



# Instruction Manual



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Moulton Park  
Northampton  
NN3 6AX  
U.K.

## ADDITIONAL ITEMS REQUIRED

### Transmitter and receiver

CR151 - CODE FHSS LCD 2.4G 2 Stick 3Ch Tx+Rx  
 CR153 - CODE Sport 2.4G 2 Stick 3Ch Tx+Rx  
 CR277 - CODE Steering 2.4G 3Ch Tx+Rx



(Batteries not included)



Servo

E.S.C



Motor

Pinion Gear



Saddle Pack  
Li-Po Battery



2S Shorty  
Li-Po Battery

CR161  
UAC50 Charger  
12v/110-240v 6A



CORE RC Paint  
CR600 to CR631



CR522 CORE RC  
Pro Tyre Glue + 2 Nozzles

Tyres and Inserts



Soldering Iron  
CR266 40w  
CR275 80w

U3107 - Solder

G796 Male Connector Plugs (pk 2)

SPW1403  
High Current 14AWG Wire

U2818  
Schumacher Body Reamer



U4229 Steel Spanner - 5.5mm/3.9mm



CR044 Curved Body Scissors



U2795 M3 Nut Driver  
U2796 M4 Nut Driver



U2789 Hex Driver - 1.5mm  
U2790 Hex Driver - 2.0mm  
U2791 Hex Driver - 2.5mm



Schumacher Racing stocks and distributes the following manufacturers products and full product listings are available on our website at [www.racing-cars.com](http://www.racing-cars.com)

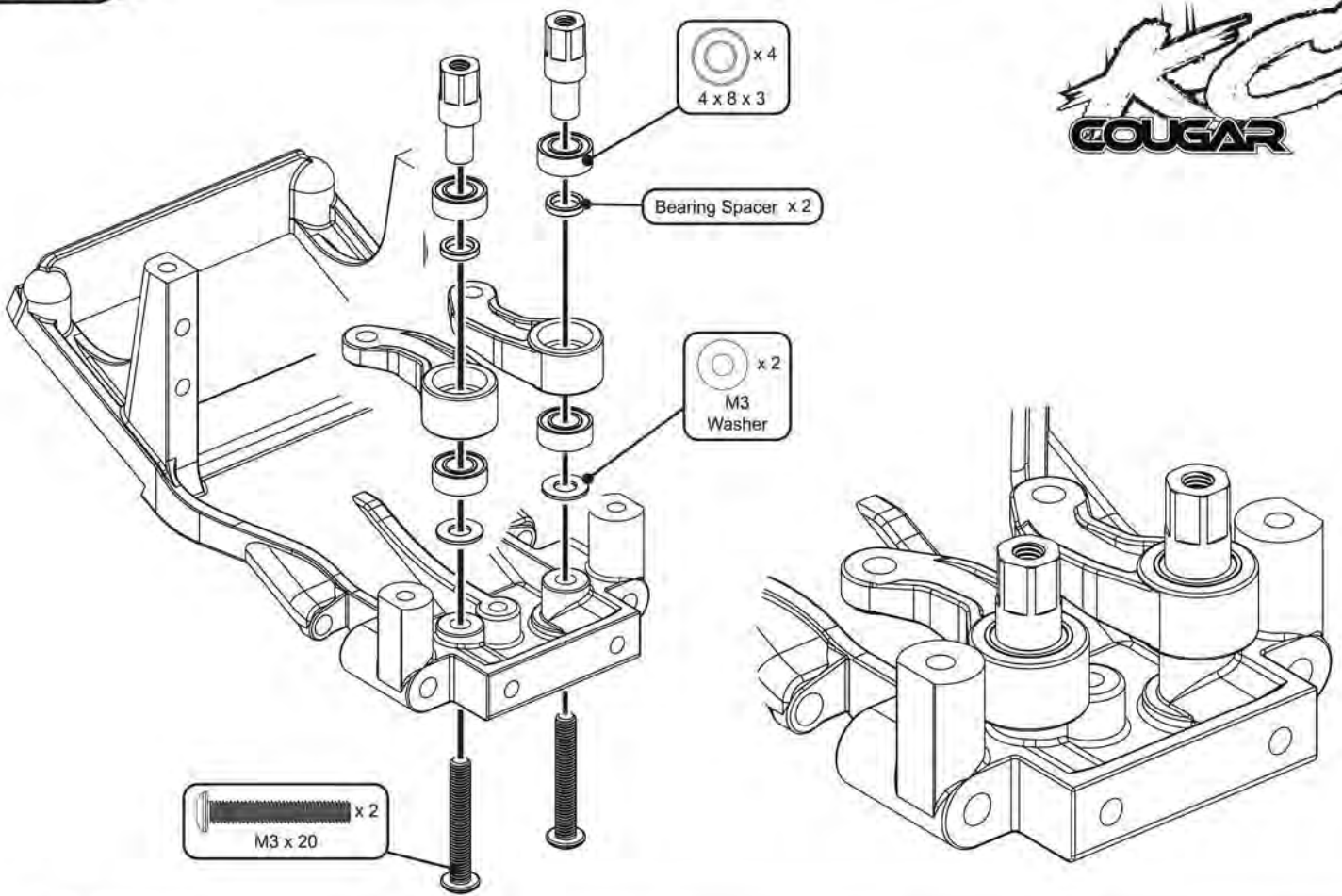
PLEASE NOTE THAT SOME OF THE PRODUCT RANGES BELOW ARE ONLY AVAILABLE IN THE UNITED KINGDOM.



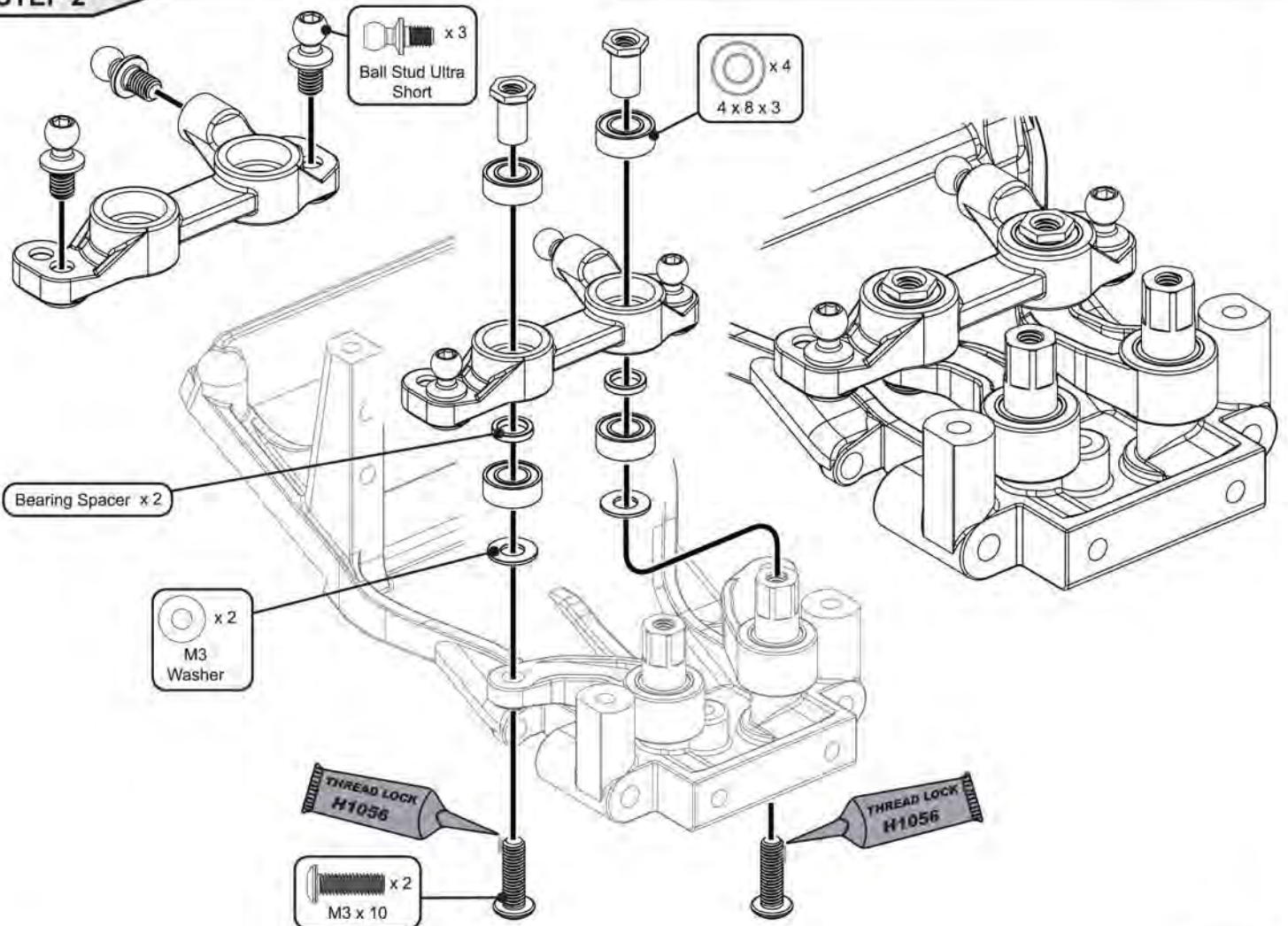
### IMPORTANT SAFETY NOTES

- This product is not suitable for children under the age of 14, without the direct supervision of a responsible adult.
- Select an area for assembly that is away from the reach of small children.
- The parts in this kit are small and can be swallowed by children causing choking and possible internal injuries.
- Exercise care when using hand tools and sharp instruments during assembly.
- Carefully read all manufacturers warnings and cautions for any additional items used in the construction.
- In line with our policy of continuous development the exact details of the kit may vary.
- DO NOT use this car on public roads or in places where it can interfere with traffic, people or animals.
- Always check the operation of the radio with the wheels off the ground, before using the car.
- Make sure the radio and car batteries are fully charged before use.
- Disconnect and remove the battery from the car when not in use.
- Always store and charge LiPo batteries in a fireproof container.
- DO NOT put fingers or any objects inside rotating or moving parts as this may cause injury.
- Make sure the charger is correctly set for the type of battery you are using. Incorrect charging may cause a fire.
- Insulate all exposed electrical wiring. Exposed or damaged wires can cause short circuits and fire.
- The motor and speed controller can become hot during use. DO NOT touch them immediately after using your car as this may cause injury.

STEP 1



STEP 2



**STEP 3**



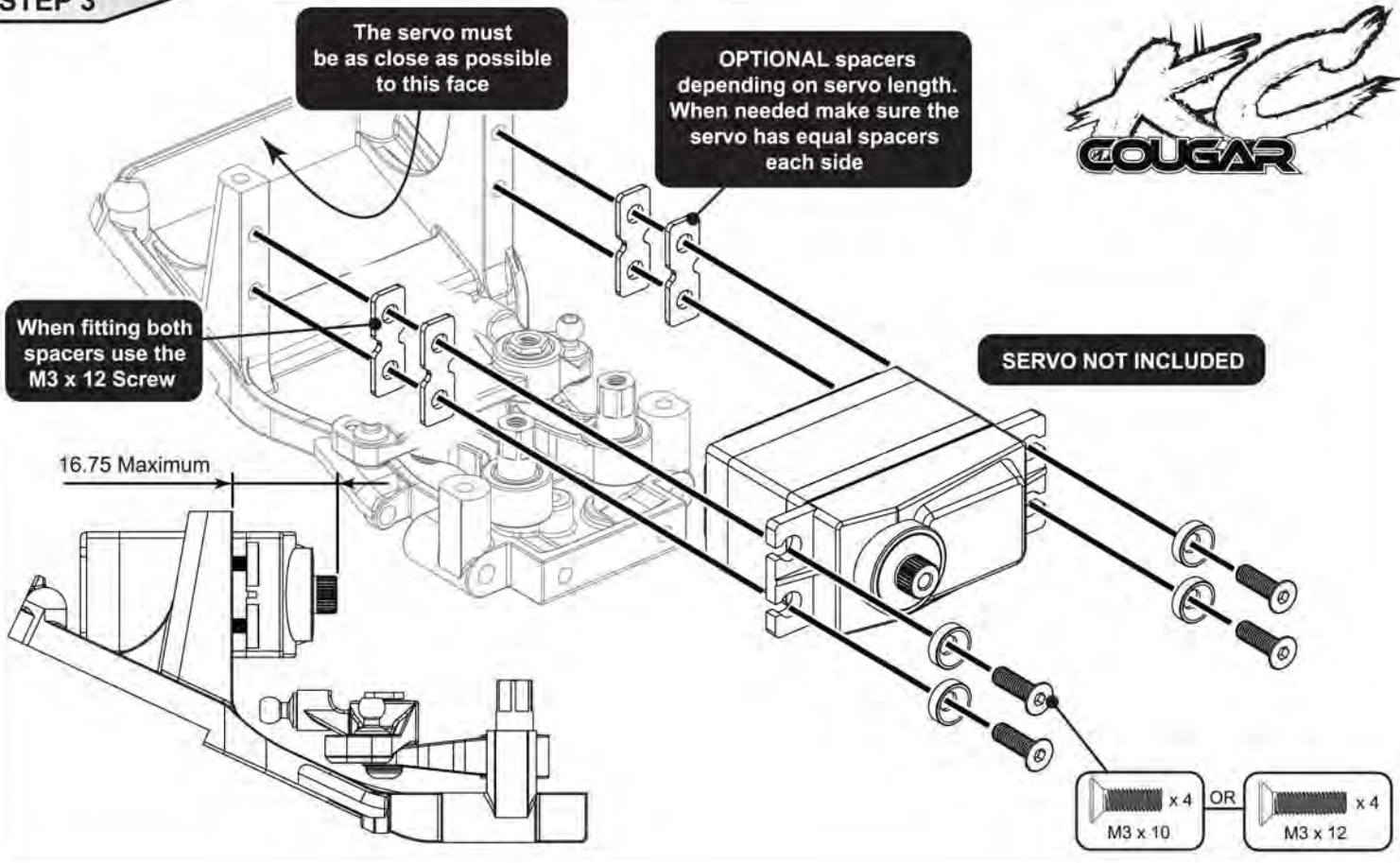
The servo must be as close as possible to this face

OPTIONAL spacers depending on servo length. When needed make sure the servo has equal spacers each side

When fitting both spacers use the M3 x 12 Screw

SERVO NOT INCLUDED

16.75 Maximum



**STEP 4**

M3 x 14 x 1

Before you assemble the servo horn, connect up your radio gear and set the steering servo to neutral.

