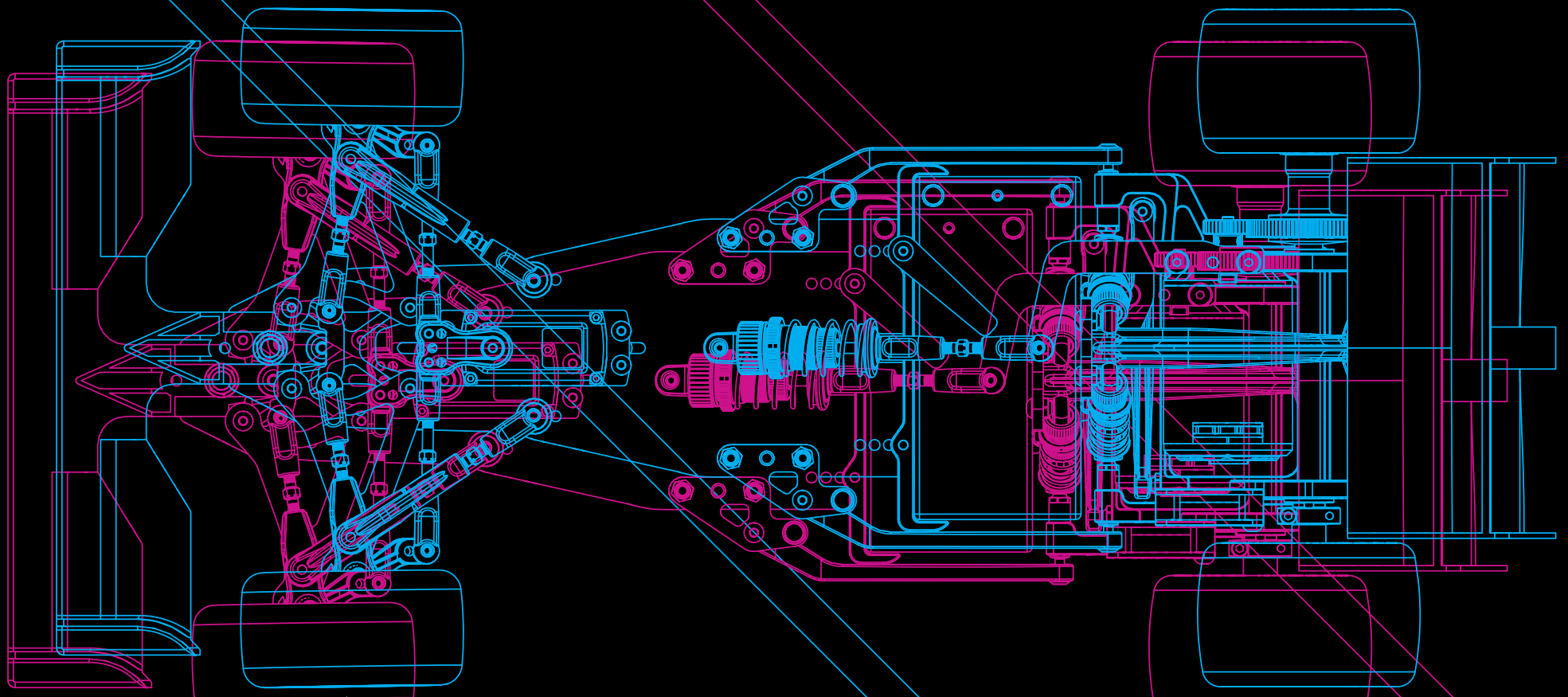
EXOTEK®

RACING



F1 ULTRA R5

I/IO ULTRA PERFORMANCE RADIO CONTROL KIT

KIT FEATURES

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

- 2.4mm lightweight 1-piece chassis for superior asphalt characteristics.
- 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.
- Lightweight chassis-mounted rear wing mount system included for improved rear grip.
- 1-piece 7075 alloy rear pod plate - improved durability, adds rear traction and improves motor cooling.
- High performance ball diff set with 1/4" carbon fiber 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.
- New heavy duty 1-piece extra long side links provides reduced rear bump steer typical of shorter side links.
- 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.
- Short and long wheelbase settings for large and small tracks.
- 4 position battery tray allows positioning the battery forward or back for more front or rear weight bias.
- 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.
- New motor mount with upper and lower motor attachment for less motor flexing.
- New easy grip/ easy removal custom e-clips on the front suspension pins.
- New 1 piece front suspension pins for less play.
- New direct servo horn and alloy servo mounts.
- New wider and lighter rear pod set for extra motor sensor wire clearance.
- New 1-piece nylon lightweight side links.
- New extra stiff alloy caster posts.
- New tighter fit front axle.
- New double bolt front wing mount.
- New lightweight 1-piece carbon chassis.
- New pinned side link mounts.

REQUIRED TO COMPLETE

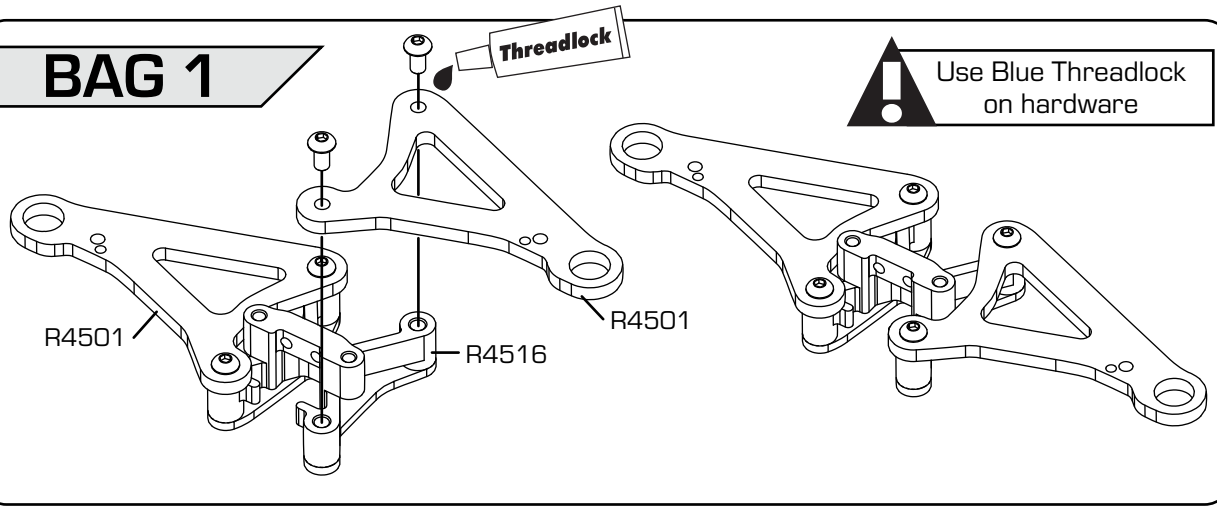
- 1:10 Scale Electric Motor
- Electronic Speed Control
- Steering Servo
- 3.7v-7.4v LiPo or 6.0v LiFe "Shorty" Battery
- Battery Charger
- 2-Channel Surface Radio System
- 1:10 Scale F1 Wheels and Rubber (or Foam) Tires
- 1:10 Scale Polycarbonate F1 Body
- Polycarbonate-Specific Spray Paint for Body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

REQUIRED TOOLS

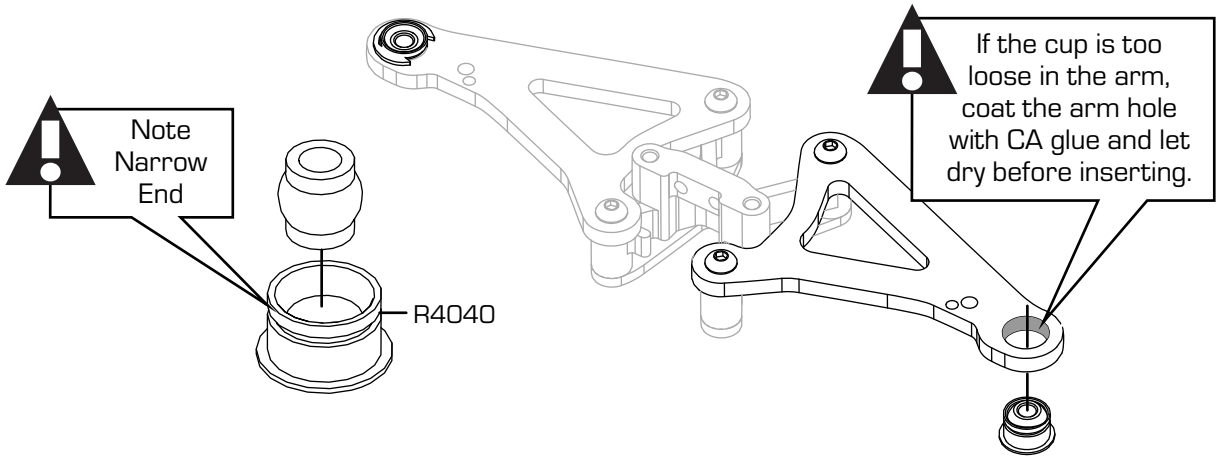
- High grade machined hex wrenches - 1.5, 2.0
- Nut wrench- 5.5, 7.0
- 4mm turnbuckle wrench
- Hobby knife
- Calipers or a precision ruler
- Silicone glue (goop)
- Body scissors
- Reamer/hole punch
- Long-style ride height gauge
- Needle nose pliers

M3x6 BHCS (x4)

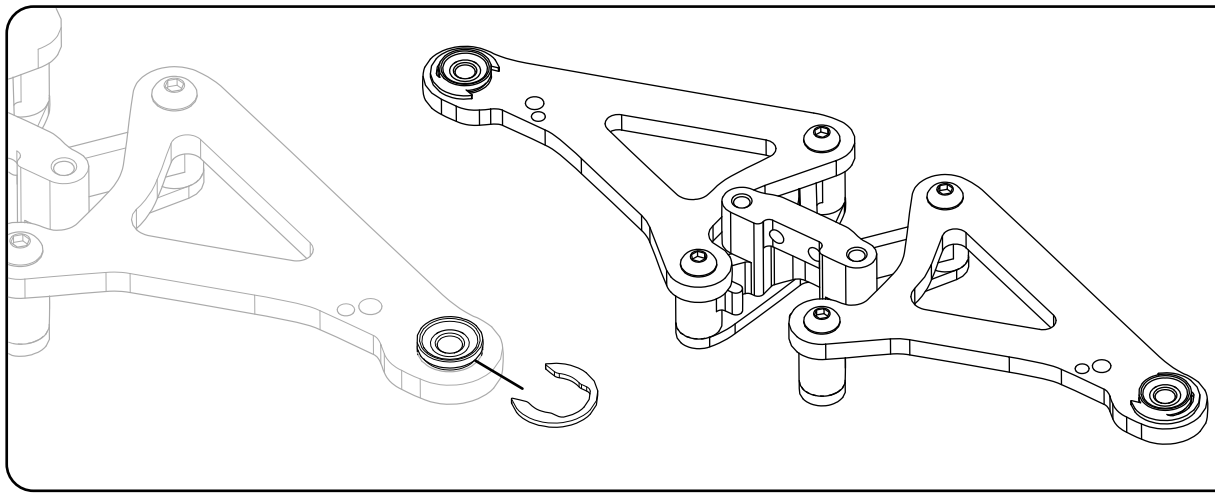
BAG 1



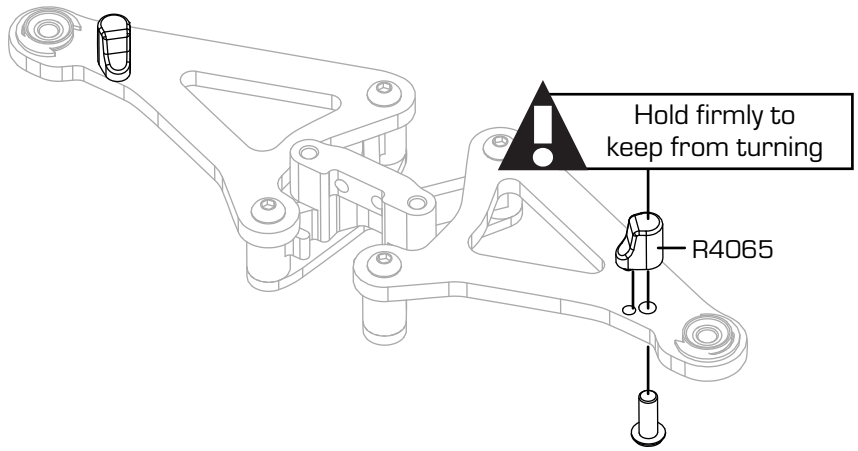
R4041
Pivot Ball (x2)



2097
Suspension Clip (2X)



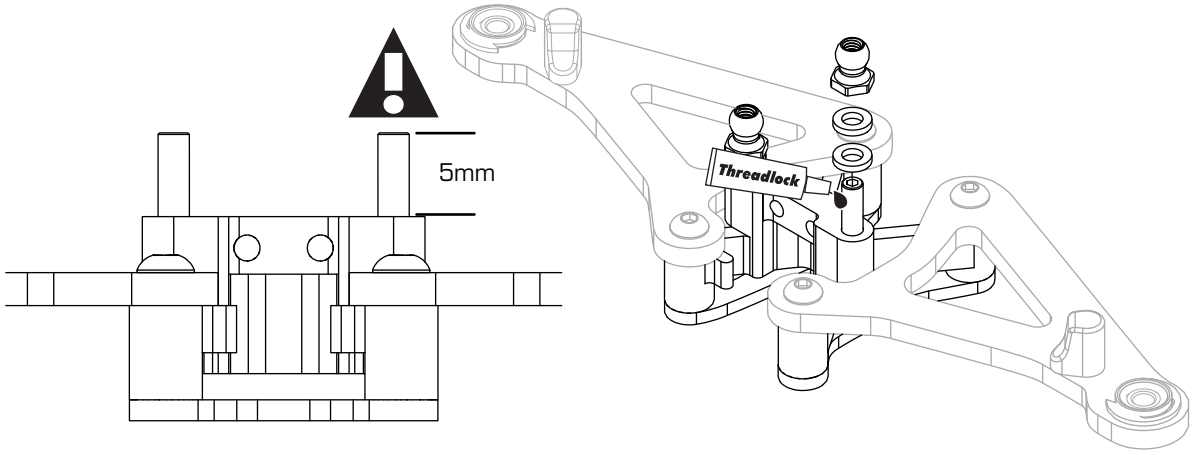
M3x8 BHCS (x2)



R4061
Ball Nut (x2)

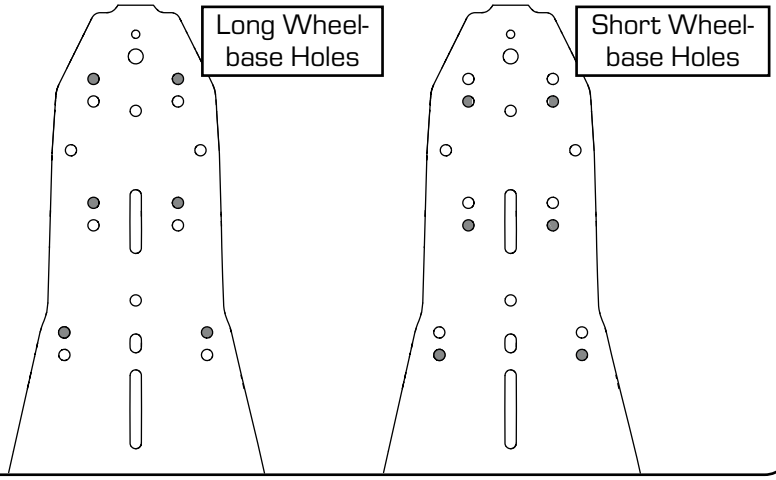
R4114
1mm Blue Spacer (x4)

R4103
M3x10 Set Screw (x2)

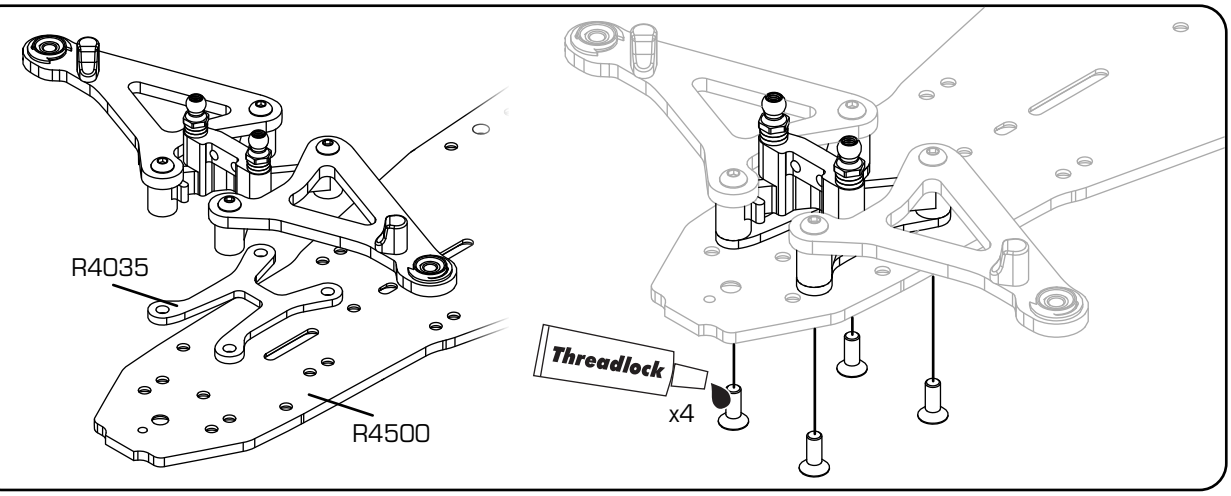


Use long wheelbase for large tracks (over 12 second lap times) and short wheelbase for small tracks (under 12 second lap times).

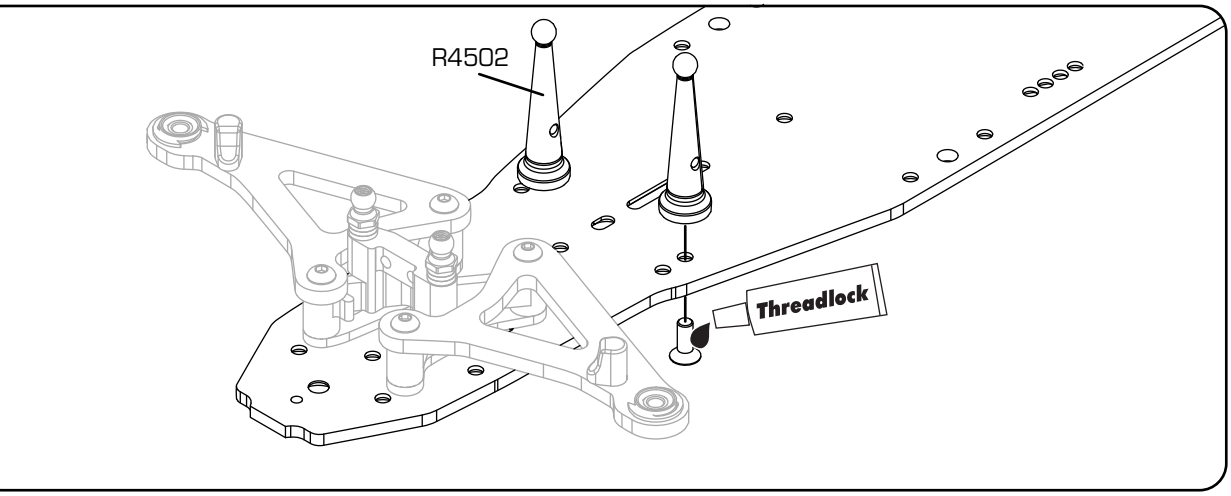
Do not mix parts with short and long wheelbase holes!



