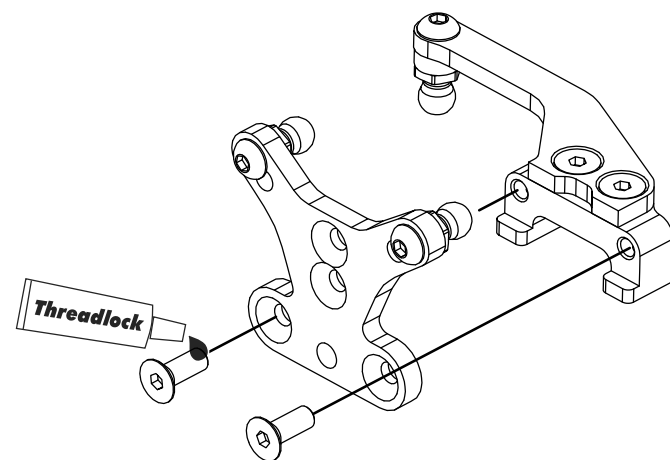
M3x6 BHCS (X2)



2249



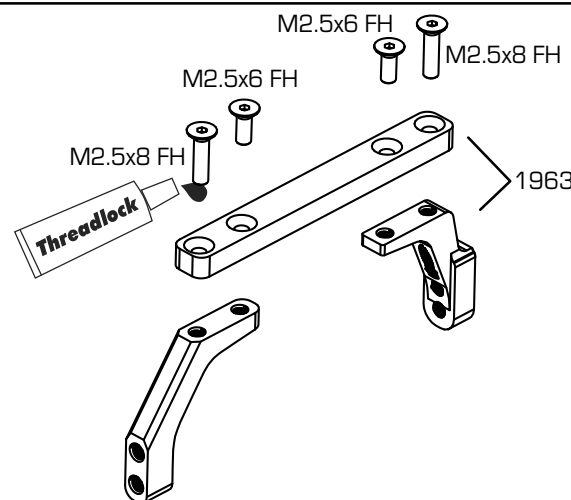
M3x8 FHCS (x2)



M2.5x8 FH



M2.5x6 FH



M2.5x6 FH

M2.5x6 FH

M2.5x8 FH

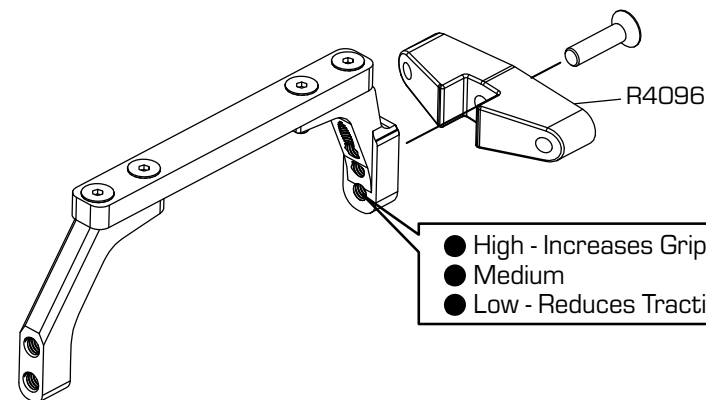
1963

EXOTEK

15



M3x10 FHCS (x1)

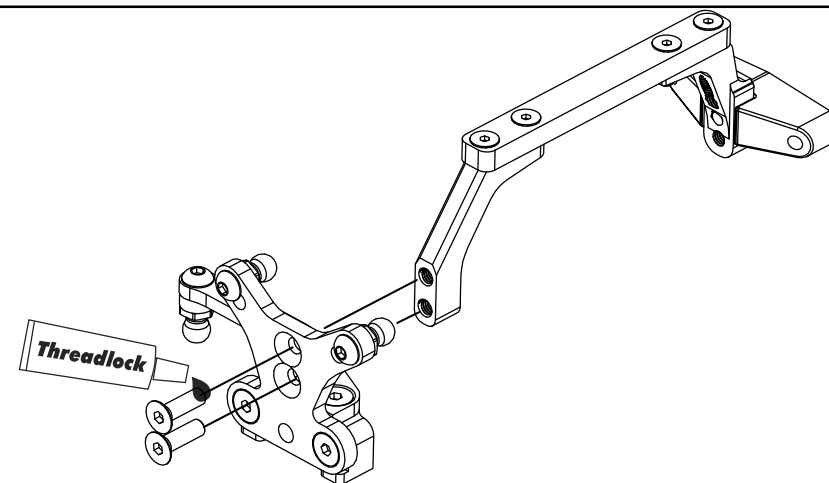


R4096

● High - Increases Grip
● Medium
● Low - Reduces Traction Roll



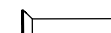
M3x8 FH CS (x2)



M3x8 BHCS (x2)



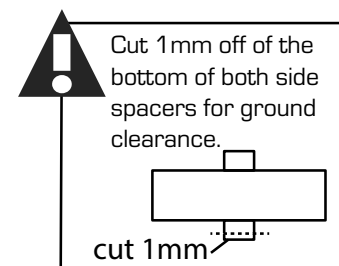
R4061
Ball Nut



M3x16 FHCS (x4)



M3 Lock Nut (x4)

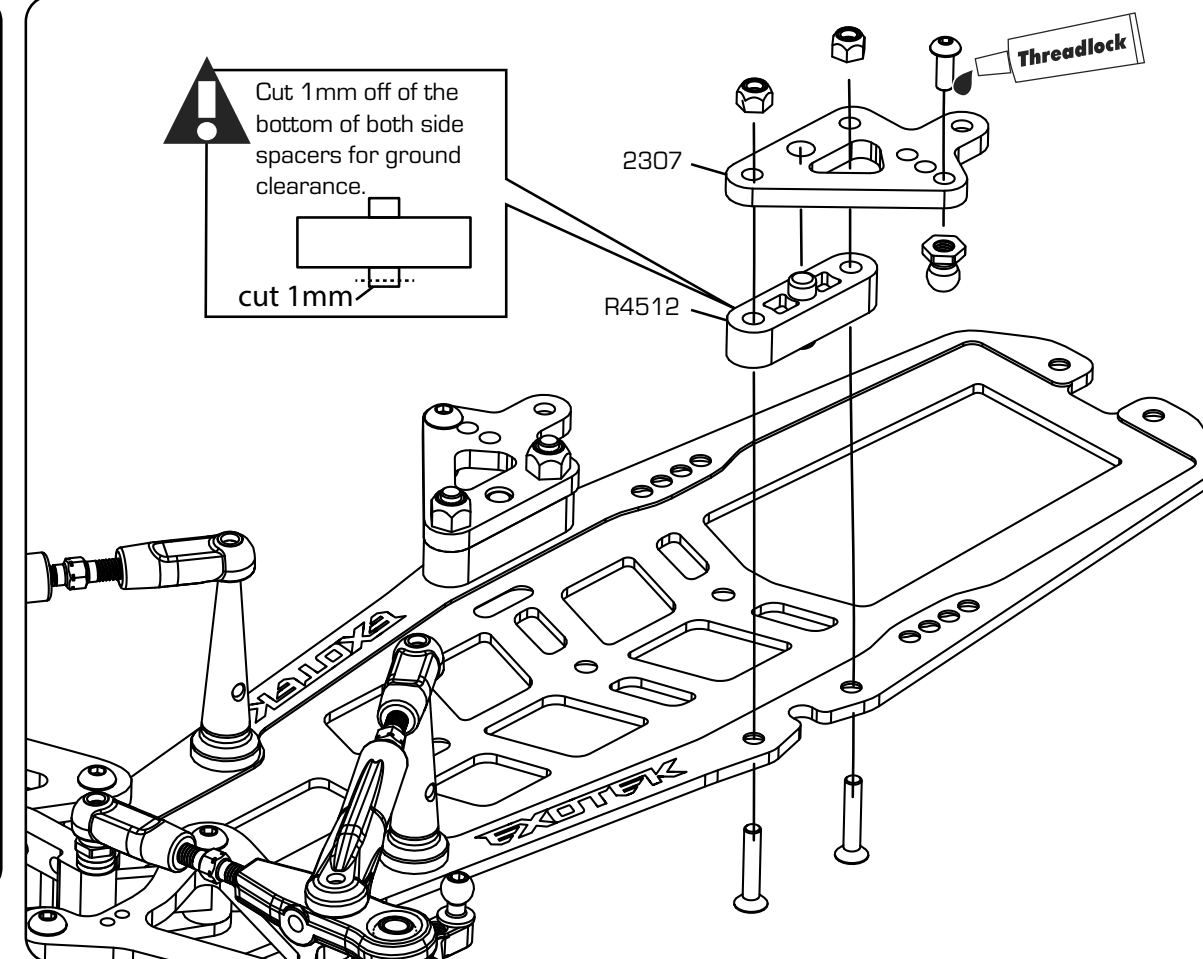


Cut 1mm off of the
bottom of both side
spacers for ground
clearance.