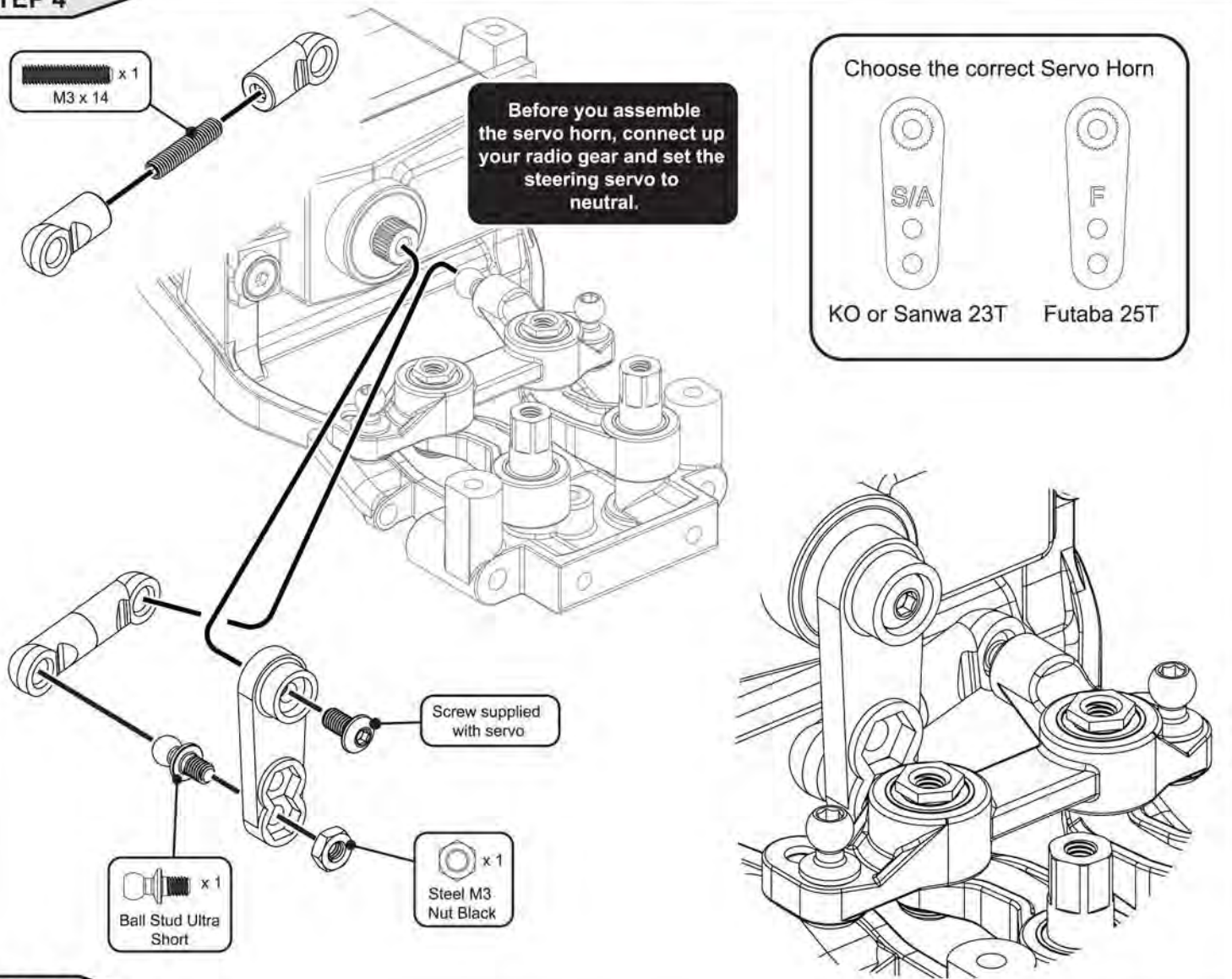
Choose the correct Servo Horn

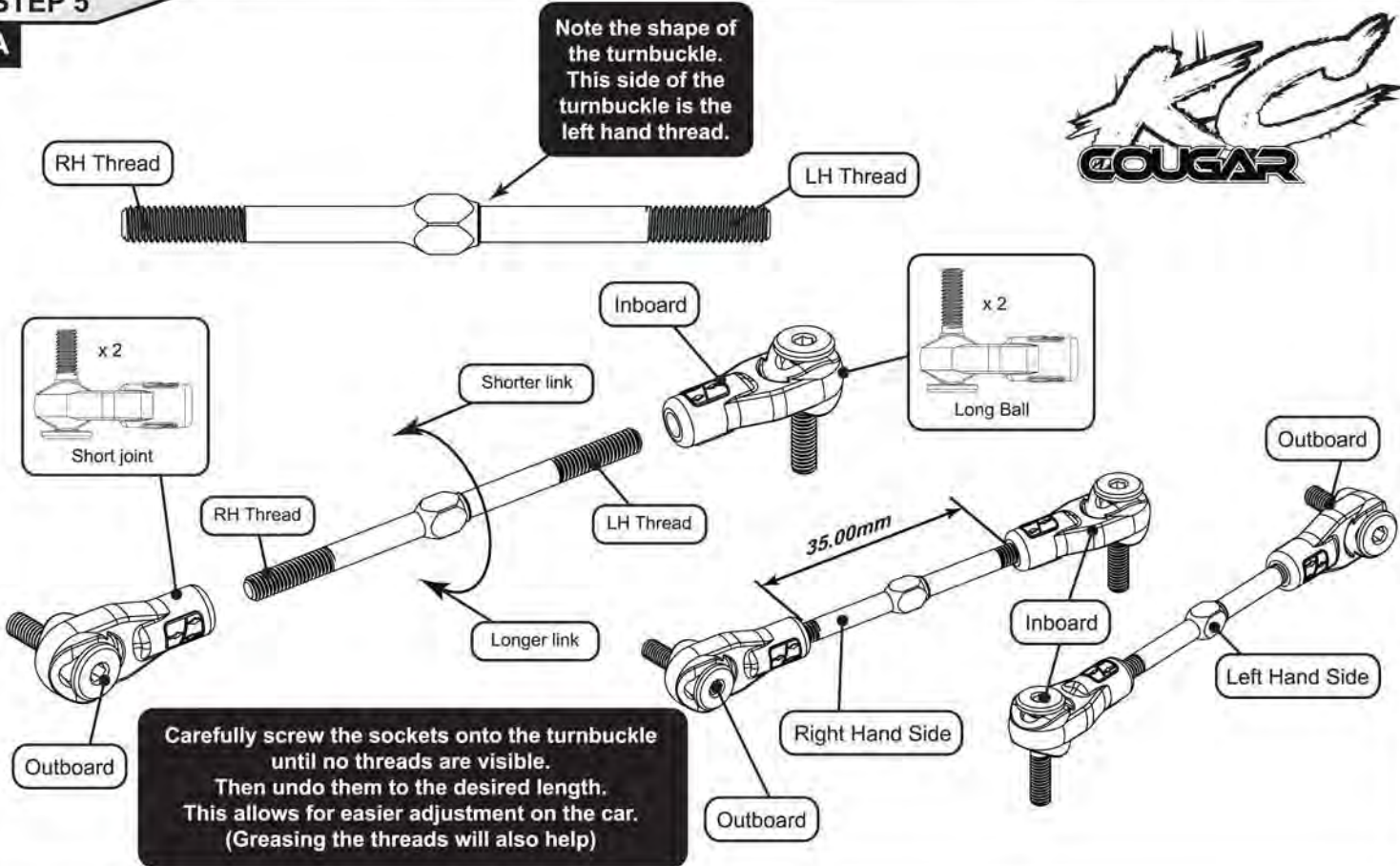
KO or Sanwa 23T      Futaba 25T

Screw supplied with servo

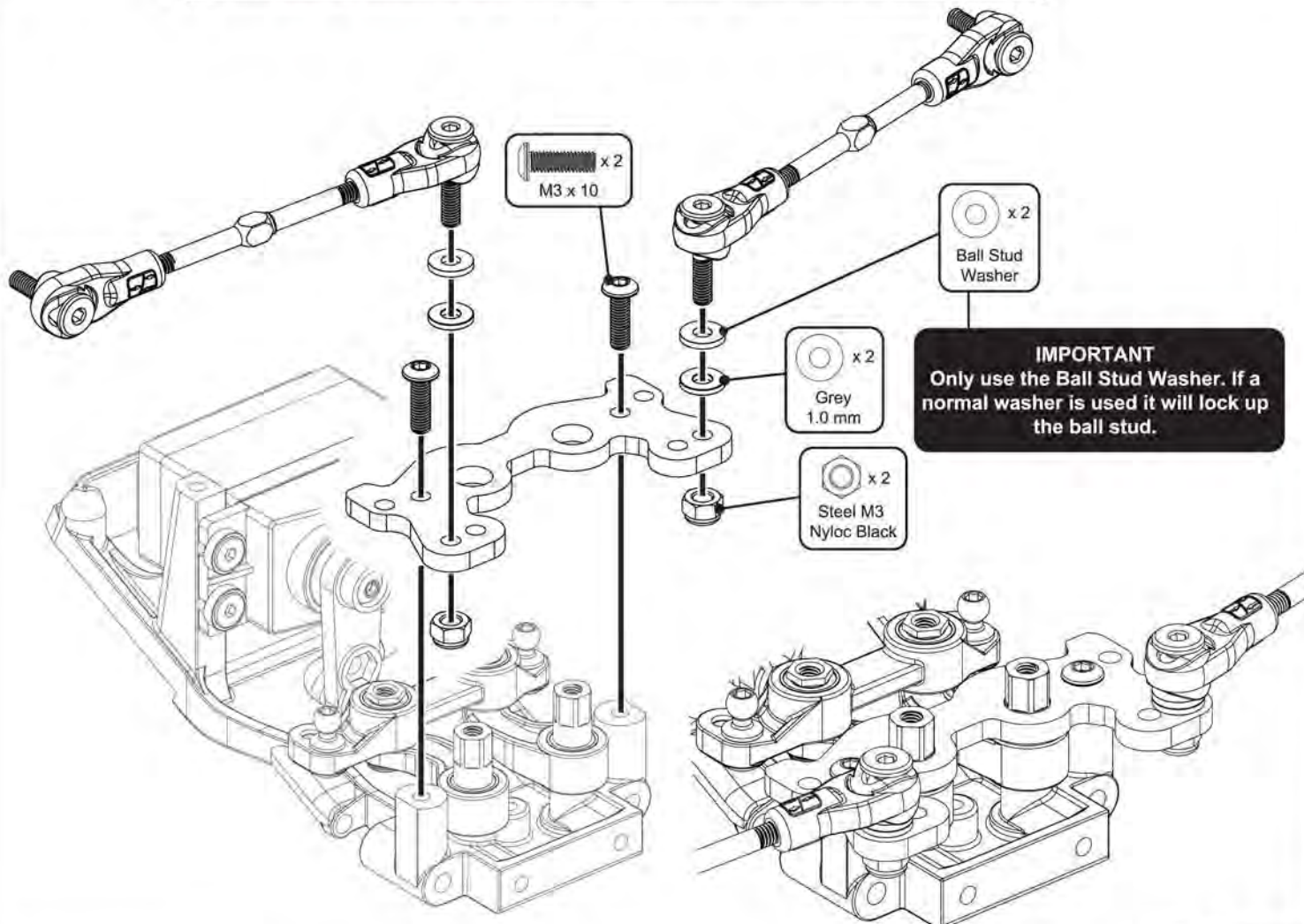
Ball Stud Ultra Short x 1

Steel M3 Nut Black x 1

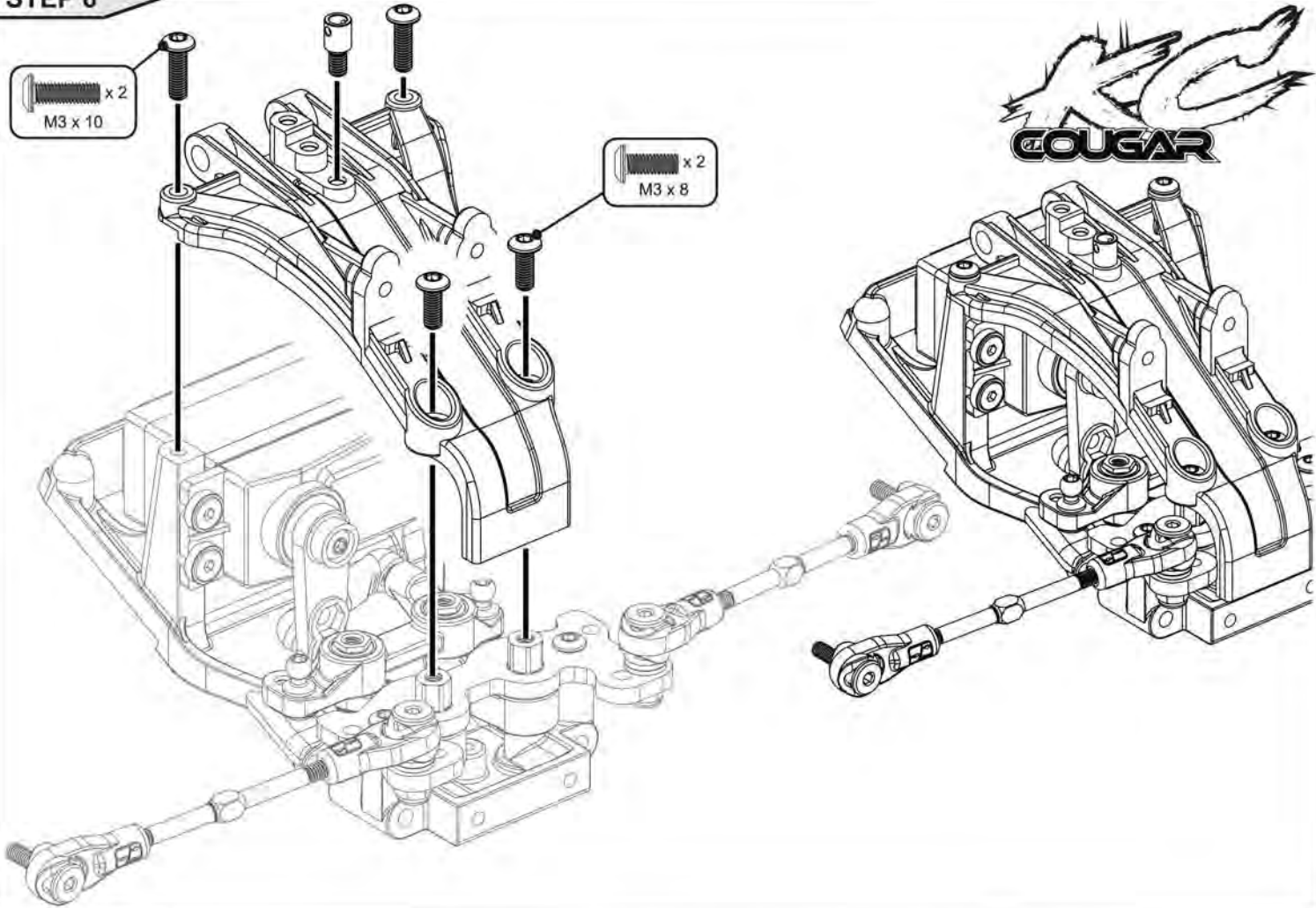


**STEP 5****A****STEP 5****B**

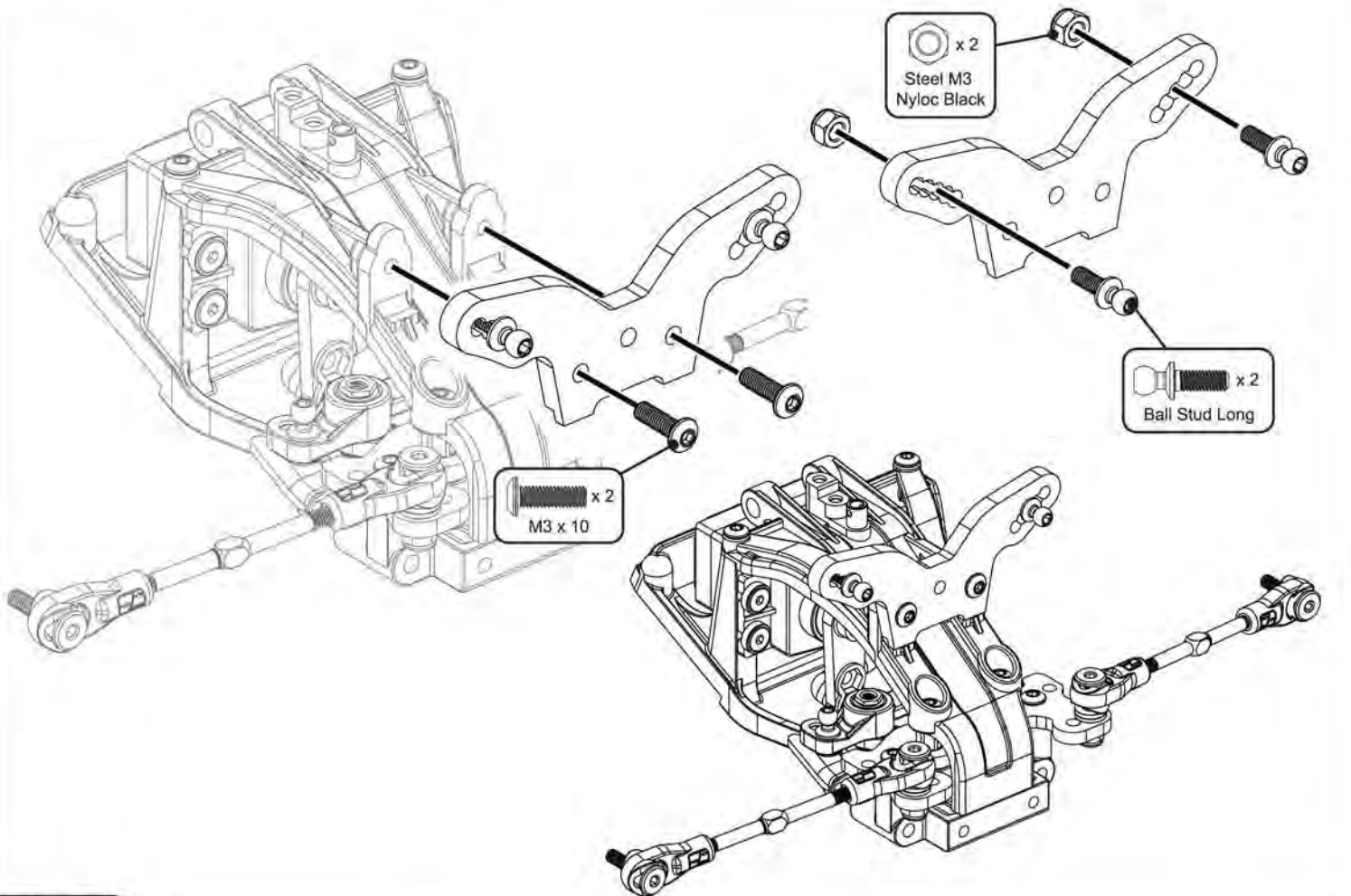
**IMPORTANT**  
Peel off the protective film from **ALL** carbon fibre parts before assembly.



STEP 6



STEP 7



**STEP 8**



The grub screw tightens against this face.

x 2  
M3 x 3

R.H Side End View

R.H Side End View

5°

L.H Side End View

L.H Side End View

5°

**STEP 9**

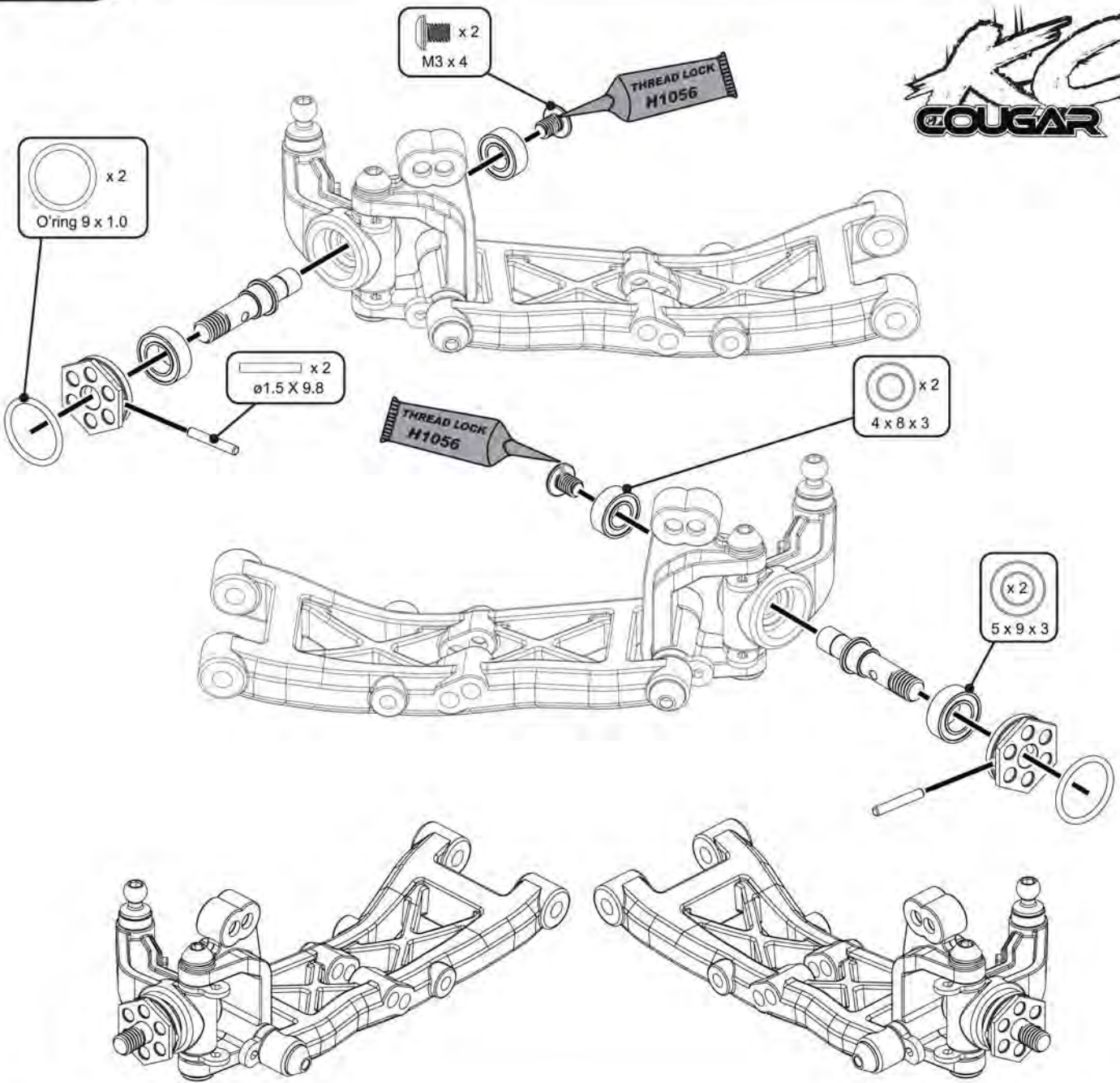
x 2  
Ball Stud Long

L.H Side

x 2  
Black  
2.0 mm

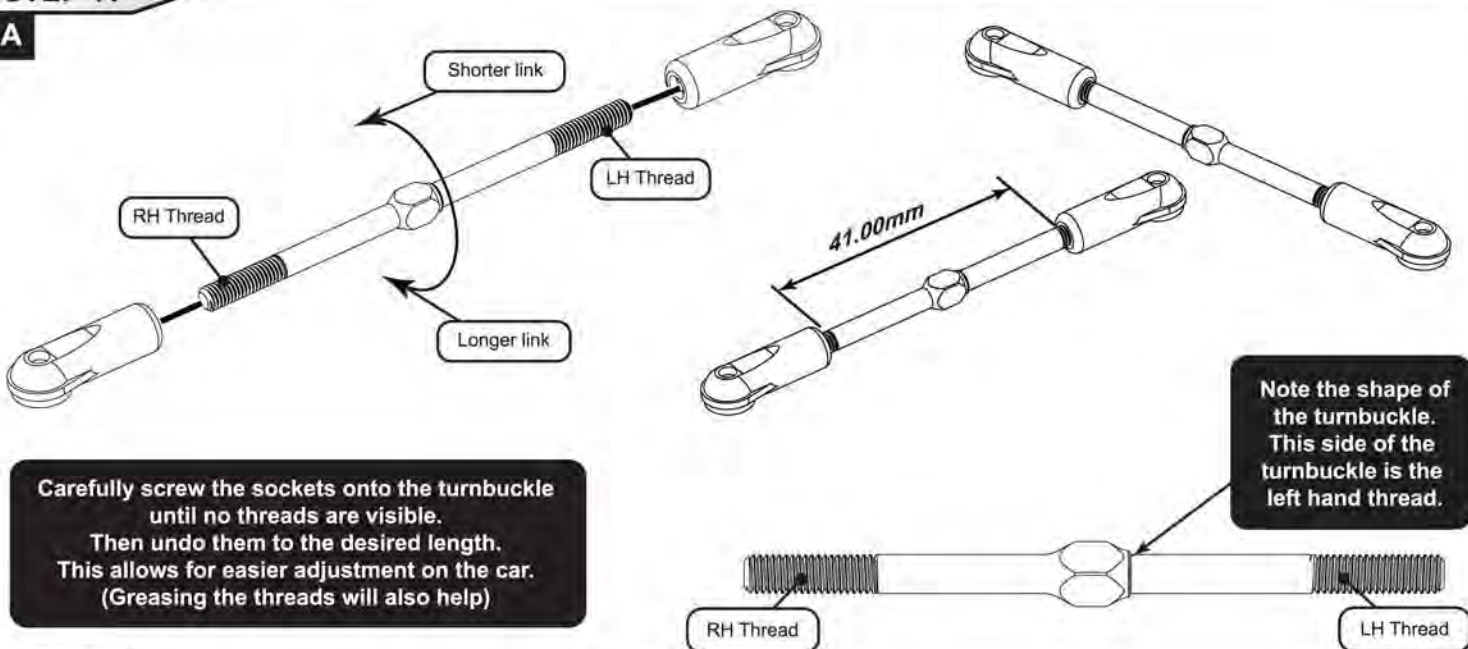
R.H Side

**STEP 10**



**STEP 11**

**A**



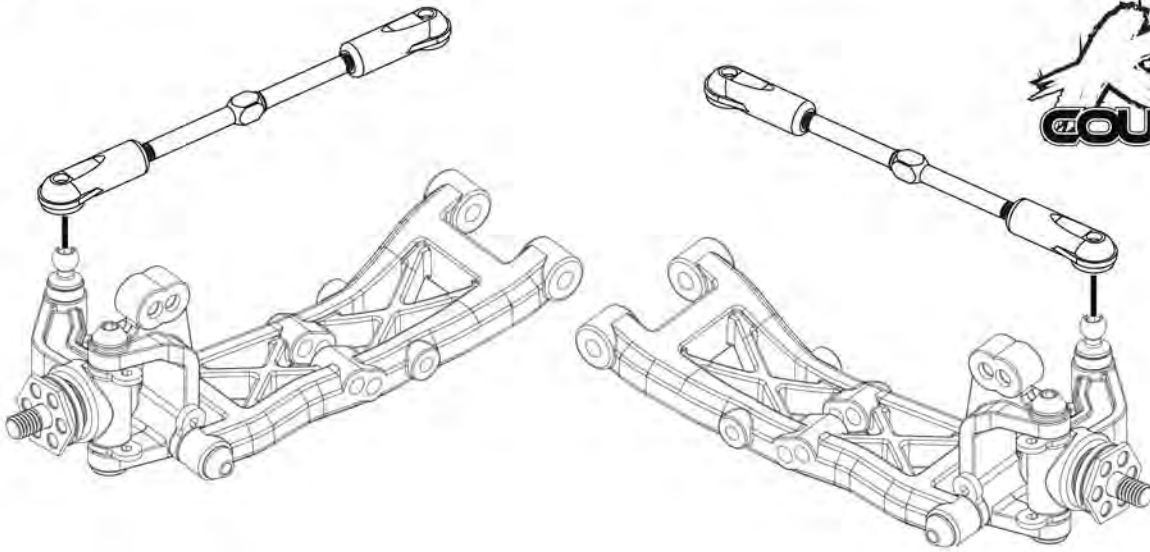
Carefully screw the sockets onto the turnbuckle until no threads are visible. Then undo them to the desired length. This allows for easier adjustment on the car. (Greasing the threads will also help)

Note the shape of the turnbuckle. This side of the turnbuckle is the left hand thread.