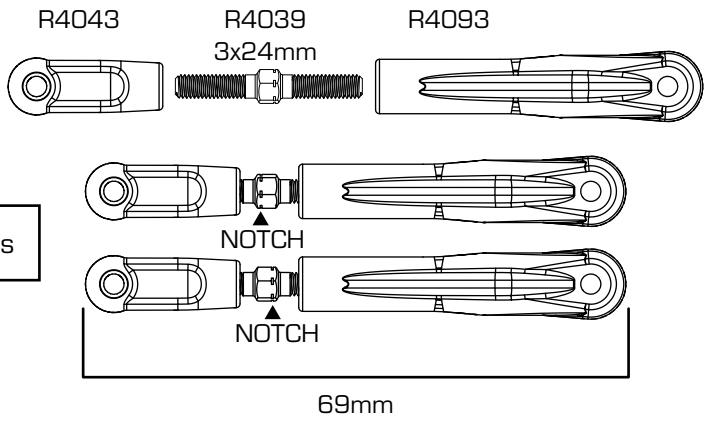
M3x8 FHCS (x4)

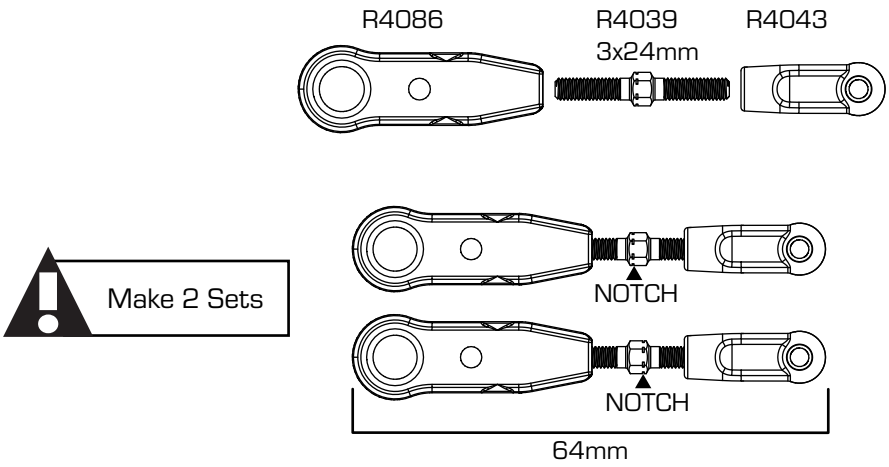


R4107
M3x8 FHCS (x2)

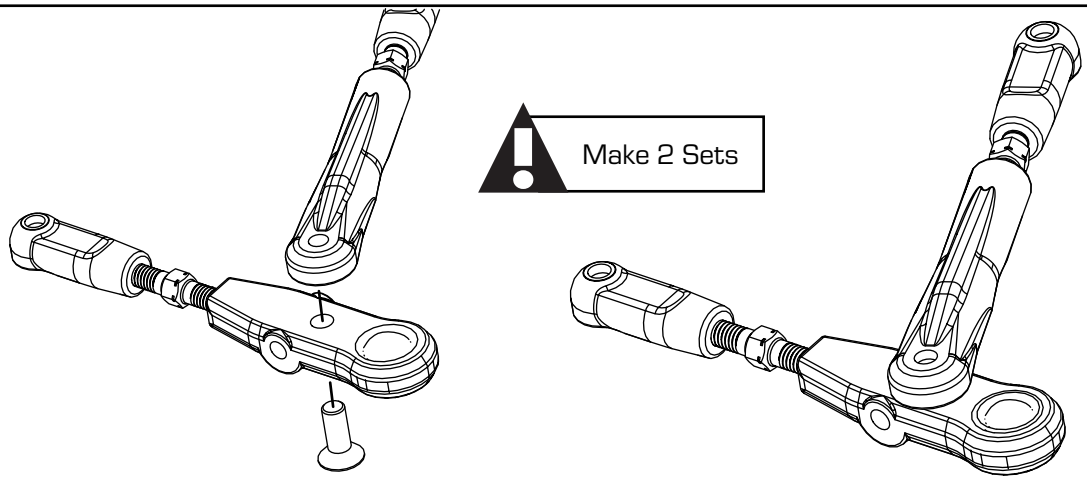


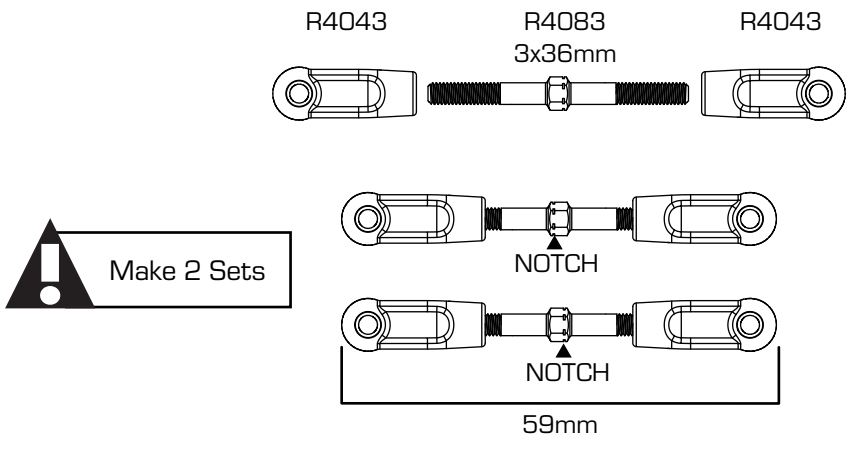
BAG 2

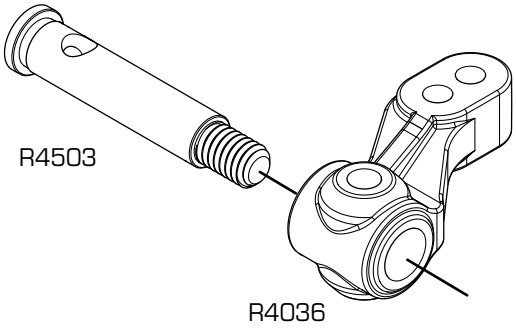




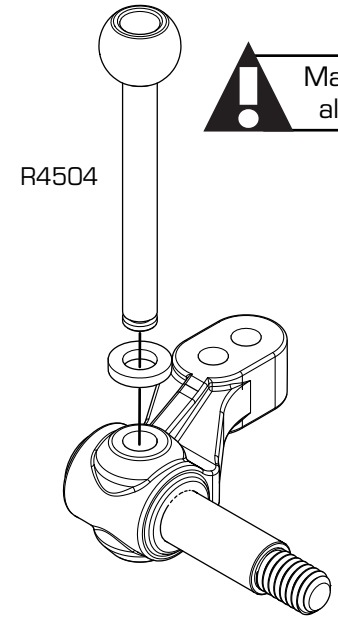
M3x10 FHCS (x2)





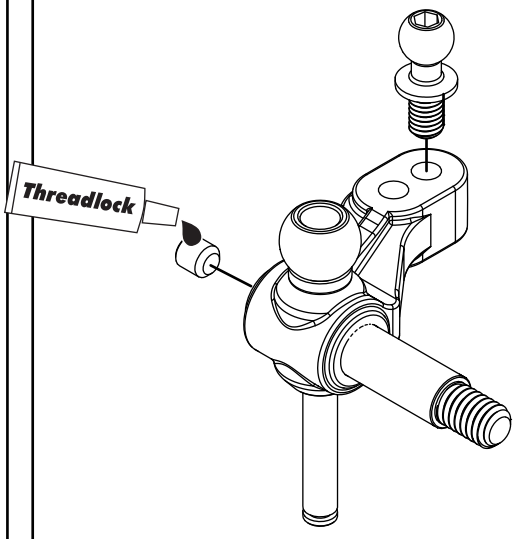


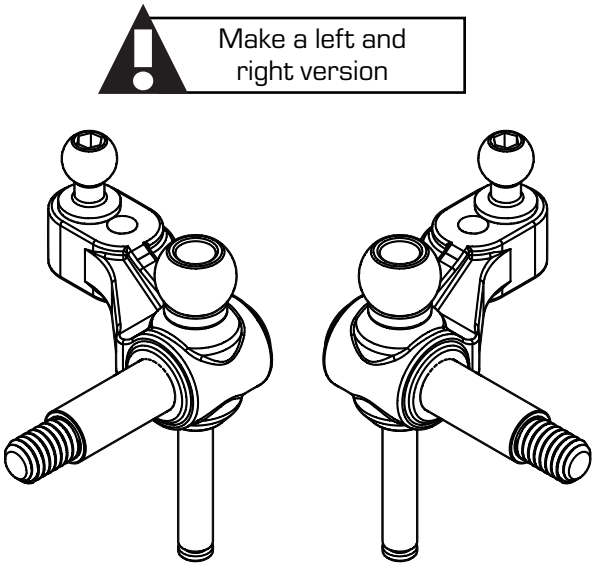
R4519
1mm Silver Shim (x2)



R4037
Ball Stud (x2)

M3x3 Set Screw (x2)

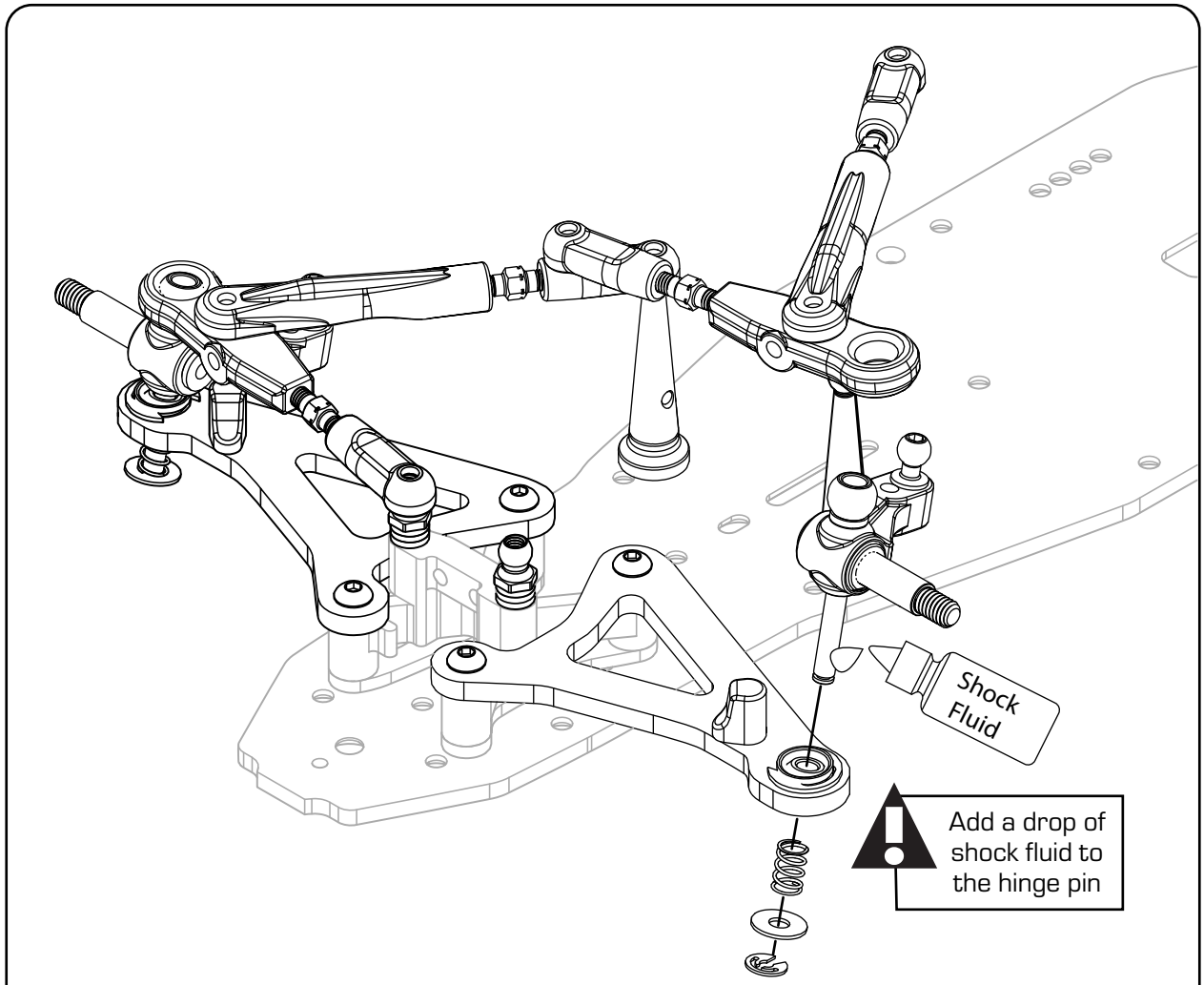


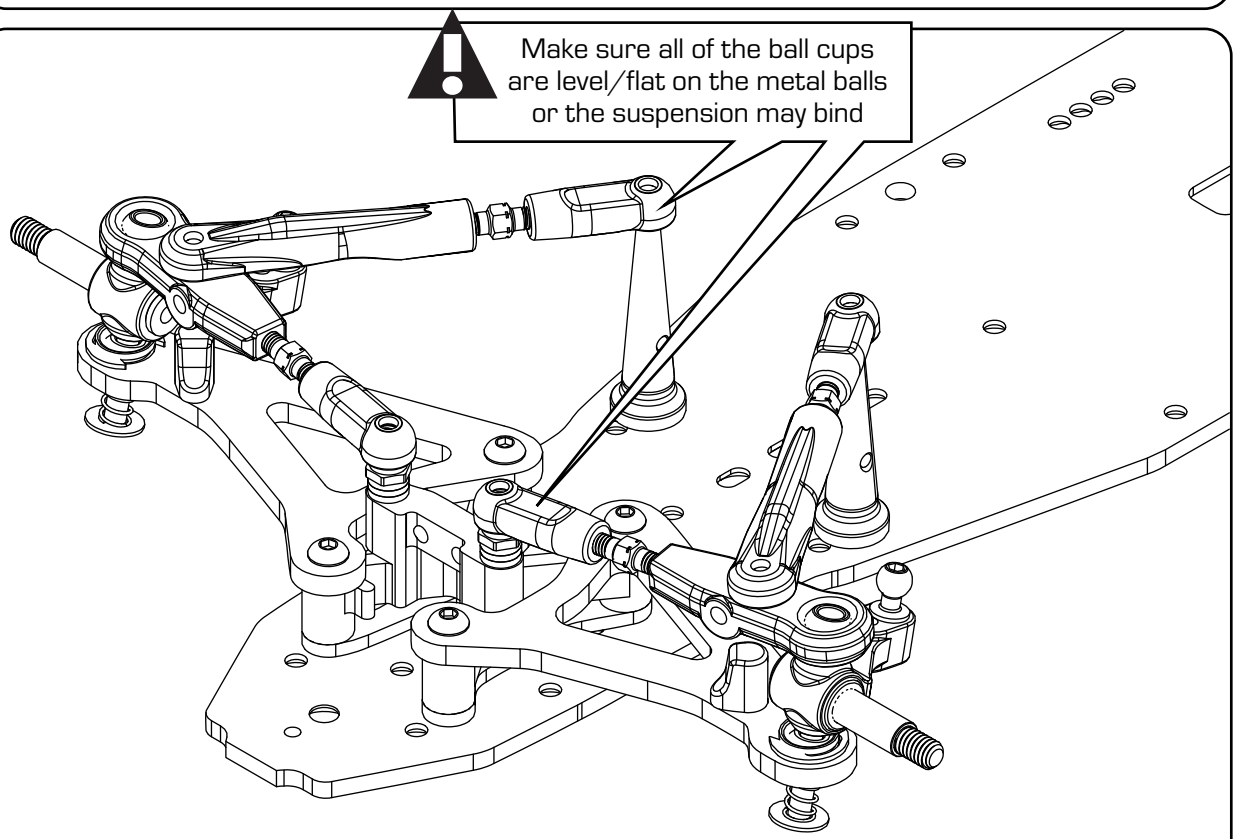


R4101
Thin Shim (x2)

R4087
.45 Silver Spring (x2)

R4505
Spring E-Clip (x2)



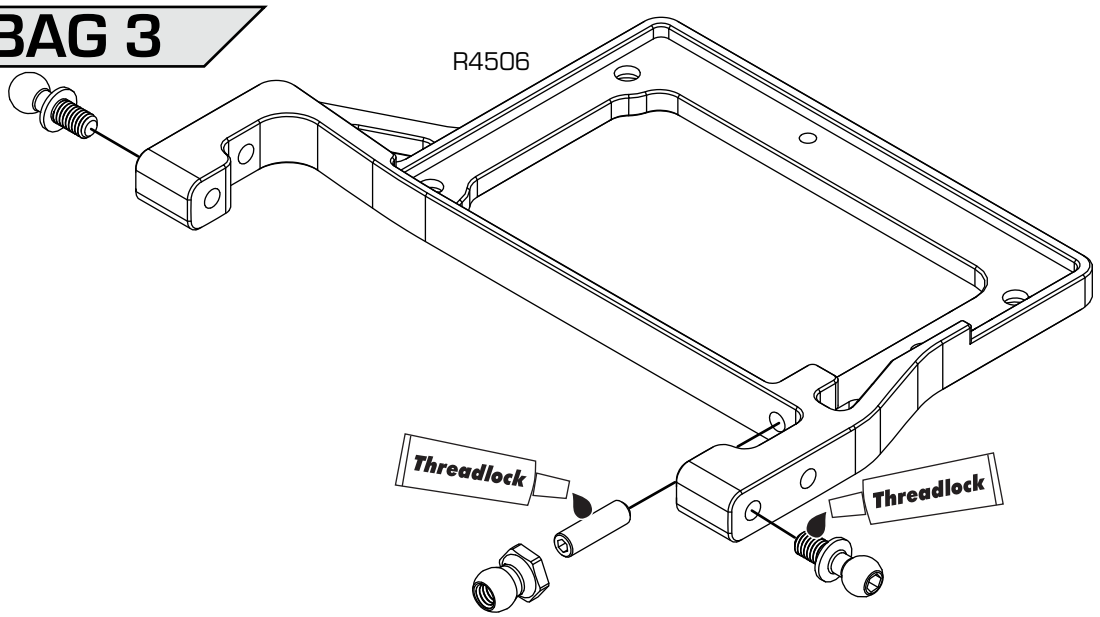


R4037
Ball Stud (x2)