cut 1mm

2307

R4512

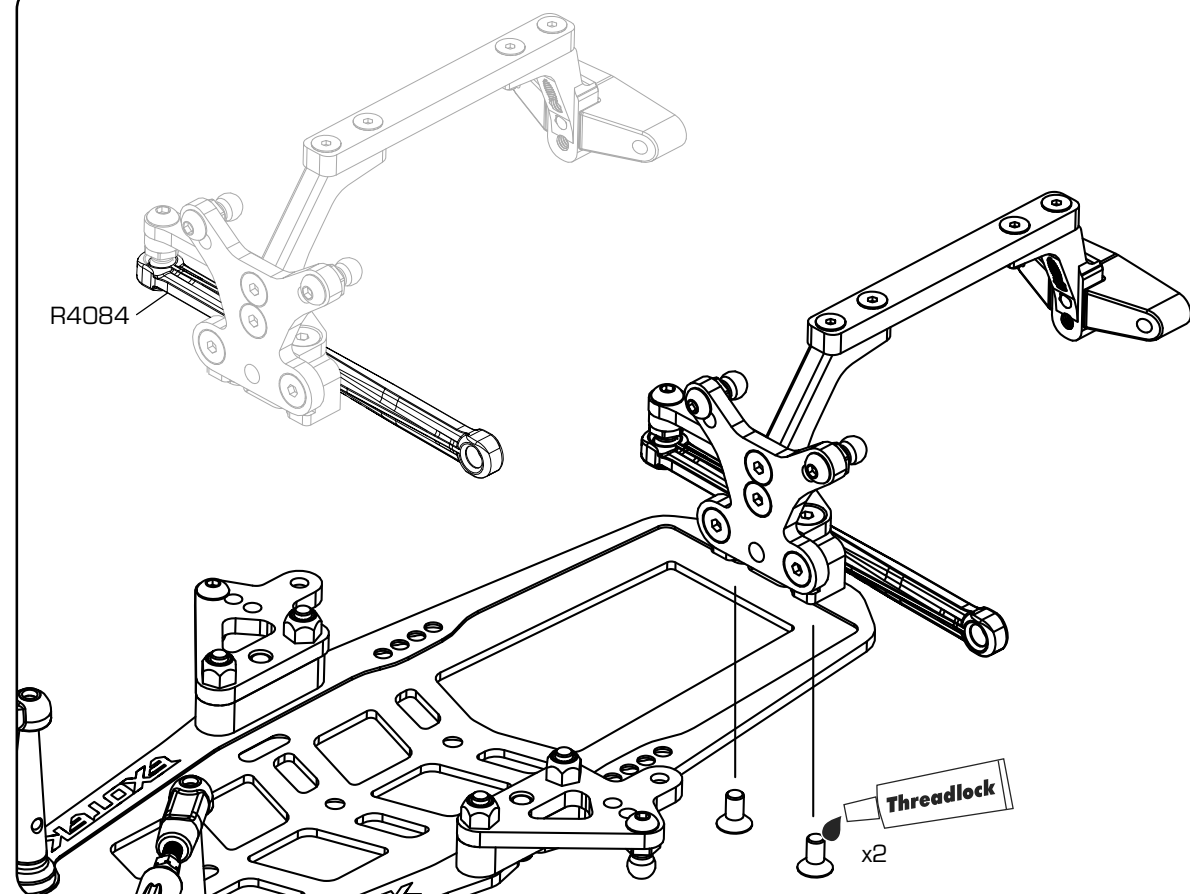


EXOTEK

16



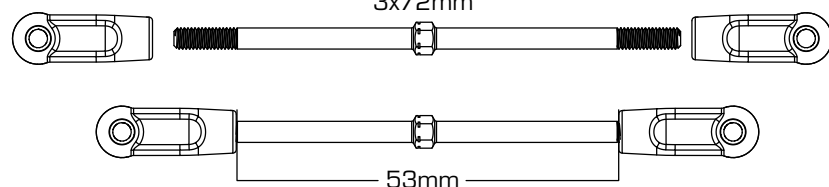
M3x6 FHCS (x2)



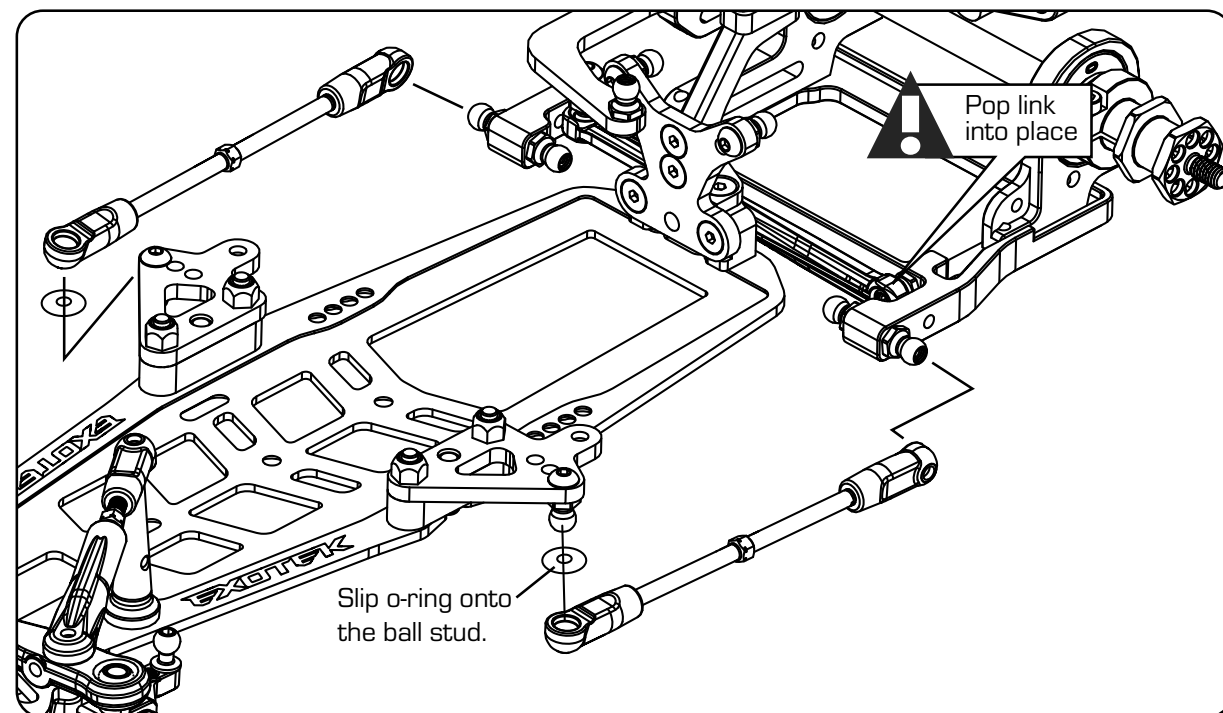
R4043

2307
3x72mm

R4043



M3 O-RING (X2)



Slip o-ring onto
the ball stud.

Pop link
into place

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17

TOP SHOCK (x1)



R4121
Large X-Ring



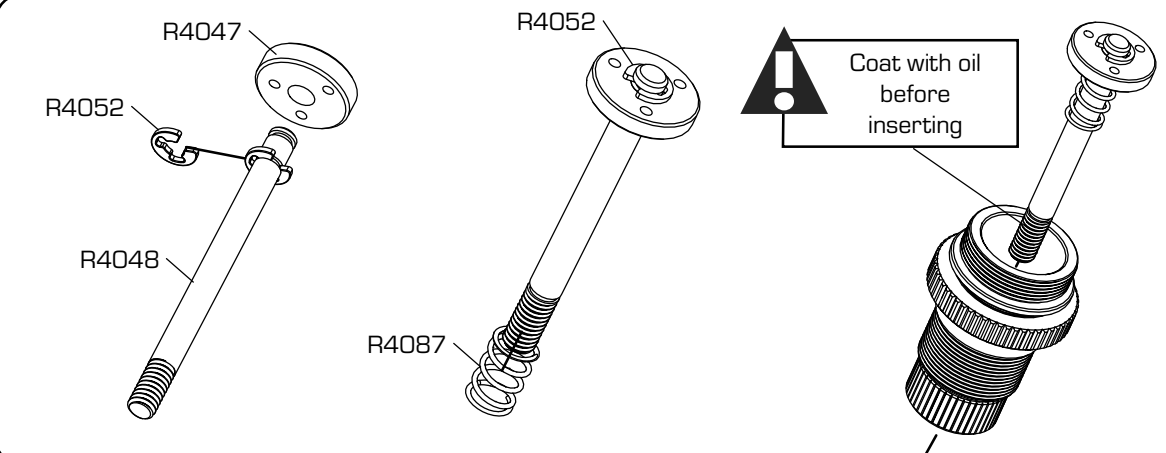
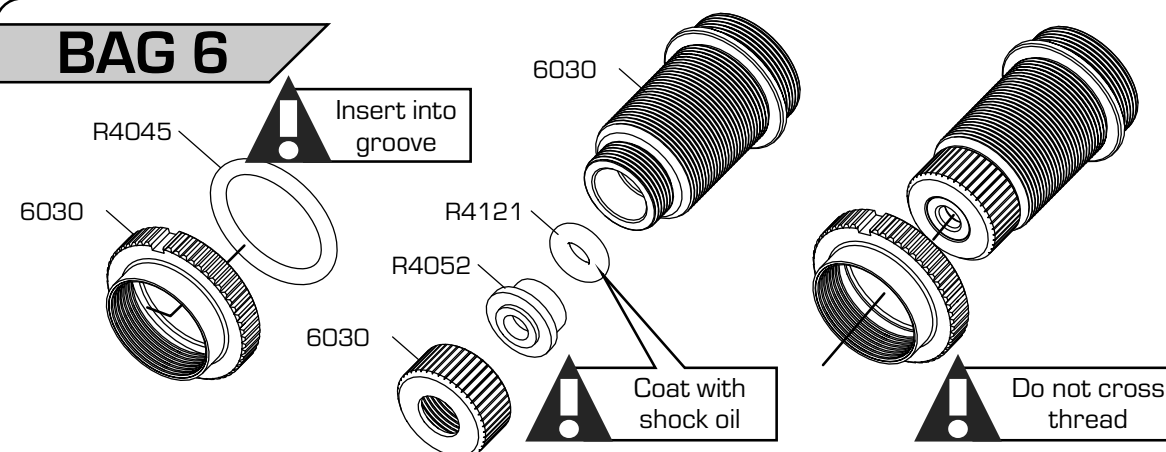
R4044
Large E-Clip (x2)