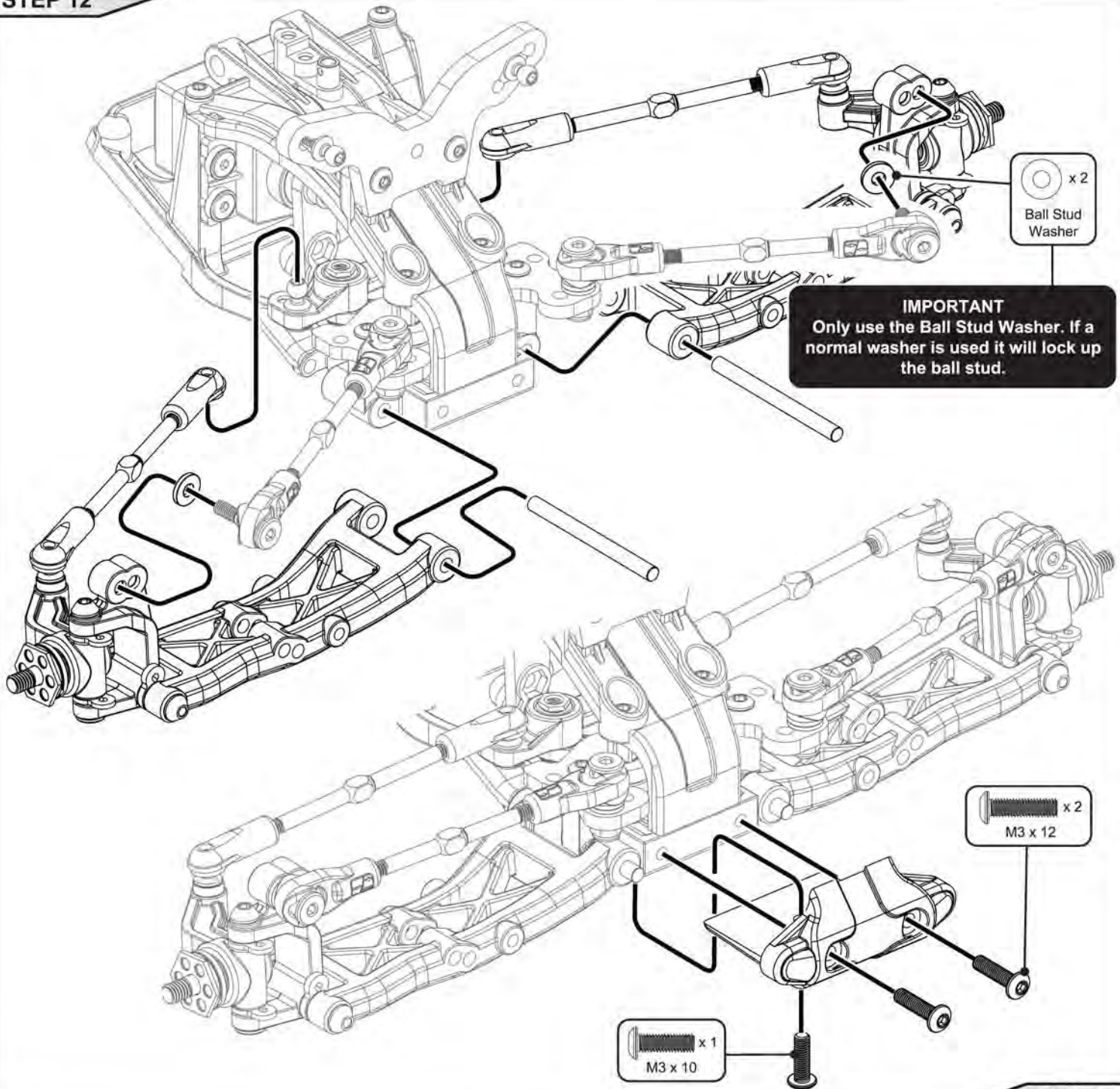


STEP 11

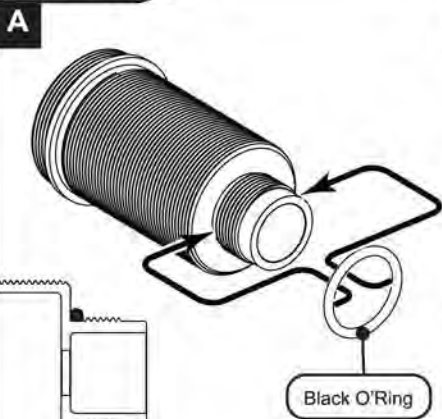
B



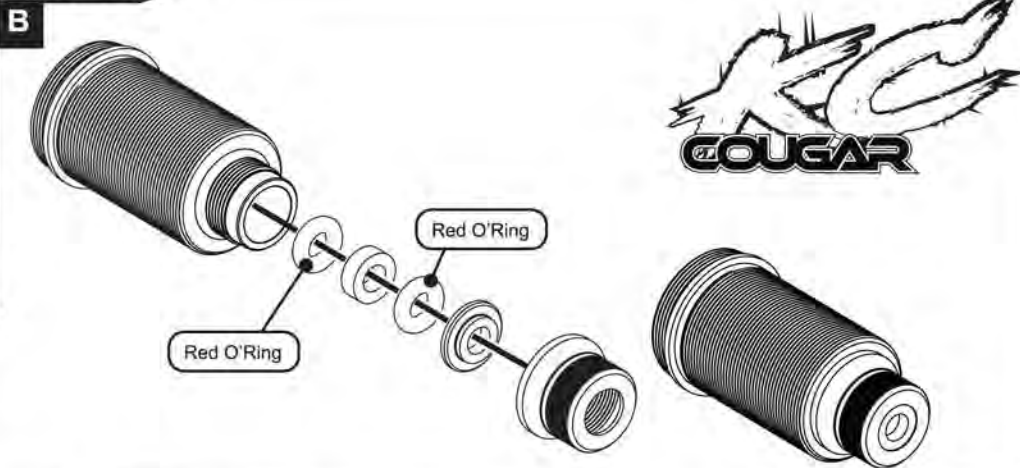
STEP 12



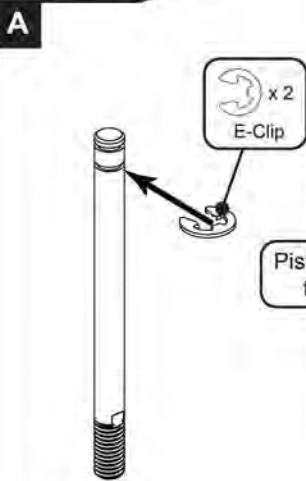
STEP 13



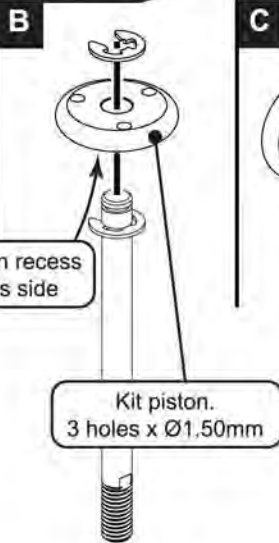
STEP 13



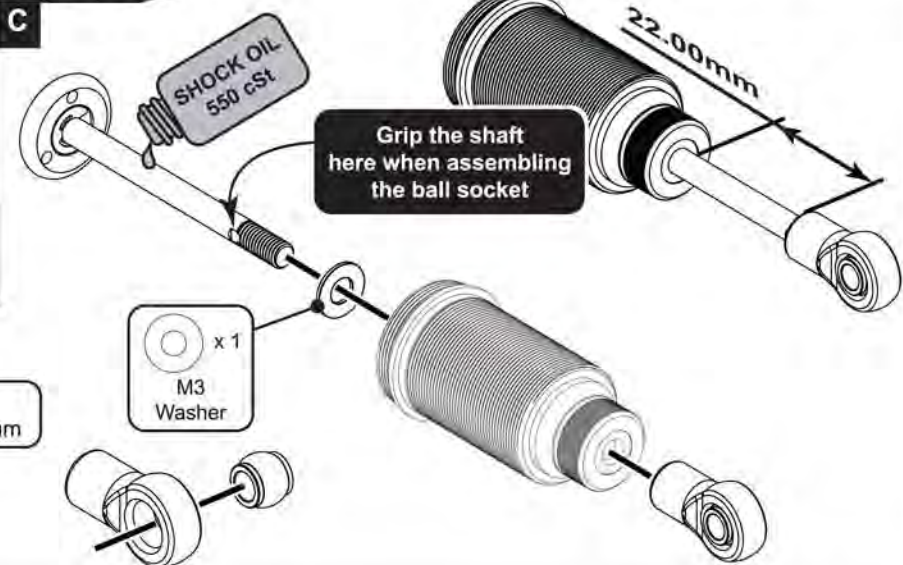
STEP 14



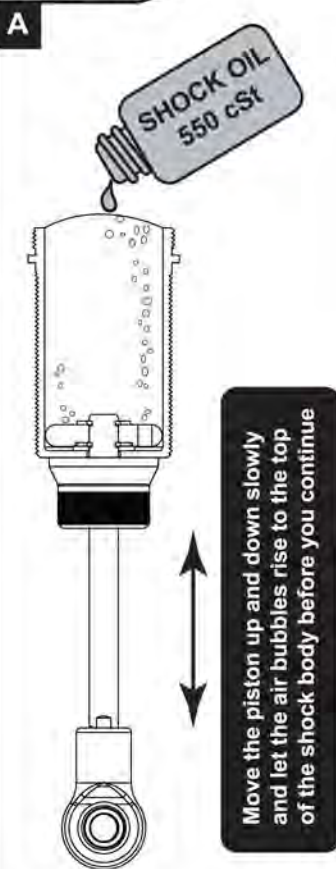
STEP 14



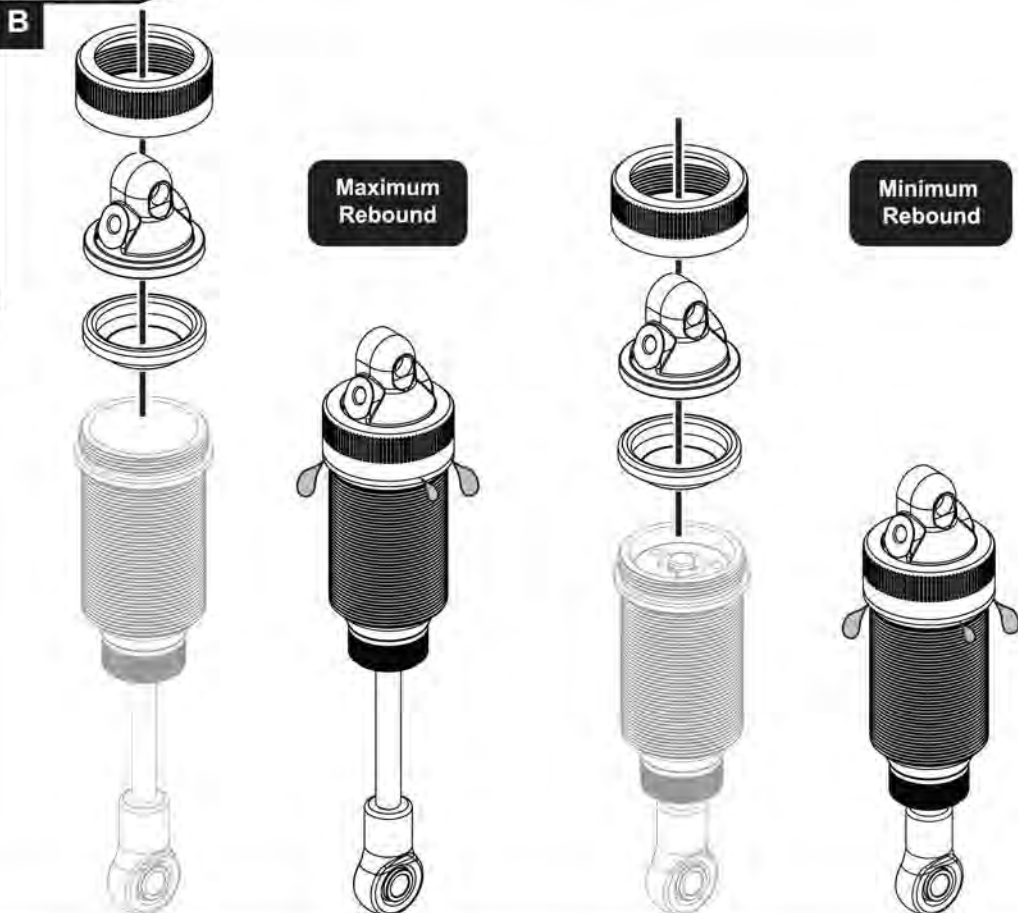
STEP 14



STEP 15

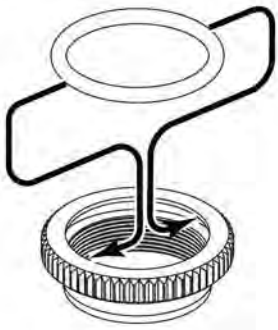


STEP 15



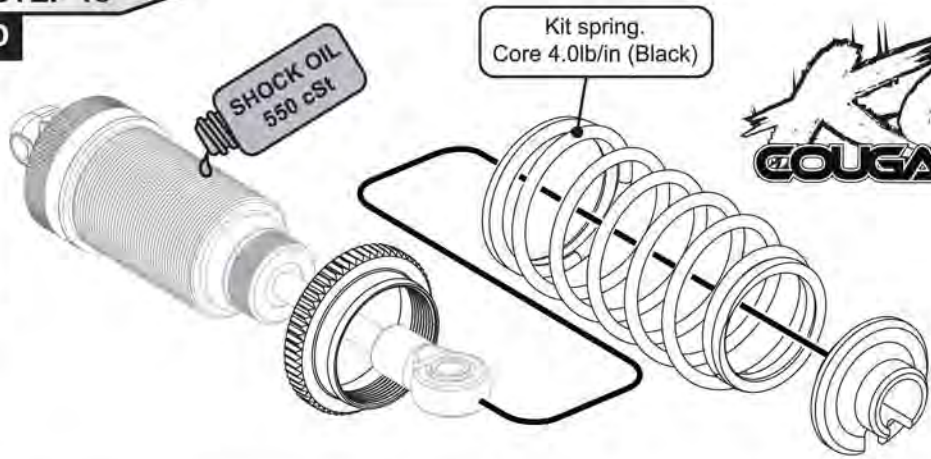
STEP 15

C

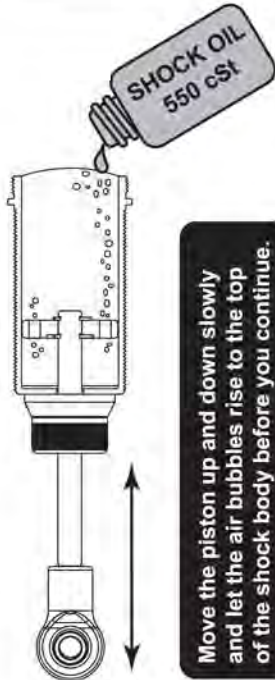
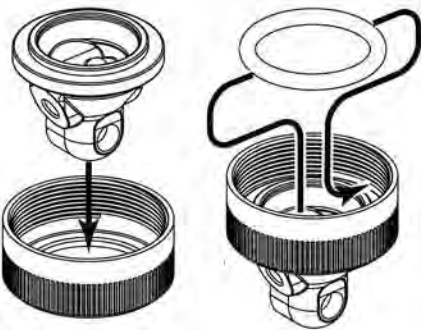


STEP 15

D



Optional Emulsion Shock



Move the piston up and down slowly and let the air bubbles rise to the top of the shock body before you continue.

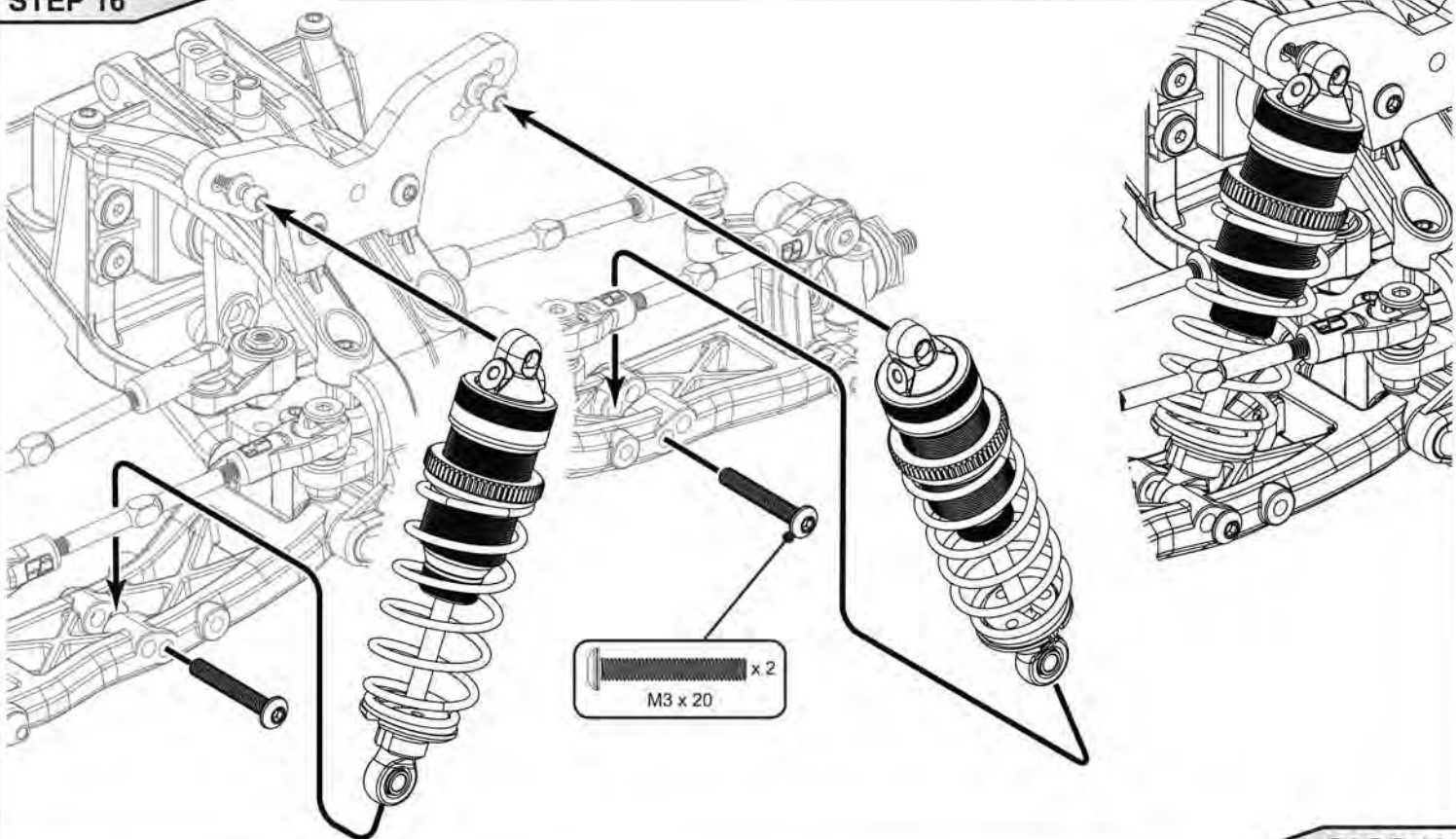


Screw the cap and O'ring onto the body. Then tighten the cap fully and undo two full turns.

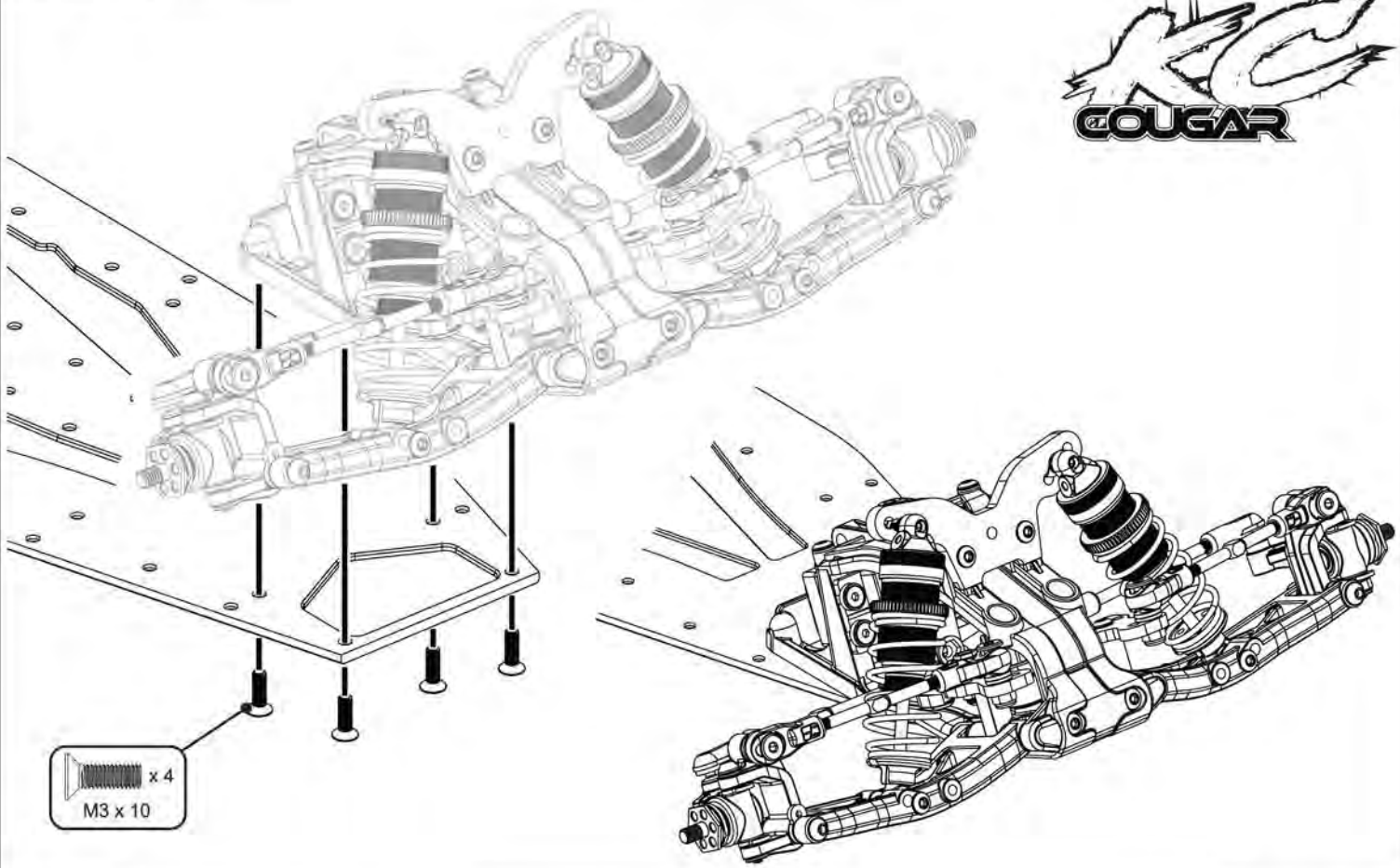


Fully compress the shaft into the body. Once the excess oil has been expelled from the shock, then fully tighten the cap.