R4061
Ball Nut

M3x8 Set Screw

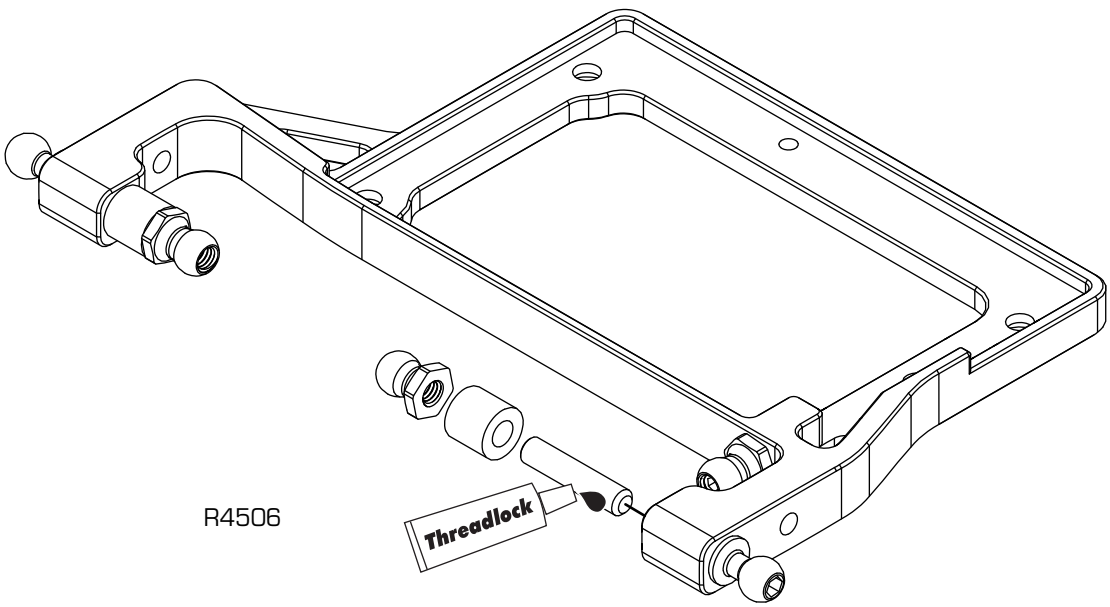
BAG 3

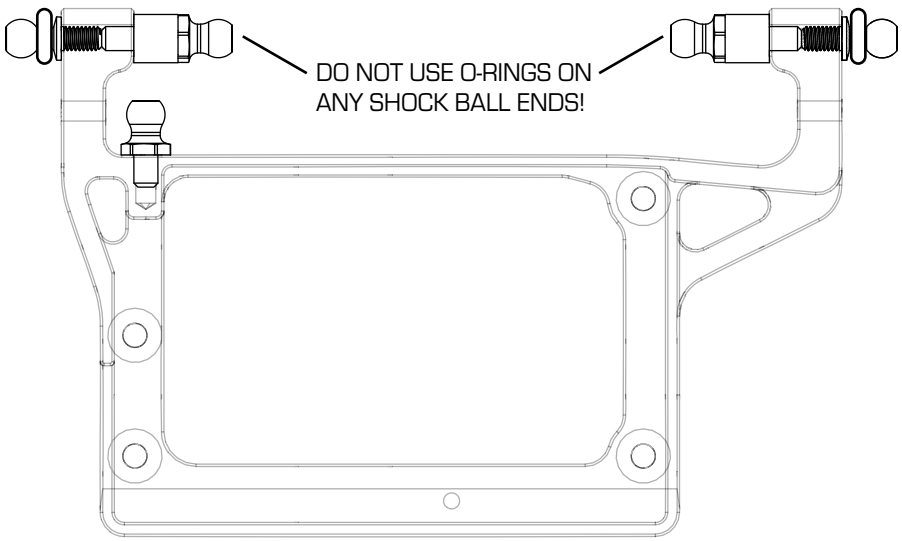


R4061
Ball Nut (x2)

R4028
5.5mm Spacer (x2)

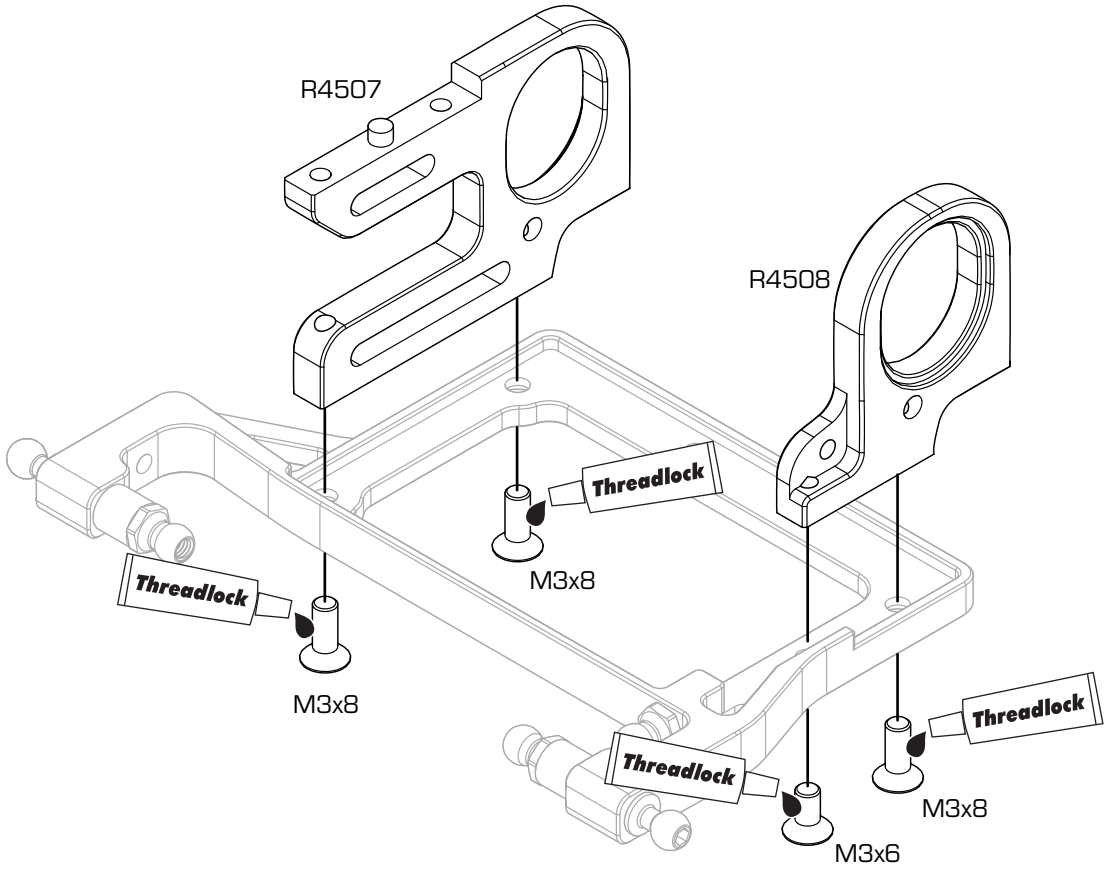
M3x14 Set Screw (x2)





M3x6 FHCS

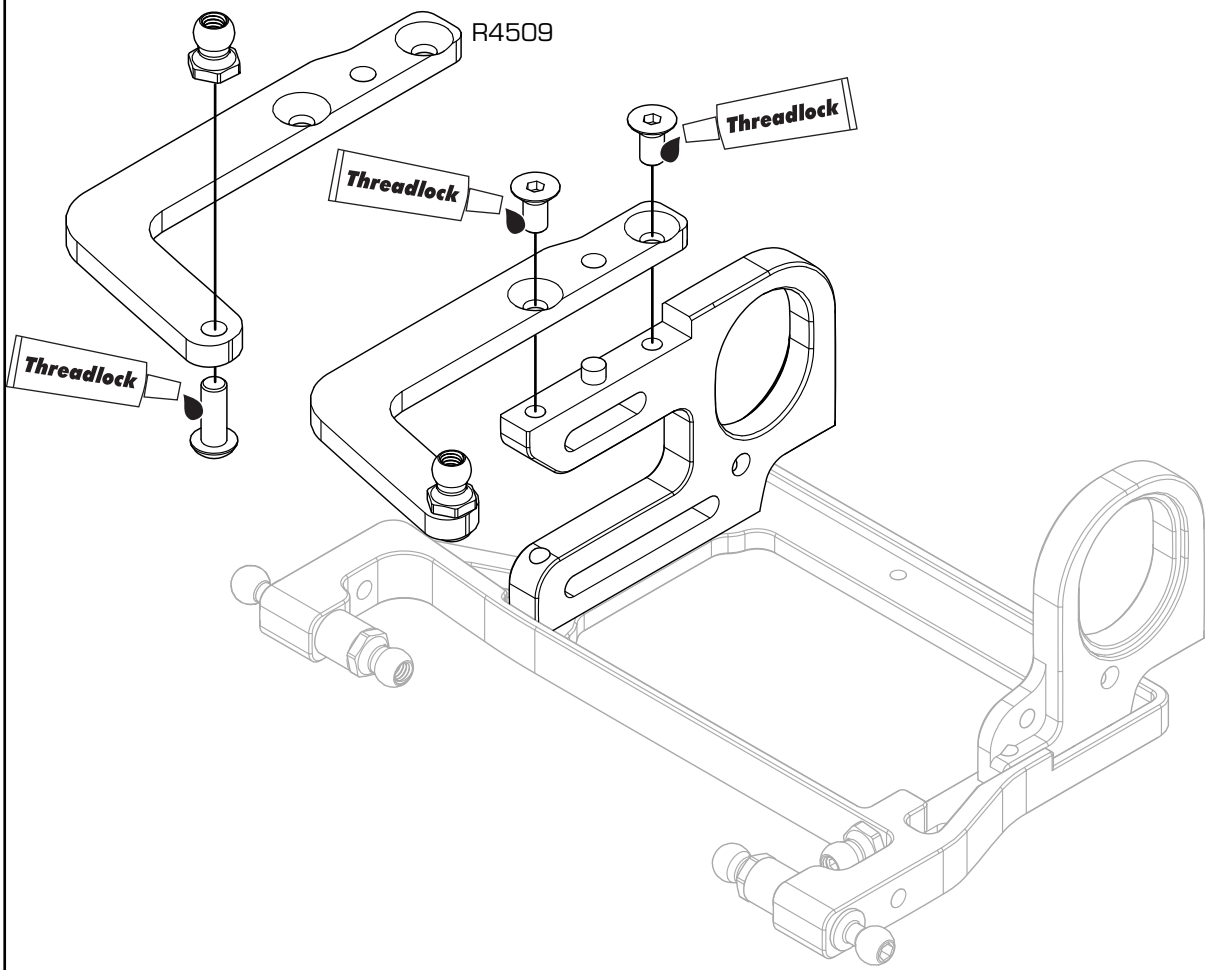
M3x8 FHCS (x3)

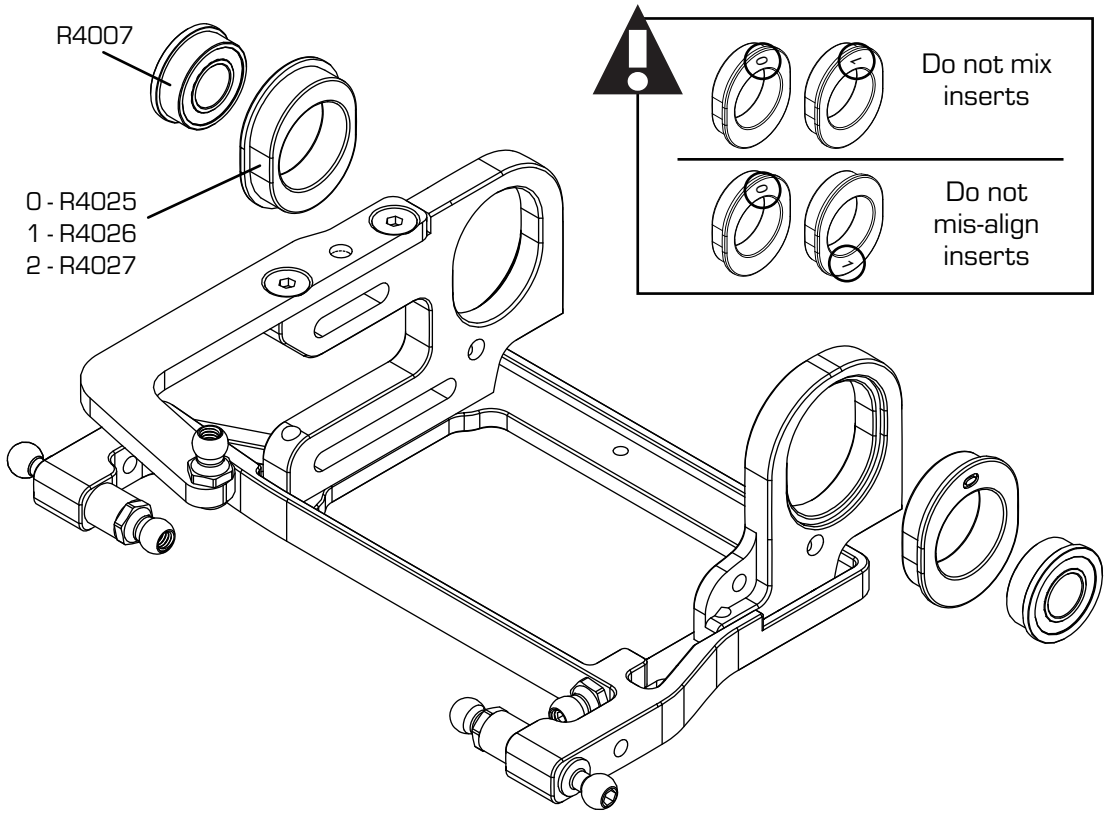


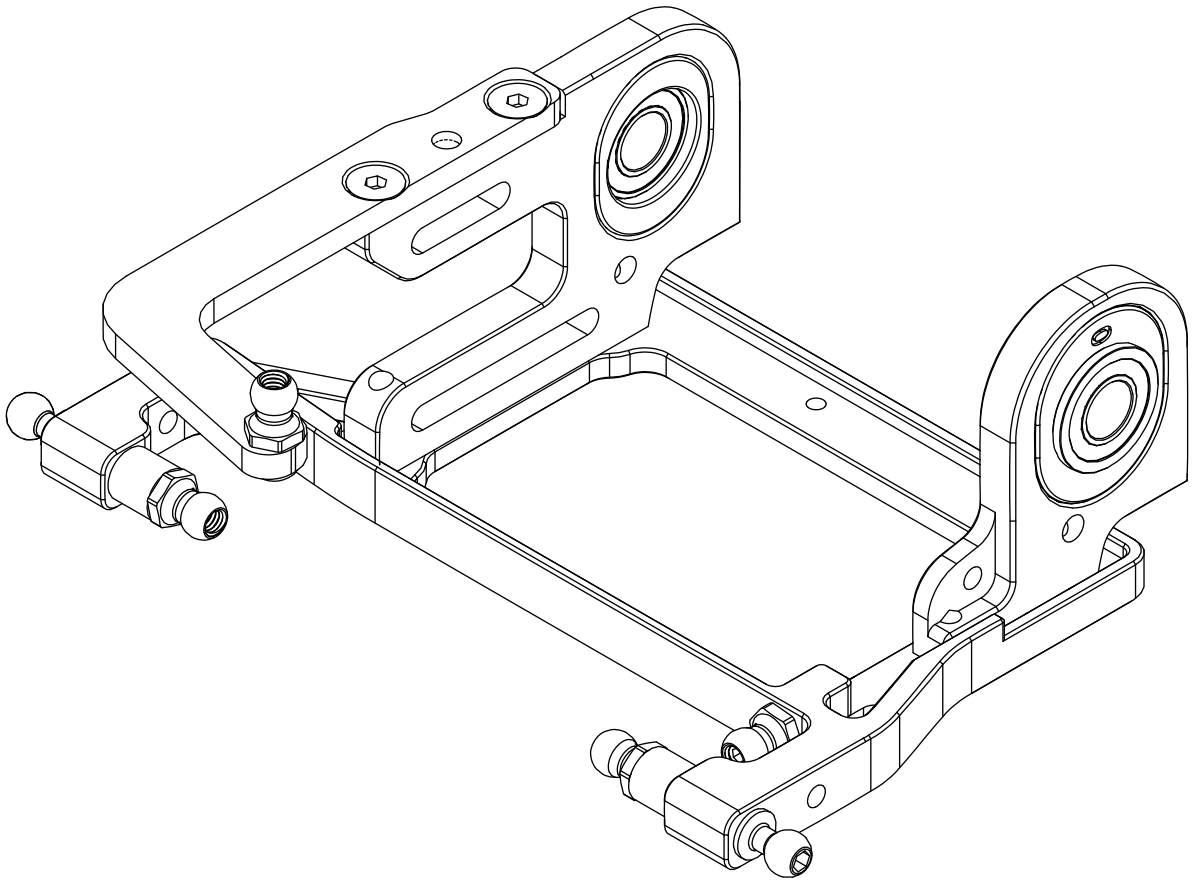
M3x6 FHCS (x2)

M3x6 BHCS

R4061
Ball Nut

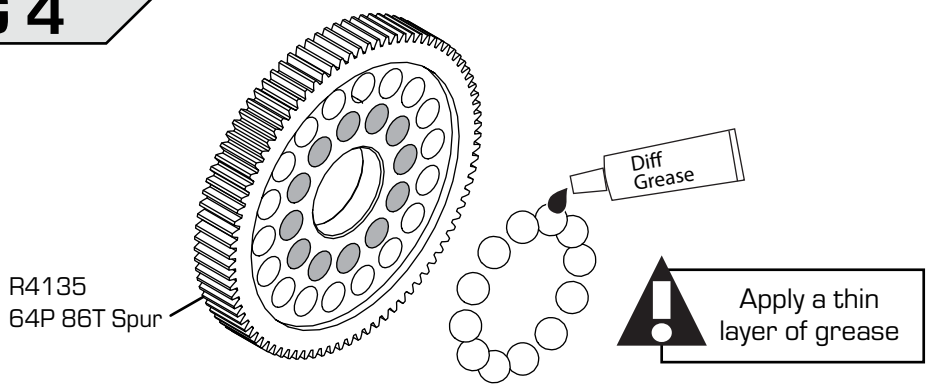


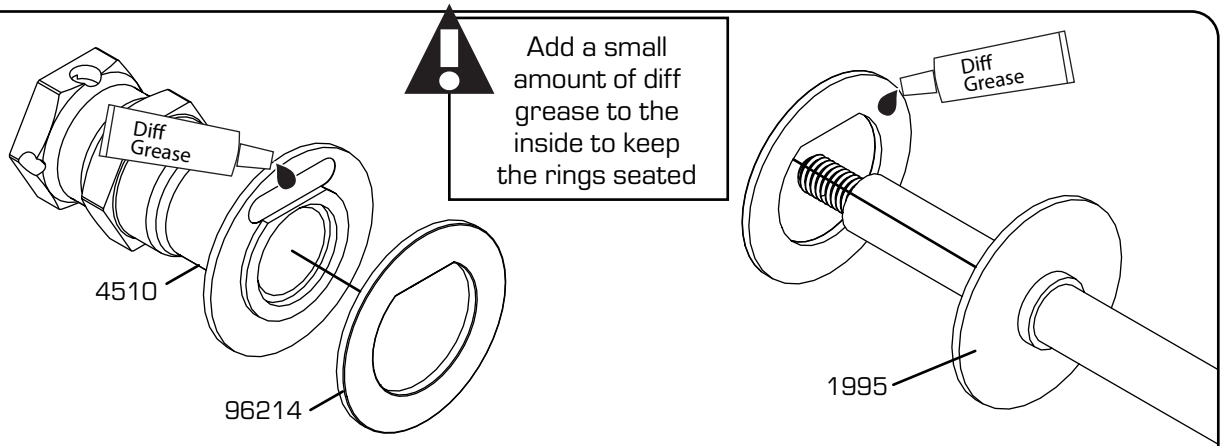

R4007
0 - R4025
1 - R4026
2 - R4027
Do not mix inserts
Do not mis-align inserts



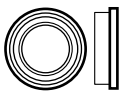
96109
1/8 Diff Balls (x12)