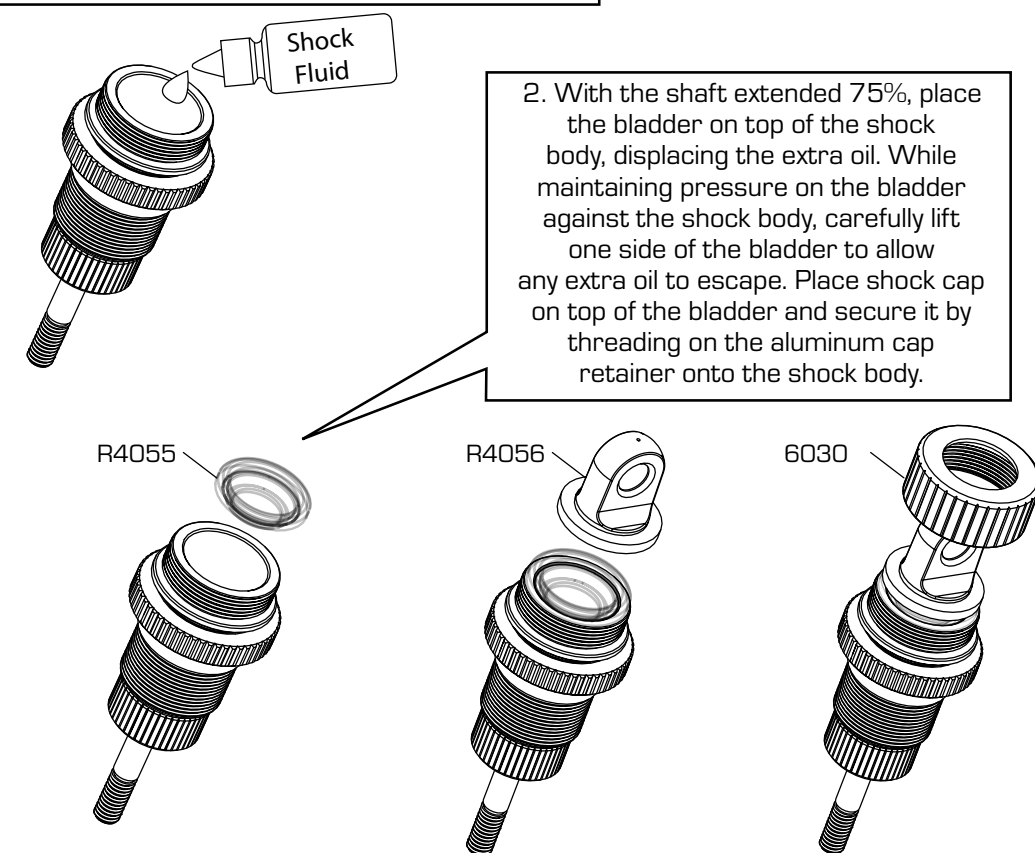
R4087
.45 Silver Spring

EXOTEK

BAG 6

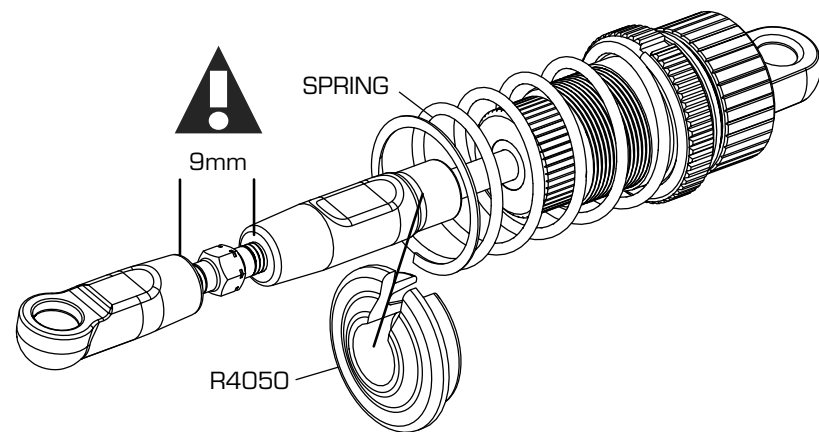
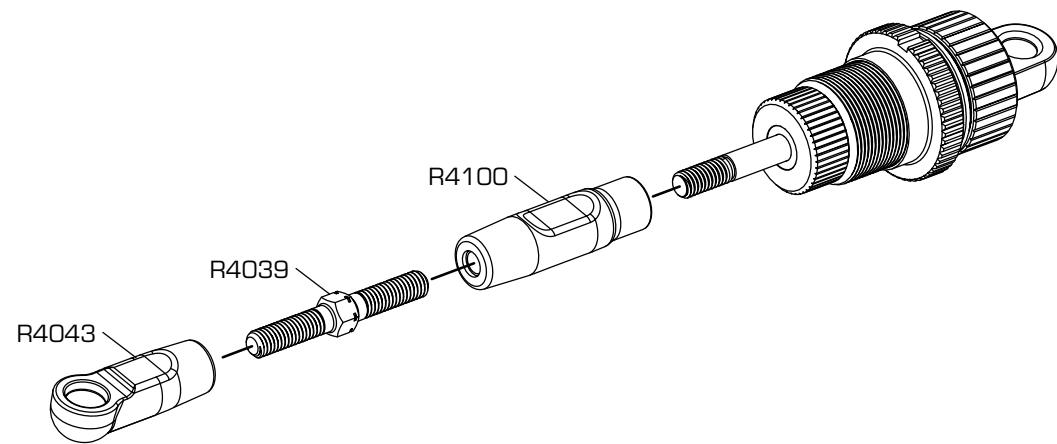


1. Fill to the top with shock oil. Work piston up and down
And wait a few minutes for the bubbles to work out.



2. With the shaft extended 75%, place
the bladder on top of the shock
body, displacing the extra oil. While
maintaining pressure on the bladder
against the shock body, carefully lift
one side of the bladder to allow
any extra oil to escape. Place shock cap
on top of the bladder and secure it by
threading on the aluminum cap
retainer onto the shock body.

18



MICRO SHOCK x2

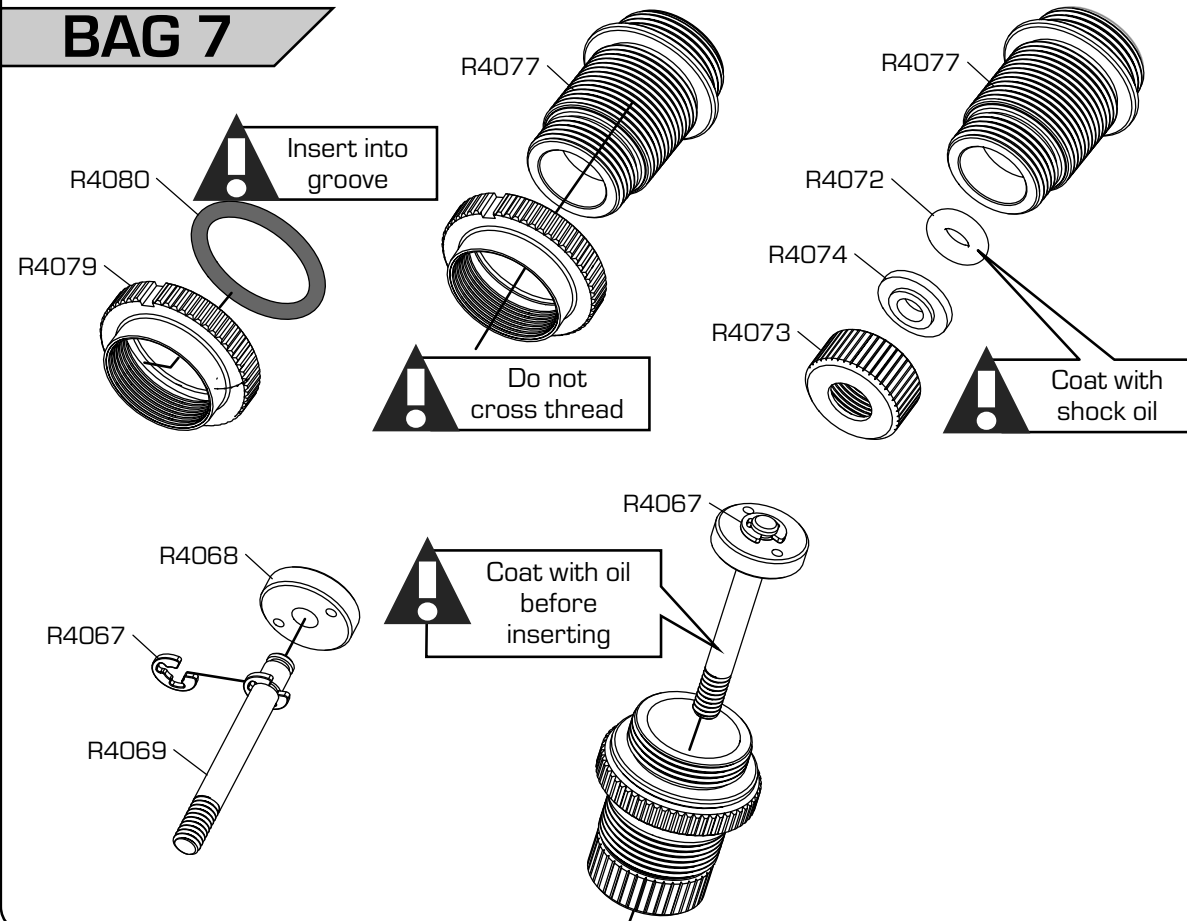


R4072
Micro O-Rings (x2)
Orange



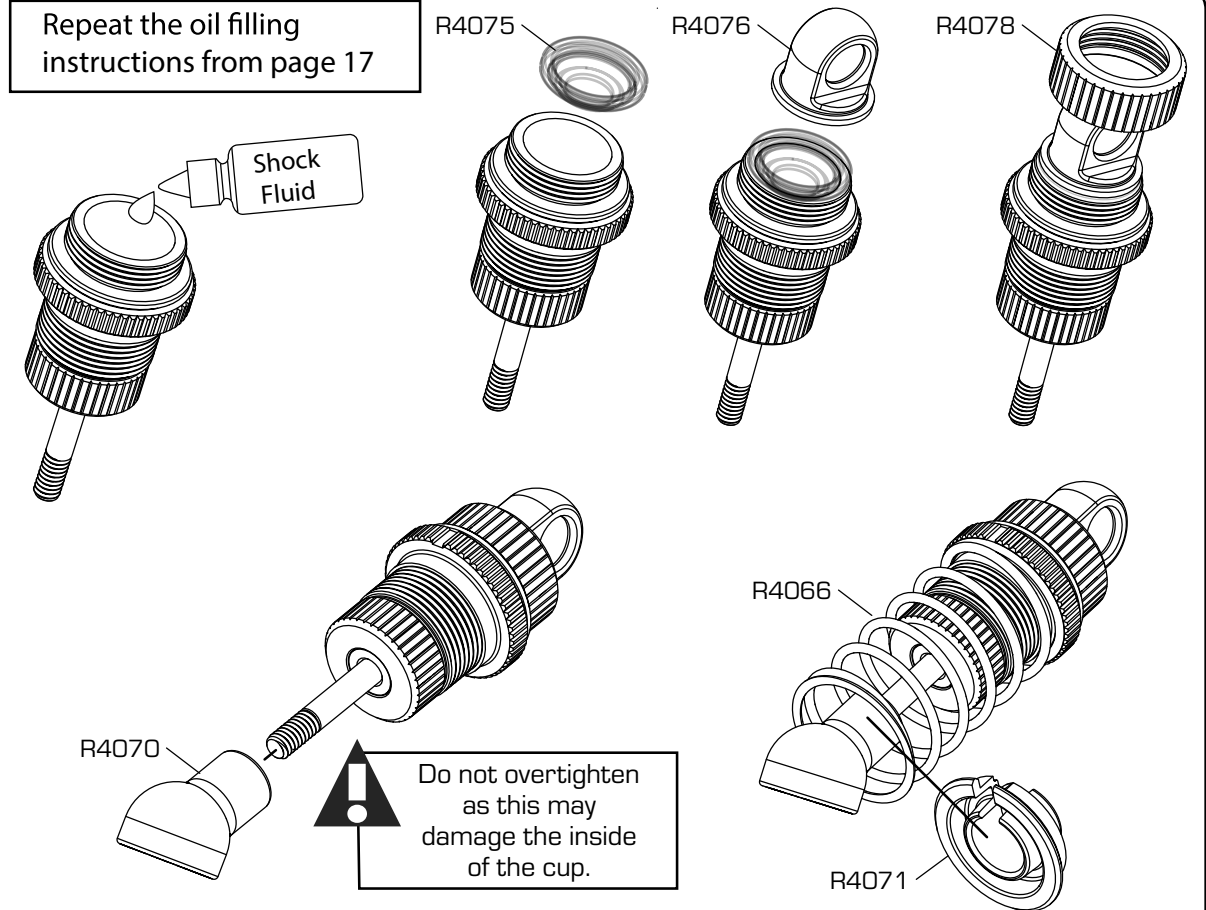
R4067
Micro E-Clip (x4)