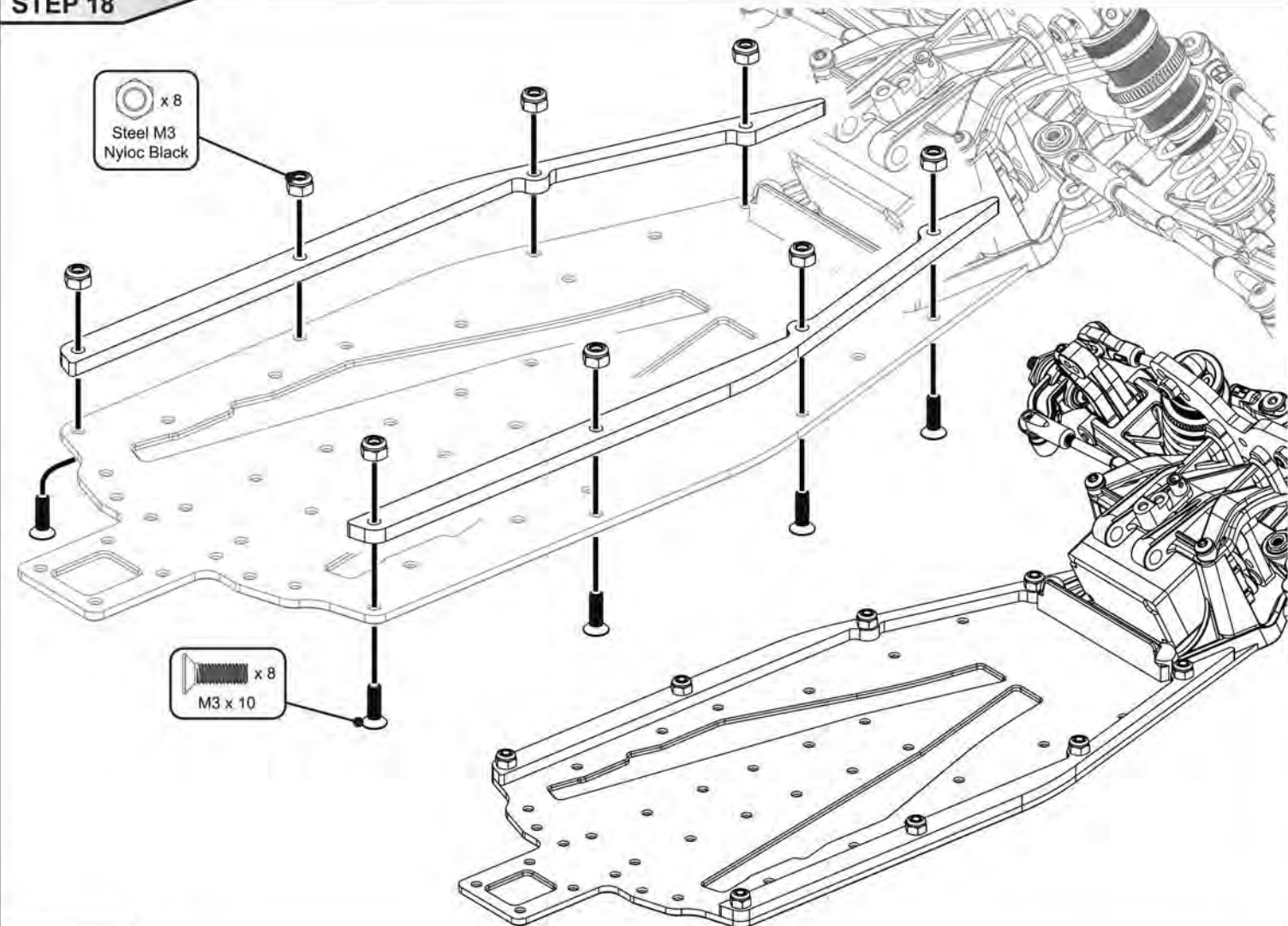
STEP 16



STEP 17



STEP 18

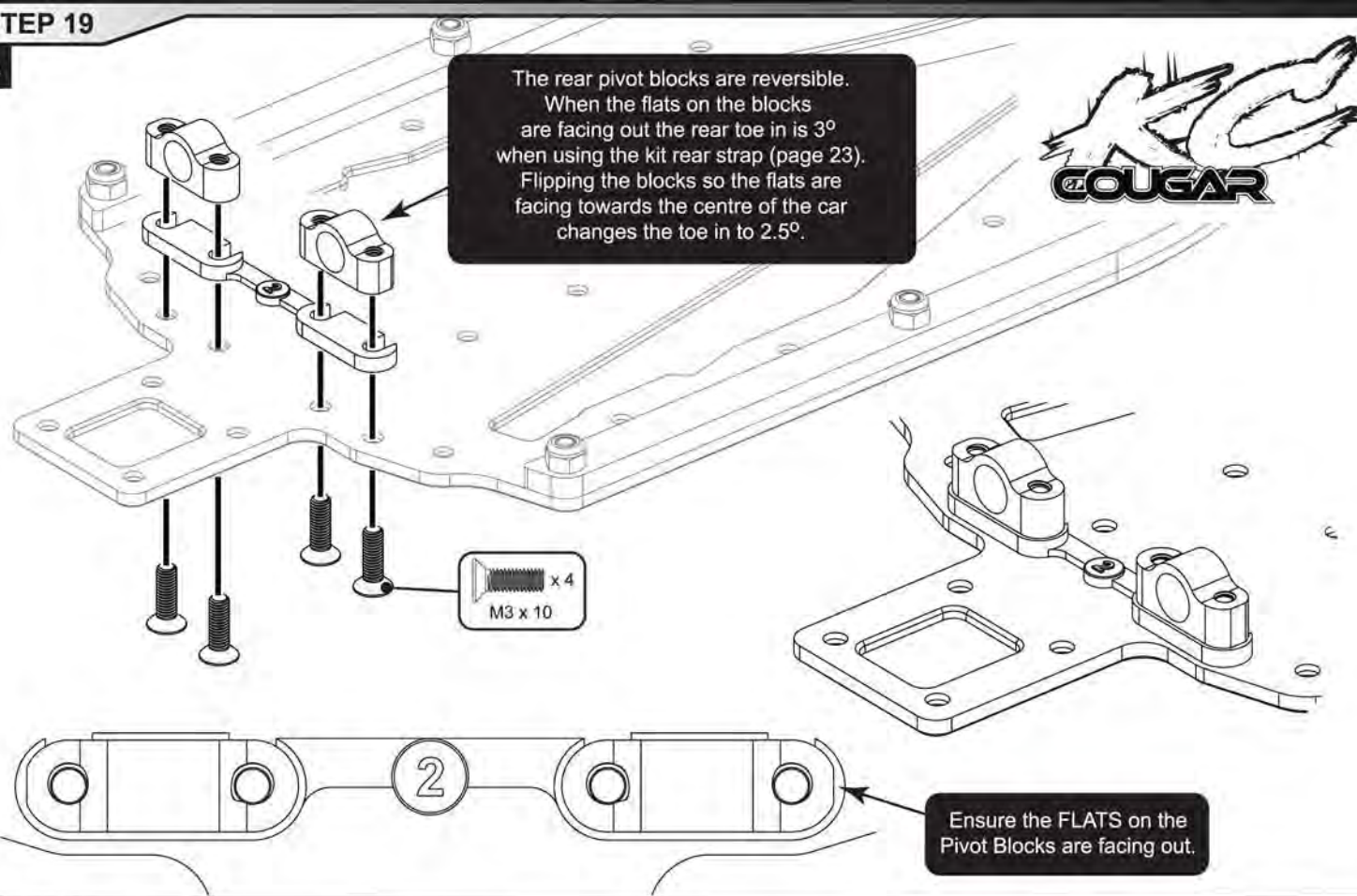


**STEP 19**

**A**

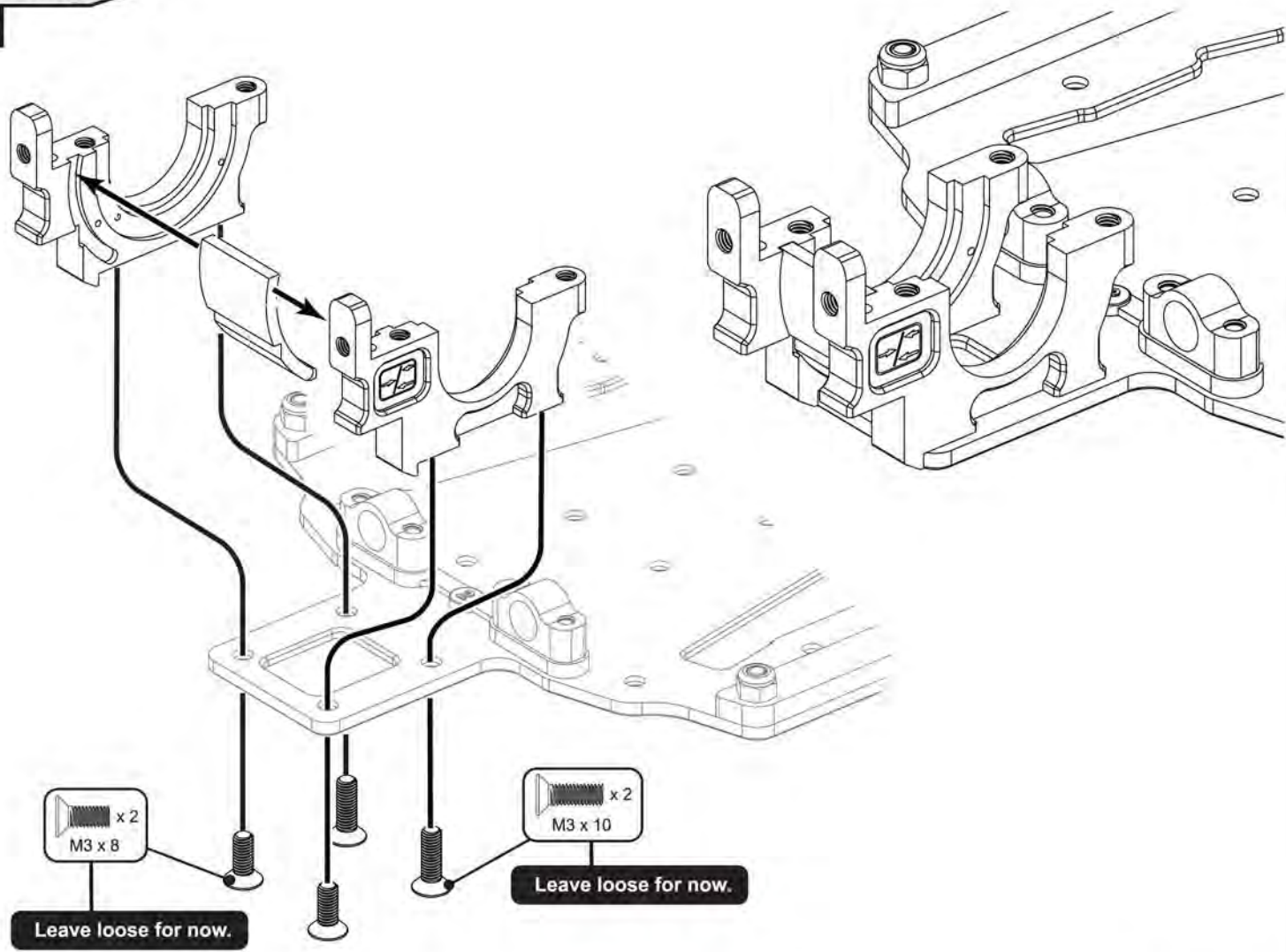


The rear pivot blocks are reversible.  
When the flats on the blocks are facing out the rear toe in is 3° when using the kit rear strap (page 23).  
Flipping the blocks so the flats are facing towards the centre of the car changes the toe in to 2.5°.



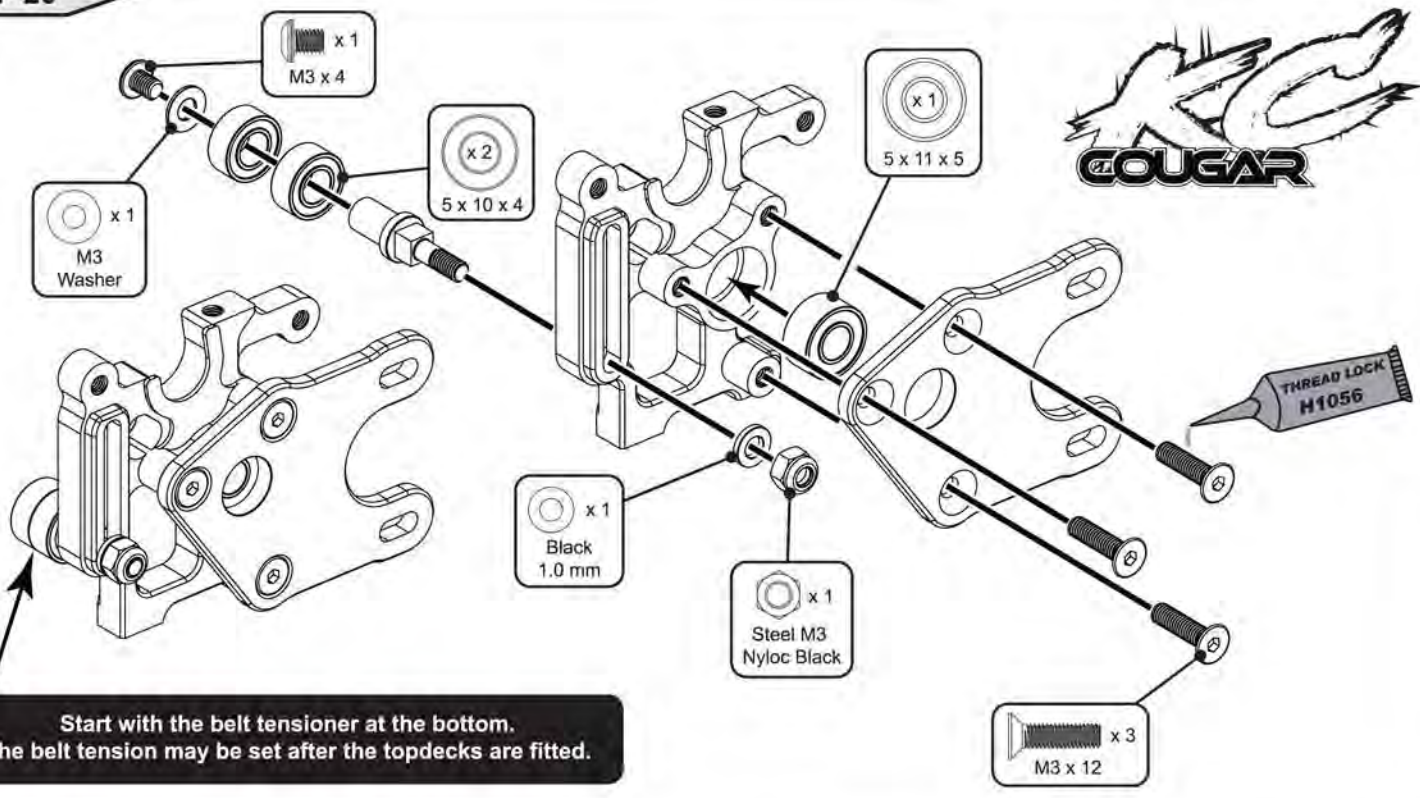
**STEP 19**

**B**



**STEP 20**

**A**

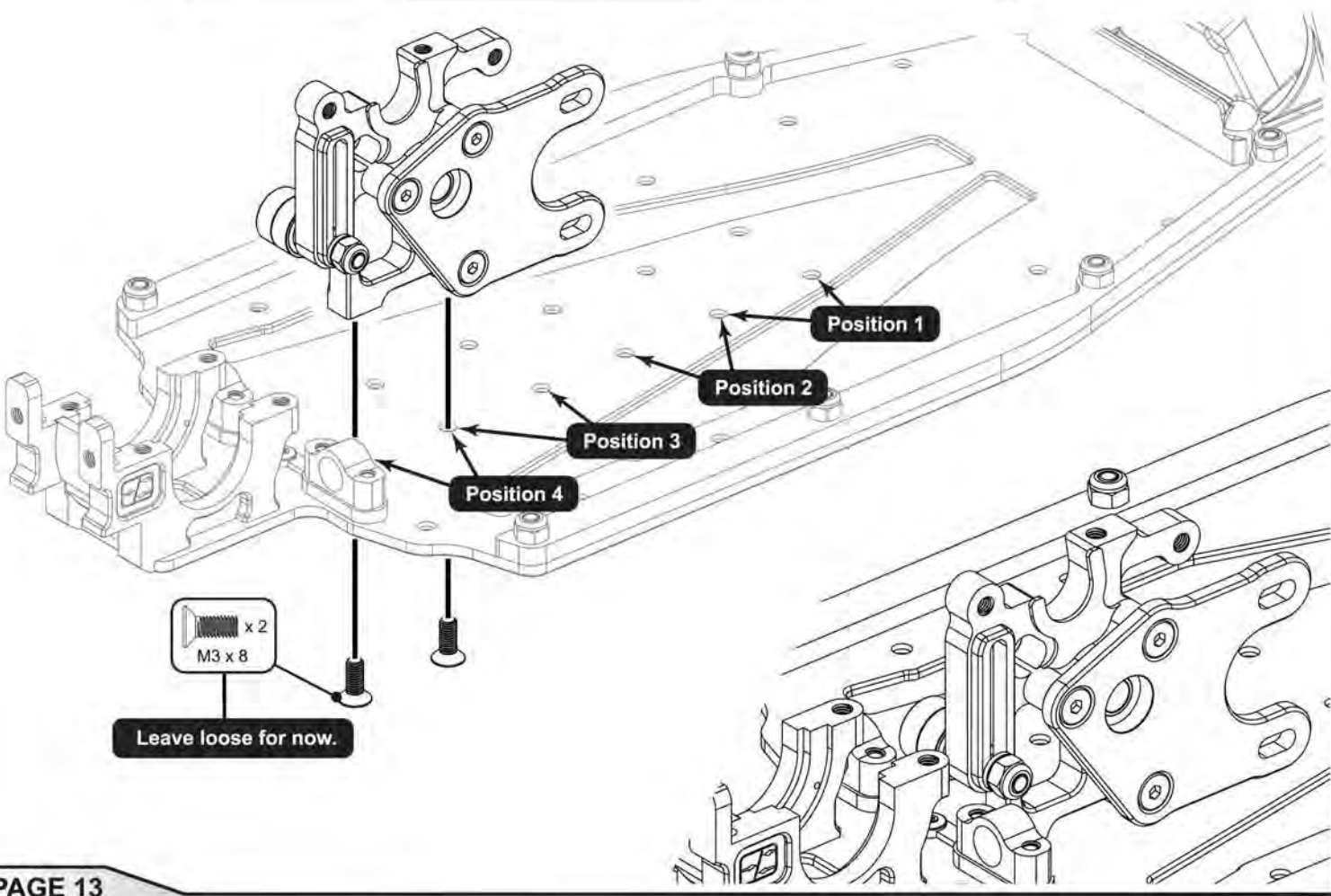


Start with the belt tensioner at the bottom. The belt tension may be set after the topdecks are fitted.

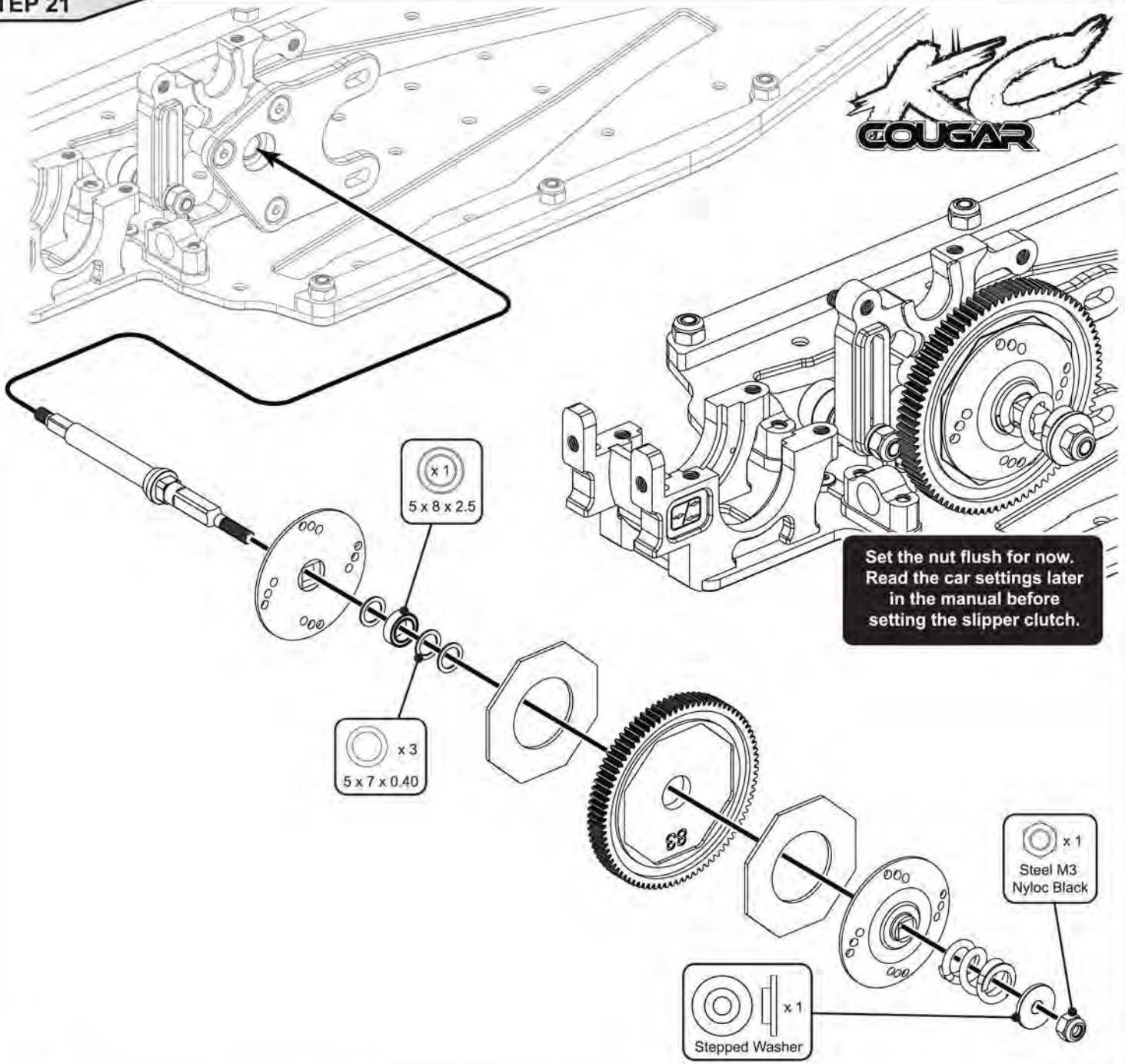
**STEP 20**

**B**

**TRANSMISSION POSITION OPTIONS**  
 Position 1. For tight technical high grip carpet tracks.  
 Position 2. For more open high grip carpet tracks.  
 Position 3. For high grip astro turf or lower grip carpet tracks.  
 Position 4. For astro with sand and worn carpet.