BAG 4

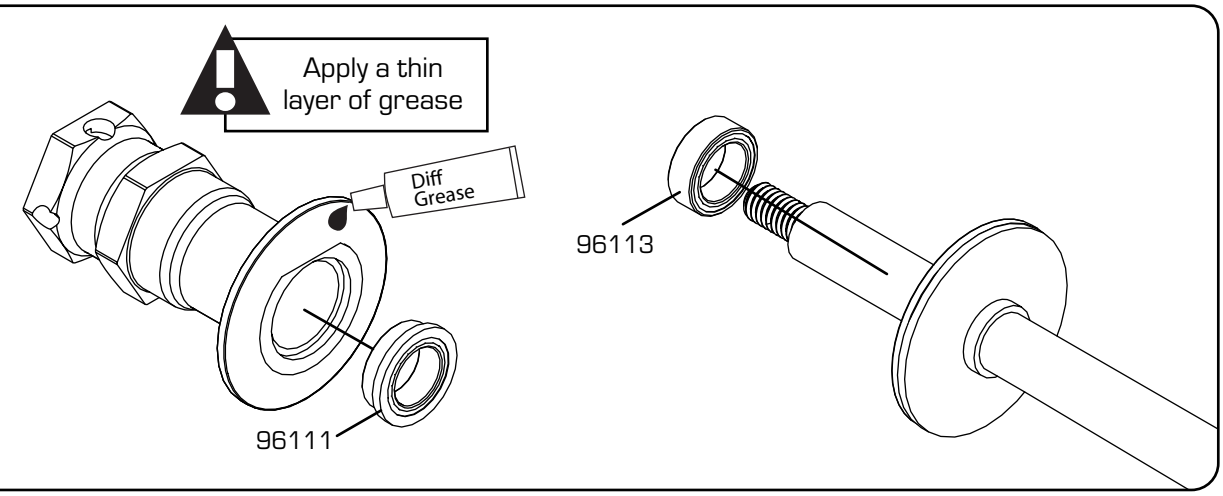


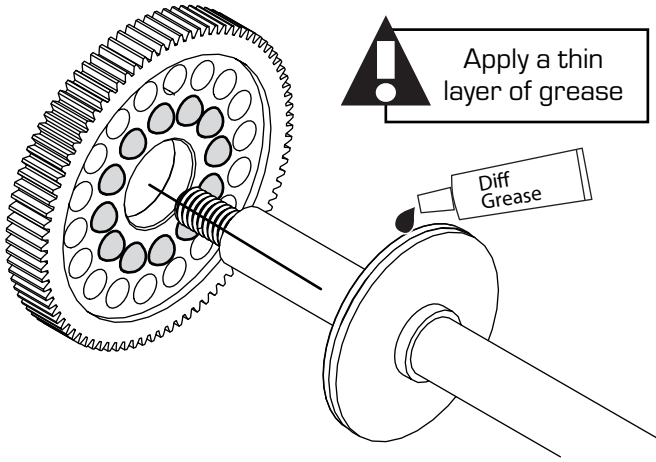


96113
1/4 Bearing

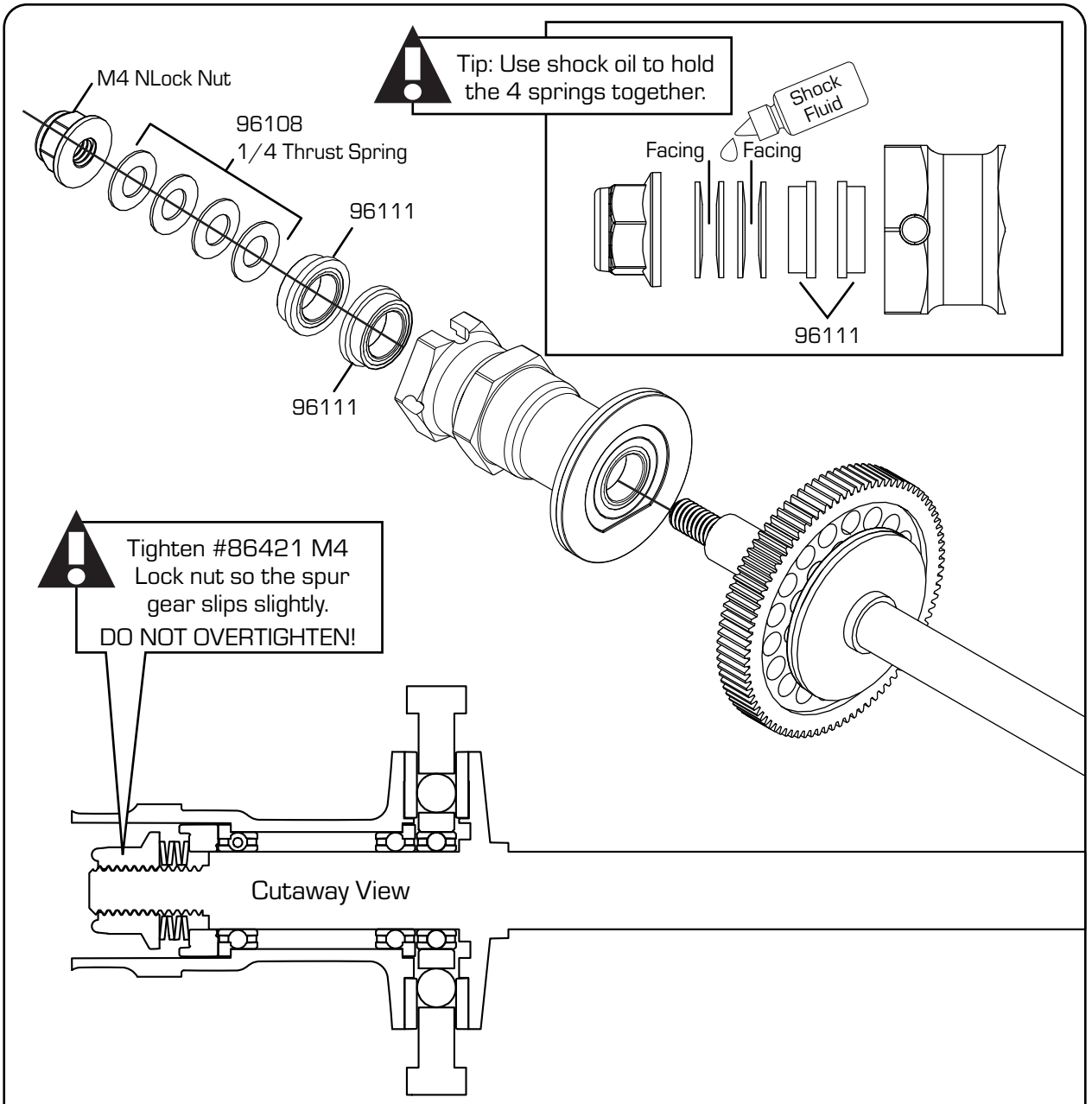


96111
1/4 Flanged Bearing

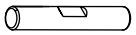




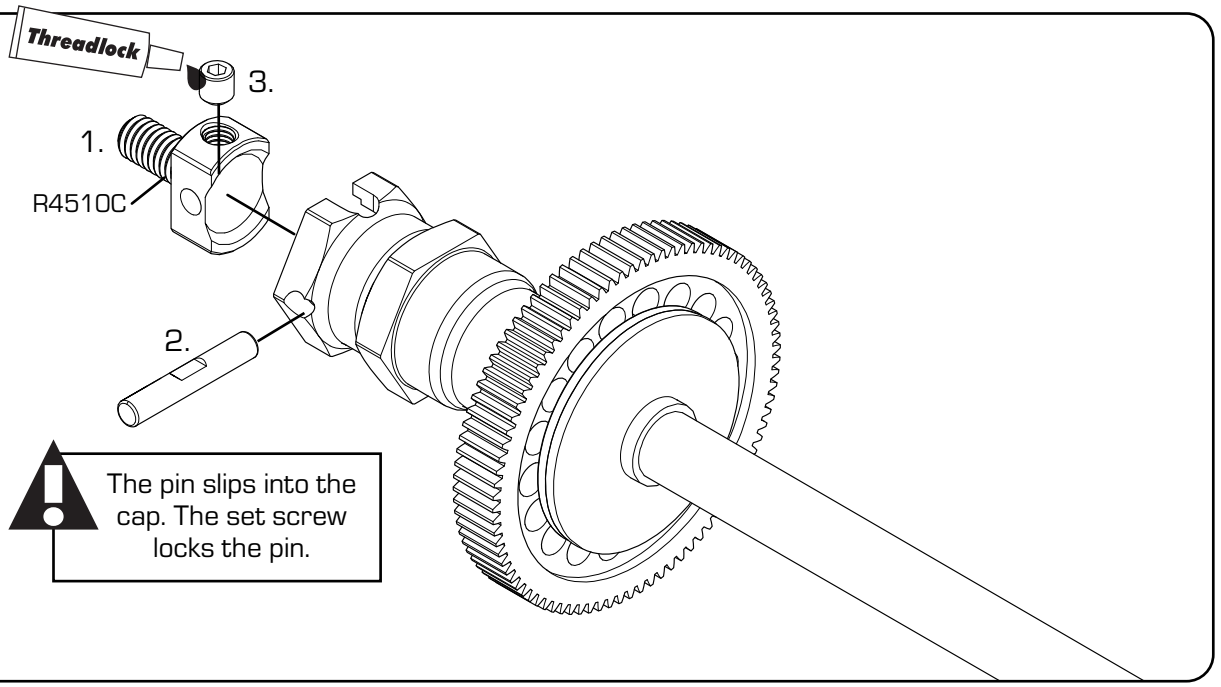
96111
1/4 Flanged Bearing (x2)



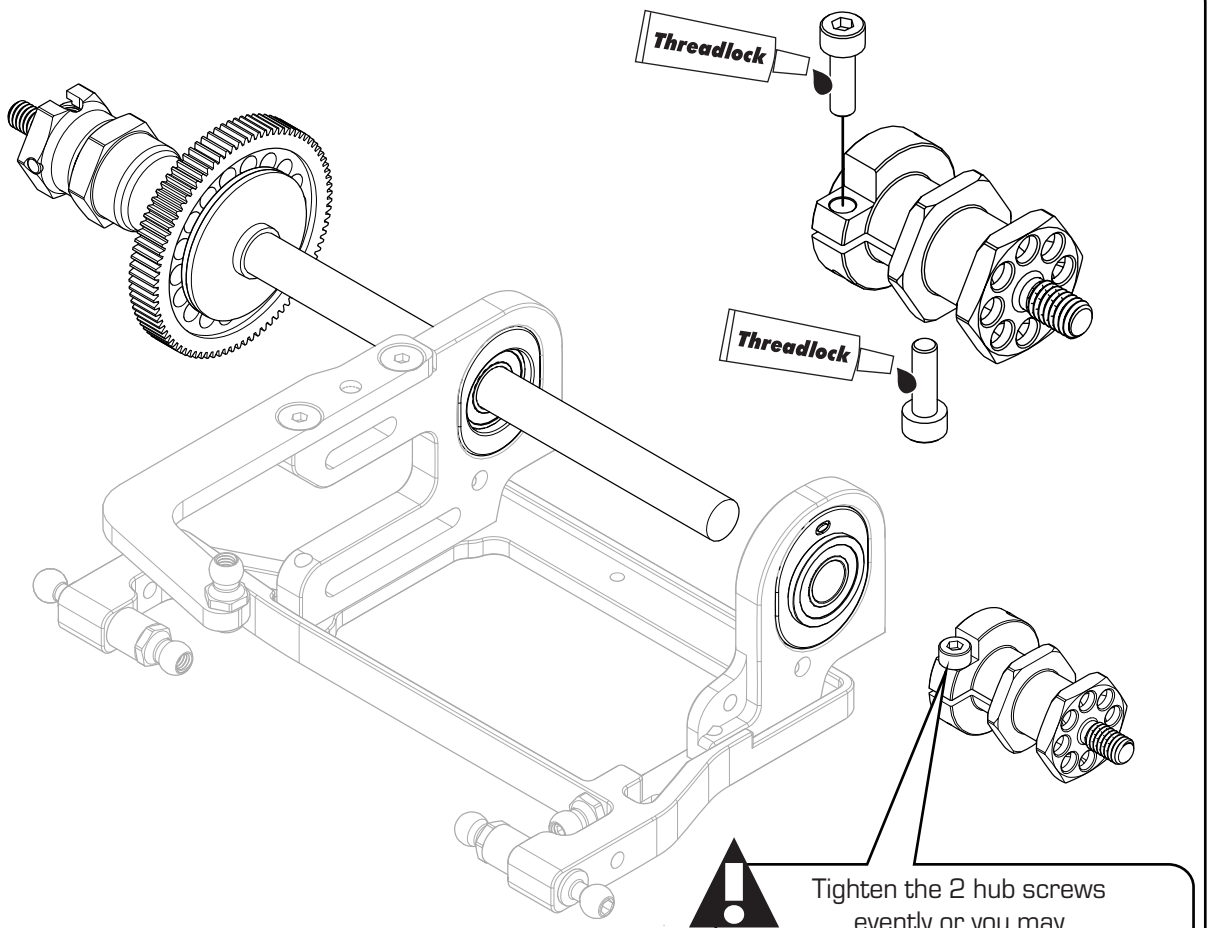
☐
M3x3 Set Screw

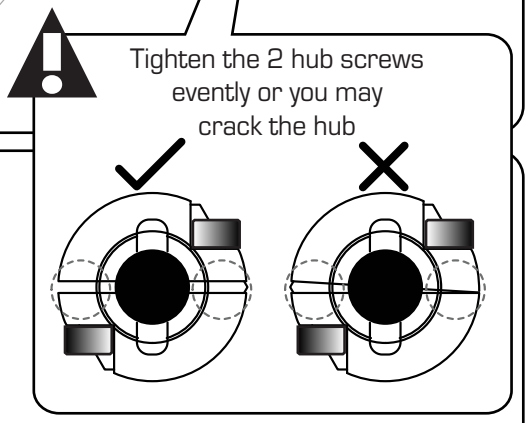


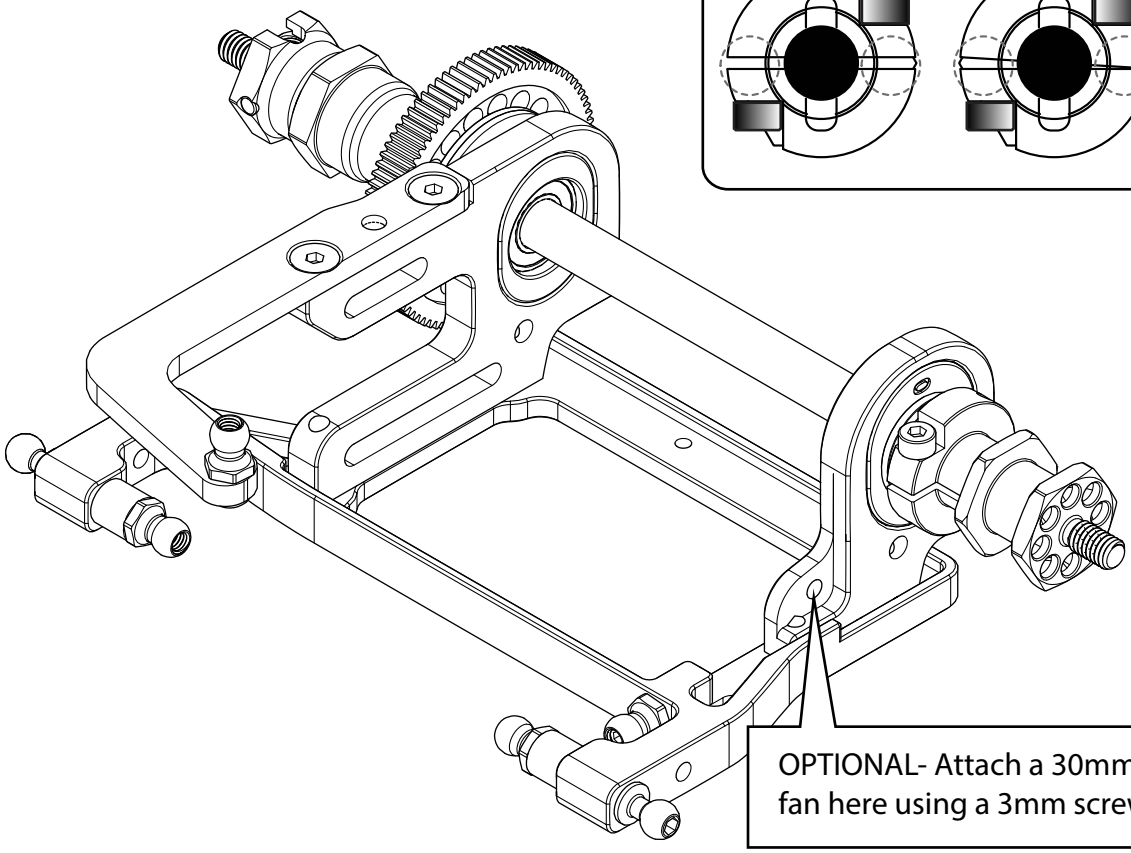
80530
Cross Pin



M2.5x8 SHCS (x2)







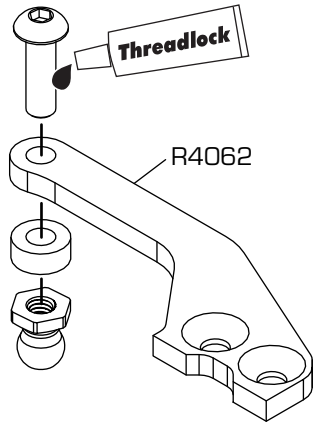
R4061
Ball Nut

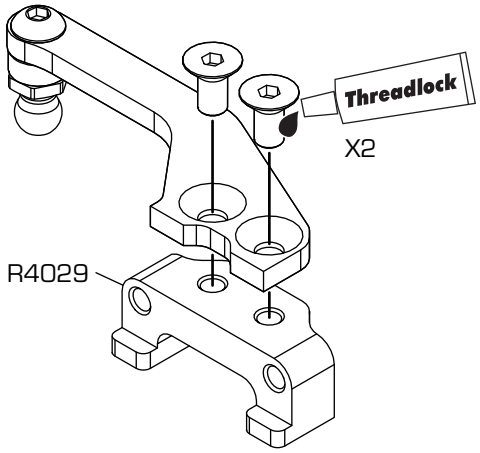
R4116
2.5mm Spacer

M3x10 BHCS

M3x6 FHCS (x2)

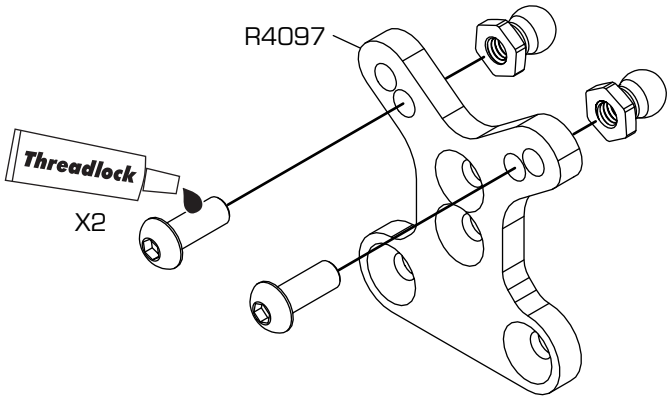
BAG 5



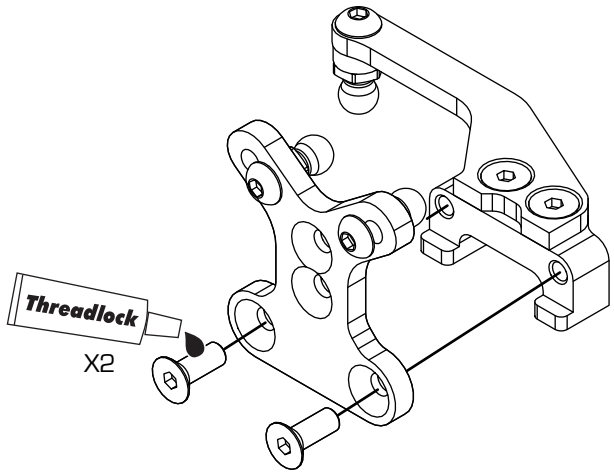


R4061
Ball Nut

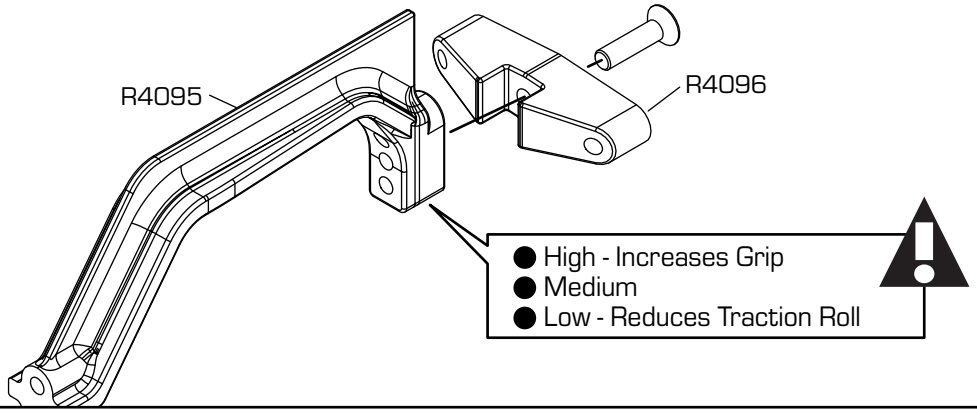
M3x6 BHCS (X2)