BAG 7

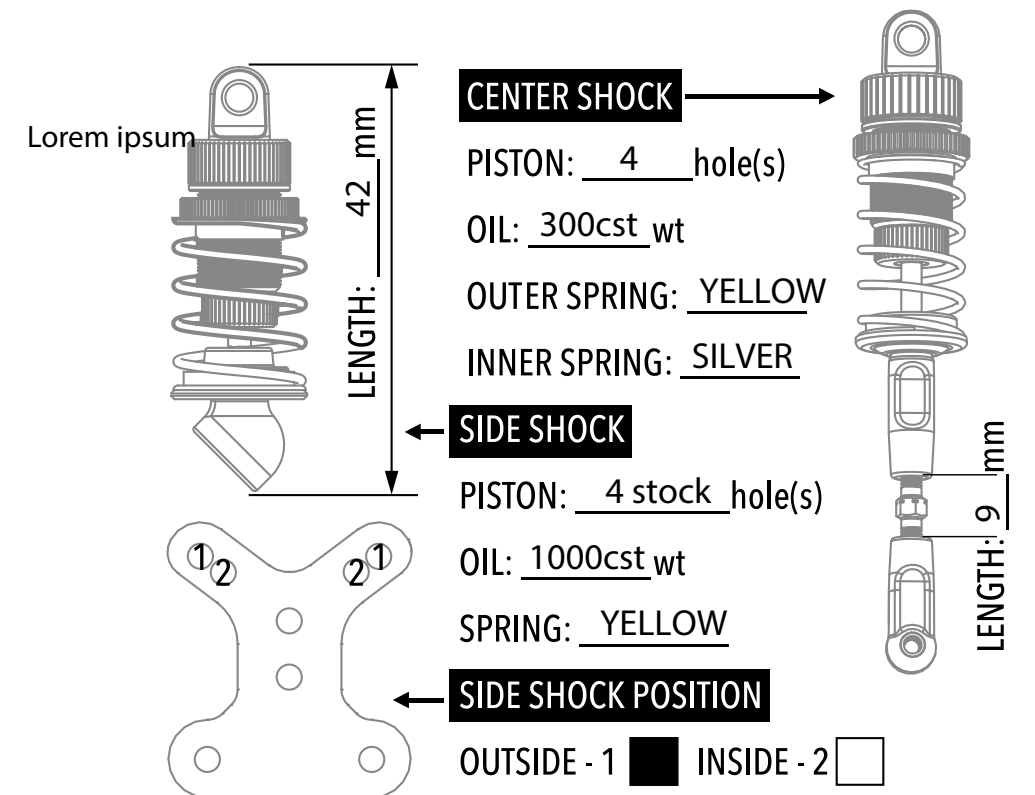


19

Repeat the oil filling
instructions from page 17



BASIC SHOCK SETTINGS



20



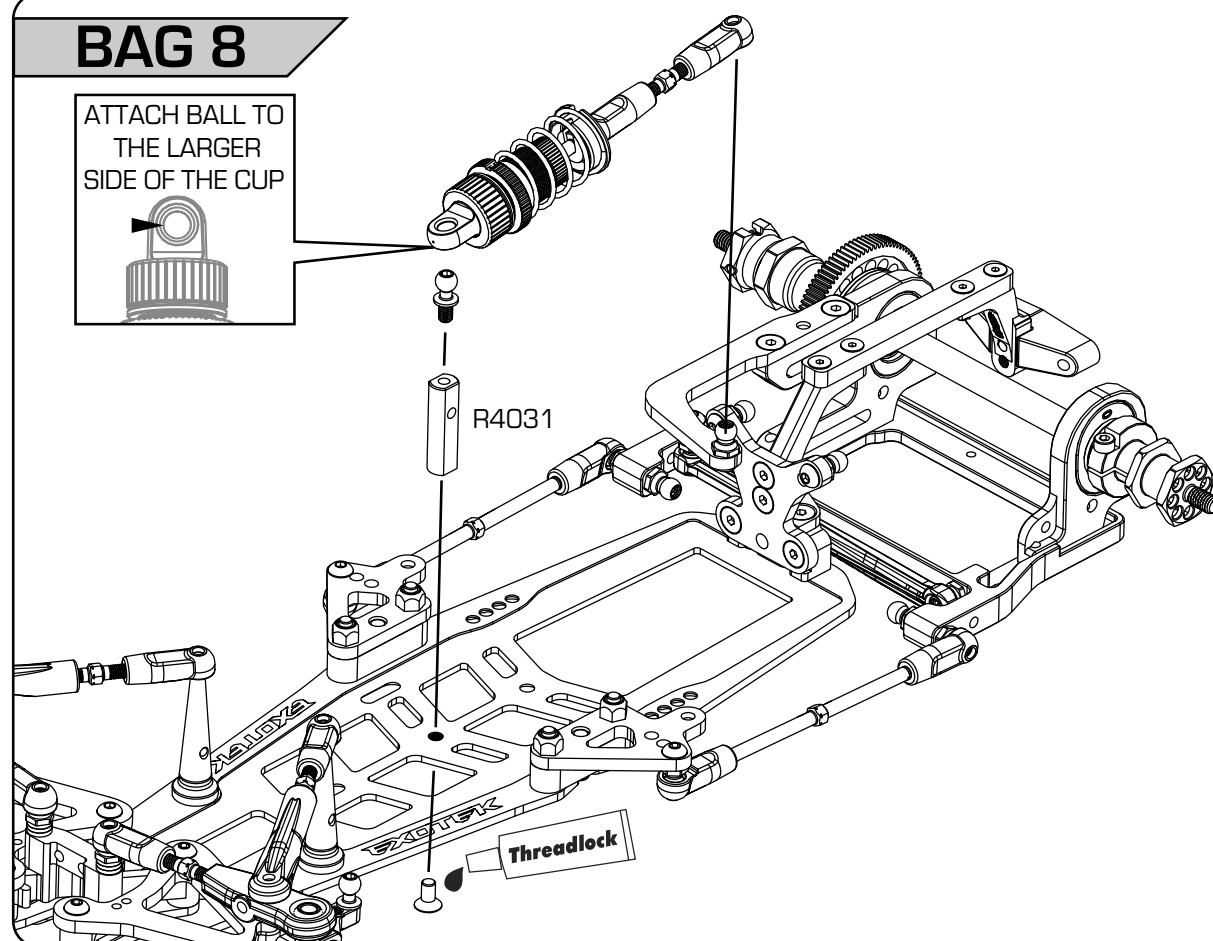
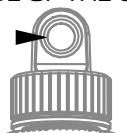
R4037
Ball Stud



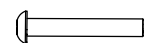
M3x6 FHCS

BAG 8

ATTACH BALL TO
THE LARGER
SIDE OF THE CUP



21



M3x16 BHCS



R4028
6mm Spacer



R4114
1mm Blue Spacer



M3x8 BHCS (x1)



M3x8 FHCS (x2)

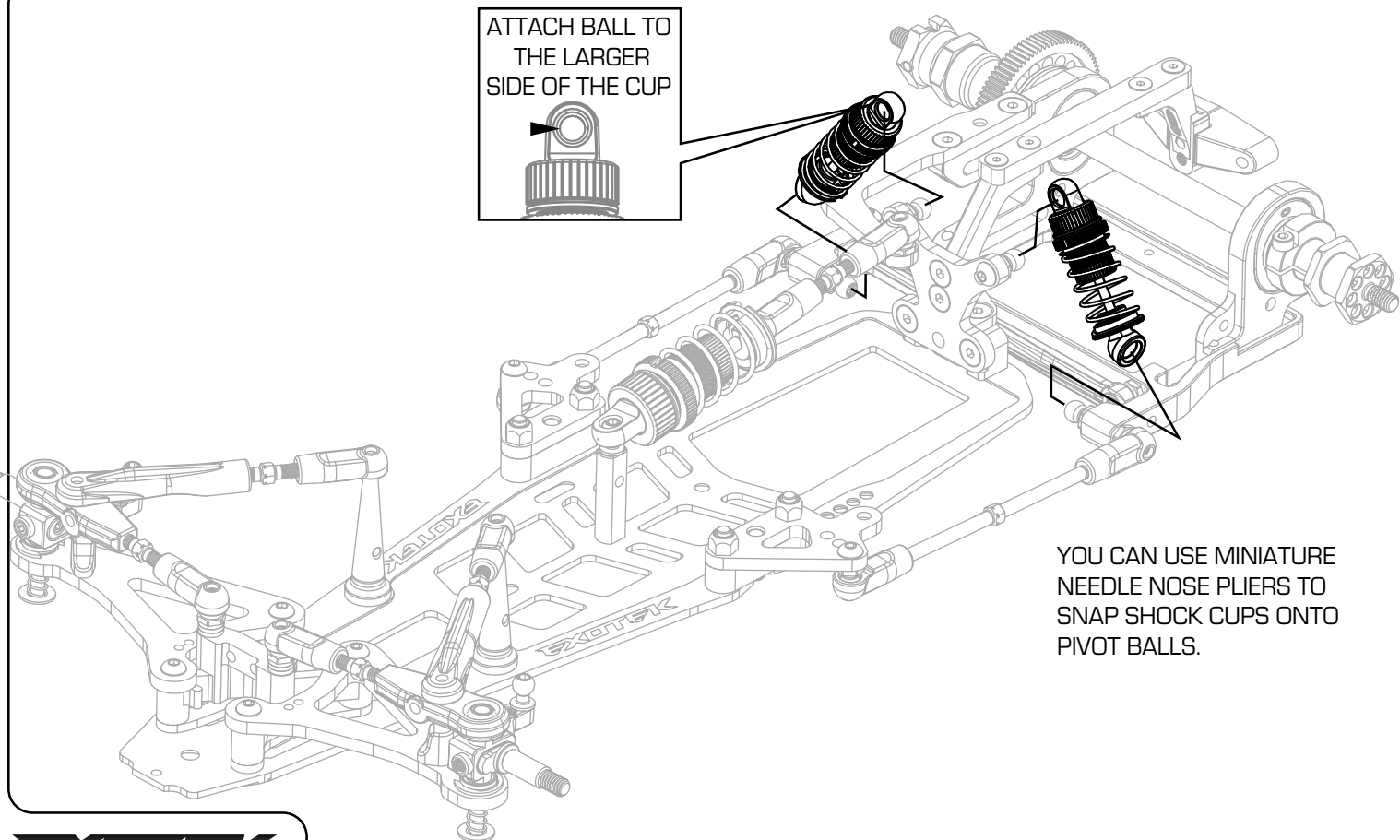
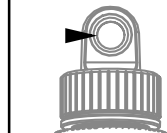


M3x6 BHCS (x4)



M3x6 FHCS (x2)