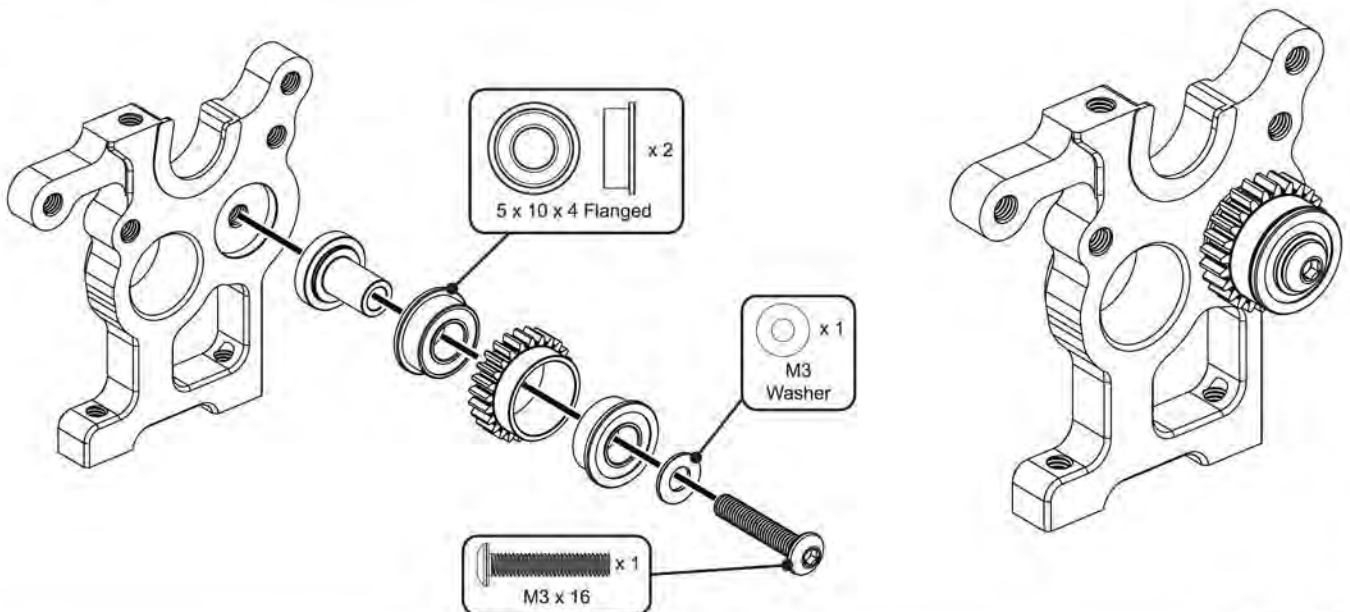


STEP 21



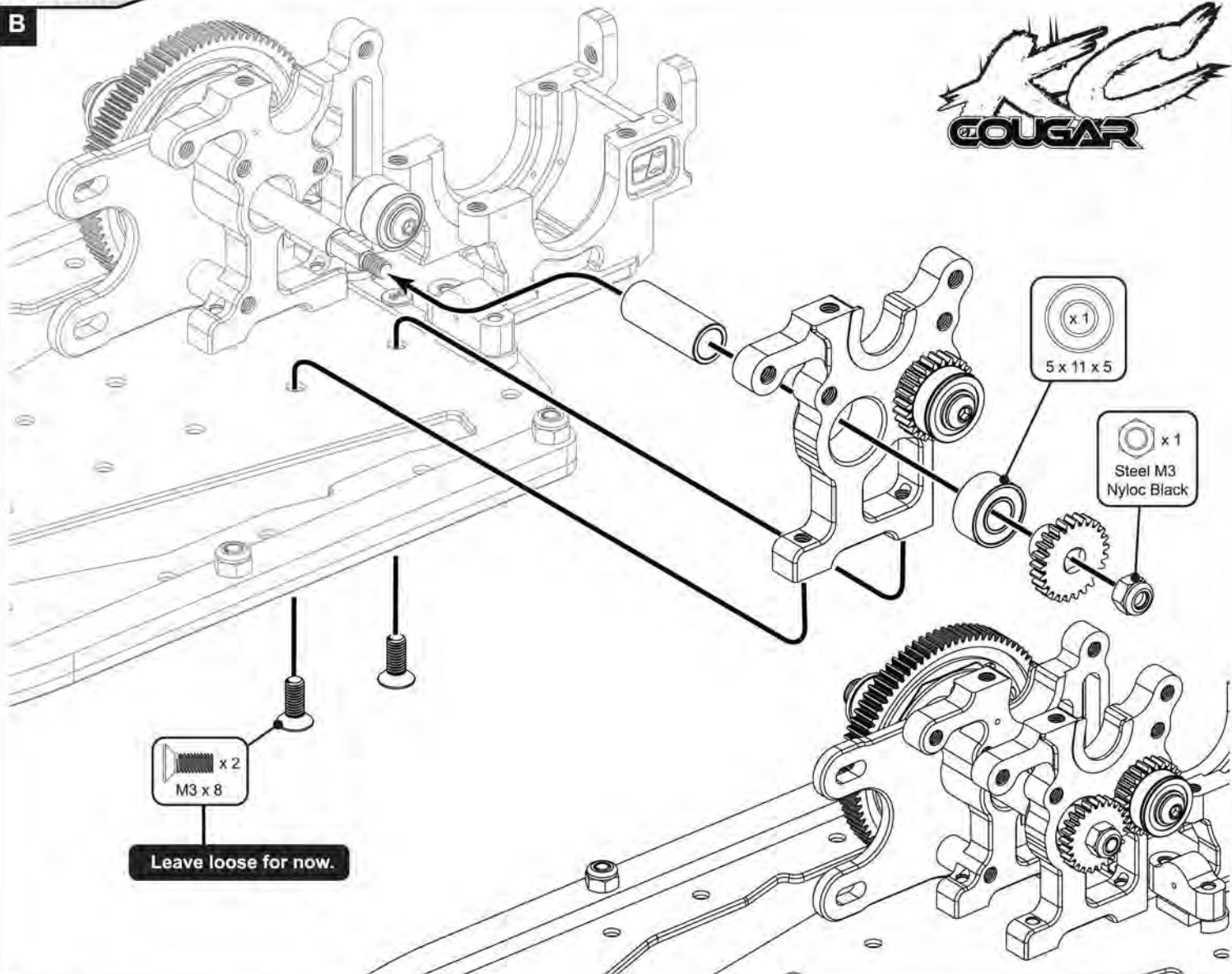
STEP 22

A

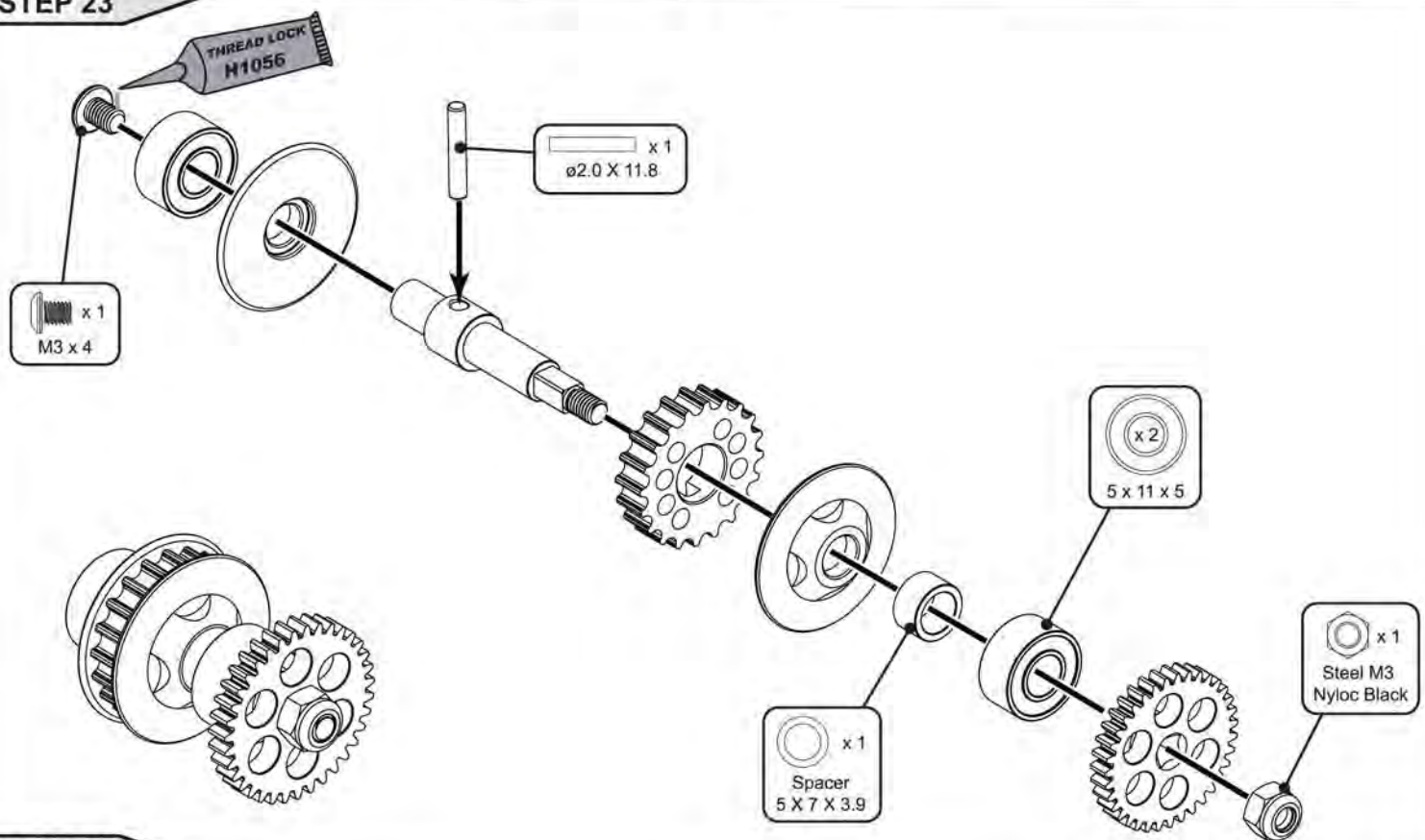


STEP 22

B



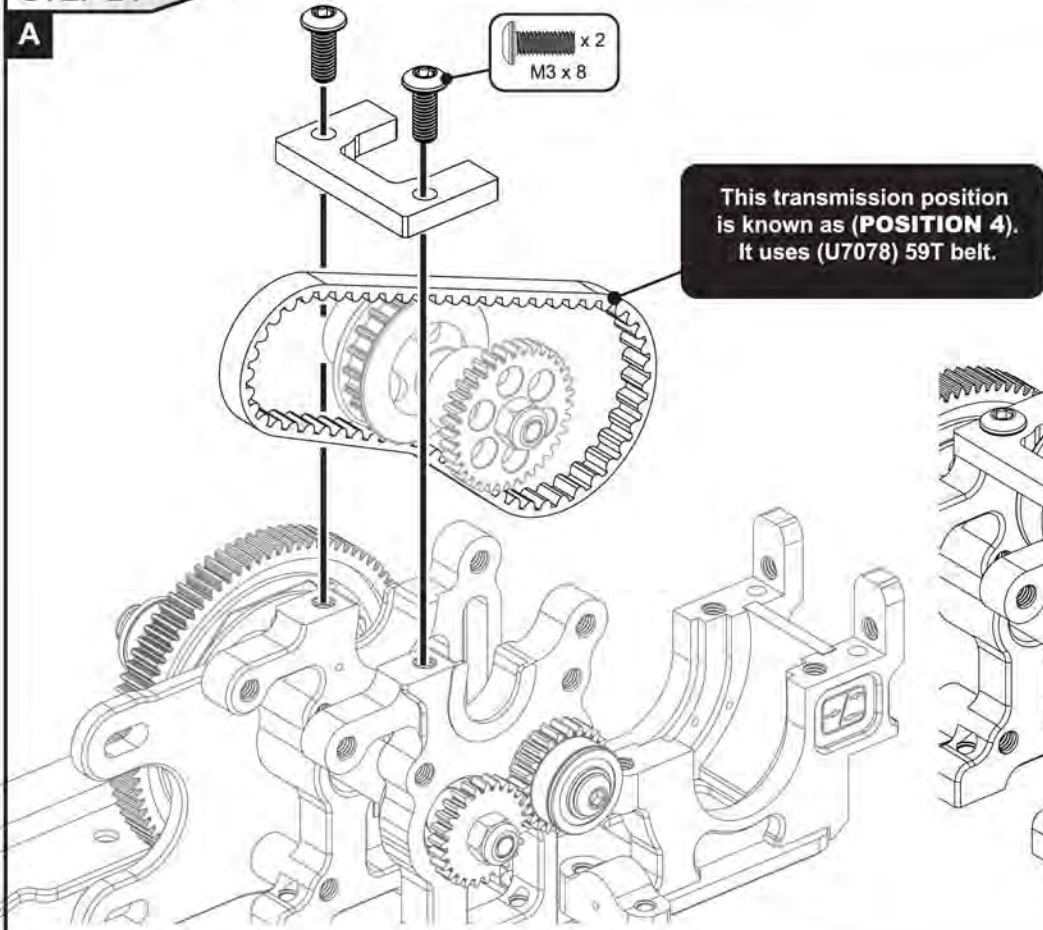
STEP 23



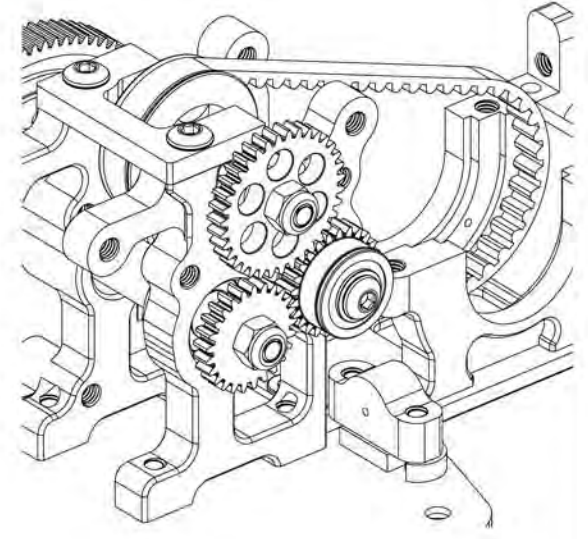


STEP 24

A

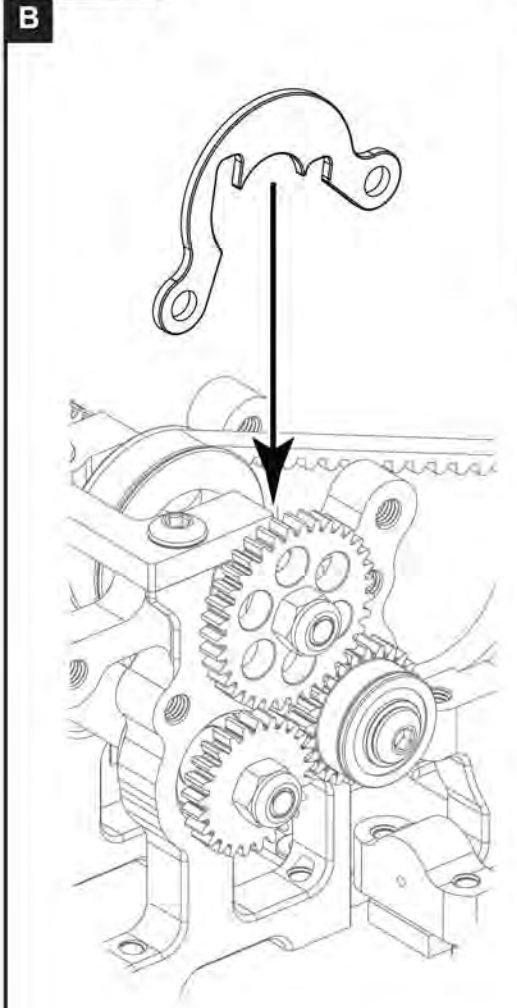


This transmission position is known as **(POSITION 4)**. It uses (U7078) 59T belt.



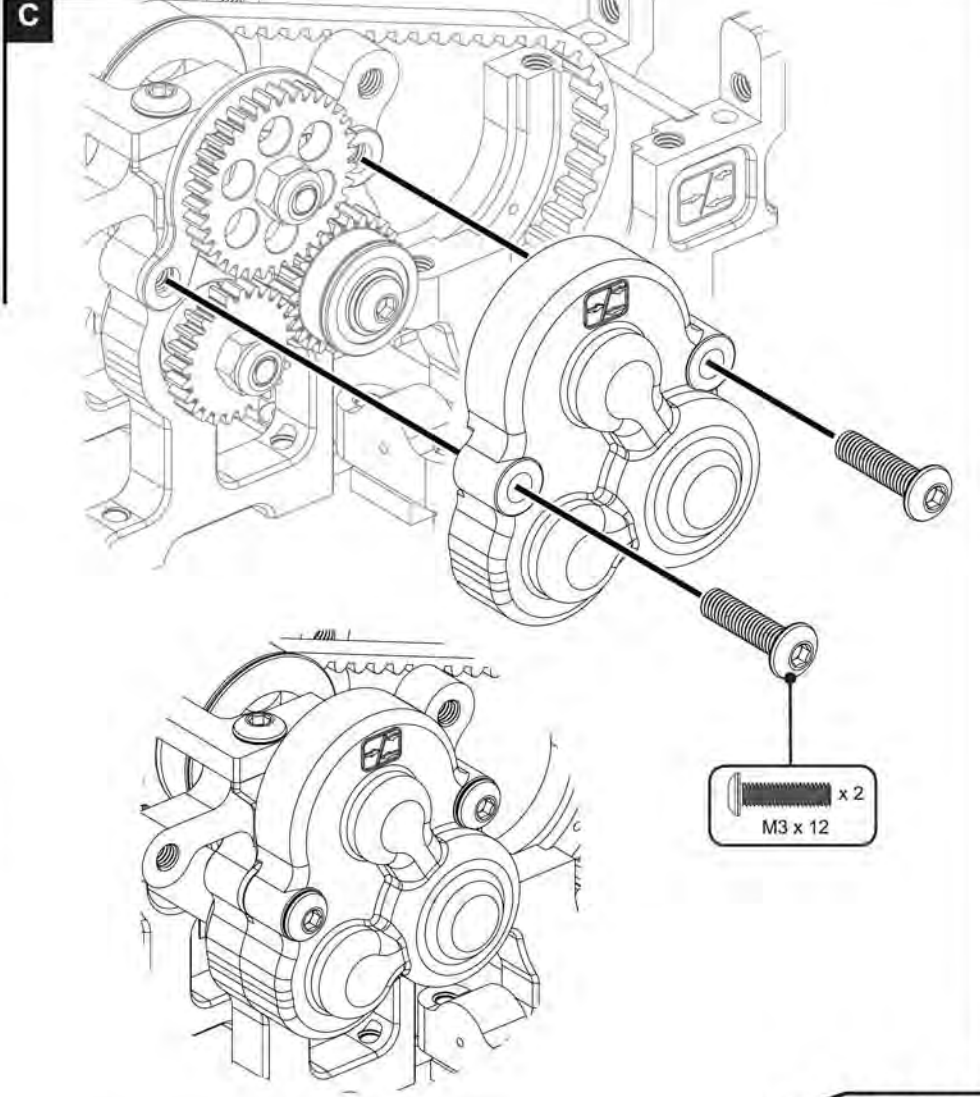
STEP 24

B



STEP 24

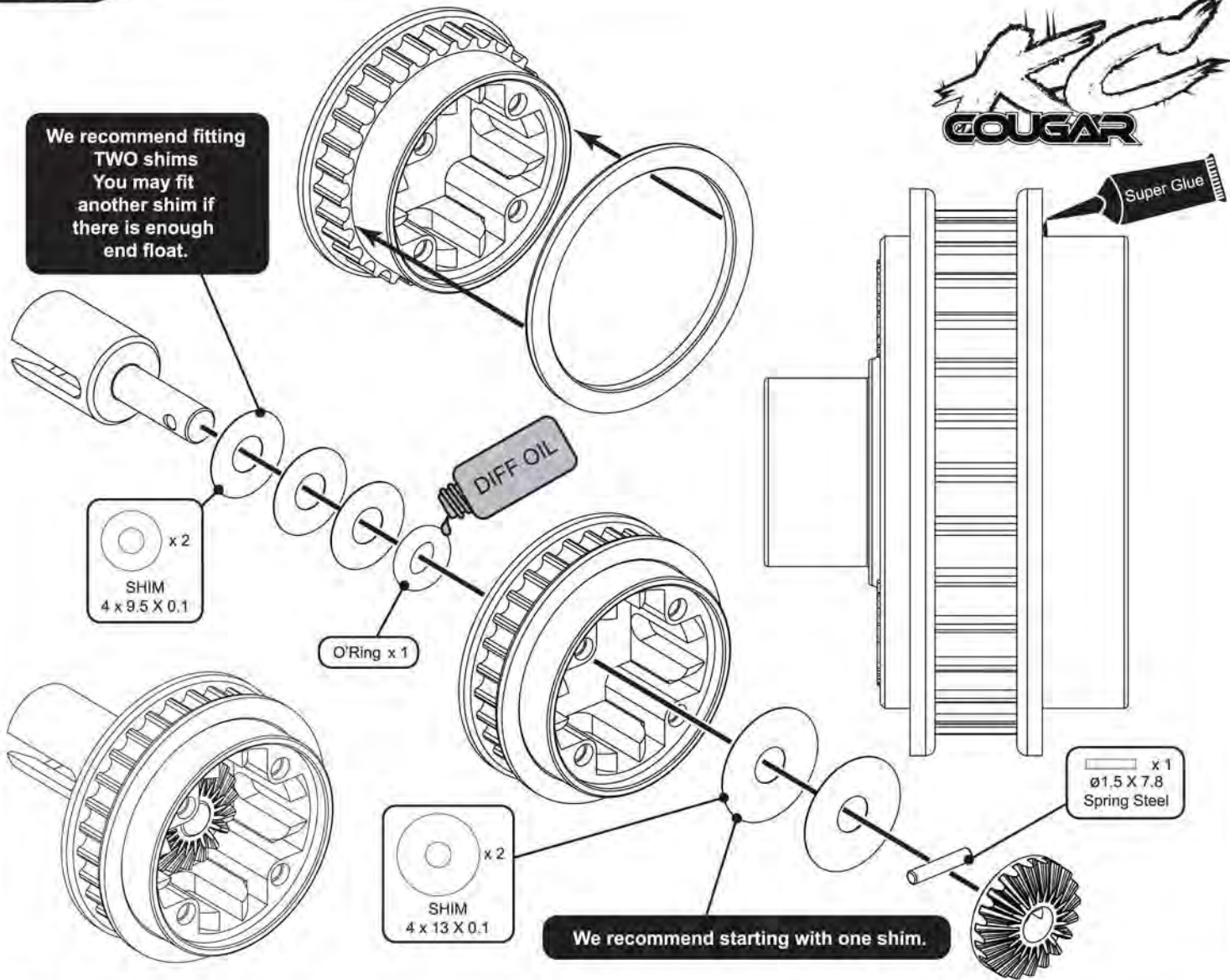
C



**STEP 25**

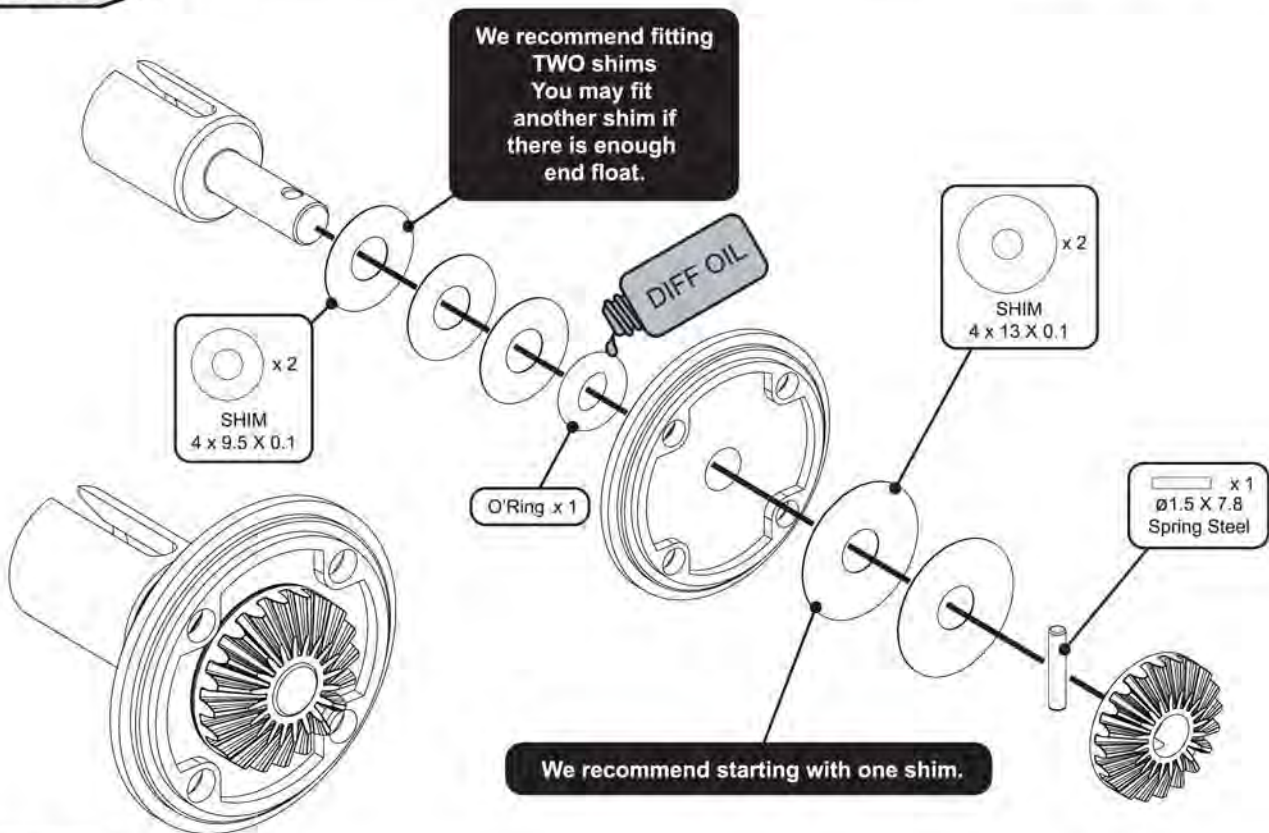


We recommend fitting **TWO** shims  
You may fit another shim if there is enough end float.



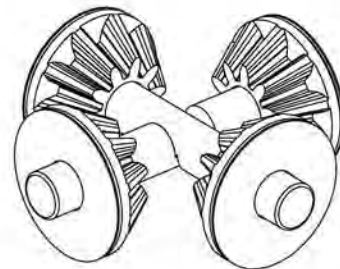
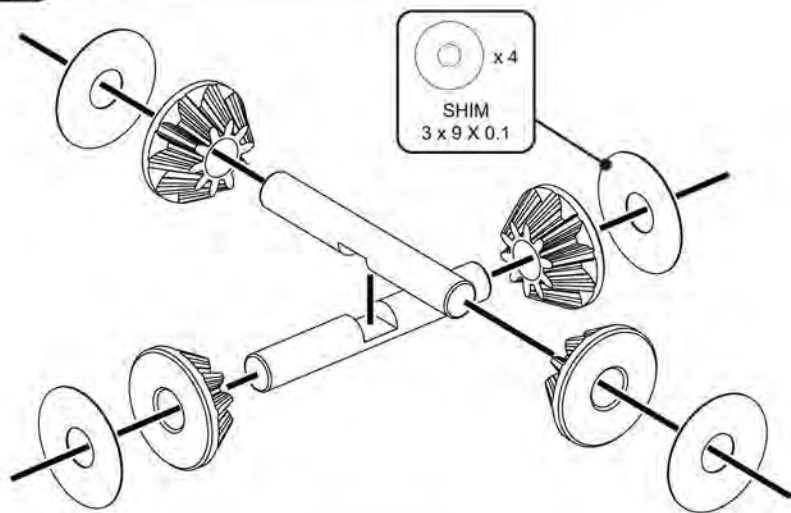
**STEP 26**

We recommend fitting **TWO** shims  
You may fit another shim if there is enough end float.