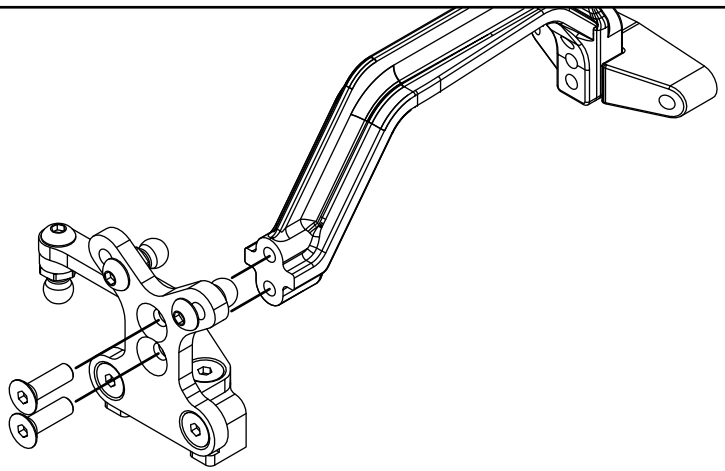
M3x8 FHCS (x2)



M3x10 FHCS



M3x10 FHCS (x2)

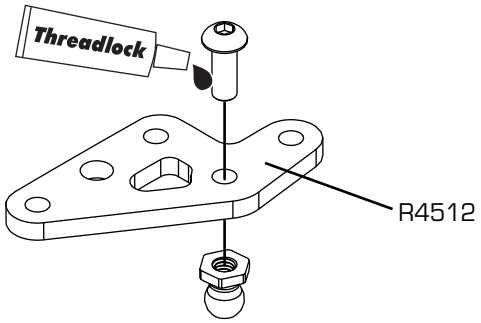


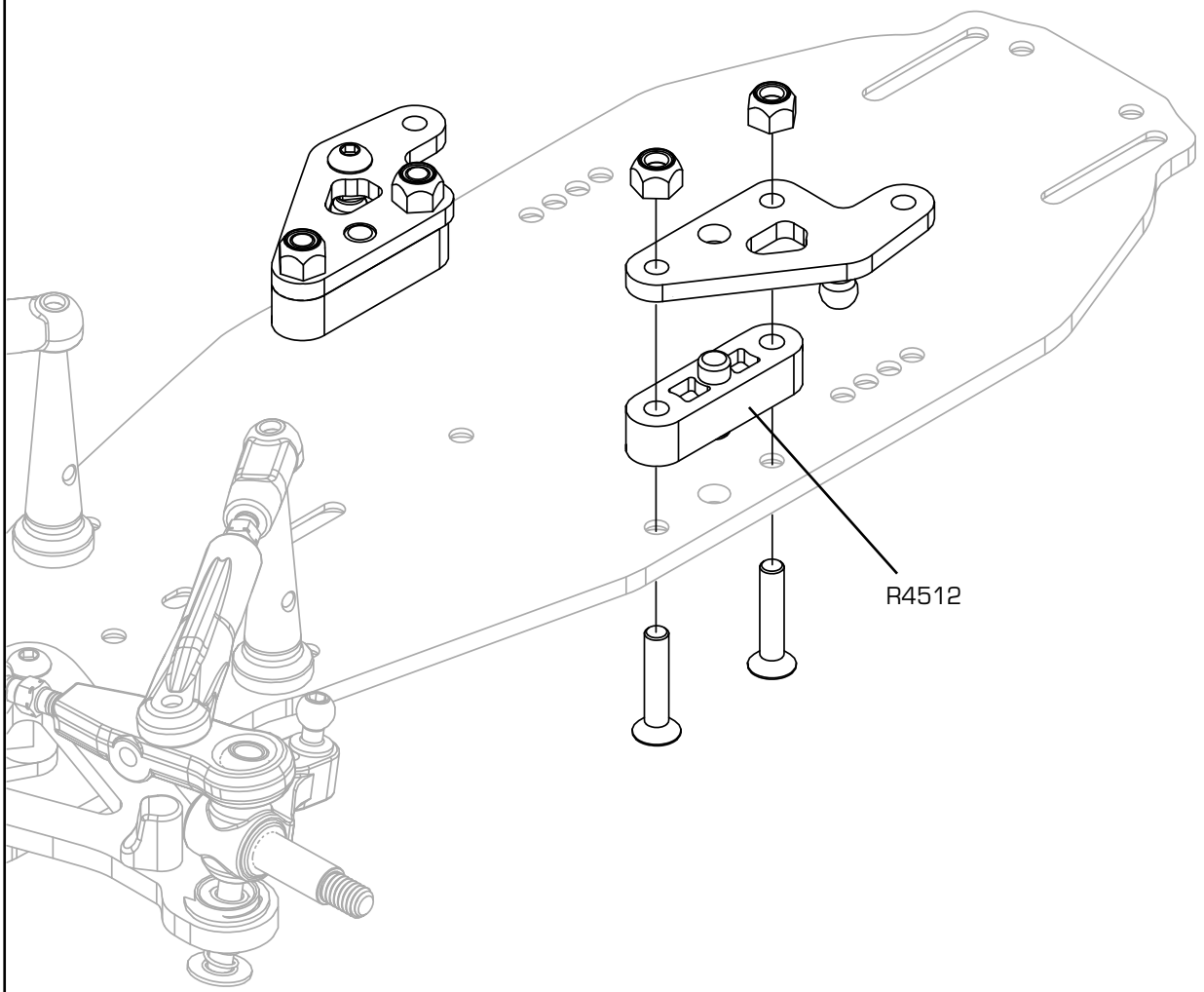
M3x8 BHCS (x2)

R4061
Ball Nut

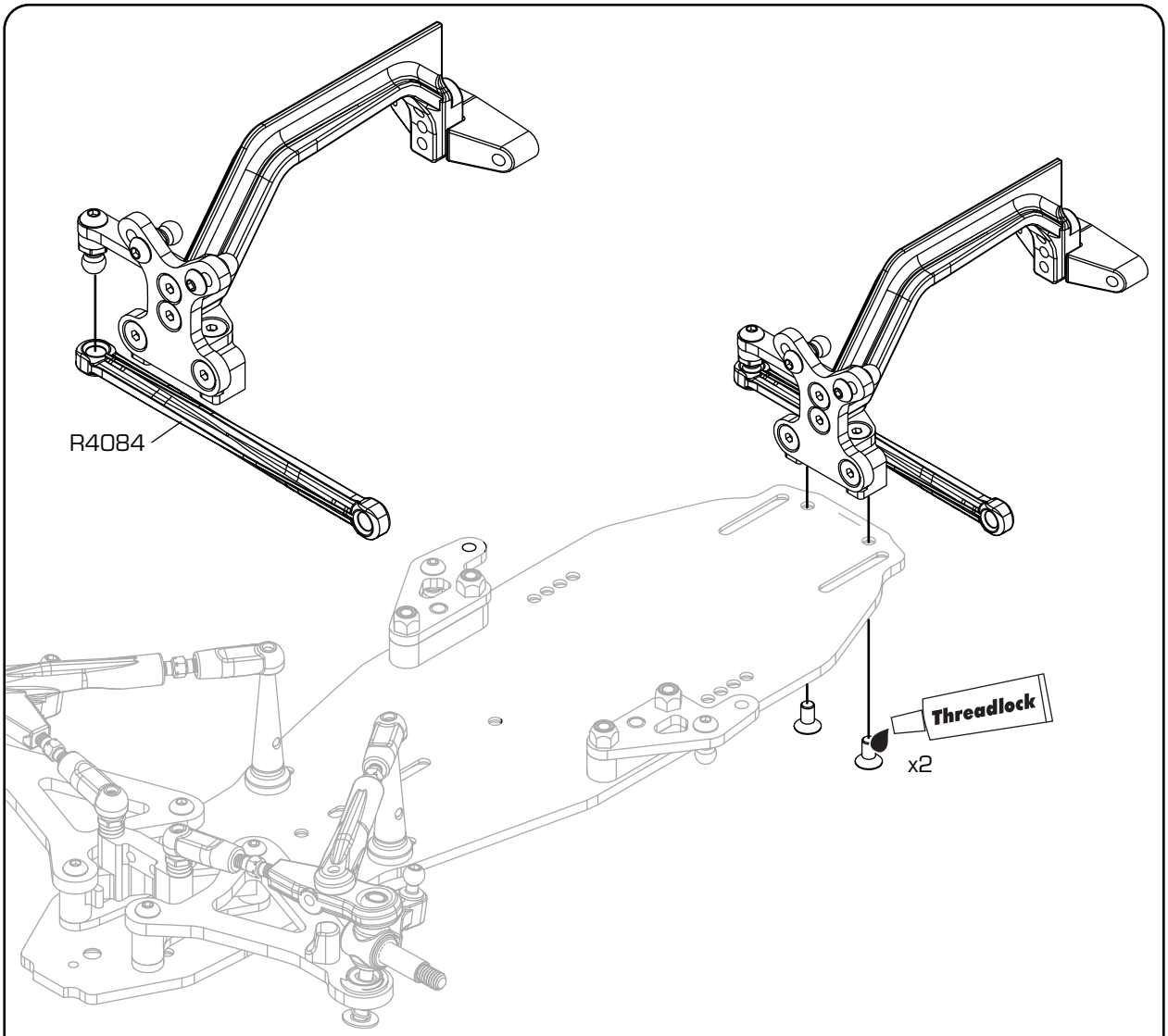
M3x15 FHCS (x4)

M3 Lock Nut (x4)

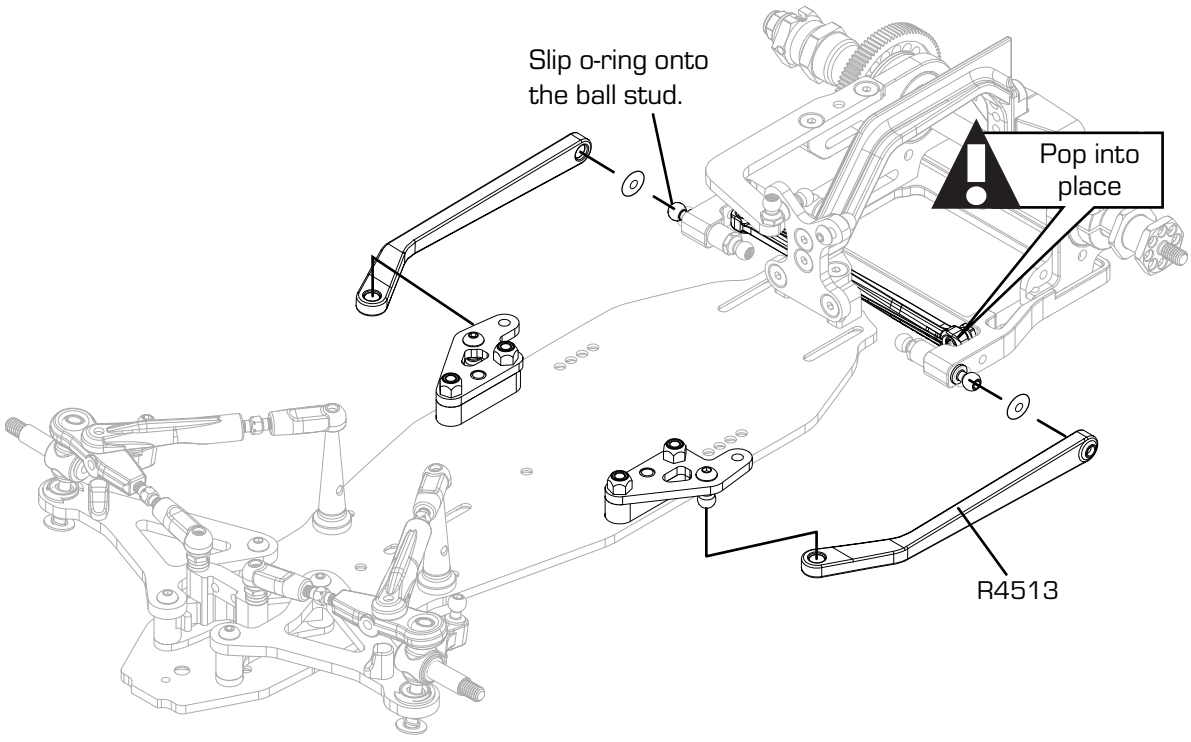




M3x6 FHCS (x2)



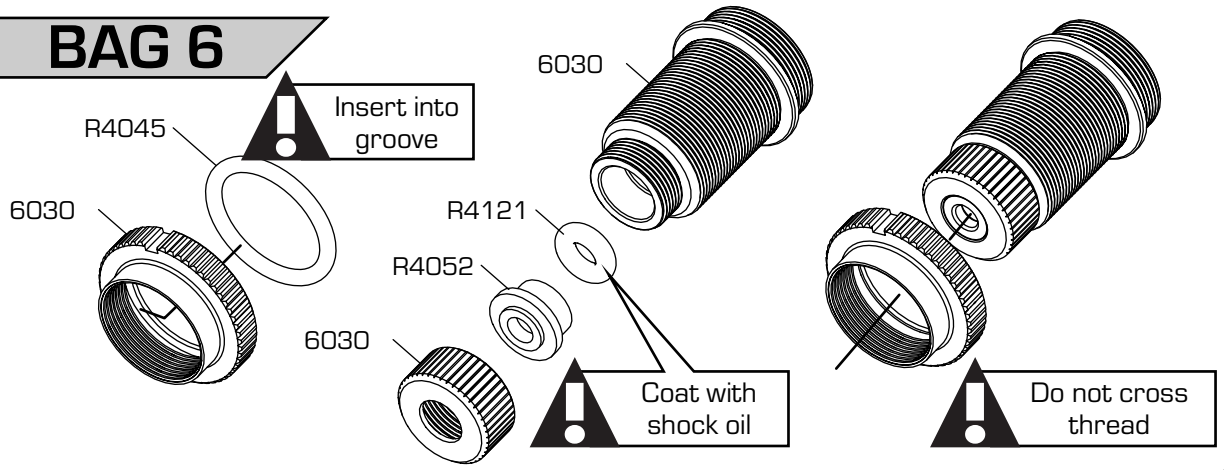
M3 O-RING (X2)



TOP SHOCK (x1)

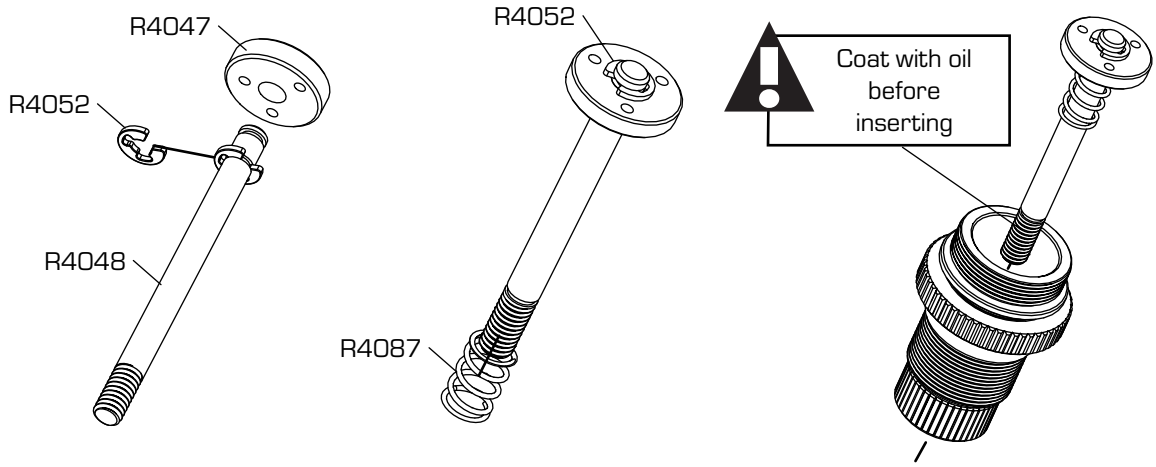
R4121
Large X-Ring

BAG 6

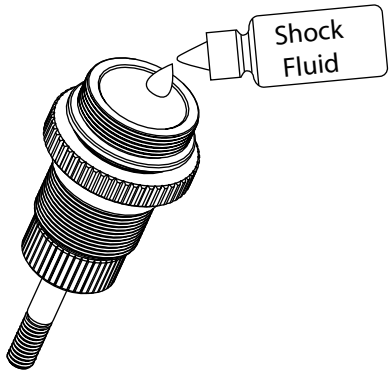


R4044
Large E-Clip (x2)

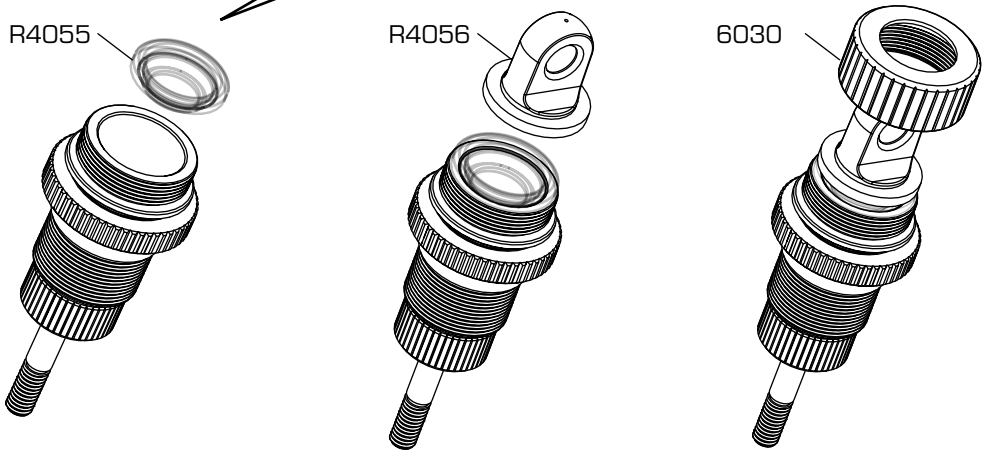
R4087
.45 Silver Spring

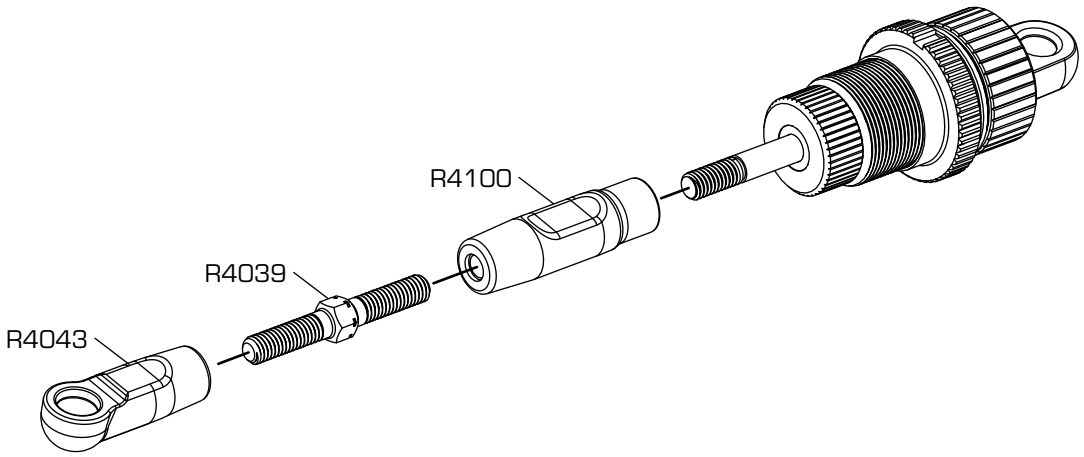


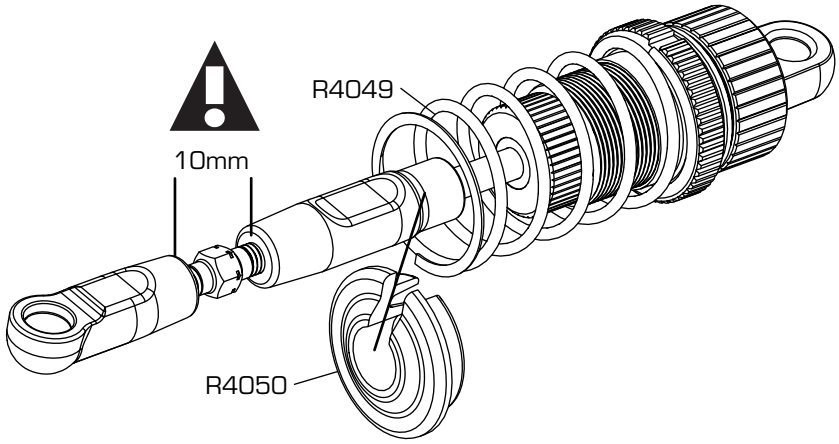
1. Fill to the top with shock oil. Work piston up and down And wait a few minutes for the bubbles to work out.