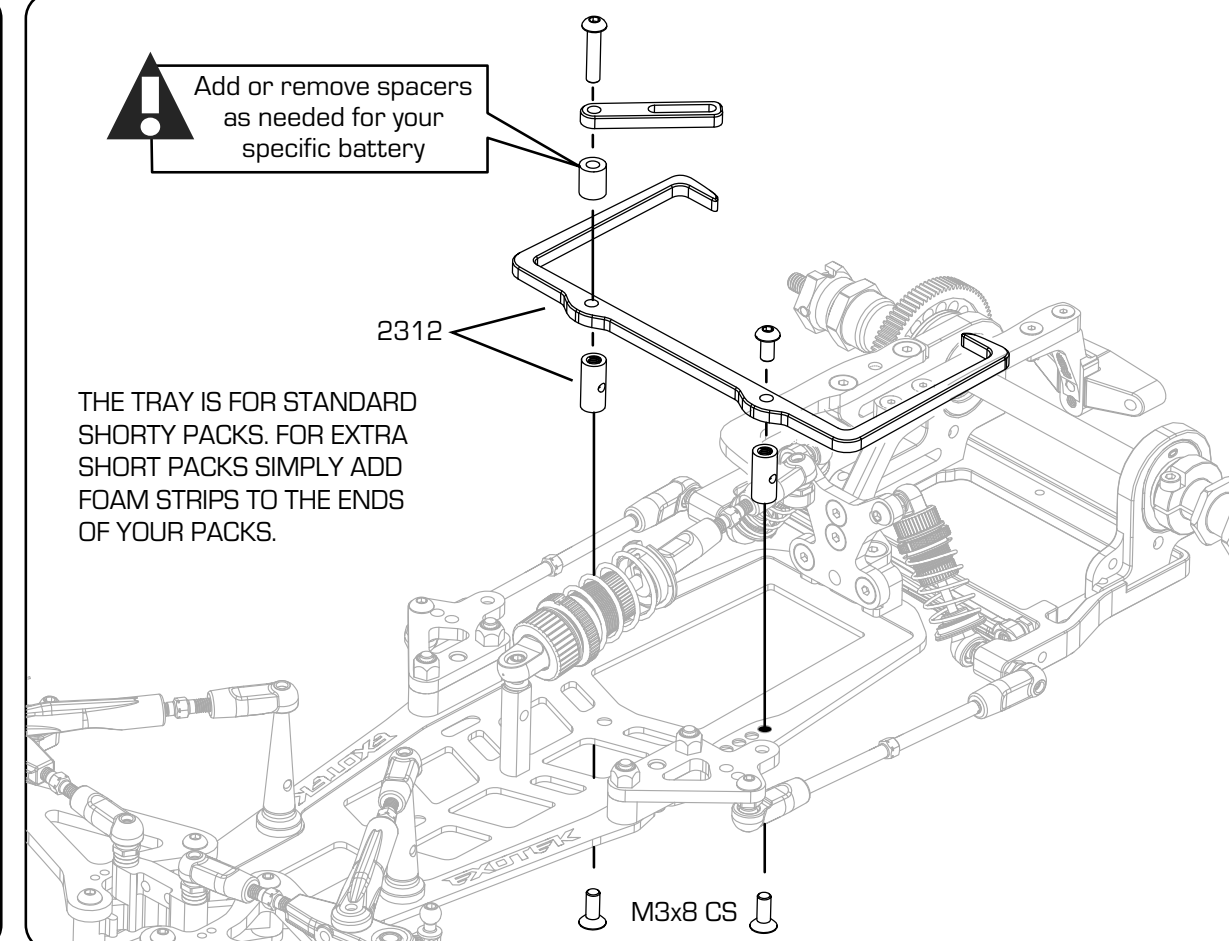
ATTACH BALL TO
THE LARGER
SIDE OF THE CUP



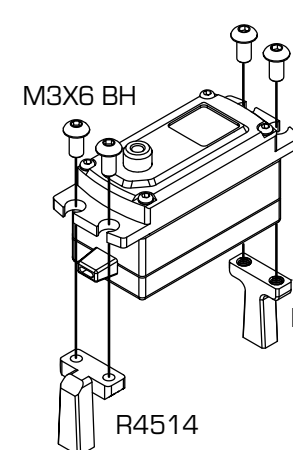
YOU CAN USE MINIATURE
NEEDLE NOSE PLIERS TO
SNAP SHOCK CUPS ONTO
PIVOT BALLS.



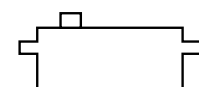
Add or remove spacers
as needed for your
specific battery



THE TRAY IS FOR STANDARD
SHORTY PACKS. FOR EXTRA
SHORT PACKS SIMPLY ADD
FOAM STRIPS TO THE ENDS
OF YOUR PACKS.

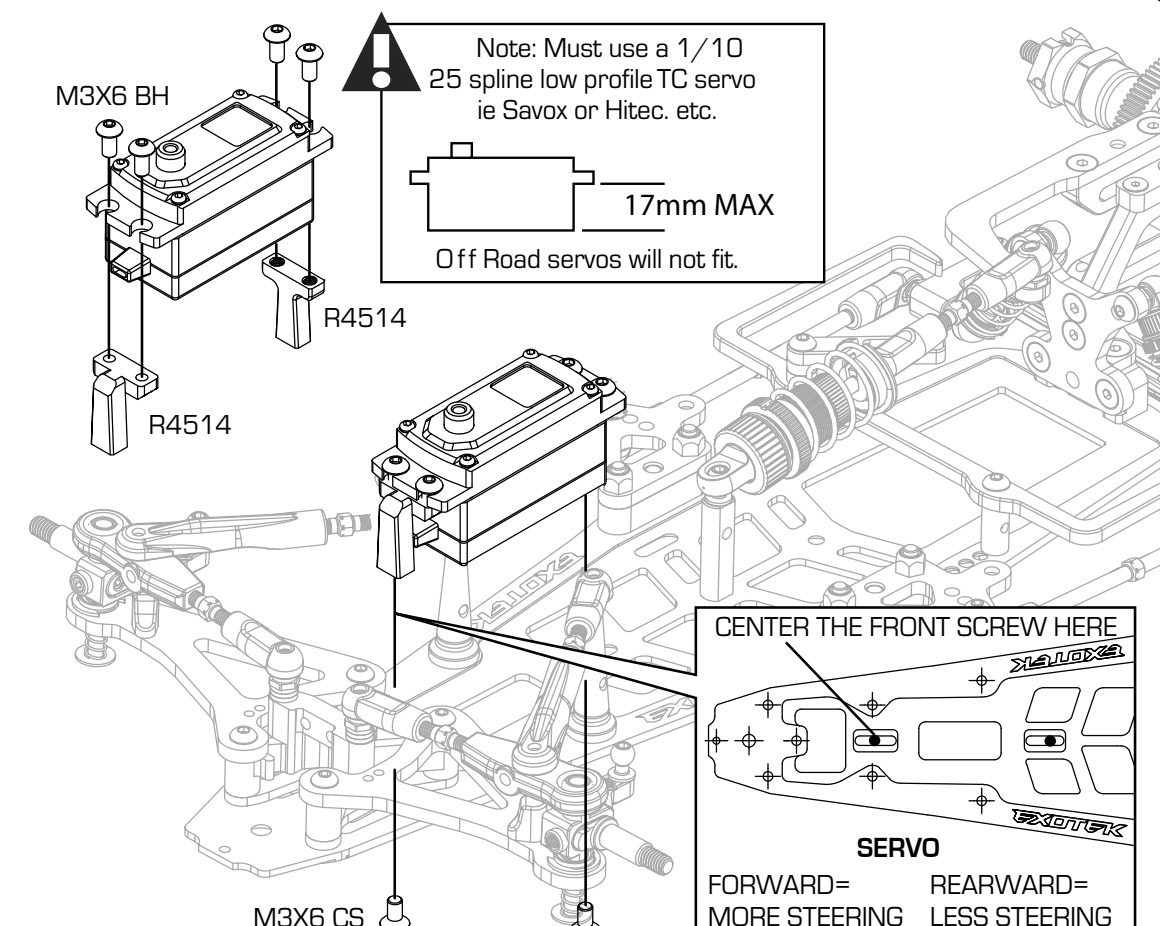


Note: Must use a 1/10
25 spline low profile TC servo
ie Savox or Hitec. etc.

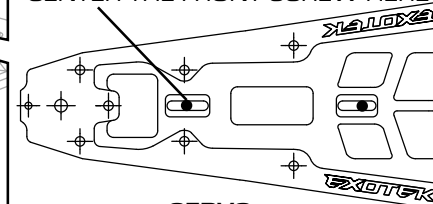


17mm MAX

Off Road servos will not fit.