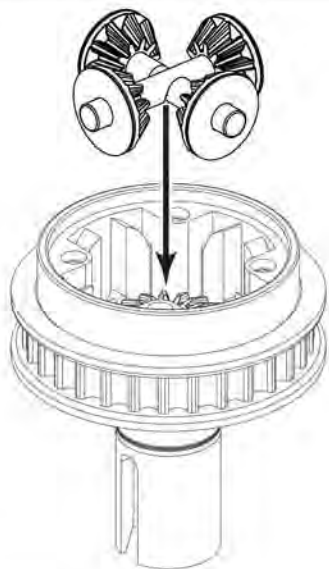
STEP 27

A

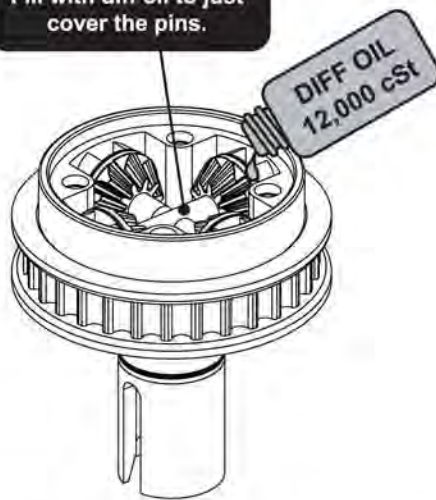


STEP 27

B

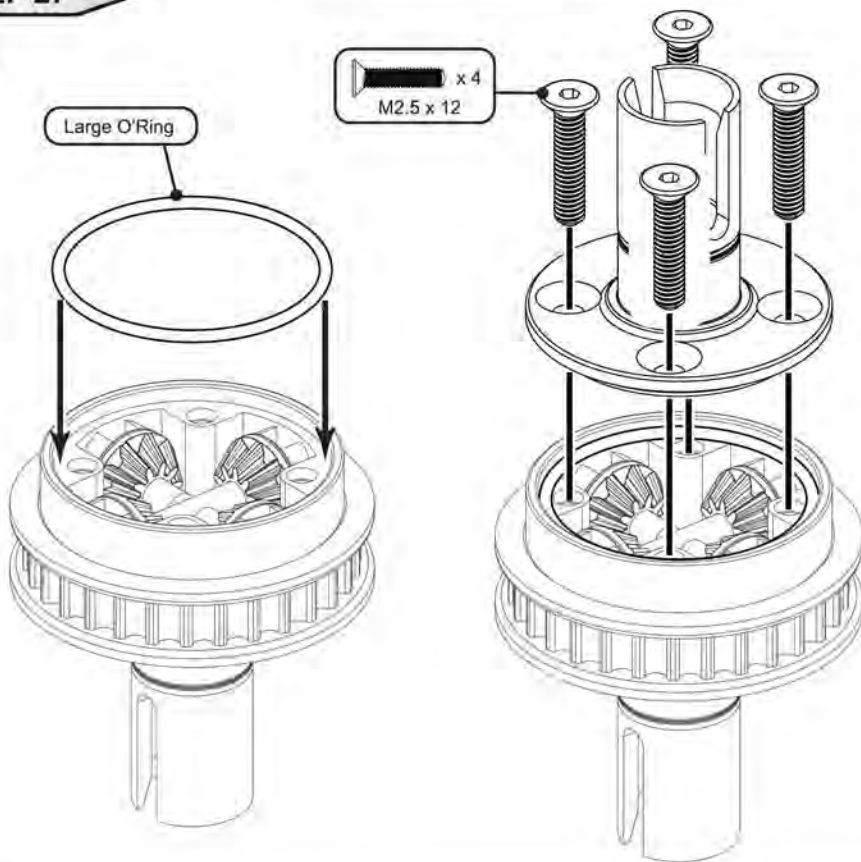


Fill with diff oil to just cover the pins.

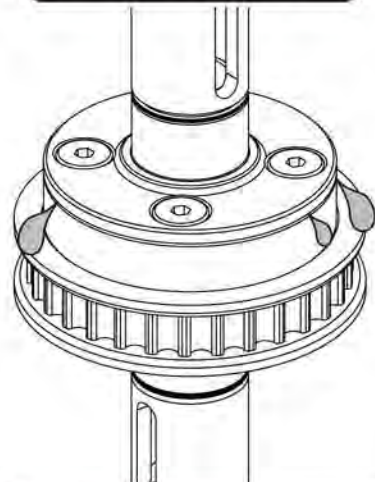


STEP 27

C



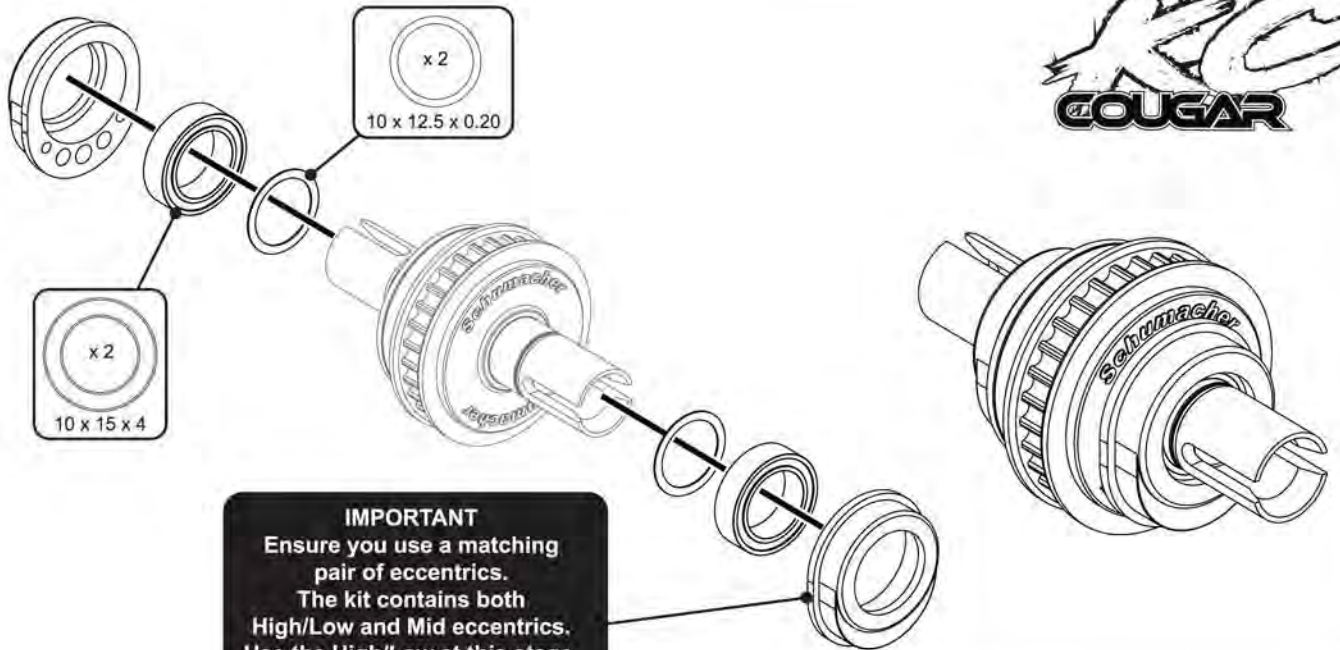
Feel the diff for internal gear mesh.  
If too loose go back to Steps 25 or 26 and add a shim between the housing and the bevel gear.



**IMPORTANT**  
Remove any oil that has spilled onto the pulley teeth.

STEP 28

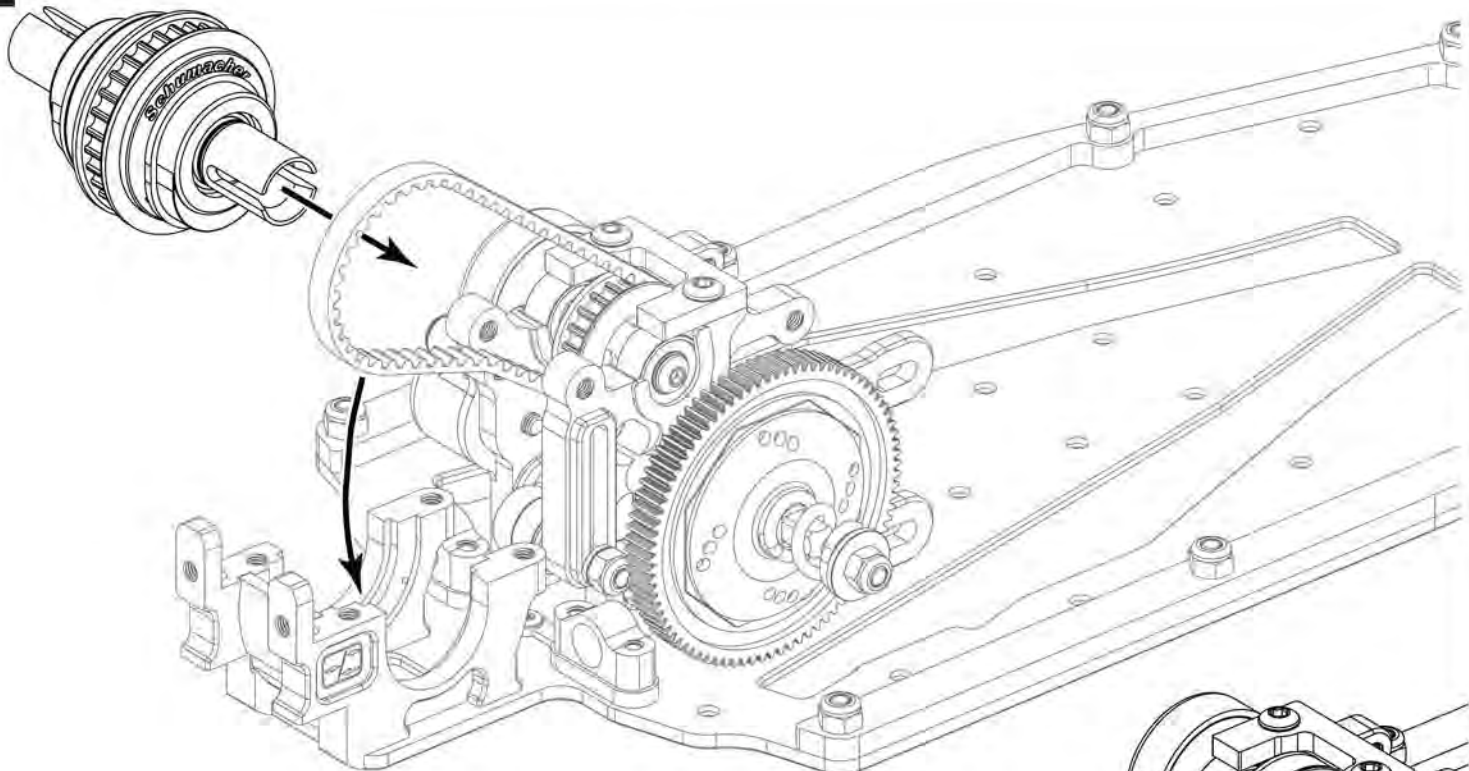
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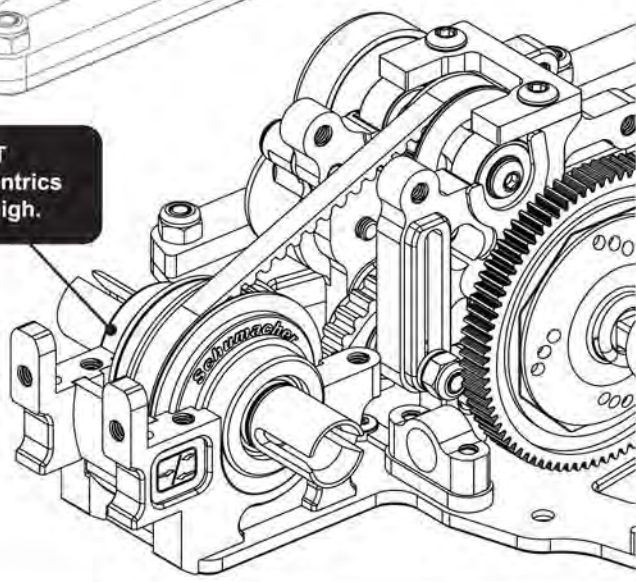
**IMPORTANT**  
Ensure you use a matching pair of eccentrics.  
The kit contains both High/Low and Mid eccentrics.  
Use the High/Low at this stage.

STEP 28

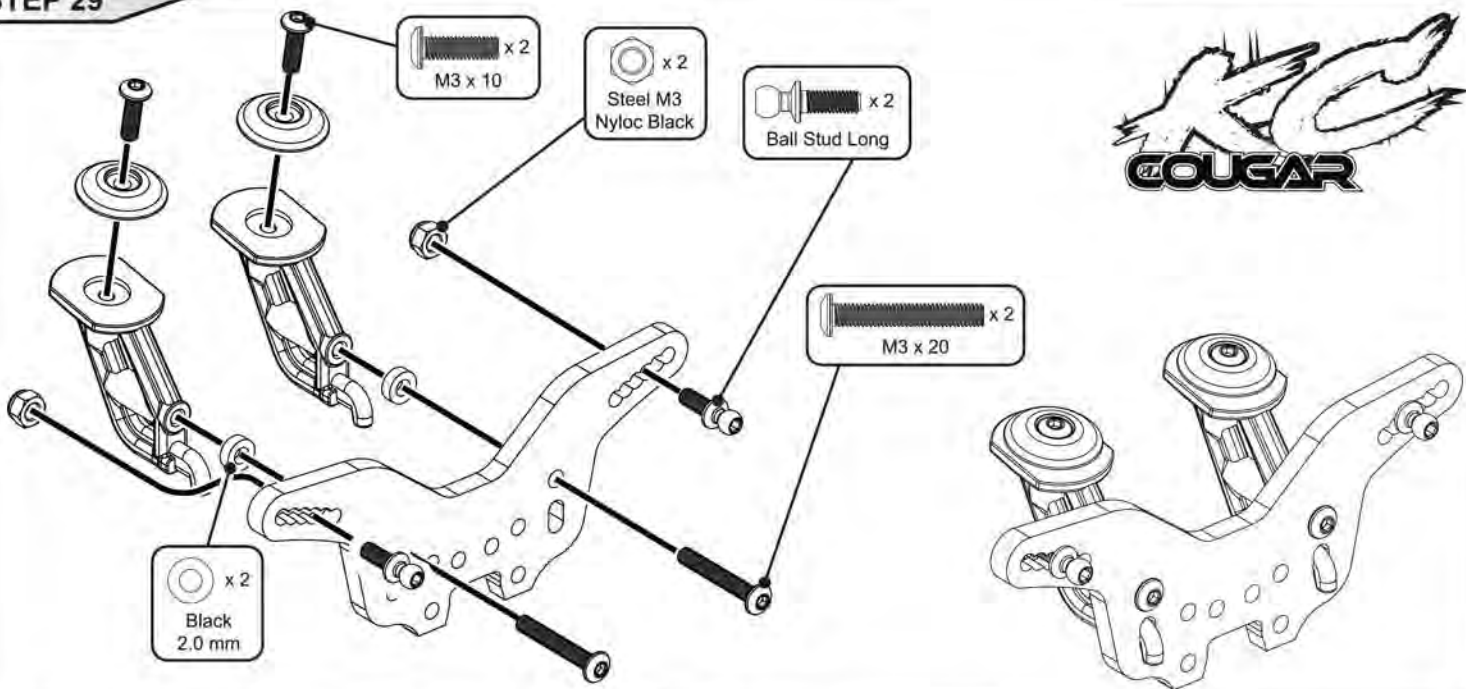
B



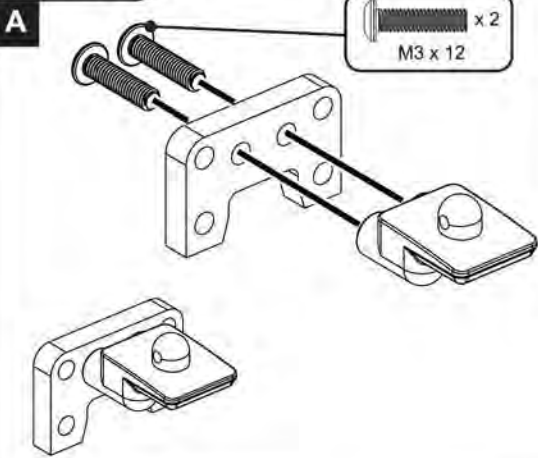
**IMPORTANT**  
Ensure both eccentrics are set to diff high.



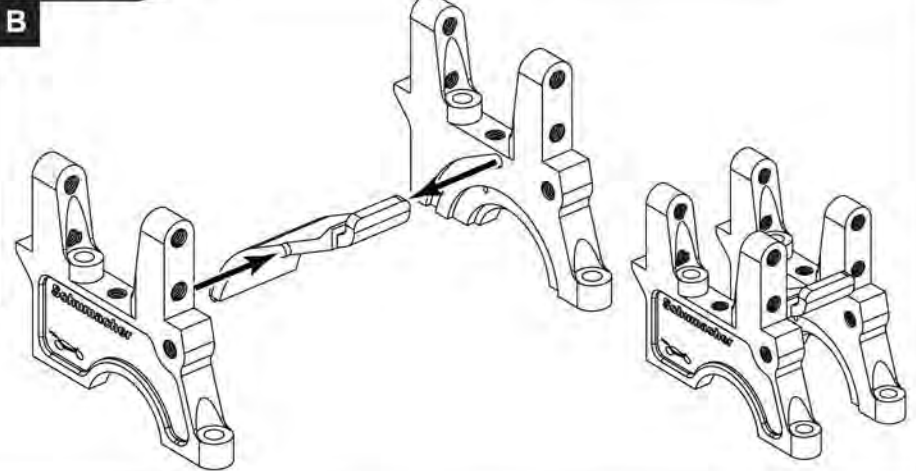
**STEP 29**



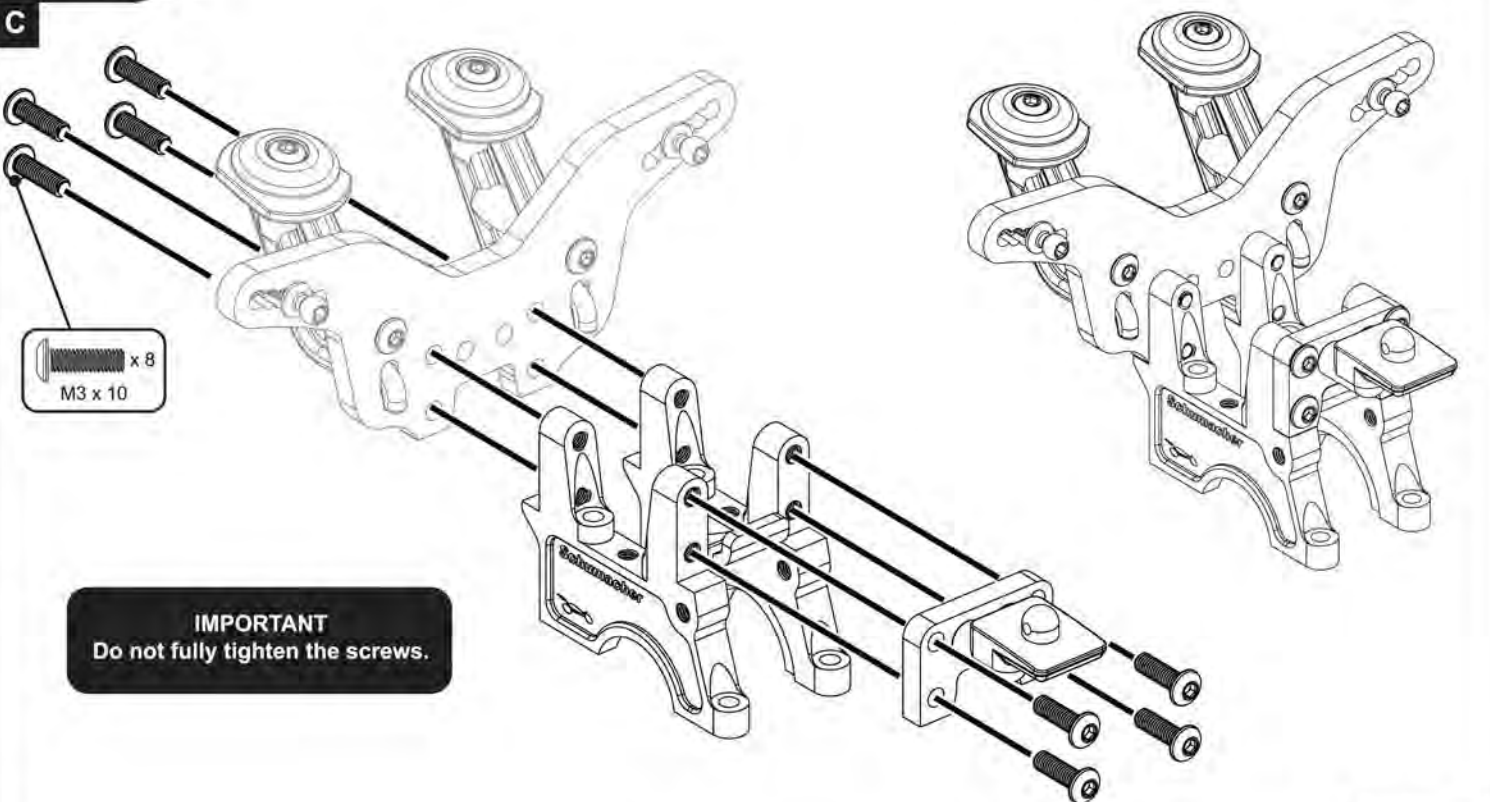
**STEP 30**



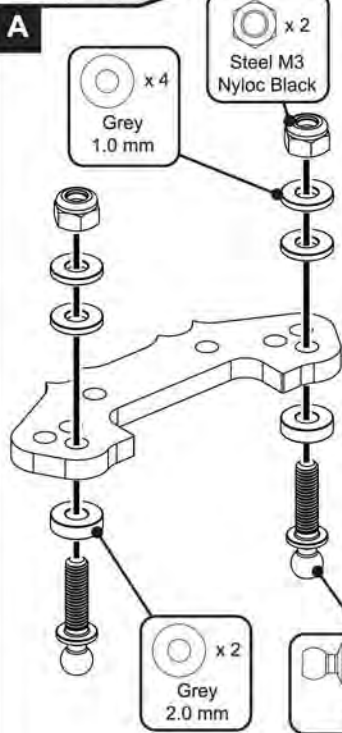
**STEP 30**



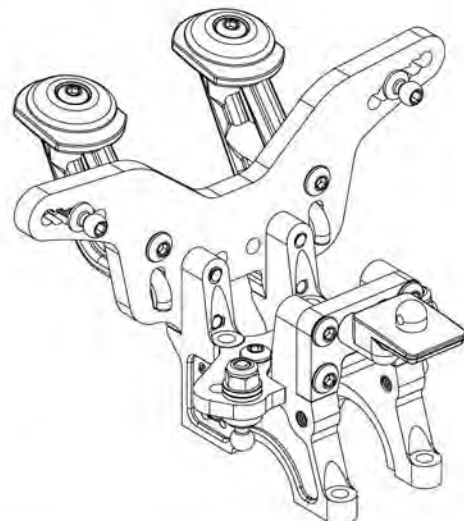
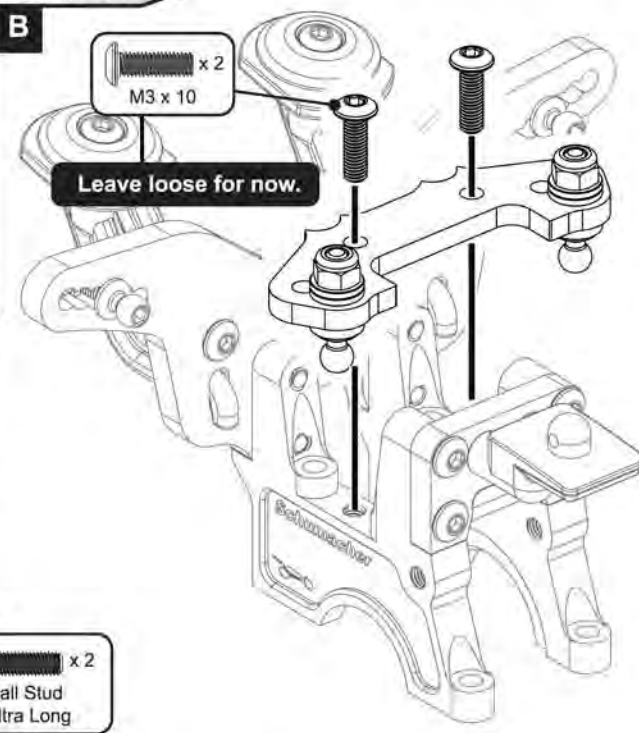
**STEP 30**