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.





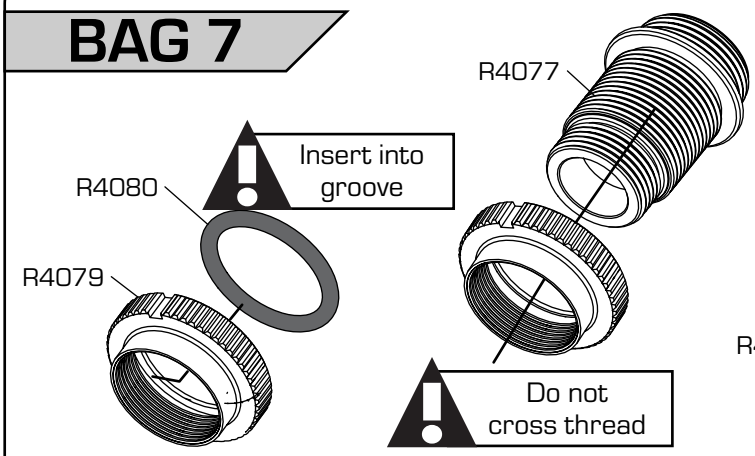


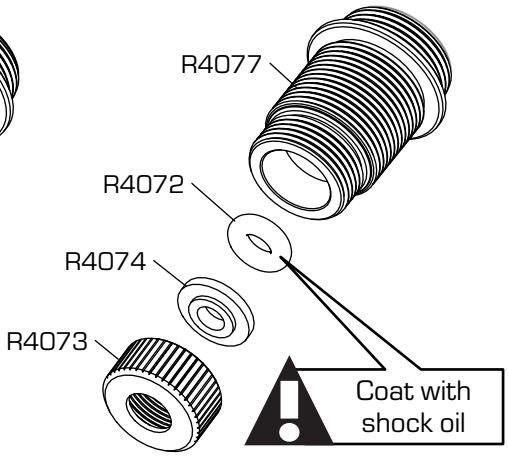
MICRO SHOCK x2

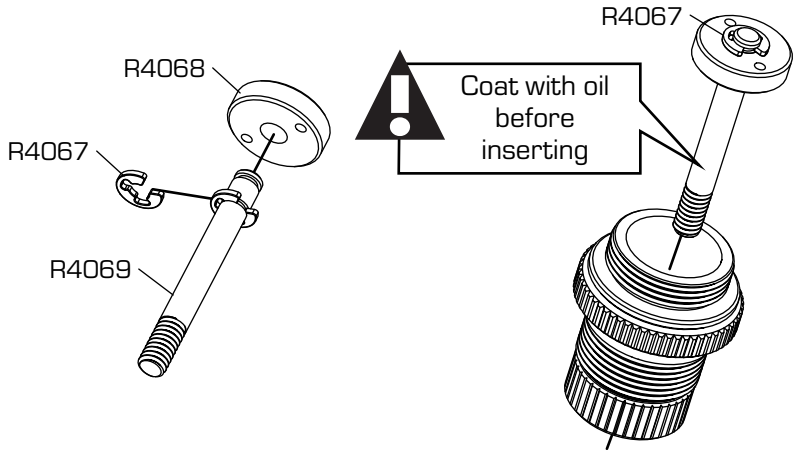
R4072
Micro O-Rings (x2)
Orange

R4067
Micro E-Clip (x4)