CENTER THE FRONT SCREW HERE



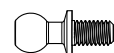
SERVO

FORWARD= MORE STEERING
REARWARD= LESS STEERING

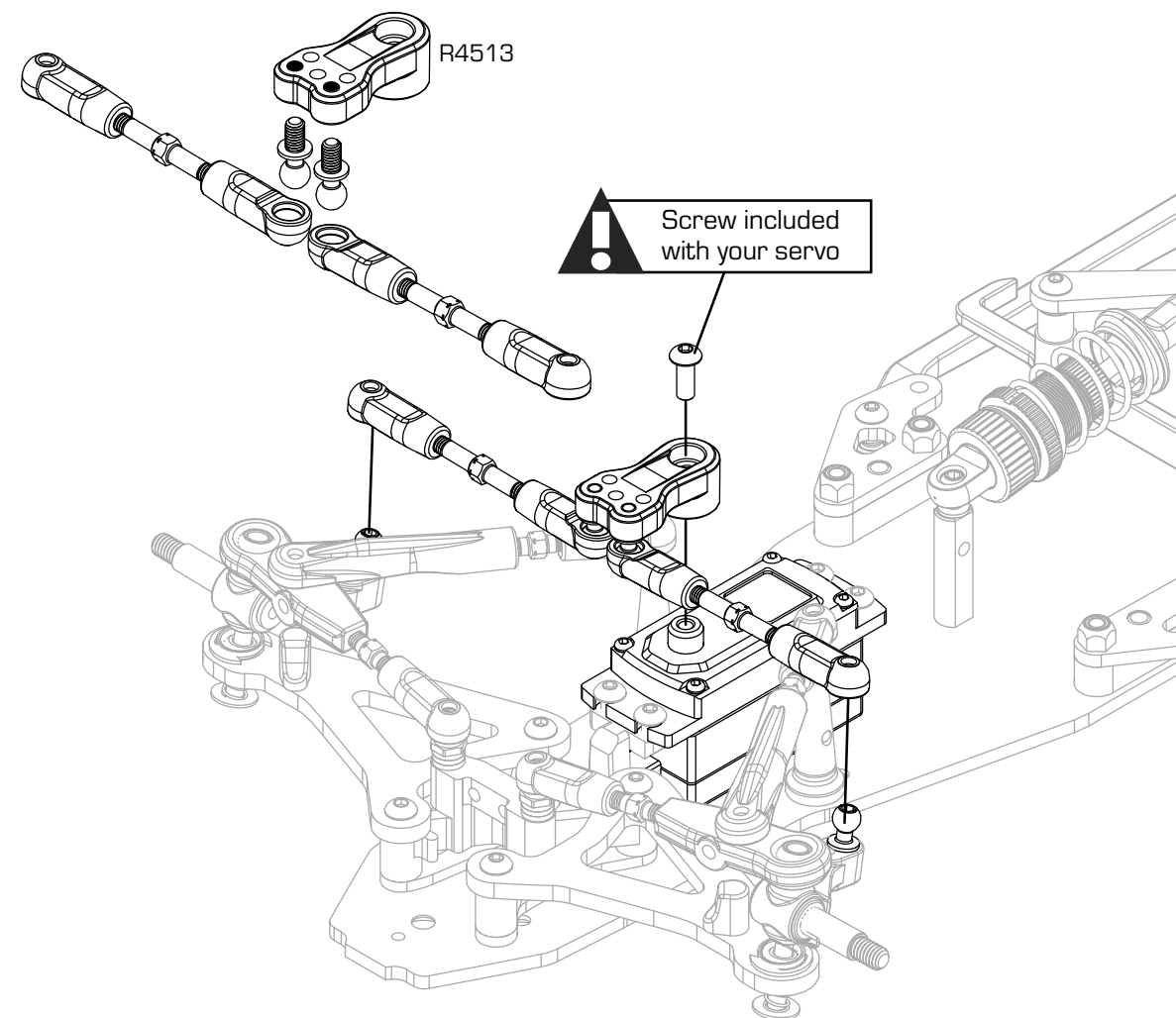
EXOTEK

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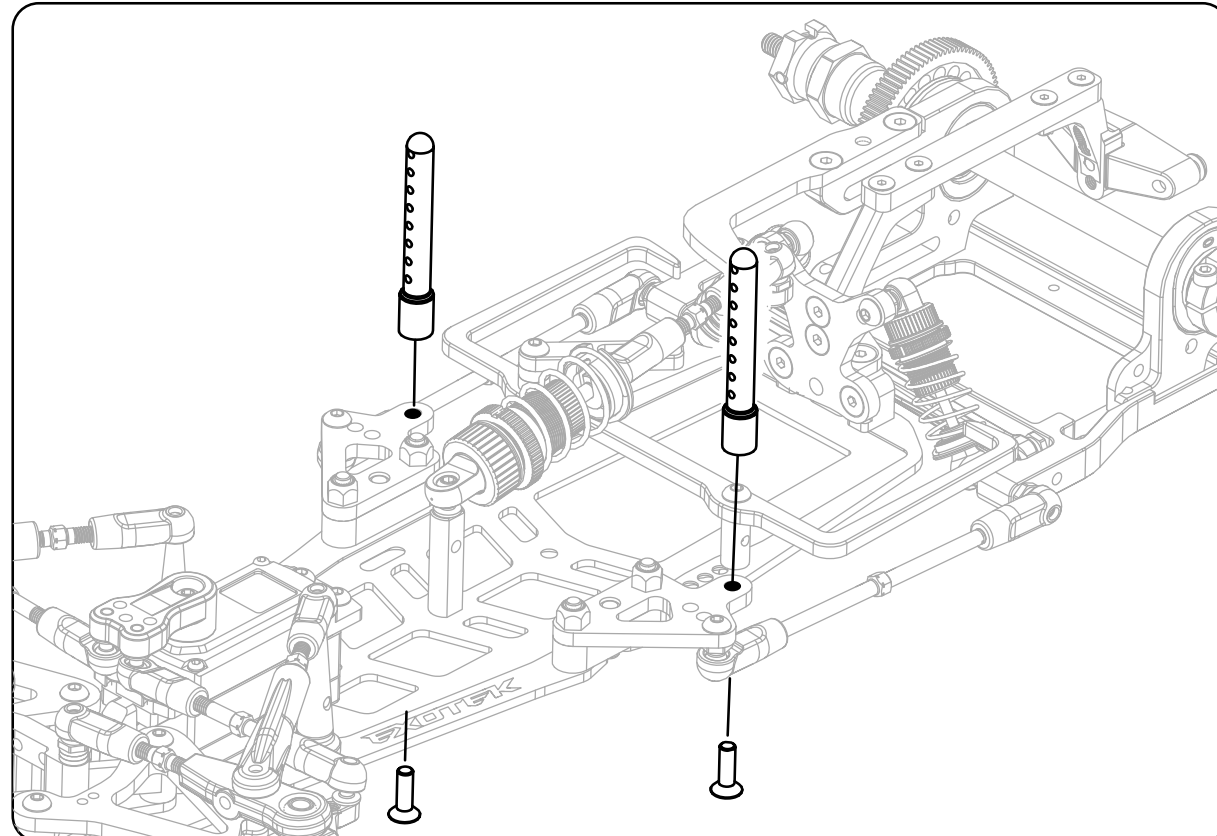
22



R4037
Ball Stud (x2)

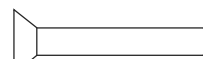


M3x8 FHCS (x2)



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M4x26mm FHCS



M4 Locknut

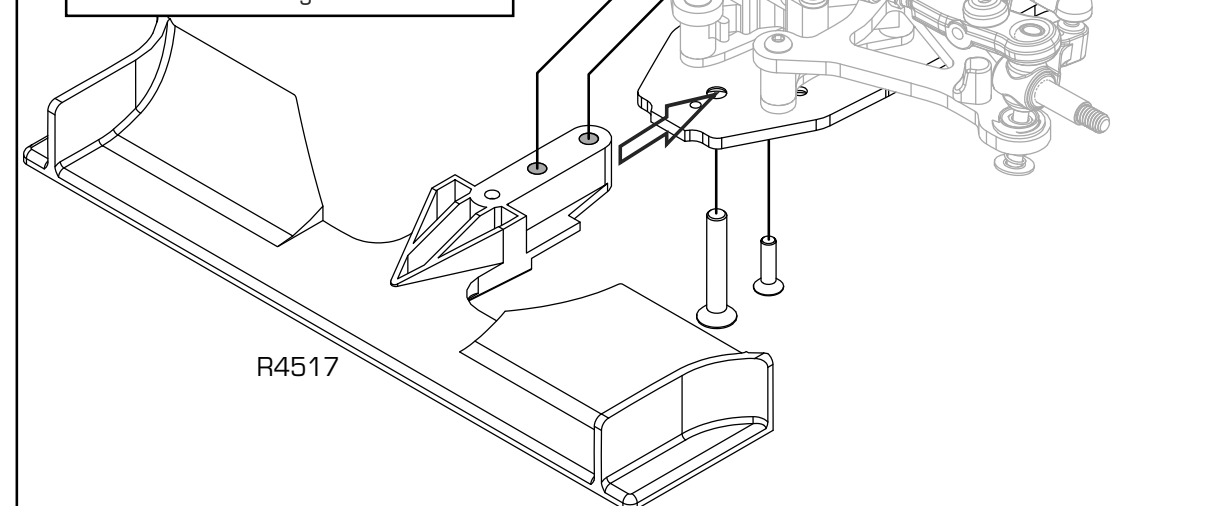
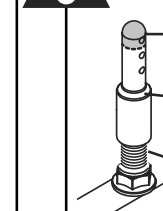


M3x10mm FHCS

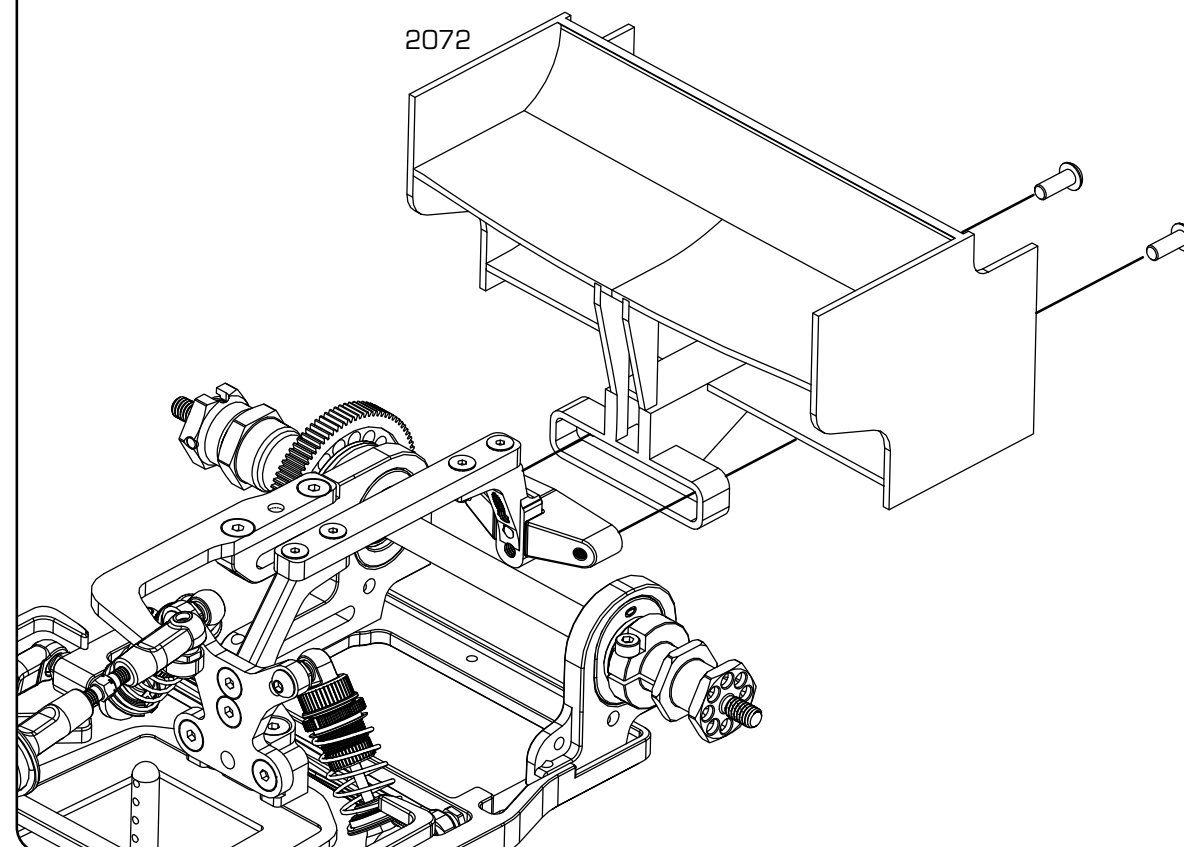


Front body post adjustment.

1. Trim and mount body.
2. Trim the last hole off of the body post.
3. Nose of the body rests on this step.
4. Raise or lower the post on the M4 screw to raise or lower the body.
5. Attach a single body clip on top of the body.
6. Trimming the top of the post off prevents post breakages.