**STEP 31**

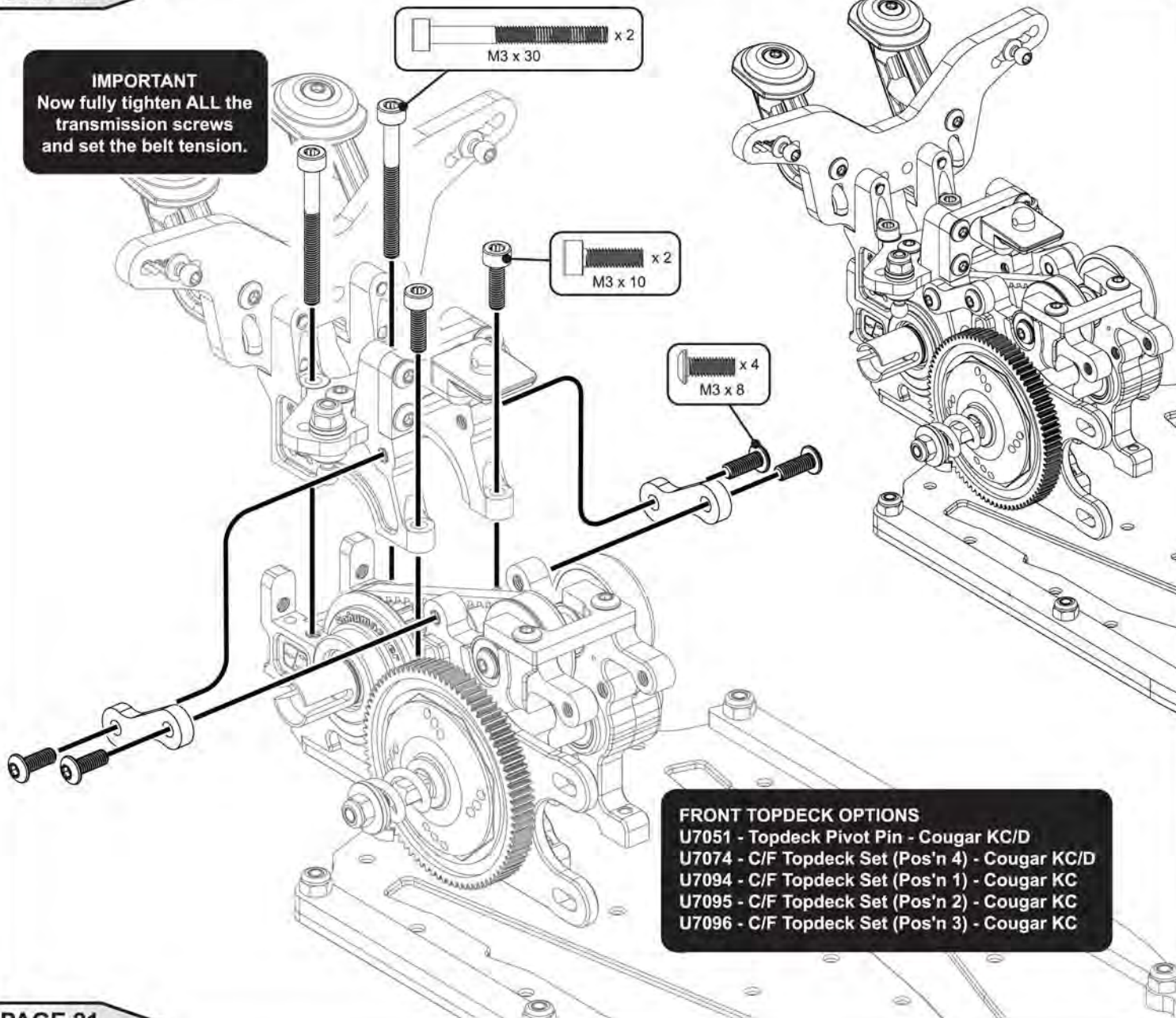


**STEP 31**



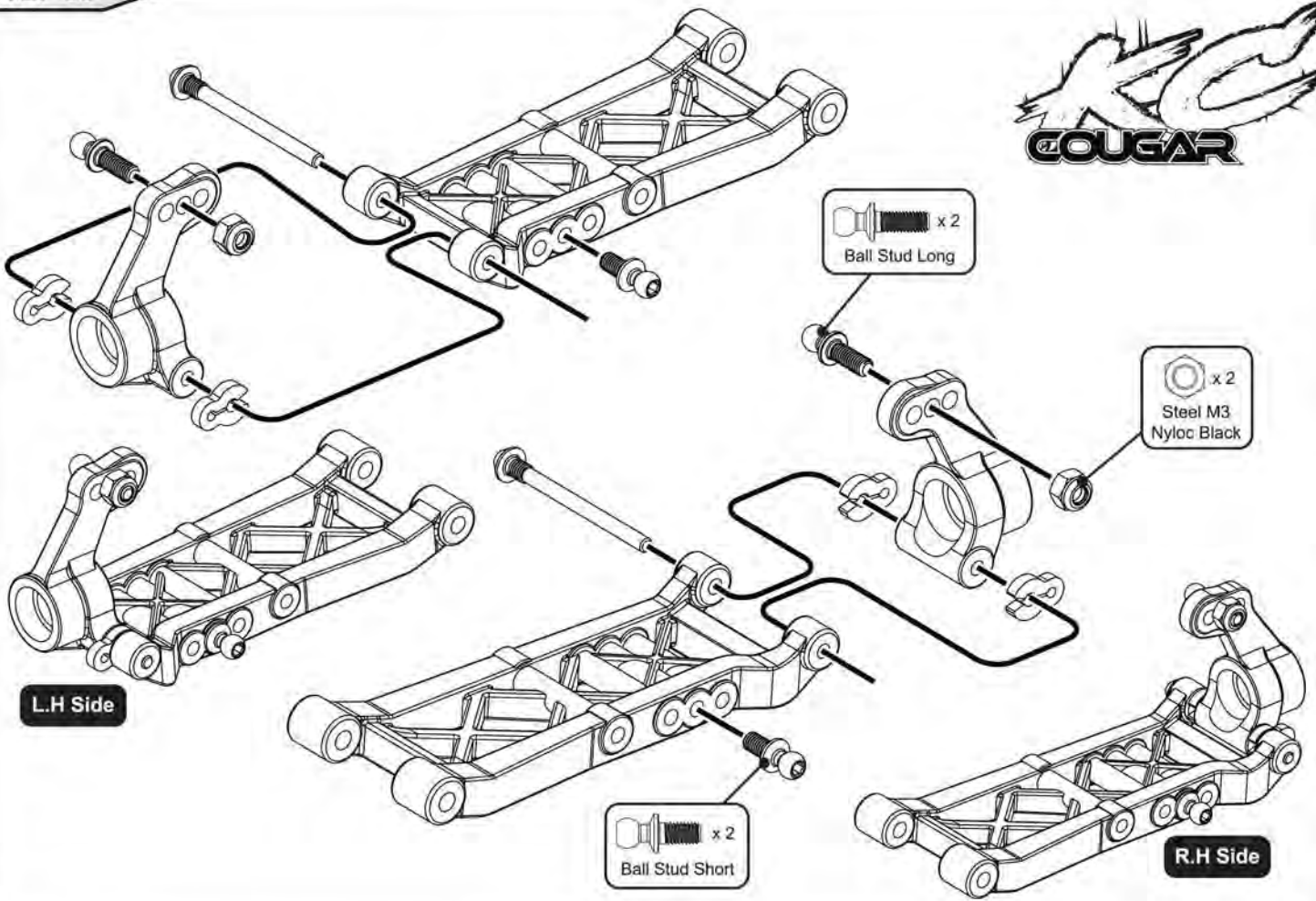
**STEP 32**

**IMPORTANT**  
Now fully tighten ALL the  
transmission screws  
and set the belt tension.

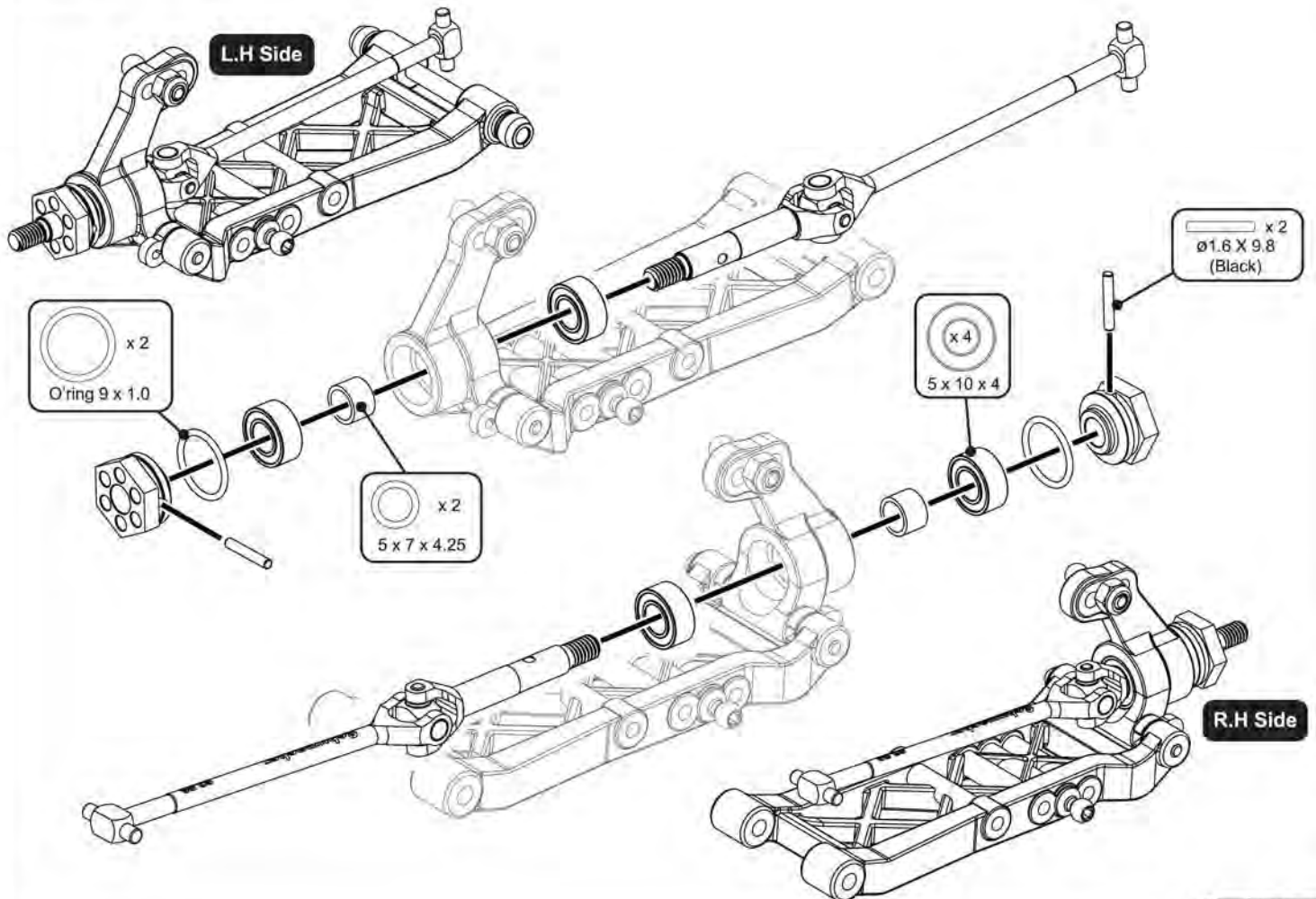


- FRONT TOPDECK OPTIONS**
- U7051 - Topdeck Pivot Pin - Cougar KC/D
  - U7074 - C/F Topdeck Set (Pos'n 4) - Cougar KC/D
  - U7094 - C/F Topdeck Set (Pos'n 1) - Cougar KC
  - U7095 - C/F Topdeck Set (Pos'n 2) - Cougar KC
  - U7096 - C/F Topdeck Set (Pos'n 3) - Cougar KC

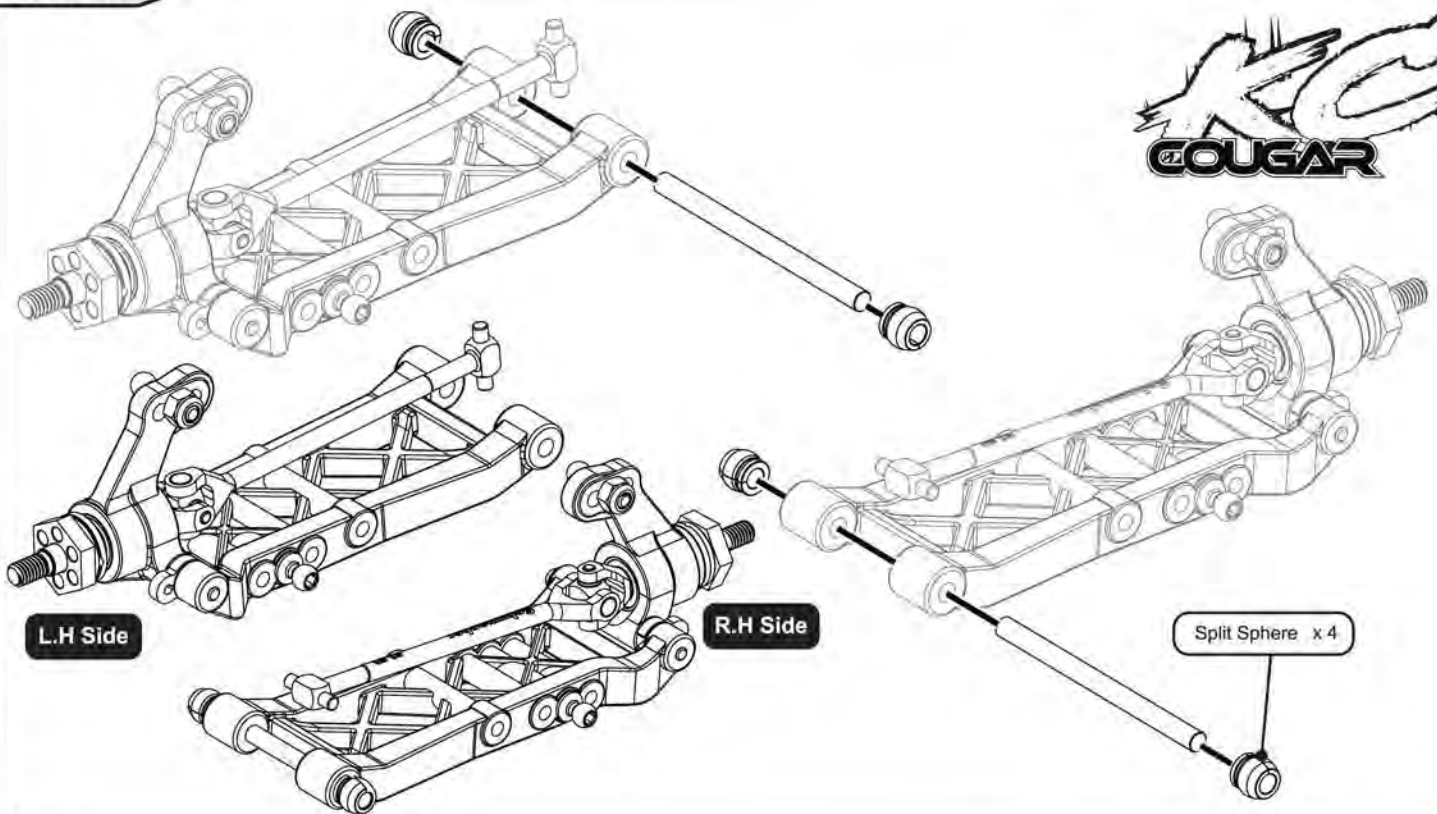
STEP 33



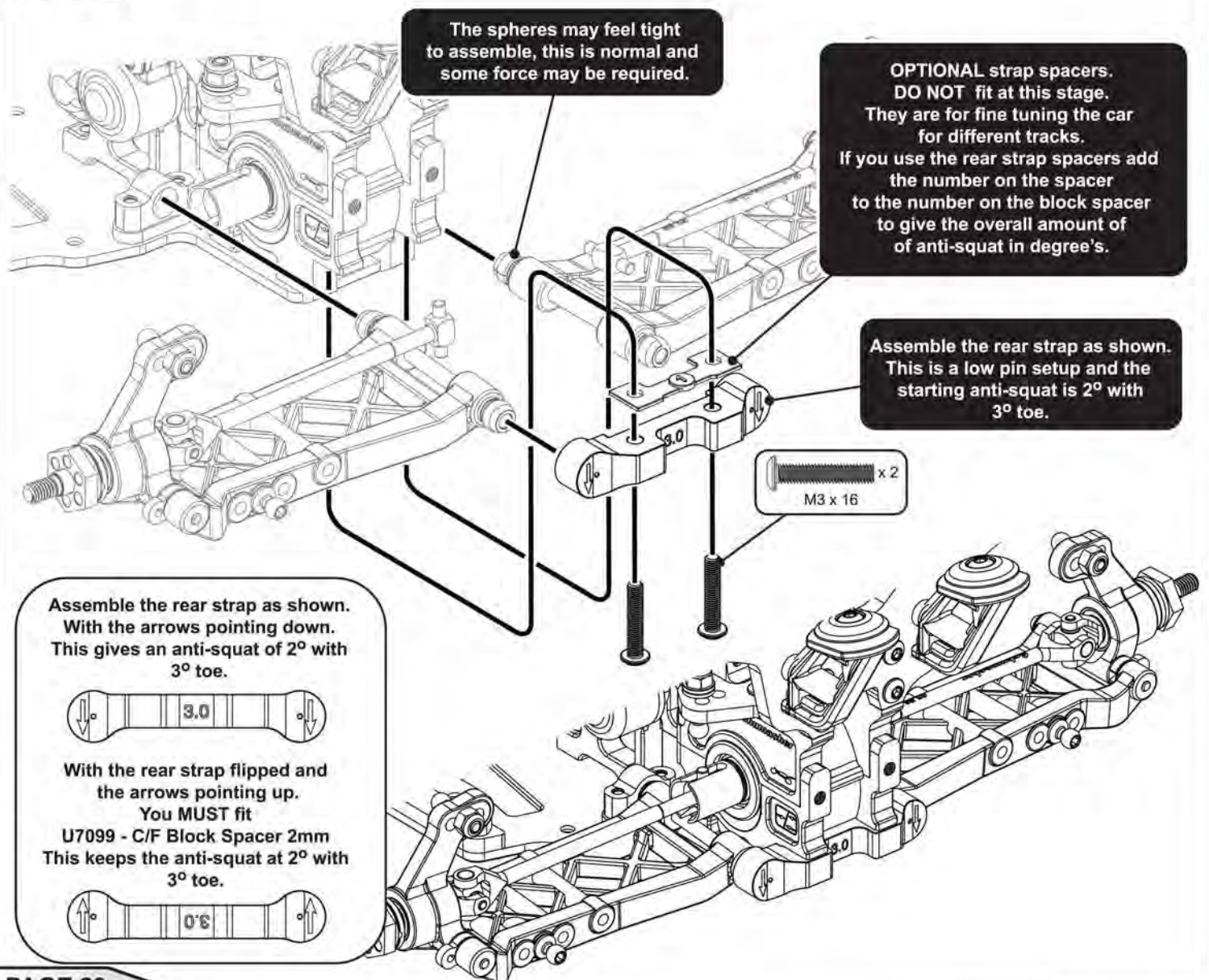
STEP 34



**STEP 35**



**STEP 36**



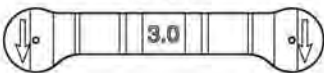
The spheres may feel tight to assemble, this is normal and some force may be required.

**OPTIONAL** strap spacers. **DO NOT** fit at this stage. They are for fine tuning the car for different tracks. If you use the rear strap spacers add the number on the spacer to the number on the block spacer to give the overall amount of anti-squat in degree's.

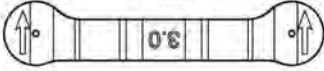
Assemble the rear strap as shown. This is a low pin setup and the starting anti-squat is 2° with 3° toe.

x 2  
M3 x 16

Assemble the rear strap as shown. With the arrows pointing down. This gives an anti-squat of 2° with 3° toe.



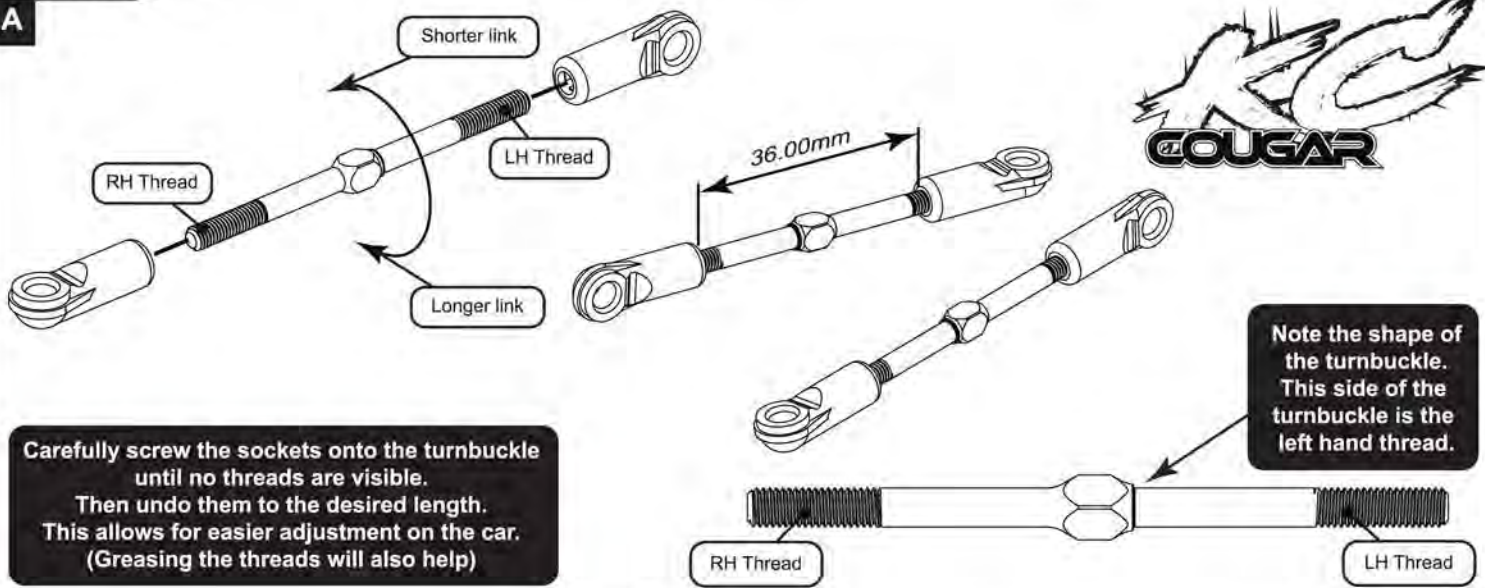
With the rear strap flipped and the arrows pointing up. You **MUST** fit U7099 - C/F Block Spacer 2mm This keeps the anti-squat at 2° with 3° toe.