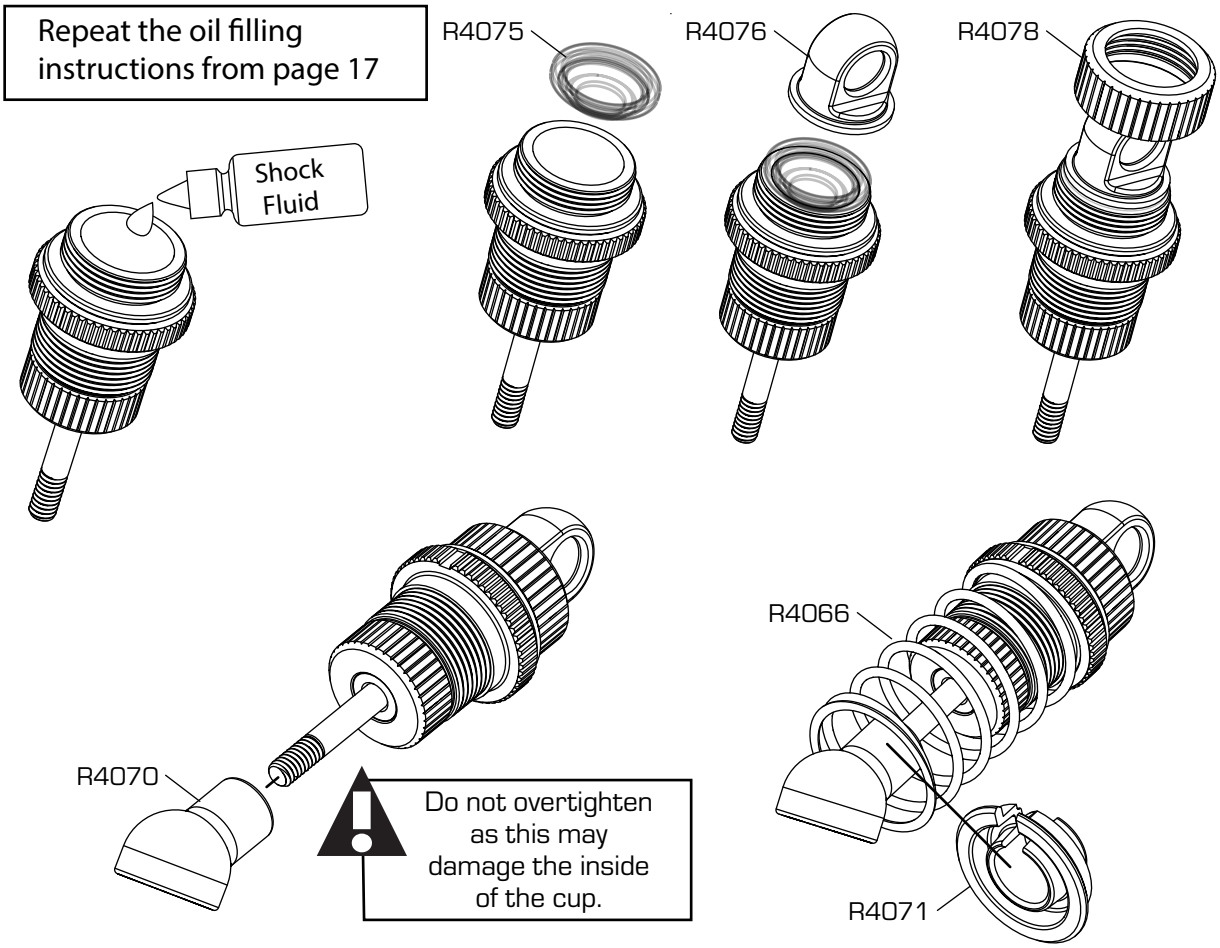
BAG 7



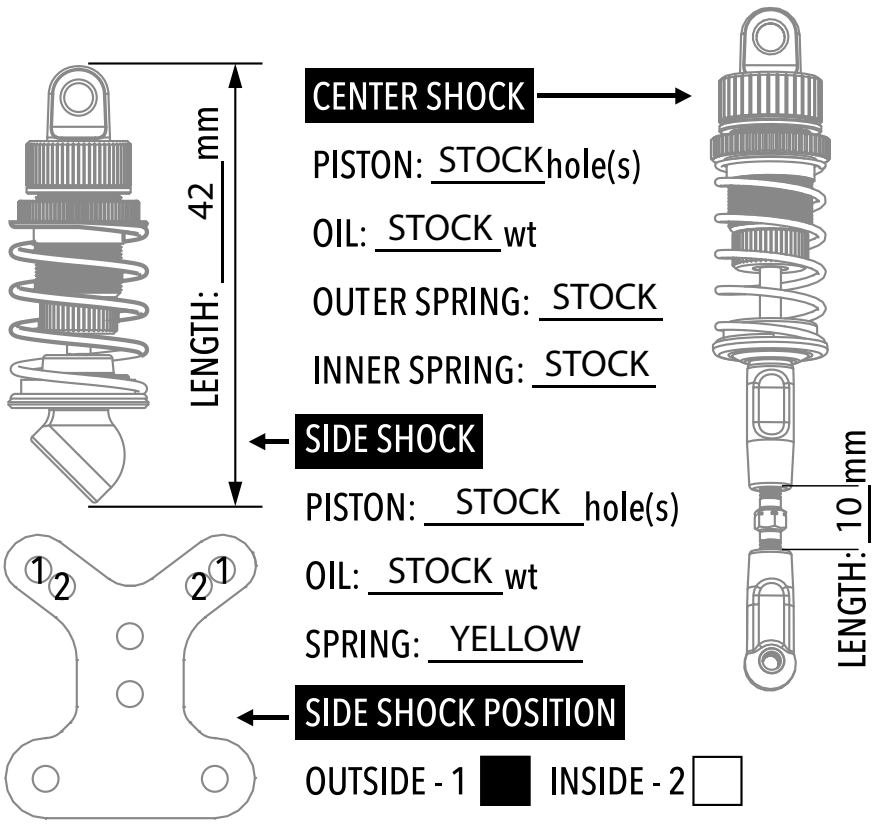


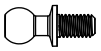


Repeat the oil filling instructions from page 17



BASIC SHOCK SETTINGS

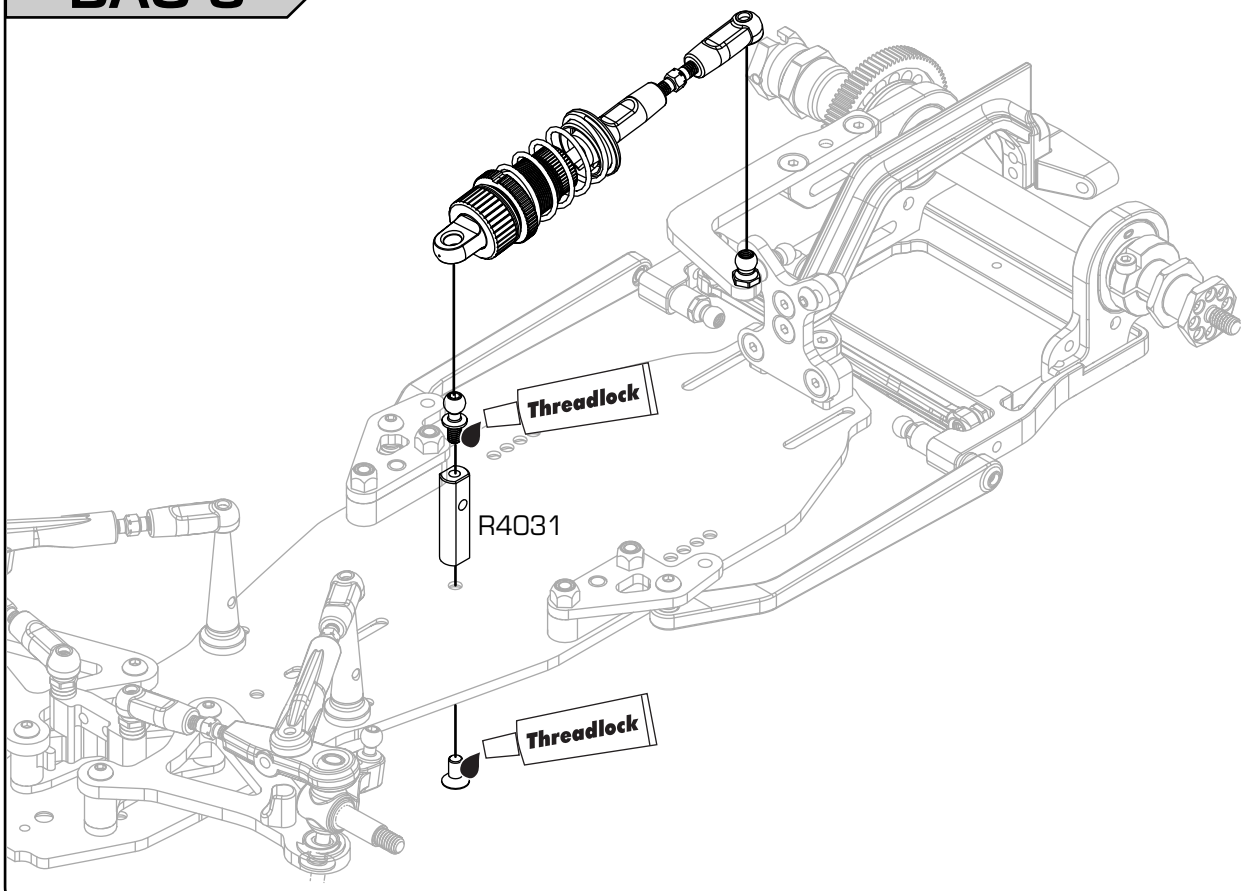


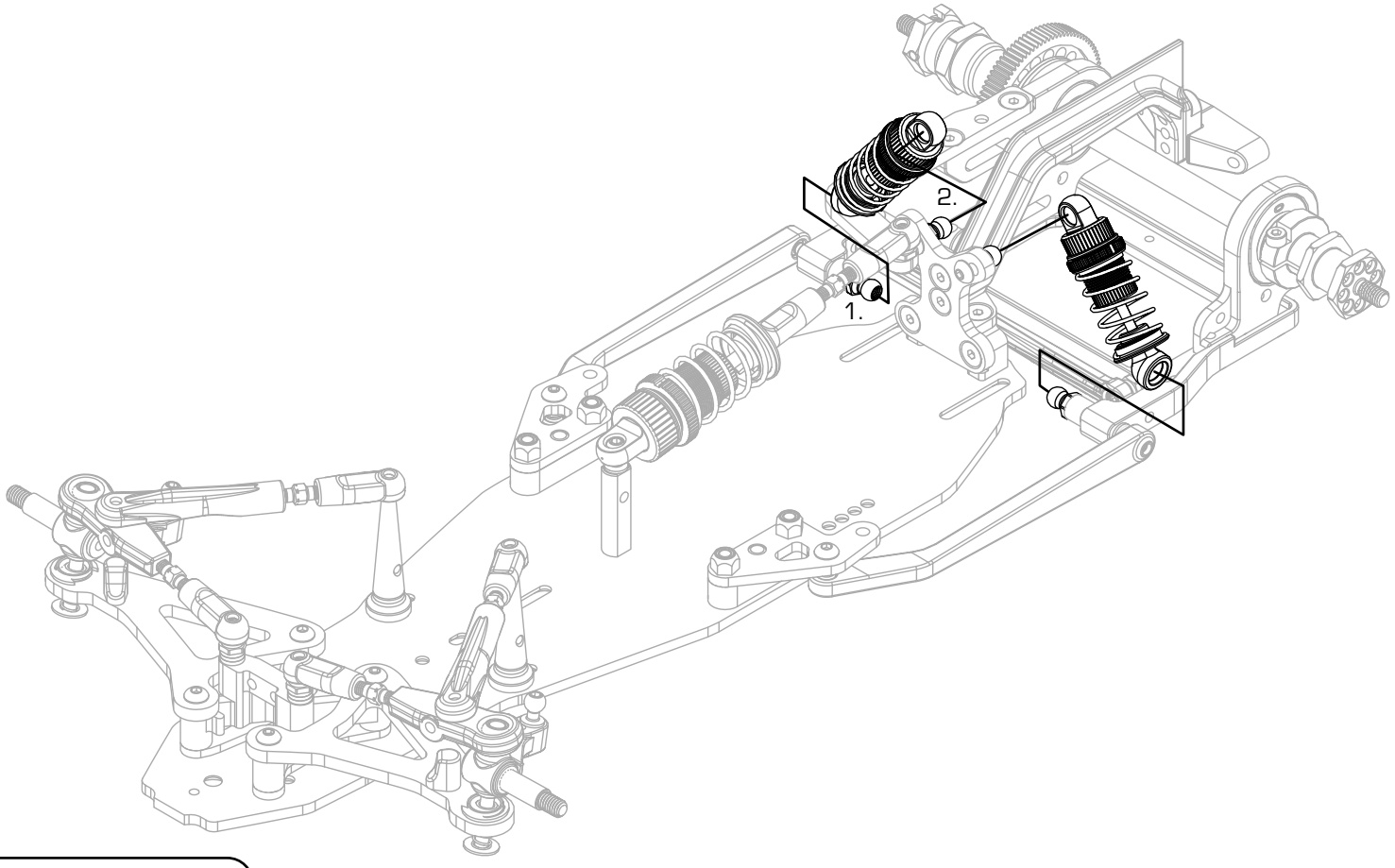


R4037
Ball Stud

M3x6 FHCS

BAG 8





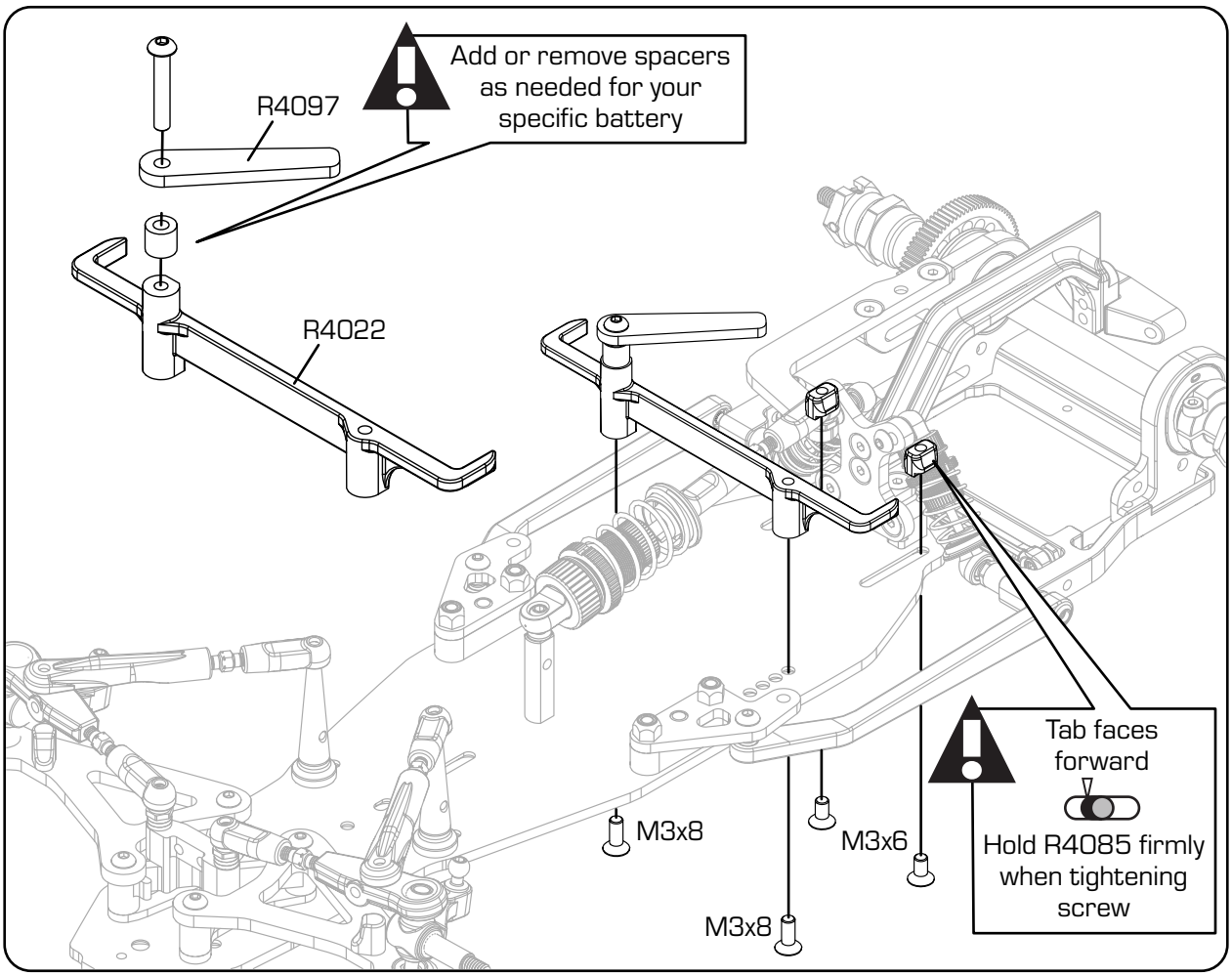
M3x14 BHCS

R4028
6mm Spacer

R4114
1mm Blue Spacer

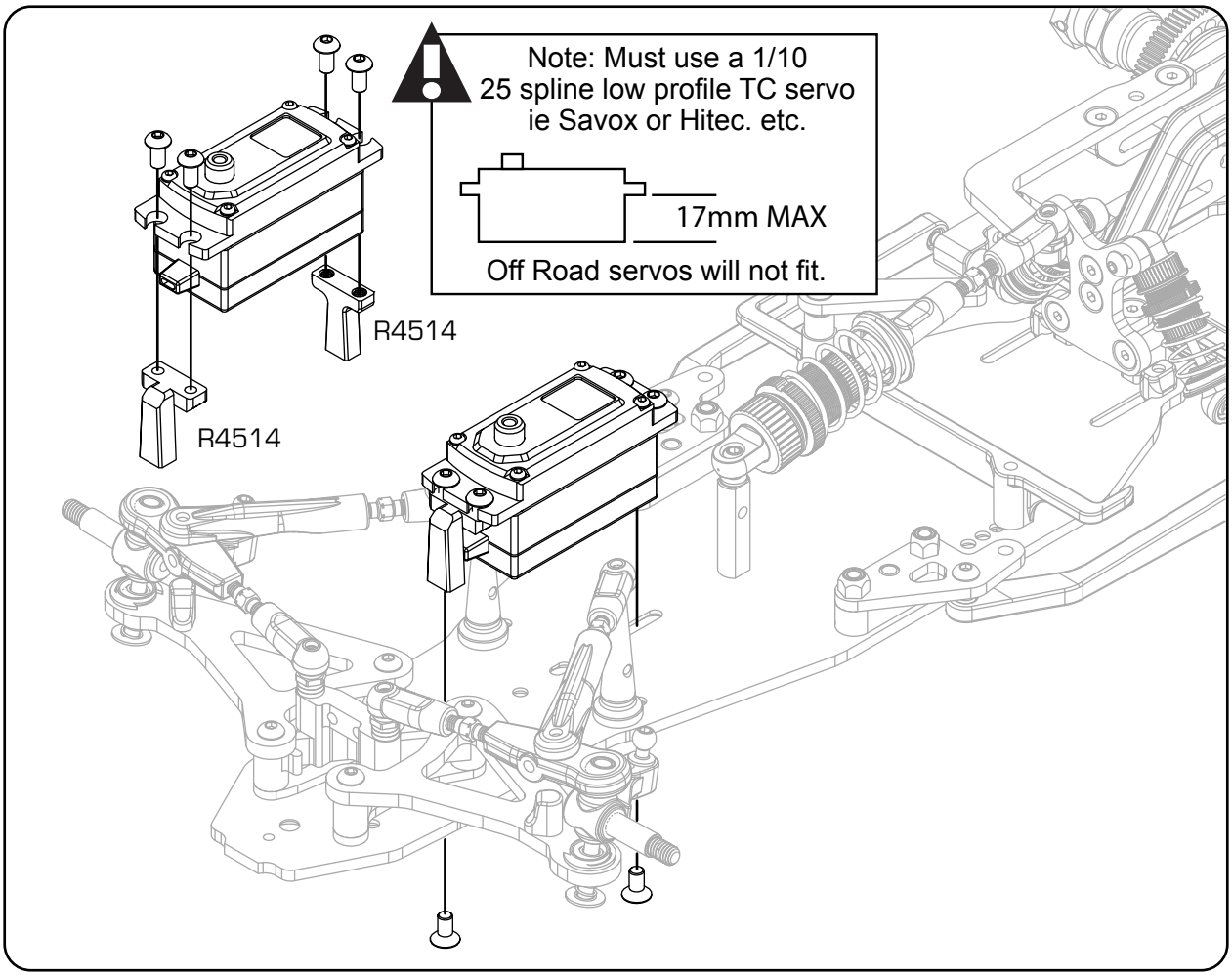
M3x6 FHCS (x2)

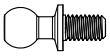
M3x8 FHCS (x2)



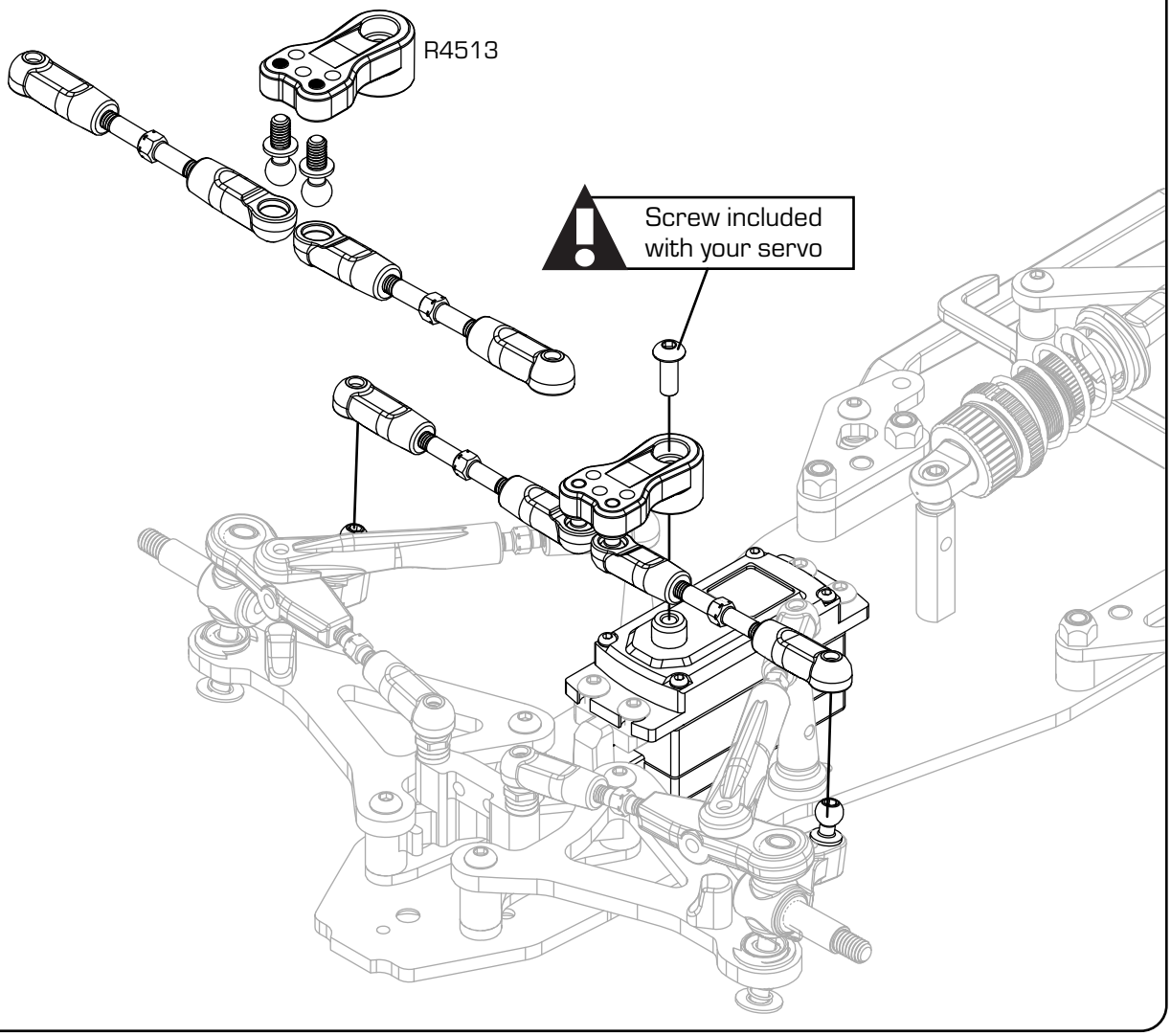
M3x6 BHCS (x4)

M3x6 FHCS (x2)

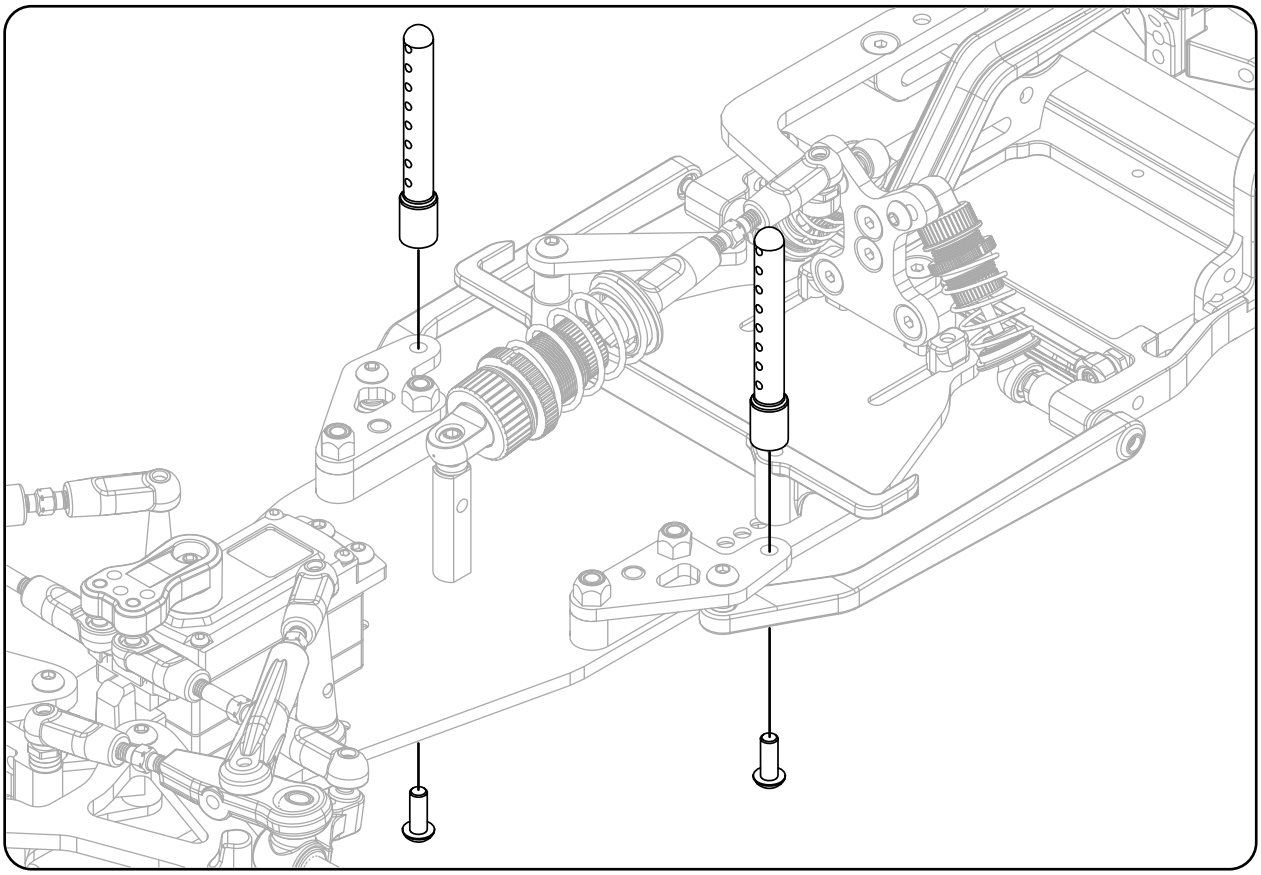




R4037
Ball Stud (x2)



M3x10 BHCS (x2)



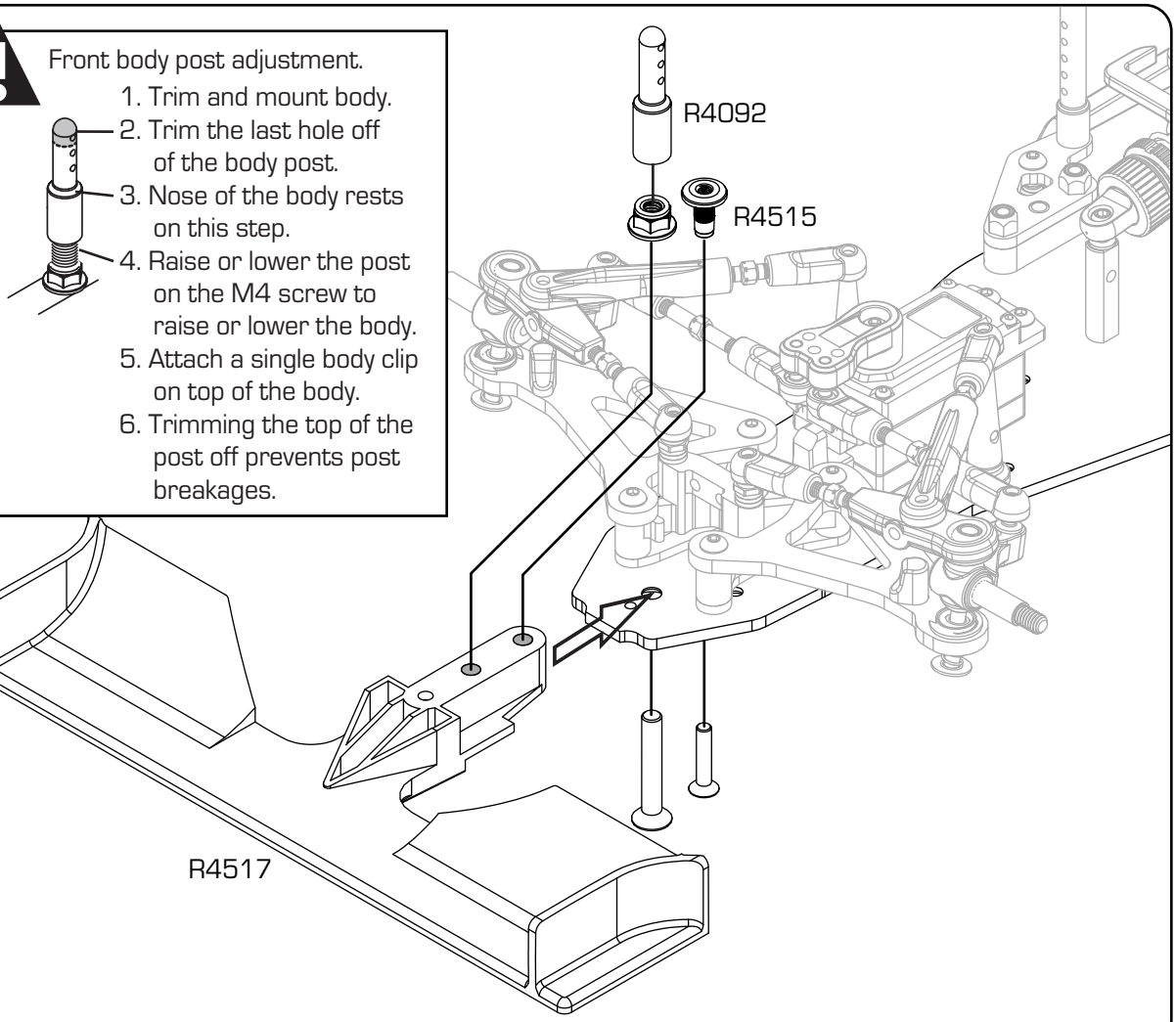
M4x26mm FHCS

M4 Locknut

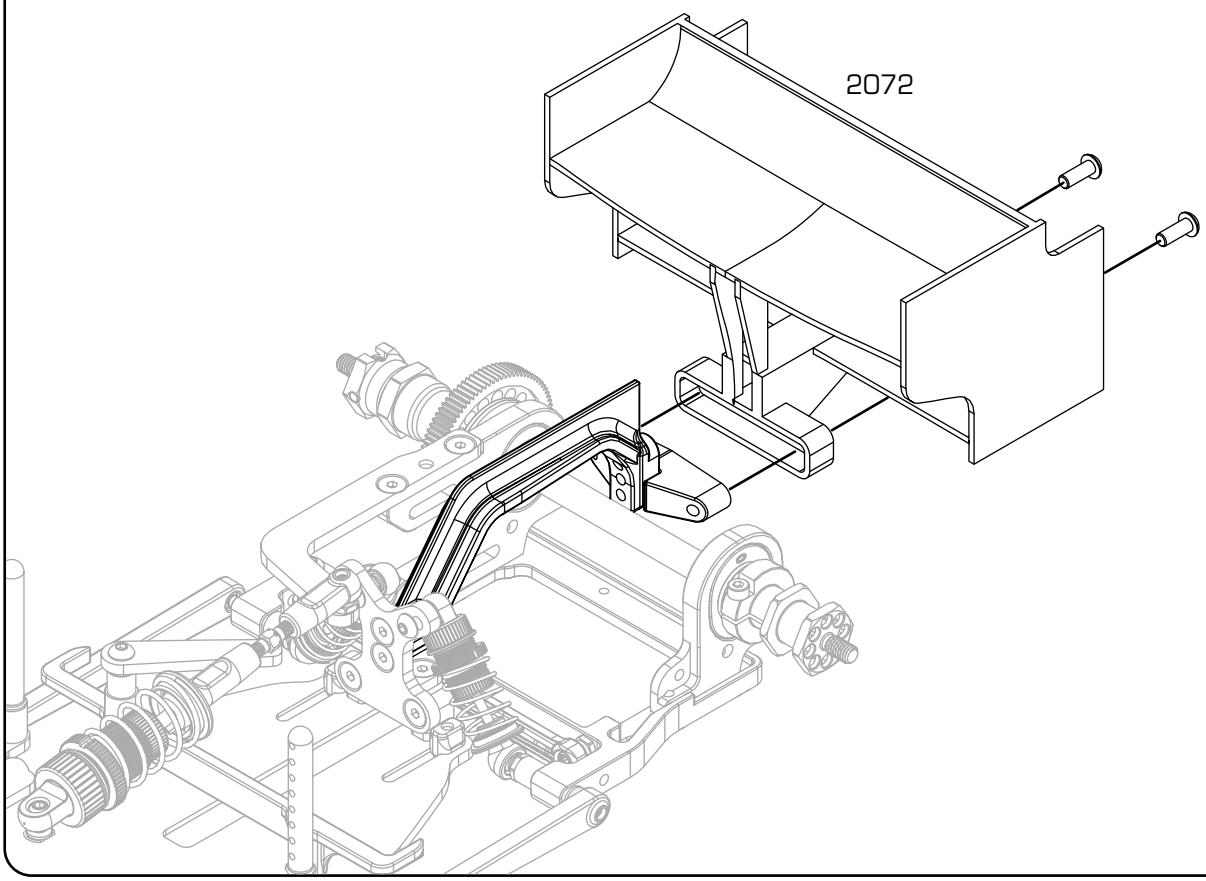
M3x14mm FHCS

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.