M3x10 BHCS (x2)



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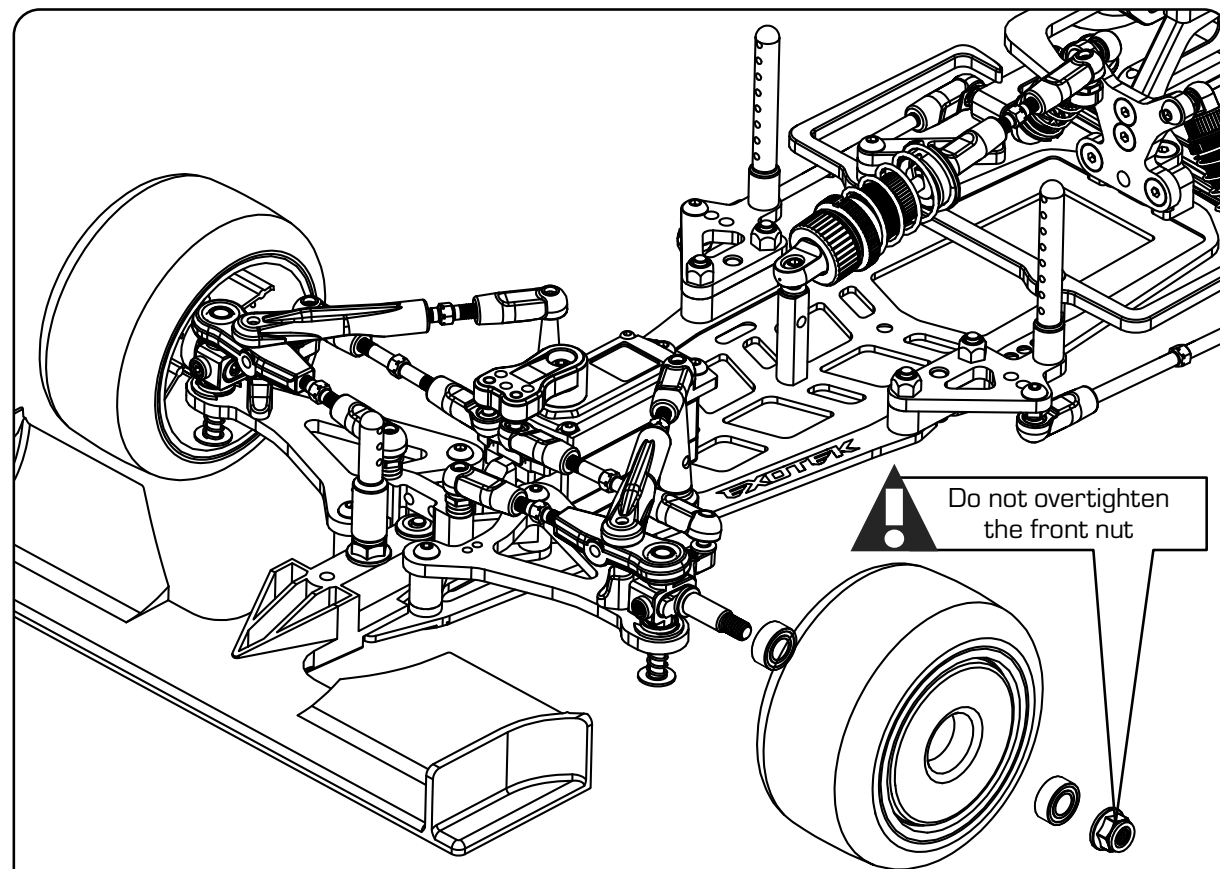
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M4 Locknut (x2)



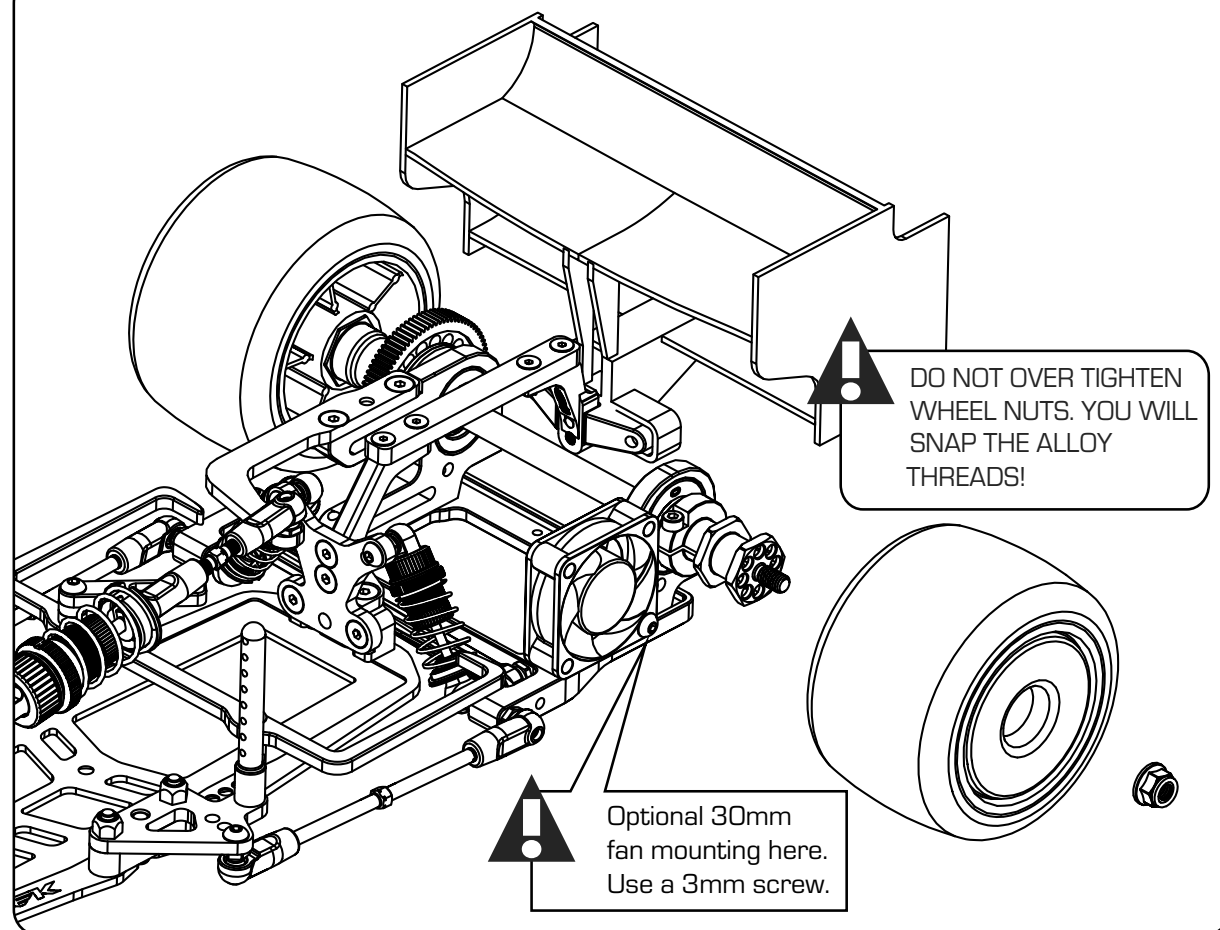
R4128
5x10mm Bearing (X4)



! Do not overtighten
the front nut



M4 Locknut (x2)



! DO NOT OVER TIGHTEN
WHEEL NUTS. YOU WILL
SNAP THE ALLOY
THREADS!

! Optional 30mm
fan mounting here.
Use a 3mm screw.

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SUGGESTED LAYOUT OF YOUR ELECTRONICS

THANK YOU FOR YOUR SUPPORT!

EXOTEK
WWW.EXOTEKRACING.COM

OPTIONAL
2133 28X Belted Tires
2119 33X Belted Tires
2118 36X Belted Tires

OPTIONAL
2211 Titanium Axle

OPTIONAL
2315 Micro Side Spring, green
45818 Micro Side Spring set

OPTIONAL
Exotek Springs

OPTIONAL
2251 Inline Battery Plate Set

! Ensure the shock
does not rub the
body. Trim body
if needed.

OPTIONAL
1965 Carbon Ride Height Spacers
OPTIONAL
2296 Titanium Turnbuckle Set
OPTIONAL
2063 Front Damper Set

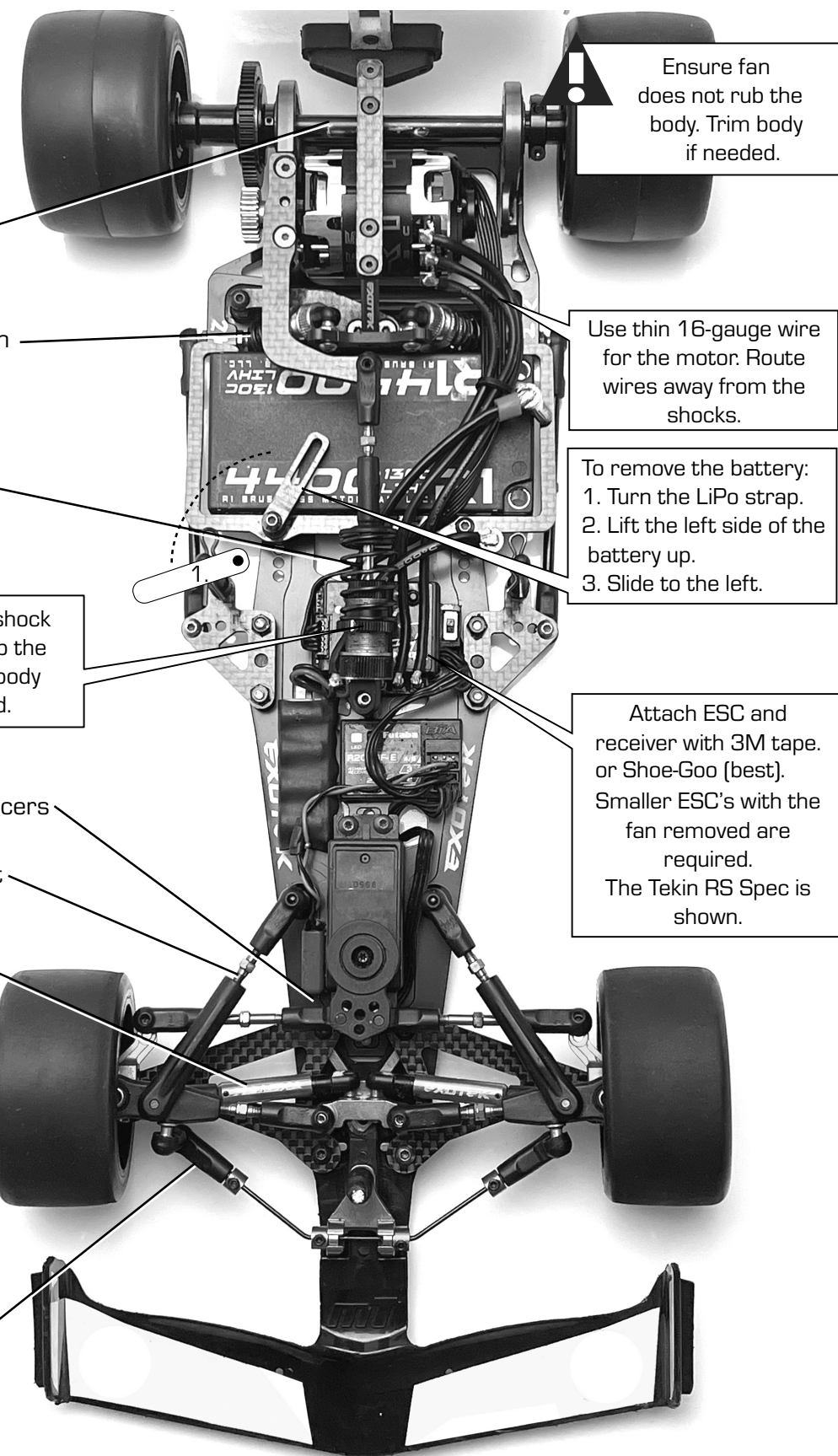
OPTIONAL
2194 38X Belted Tires
2193 40X Belted Tires

OPTIONAL
2346 CASTER DOODLE SET

OPTIONAL
2356 DIGITAL MOUNT SET

OPTIONAL
2262 TIRE BALANCER SET

OPTIONAL
2062 Sway Bar Set



! Ensure fan
does not rub the
body. Trim body
if needed.