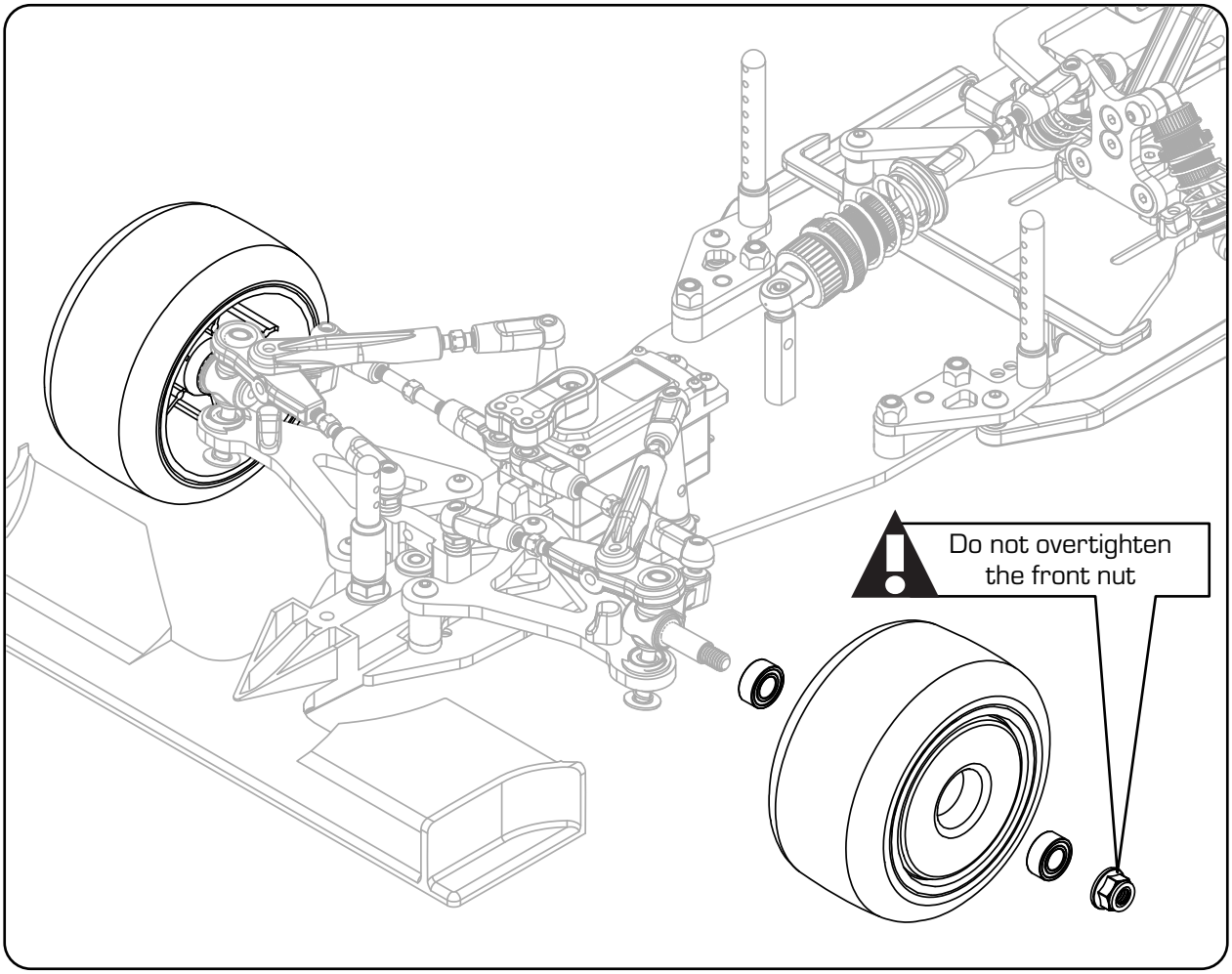


M3x10 BHCS (x2)

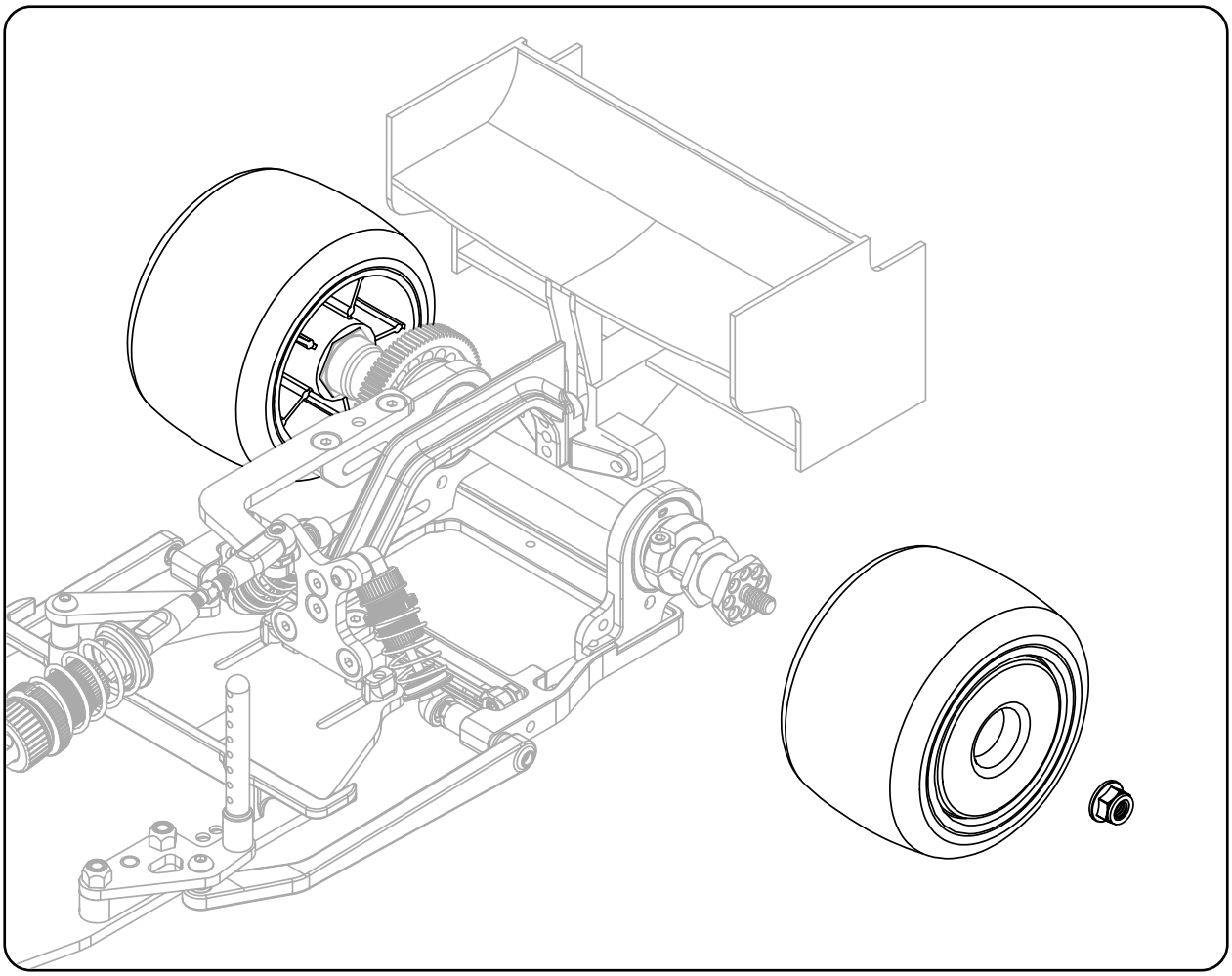


86421
M4 Locknut (x2)

R4128
5x10mm Bearing (X4)



86421
M4 Locknut (x2)



SUGGESTED LAYOUT OF YOUR ELECTRONICS

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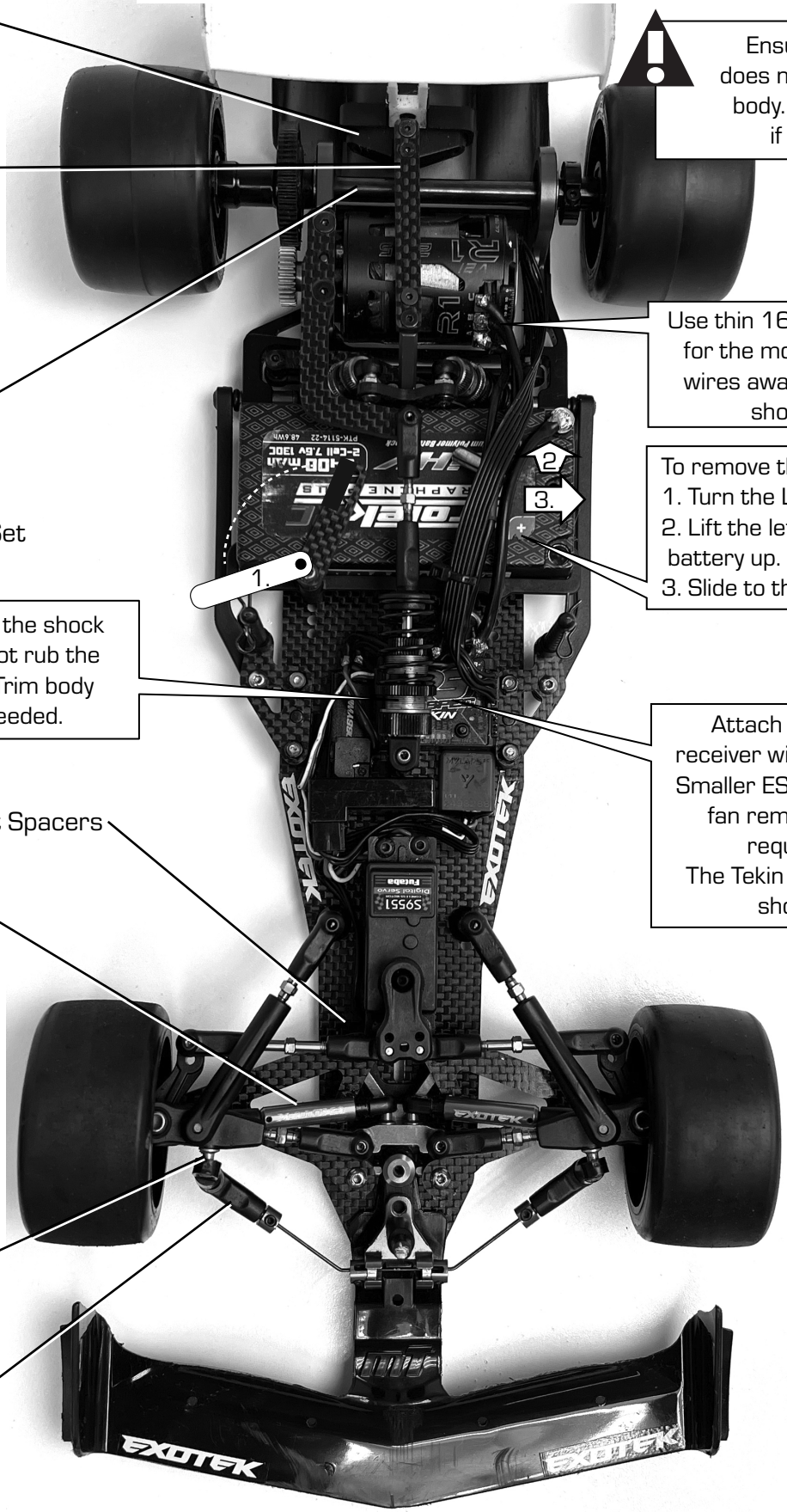


REAR RIDE HEIGHT

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.

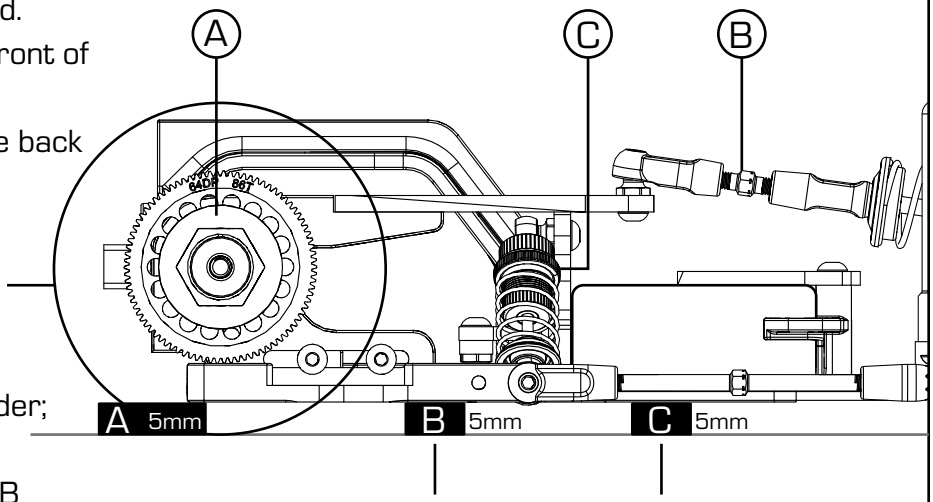
NOTE- The wheels must be attached and battery installed.

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

Ⓐ Change bearing cams for height A.

Ⓑ Adjust the top shock turnbuckle for height B (longer link raises the B setting).

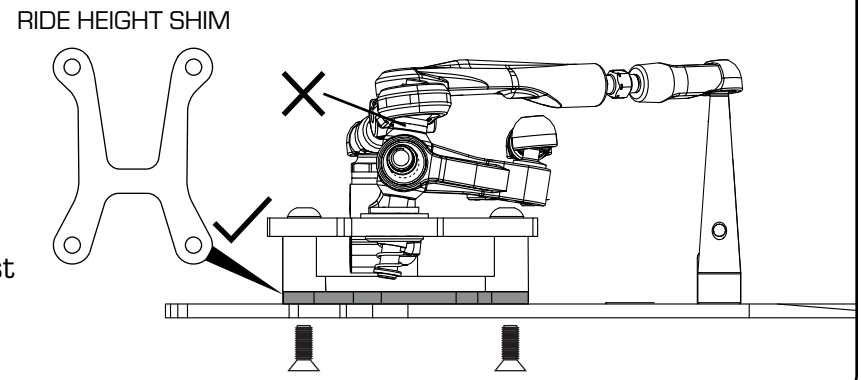
Ⓒ Adjust the 2 micro shock collars for height C (lowering the collars raises the rear chassis). This last setting is the most important to watch to keep from bottoming out.



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

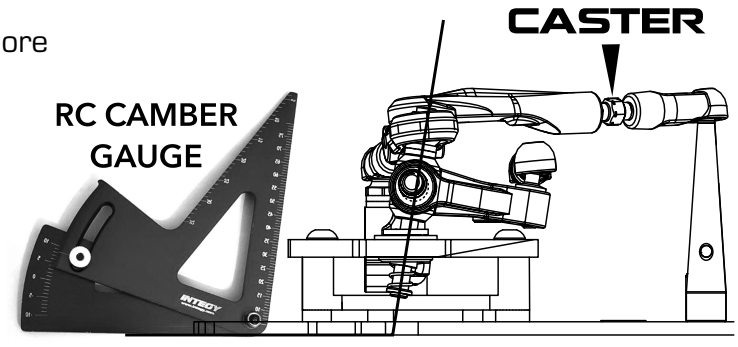
Change the front ride height by changing the bulkhead plate thickness (Exotek Options). Change M3 screws as needed for proper length and durability. Do not change the steering knuckle shimming to change ride height as the pins may rub the wheels. You may need to add shims under the steering post for 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 #2021**. We suggest around -5° for tight tracks and -9° for large sweeping tracks.

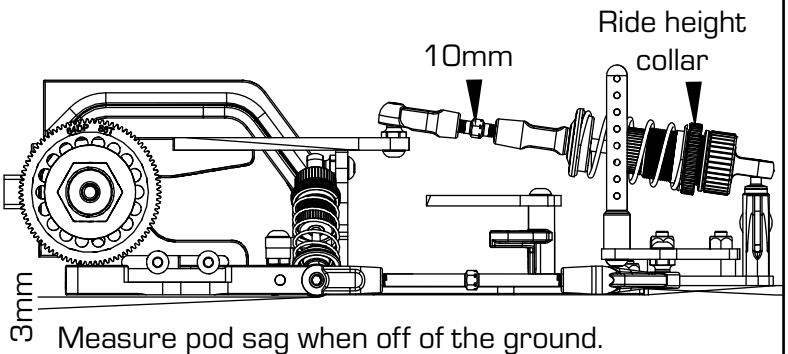
Also readjust your camber after changing your caster.



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.



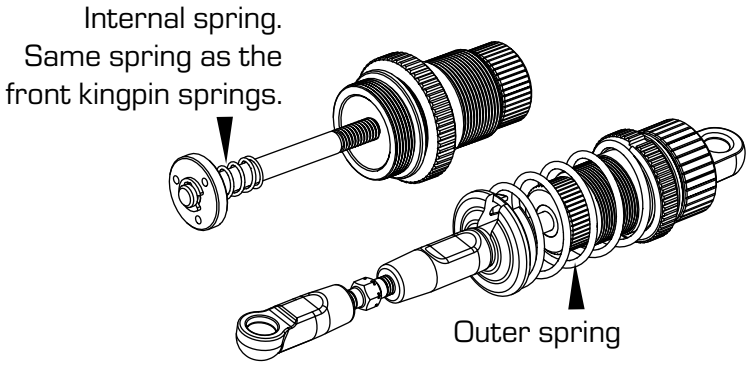
Measure pod sag when off of the ground.

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.

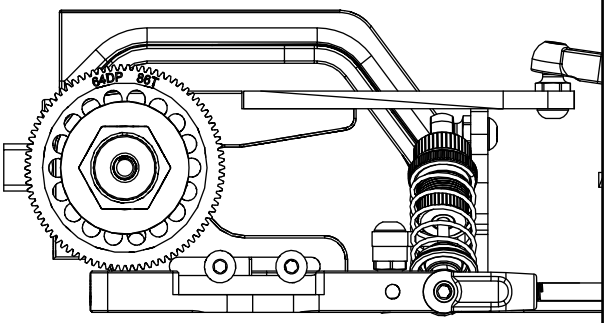
The outer spring controls track bumps and braking stability. Softer outer springs are needed for bumpy tracks while harder springs may be suited for smoother tracks.



MICRO SHOCKS

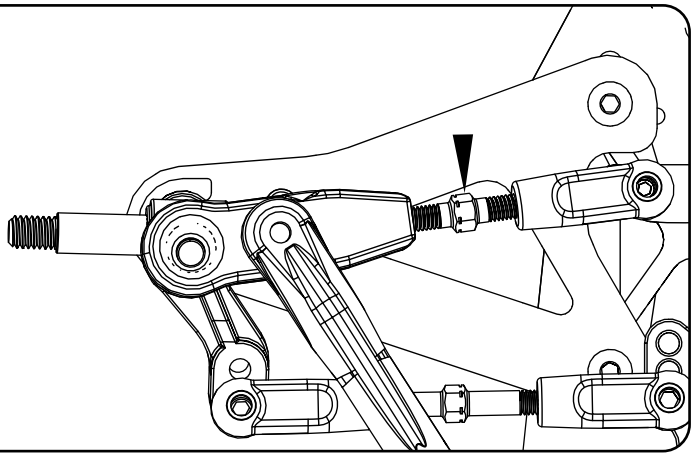
The side micro shocks control the side roll, dampening and center ride height. Softer springs yields the best rear traction but you must raise the ride height for the extra roll (5mm etc). If you require lower ride heights then you must use firmer micro springs.

SPRING CHART
Black - Soft
Yellow - Medium
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.

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