Use thin 16-gauge wire
for the motor. Route
wires away from the
shocks.

To remove the battery:
1. Turn the LiPo strap.
2. Lift the left side of the
battery up.
3. Slide to the left.

Attach ESC and
receiver with 3M tape.
or Shoe-Goo (best).
Smaller ESC's with the
fan removed are
required.
The Tekin RS Spec is
shown.

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SET UP TIPS

REAR RIDE HEIGHT

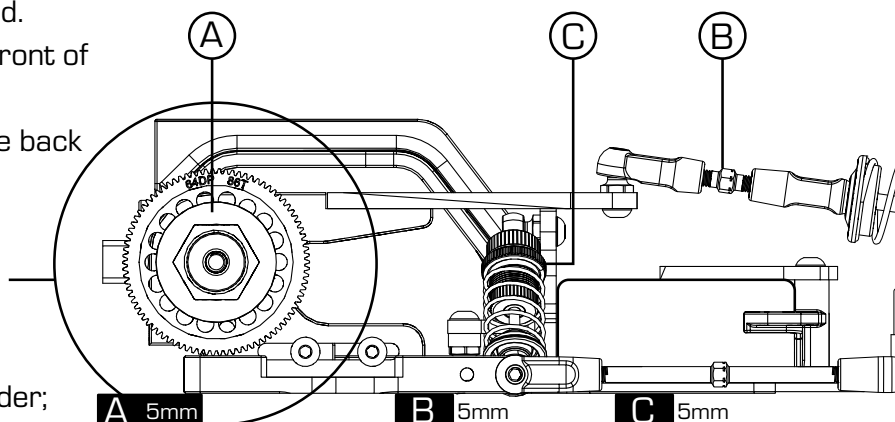
Using a long onroad ride height gauge, measure the 3 locations shown here in this order;

- A** Rear pod height (ie 5mm). Measure the pod.
- B** Center link height (ie 5mm). Measure the front of the pod.
- C** Rear chassis height (ie 5mm). Measure the back of the chassis.

NOTE- The wheels must be attached and battery installed.

To change the ride height, change it in this order;

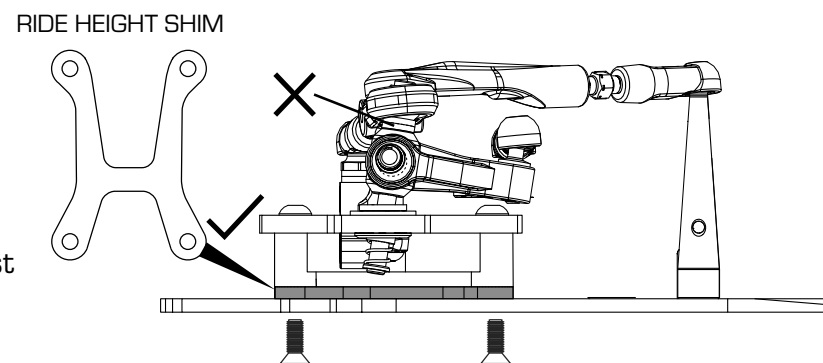
- A** Change bearing cams for height A.
- B** Adjust the top shock turnbuckle for height B (longer link raises the B setting).
- C** Adjust the 2 micro shock collars for height C (lowering the collars raises the rear chassis). This last setting is the most important to watch to keep from bottoming out.



IMPORTANT- Insure you have enough ride height here or you may experience a car that is loose in corners due to the chassis scraping the ground at high speed.

FRONT RIDE HEIGHT

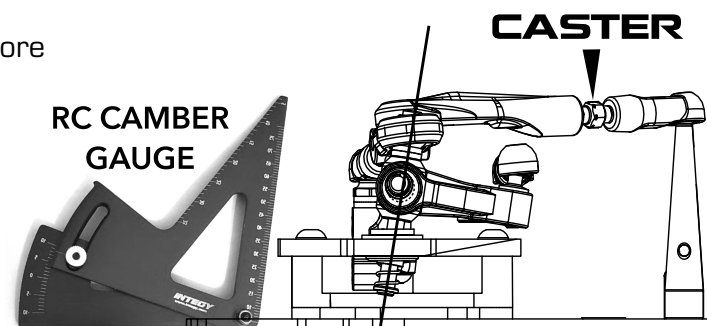
Change the front ride height by changing the bulk-head plate thickness (Exotek Options). Change M3 screws as needed for proper length and durability. Do not change the steering knuckle shimming to change ride height as the pins may rub the wheels. You may need to add shims under the steering post for extreme low ride heights.



CASTER

Caster is changed via the trailing caster control arm. Simply adjust the length shown and measure the pin angle with a sideways camber gauge or for more accurate settings, use a 1/10 TC set up station (Hudy etc) with the **Exotek caster doodle #2346**. We suggest around -5° for tight tracks and -8° for large sweeping tracks.

Also readjust your camber after changing your caster.



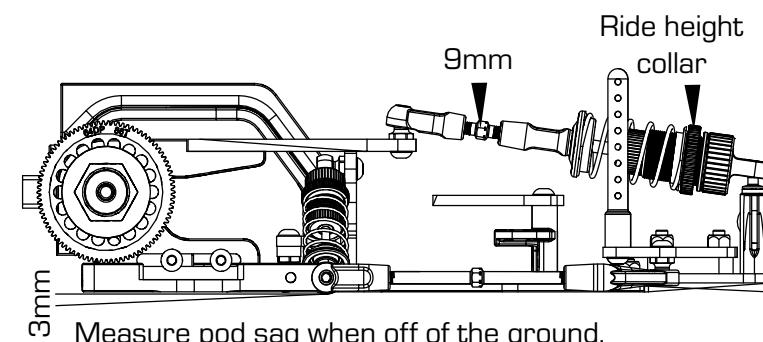
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MOTOR POD SAG

Longer turnbuckle equals more forward bite by reducing tire spin on acceleration because the piston is further into the shock body. Less turnbuckle length creates more on power steering because the piston is hard against the internal spring.

Re-check ride height after adjusting turnbuckle length.

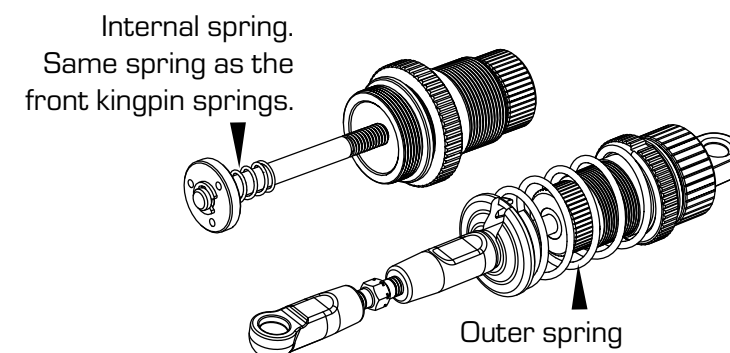


Measure pod sag when off of the ground.
1-3mm for asphalt
0-1mm for carpet

TOP SHOCK

The internal top shock spring controls the forward bite. Use a soft spring for more forward bite and a hard spring for less bite.

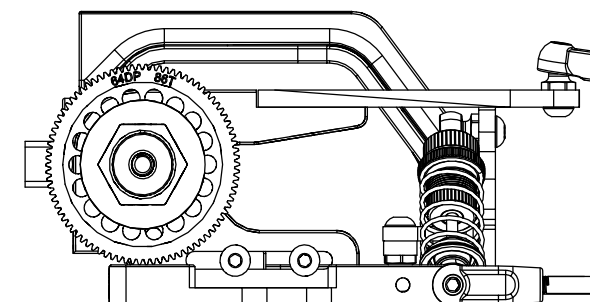
The outer spring controls track bumps and braking stability. Softer outer springs are needed for bumpy tracks while harder springs may be suited for smoother tracks.



MICRO SHOCKS

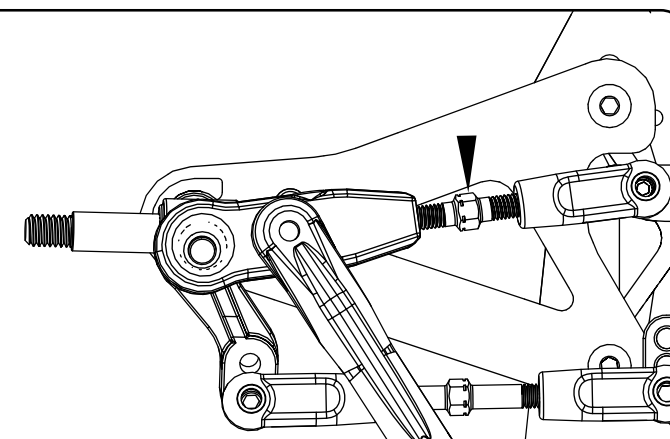
The side micro shocks control the side roll, dampening and center ride height. Softer springs yields the best rear traction but you must raise the ride height for the extra roll (5mm etc). If you require lower ride heights then you must use firmer micro springs.

SPRING CHART
Black - Soft
Yellow - Medium
Green - Med/Hard
Blue - Hard



CAMBER

The F1ULTRA has the easiest to adjust camber of all F1's. Simply use a turnbuckle to adjust as needed. More negative camber (leaned in) will produce more overall steering and is the first thing we adjust when we want to increase or decrease steering. We start with -1° and adjust as needed depending on overall tire grip.



EXOTEK

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

THIS IS NOT A TOY. Not for persons under 16 years of age. For experienced hobbyists only and must be used under adult supervision on private race tracks. Contains small items and bags which may be dangerous for small children and pets. Keep all items and bags away from small children and pets and dispose of properly.