**STEP 37**

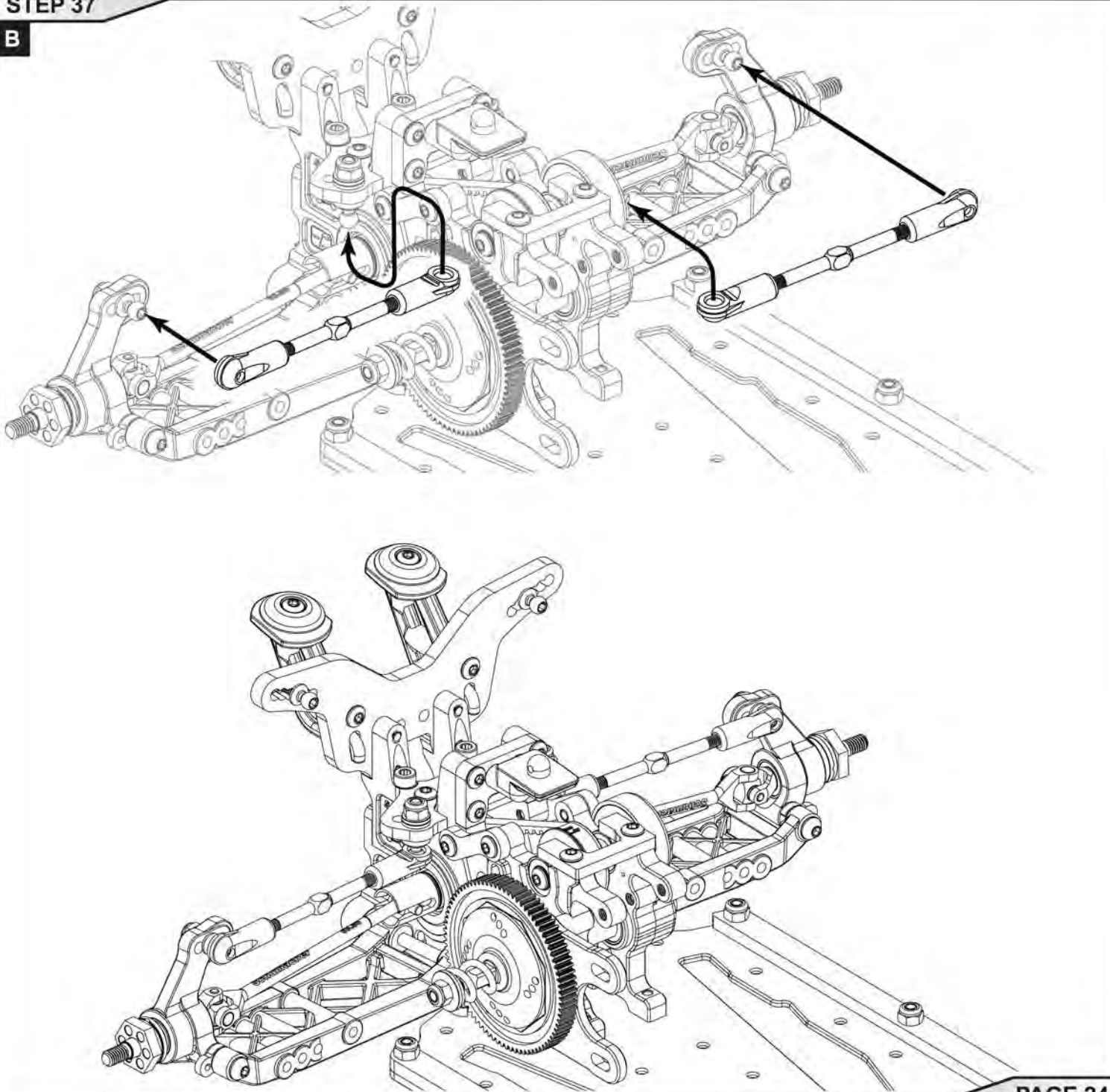
**A**



Carefully screw the sockets onto the turnbuckle until no threads are visible. Then undo them to the desired length. This allows for easier adjustment on the car. (Greasing the threads will also help)

**STEP 37**

**B**



**ELECTRIC - OFF ROAD CARS**

K170 Cougar KC - Kit

**CHASSIS PARTS**

U119 Aerial Tube - Pack 4  
 U2231 Servo Arms  
 U3690 Front Bumper - Cougar SV/SV2/KR/KF  
 U3691 Servo Spacer - Cougar SV/SV2/KR/KF  
 U3850 Wing Mount Set - Off Road  
 U4031 Front Body Post - Cougar SV2  
 U4765 Lipo Post Nut - CAT K2 - (2pcs)  
 U4773 Aerial Mount - CAT K2  
 U4778 LiPo Stops - CAT K2 - (4pcs)  
 U7033 Instruction Manual - Cougar KC  
 U7034 Alloy Chassis - Cougar KC/D  
 U7035 C/F Side Pods - Cougar KC/D  
 U7036 C/F Front Shock Mount - Cougar KC/D  
 U7037 C/F Rear Shock Mount - Cougar KC/D  
 U7038 C/F Front Link Mount - Cougar KC/D  
 U7039 C/F Rear Link Mount - Cougar KC  
 U7040 C/F Rear Body Mount - Cougar KC  
 U7041 C/F Idler Shaft Retainer - Cougar KC  
 U7042 C/F Long Lipo Strap (pr) - Cougar KC/D  
 U7043 C/F Short Lipo Strap (pr) - Cougar KC/D  
 U7045 Lipo Posts Std - Cougar KC/D  
 U7046 Lipo Posts Short - Cougar KC/D  
 U7049 Body Mount Mouldings - Cougar KC/D

**BODYSHELLS AND DECALS**

U5129 Claw Wing & Insert - Clear  
 U5130 Claw Wing & Insert - White  
 U5131 Claw Wing & Insert - Black  
 U5132 Claw Wing & Insert - Carbon  
 U5134 Bodyshell+Decal+Window Mask - Cougar KC  
 U7092 Front Wing Mount Mouldings - Cougar KC/D  
 U7093 Front Wings - Cougar KC/D

**SUSPENSION**

U3708 Quick Clips 2.4 x 2.0mm (pk4) - 2WD/4WD  
 U3709 Radius Arms - Cougar - Pair  
 U3710 Centre Track Rod - Cougar  
 U3715 Pivot Pin; Screw Type 25mm pr  
 U3718 Pivot Pin; 38mm - Cougar SV/SV2/KR/KF  
 U3719 Pivot Pin; 45mm - Cougar SV  
 U3729 WishbonePivot Spheres - Cougar SV pk4  
 U3758 Yokes; 5 deg - Cougar  
 U4036 Hub Carrier; Rear 0deg - Cat/Cougar pr  
 U4055 Wishbones; Rear Kit - Cougar SV2  
 U4094 Bulkhead - Cougar  
 U4224 Turnbuckle Adjuster HTT - 60mm - pr  
 U4273 Pro Ball Stud Ultra Short - pk4  
 U4274 Pro Ball Stud Short - pk4  
 U4275 Pro Ball Stud Long - pk4  
 U4299 Turnbuckle HT - Touring 52mm - 1pr  
 U4380 Front Hub Carriers - Cougar KR/KF V2 -pr  
 U4381 Quick Clips 2.4 x 1.0mm (pk4) - 2WD/4WD  
 U4382 Front Axle - Cougar KR/KF - pr  
 U4462 Bottom Plate - Cougar KF  
 U4683 Suspension Block RH - KF2  
 U4684 Suspension Block LH - KF2  
 U4688 Steering Pivots Long - KF2  
 U4689 Steering Pivots Short - KF2  
 U4700 Pro Ball Stud - Ultra Long - (pk4)  
 U4704 Fluted Ball Grippa - Grey (pk8)  
 U4707 Short Ball Grippa - Grey (pk8)  
 U4736 Ball Stud Washer -CAT K2 - (8pcs)  
 U4737 Captive Ball Joint Short - CAT K2 - (4pcs)  
 U4738 Captive Ball Joint long - CAT K2 - (4pcs)  
 U4783 Rear Outboard Pin - CAT K2 - (pr)  
 U7079 Front Outboard Pivot Pin (pr) - Cougar KC/D  
 U7080 Rear Suspension Strap - Cougar KC/D  
 U7081 Front Wishbones Stiff - Cougar KC/D  
 U7082 Rear Block Spacers - Cougar KC  
 U7083 Rear Strap Spacers - Cougar KC/D  
 U7133 Quik Clips 2.4x1.5mm (pk4) - 2WD/4WD

**TRANSMISSION**

U2761 Diff Shims; 10x12 (pk8)  
 U3351 Gear; 83t Spur - Slipper  
 U3364 Slipper Pad; PTFE Octagon pr  
 U4176 Gear Diff Gear Set - K1/KF  
 U4178 Gear Diff Output - K1/KF  
 U4195 Driveshafts; Rear - K1/KF pr  
 U4385 Gear Diff Rebuild Kit - Cougar KR  
 U4388 Alloy Wheel Hex Rear - Off Road - pr  
 U4389 Alloy Wheel Hex Front - 2WD -pr  
 U4486 Rear Wheel Bearing Spacers - Cougar KF - Pair  
 U4488 12mm Hex Drive Pins - Off Road  
 U4669 Layshaft - KF2  
 U4672 Alloy Outer Slipper Plate - KF2  
 U4674 Slipper Spring Bush - KF2  
 U4677 20T Pulley - KF2  
 U4705 Alloy Inner Slipper Plate - KF2  
 U4712 Diff O-Rings - CAT,KF,KF2,Mi5,Mi6  
 U4757 25T Side Gear - CAT K2  
 U4758 35T Side Gear - CAT K2  
 U4771 20T Pulley Fences - CAT K2 (pr)  
 U7044 Rear Belt Idler - Cougar KC  
 U7052 Alloy Trans LH Lower - Cougar KC  
 U7053 Alloy Trans RH Lower - Cougar KC  
 U7054 Alloy Trans LH Upper - Cougar KC  
 U7055 Alloy Trans RH Upper - Cougar KC  
 U7056 Alloy Laymount LH - Cougar KC  
 U7057 Alloy Laymount RH - Cougar KC  
 U7058 Alloy Motor Plate - Cougar KC  
 U7059 Idler Shaft - Cougar KC  
 U7060 Idler Spacer - Cougar KC  
 U7061 Reverse Gear - Cougar KC  
 U7062 Reverse Post - Cougar KC  
 U7063 Front Roller Post - Cougar KC  
 U7064 Layshaft Spacer - Cougar KC  
 U7065 Slipper Spring - Long twin plate  
 U7066 Diff Output Pin (pr) - Cougar KC  
 U7067 Gear Diff Mouldings - Cougar KC  
 U7068 Eccentrics - Cougar KC  
 U7069 Dirt Covers - Cougar KC  
 U7070 Side Covers - Cougar KC  
 U7075 Bando 113T x 4mm Belt - Cougar KC  
 U7076 Bando 99T x 4mm Belt - Cougar KC  
 U7077 Bando 71T x 4mm Belt - Cougar KC  
 U7078 Bando 59T x 4mm Belt - Cougar KC  
 U7129 Gear Diff Complete - Cougar KC

**BIG BORE SHOCKS**

RI-29101 Ride Shock Air Remover - Long  
 U3667 Big Bore Shock; Seal Rebuild Kit - Off Rd pr  
 U3668 Big Bore Shock Rods; Med pr  
 U3669 Big Bore Shock Rods; Long pr  
 U3670 Big Bore Piston; 2 Hole White 1.5 (pr)  
 U3706 Rod End Ball + Socket - Cougar SV2 pr  
 U3770 Big Bore Piston; 3 Hole White 1.5 Rounded (pr)  
 U3782 HD Diaphragm Big Bore - pk4  
 U3937 Shock Mouldings  
 U4110 Off Road Shock O Ring 1/8 Silicone Pk 8  
 U4285 Pro Shock Seal Blue - On Road - pk8  
 U4371 Big Bore Shock Adjusting Collar (Black) - pr  
 U4451 Big Bore Shock Collar O-ring - pk4  
 U4490 Big Bore Shock Body Med V2 pr  
 U4491 Big Bore Shock Body Long V2 pr  
 U4701 Big Bore Piston - 3 Hole Black 1.6 Rounded (pr)  
 U4702 Shock Seal Housing V2 - Big Bore - (pr)

**BIG BORE SHOCKS Cont....**

- U4707 Short Ball Grippa - Grey (pk8)
- U7084 Shock Top Ring (pr) - Cougar KC/D
- U7085 Shock Top (pr) - Cougar KC/D
- U7086 Big Bore Piston - 2 Hole Black 1.60 (pr)
- U7087 Big Bore Piston - 2 Hole Red 1.70 (pr)
- U7131 Front Shocks (Springs NOT Included) - Cougar KC/D
- U7132 Rear Shocks (Springs NOT Included) - Cougar KC/D

**BIG BORE SPRINGS**

- CR177 CORE RC Big Bore Spring Tuning Set; Med 7prs
- CR178 CORE RC Big Bore Spring Tuning Set; Long 5prs
- CR179 Big Bore Spring; Med White - 2.8 pr
- CR180 Big Bore Spring; Med Red - 3.1 pr
- CR181 Big Bore Spring; Med Green - 3.4 pr
- CR182 Big Bore Spring; Med Blue - 3.7 pr
- CR183 Big Bore Spring; Med Black - 4.0 pr
- CR184 Big Bore Spring; Long White - 1.8 pr
- CR185 Big Bore Spring; Long Red - 2.0 pr
- CR186 Big Bore Spring; Long Green - 2.2 pr
- CR187 Big Bore Spring; Long Blue - 2.4 pr
- CR188 Big Bore Spring; Long Black - 2.6 pr
- CR635 Big Bore Spring; Med Orange - 4.3 pr
- CR636 Big Bore Spring; Med Yellow - 4.6 pr
- U3673 Big Bore Spring Tuning Set; Med 7prs
- U3675 Big Bore Spring; Med - 2.0 pr
- U3676 Big Bore Spring; Med - 2.5 pr
- U3677 Big Bore Spring; Med - 3.0 pr
- U3678 Big Bore Spring; Med - 3.5 pr
- U3679 Big Bore Spring; Med - 4.0 pr
- U3680 Big Bore Spring; Med - 4.5 pr
- U3681 Big Bore Spring; Med - 5.0 pr
- U3682 Big Bore Spring; Long - 1.6 pr
- U3683 Big Bore Spring; Long - 2.0 pr
- U3684 Big Bore Spring; Long - 2.5 pr
- U3685 Big Bore Spring; Long - 3.0 pr
- U3686 Big Bore Spring; Long - 3.5 pr
- U3687 Big Bore Spring; Long - 4.0 pr

**BEARINGS AND BALLS**

- G200 ZX1 - Microlube
- H1031 Bearing Blaster Aerosol 500ml
- U1300 Axle Grease - Pot
- U1301 Silicone Diff Lube - Pot
- U1439 Ball Bearing - 5x9x3 Shield - (pr)
- U1957 Moly Grease - Pot
- U2574 Ball Bearing - 5x9x2.5 Open - (pr)
- U2698 Ball Bearing - 5x10x4 Red Seal - (pr)
- U2699 Ball Bearing - 10x15x4 Red Seal - (pr)
- U3075 Ball Bearing - 4x8x3mm Red Seal - (pr)
- U3136 Ball Bearing - 5x8x2.5 - Shield (pr)
- U3871 Ball Bearing - 5x9x3 Red Seal - (pr)
- U7088 Ball Bearing 5x10x4 Red Seal FL - (pr)
- U7089 Ball Bearing 5x11x5 Red Seal - (pr)
- U7030 Diff Balls T/C 2.5mm (pk14)

**SPEED PACKS**

- CR024 CORE RC - Serrated M4 Steel Wheel Nut pk4
- CR035 CORE RC - Serrated Alloy M4 Nuts; Blue pk 4
- CR036 CORE RC - Serrated Alloy M4 Nuts; Violet pk 4
- CR061 Small Body Clip 1/10 - Silver (8)
- CR062 Small Body Clip 1/10 - Gold (8)
- CR063 Small Body Clip 1/10 - Fluorescent Yellow (8)
- CR064 Small Body Clip 1/10 - Fluorescent Green (8)
- CR065 Small Body Clip 1/10 - Fluorescent Red (8)
- CR066 Small Body Clip 1/10 - Metallic Green (8)
- CR067 Small Body Clip 1/10 - Metallic Red (8)
- CR068 Small Body Clip 1/10 - Metallic Blue (8)
- CR069 Small Body Clip 1/10 - Metallic Purple (8)

**SPEED PACKS Cont....**

- CR196 Core RC - Serrated Alloy M4 Nuts - Black - pk4
- U1548 SPEED PACK - M3 Washers
- U1550 SPEED PK-Socket Wrenches-1.5/2.0/2.5/3.0mm
- U1551 SPEED PACK - E Clips -2 x 8pcs
- U1552 SPEED PACK - R Clips
- U1606 SPEED PACK - Servo Tape - 30pk
- U1633 SPEED PACK - Small Pins (pk)
- U1960 SPEED PACK - O Rings; Various
- U2128 SPEED PACK - Grub-Set Screws M3 M4
- U2187 SPEED PACK - M3 Nyloc Nut - Purple Alloy (pk8)
- U2631 SPEED PACK - Circlips Various 15 pcs
- U2856 SPEED PACK - Sticky Cable Clips (pk10)
- U2857 SPEED PACK - Small Cable Ties (pk25)
- U2988 SPEED PACK - M3 Csk Washers - Purple Alloy (pk10)
- U3021 SPEED PACK - M3x6 Csk Hd - (pk10)
- U3022 SPEED PACK - M3x8 Csk Hd - (pk10)
- U3023 SPEED PACK - M3x10 Csk Hd - (pk10)
- U3131 SPEED PACK - Alloy Spacers M3x7mm 0.5;1;2mm (pk18)
- U3572 SPEED PACK - M3x14 Grub Srew pk4
- U3755 SPEED PACK - M3x16 Unbrako Button Hd
- U3938 SPEED PACK - Black nylon washer 2mm (pk 10)
- U4124 SPEED PACK - Shims 5 x 7 x 0.4mm - pk6
- U4155 SPEED PACK - M3 Csk Washers - Black Alloy (pk10)
- U4210 SPEED PACK - Pinion Grub Screw Set pk10
- U4241 SPEED PACK - M3 Alloy Nyloc Nuts - Black - pk10
- U4314 SPEED PACK - Alloy Black M3 Washers - 18pc
- U4351 SPEED PACK - Shims 3.2x6x0.1mm - pk8
- U4650 SPEED PACK - M3 Nyloc Nut Steel - Black (10pcs)
- U4662 SPEED PACK - M3x4 Grub Screw - Cone Point (10pcs)
- U4835 SPEED PACK - M3 Steel Nut Black (pk8)
- U7090 SPEED PACK - M4x20 Grub Screw (pk4)
- U7102 SPEED PACK - M3x4 Button Hd (pk10)
- U7103 SPEED PACK - M3x6 Button Hd (pk10)
- U7104 SPEED PACK - M3x8 Button Hd (pk10)
- U7105 SPEED PACK - M3x10 Button Hd (pk10)
- U7106 SPEED PACK - M3x12 Button Hd (pk10)
- U7107 SPEED PACK - M3x16 Button Hd (pk10)
- U7108 SPEED PACK - M3x20 Button Hd (pk10)
- U7112 SPEED PACK - M3x8 Cap Hd (pk10)
- U7113 SPEED PACK - M3x10 Cap Hd (pk10)
- U7118 SPEED PACK - M3x30 Cap Hd (pk10)
- U7121 SPEED PACK - M2.5x12 Csk Hd (pk10)
- U7122 SPEED PACK - M3x12 Csk Hd (pk10)

**SPEED SECRET - OPTION PARTS**

- CR043 CORE RC - Silver X-Weights 16pcs
- CR058 CORE RC - Black X-Weights 16pcs
- CR192 Alloy Servo Arm 25T - Futaba Short
- CR193 Alloy Servo Arm 23T - KO/Sanwa Short
- MR-CSOFFROAD MR33 Car Stand Off Road
- S500B Schumacher BANNER 6x3ft
- U1573 Titanium Turnbuckle; purple - 53mm (pr)
- U1574 Titanium Turnbuckle; purple - 60mm (pr)
- U1954 Pro - Thrust Bearing
- U2566 Titanium Turnbuckle; purple - 45mm (pr)
- U3348 Gear; CNC 80t Spur - Slipper
- U3350 Gear; CNC 82t Spur - Slipper
- U3499 Roll Bar Blocks - Mi4 pk4
- U3605 Alloy Rear Hubs; 1 deg - CAT/Cougar
- U3712 Yokes; 0 deg - Cougar SV/SV2/KR/KF
- U3740 Diff Washers; 18mm - Cougar SV
- U3750 Diff Output; Male - Cougar SV
- U3751 Diff Output; Female - Cougar SV
- U3790 Gear; CNC 76T Spur - Slipper
- U4054 Wishbones Rear Medium - Cougar SV2

**SPEED SECRET - OPTION PARTS Cont...**

U4223 Turnbuckle Adjuster HTT - 45mm - pr  
 U4226 Gear; CNC 71T Spur - Slipper  
 U4228 Alloy Yokes - 2WD - 5deg - Cougar  
 U4378 Skid Plate - Cougar  
 U4550 Roll Bar Clamps - Mi5evo - (pk4)  
 U4619 Alloy Center Track Rod - 2WD  
 U4620 Alloy Hub Carrier 2WD Front L/R - pr  
 U4670 Slipper Cage - KF2  
 U4671 Mid Slipper Plate - KF2  
 U4673 Slipper Spring- KF2  
 U4703 Alloy Yokes 0deg - 2wd  
 U4719 Alloy Pivot Block 4/1.5 deg KF2 - pair  
 U4800 Rear Roll Bar Ball - Black - CAT K2 - (2pcs)  
 U4860 Narrow Wheel Hex - Rear - pr  
 U4890 Alloy Spring Seat - Off Road - pr  
 U4996 Ball Diff Complete - Cougar KC  
 U4997 Ball Diff Pulley and Fences - Cougar KC  
 U4998 Alloy Rear Hub Carriers + Inserts - 2WD/4WD  
 U4999 Front Brass Weight - Cougar KC/D  
 U7031 Socket Grey 8mm (pk4)  
 U7047 Wide Brass Rear Strap - Cougar KC/D  
 U7048 Alloy Rear Link Mount - Cougar KC  
 U7050 Multi Plate Slipper Conversion - Cougar KC/D  
 U7051 Topdeck Pivot Pin - Cougar KC/D  
 U7072 Front Roll Bar Kit - Cougar KC/D  
 U7074 C/F Topdeck Set (Pos'n 4) - Cougar KC/D  
 U7091 Front Wing Mount Kit - Cougar KC/D  
 U7092 Front Wing Mount Mouldings - Cougar KC/D  
 U7093 Front Wings - Cougar KC/D  
 U7094 C/F Topdeck Set (Pos'n 1) - Cougar KC  
 U7095 C/F Topdeck Set (Pos'n 2) - Cougar KC  
 U7096 C/F Topdeck Set (Pos'n 3) - Cougar KC  
 U7097 C/F Chassis - Cougar KC/D  
 U7098 Alloy Sidepods (pr) - Cougar KC/D  
 U7099 C/F Block Spacer 2mm - Cougar KC  
 U7100 Rear Roll Bar Kit - Cougar KC  
 U7110 Ball Diff Rebuild Kit - Cougar KC  
 U7134 Alloy Front Link Mount - Cougar KC/D  
 U7135 Front Wishbones Med - Cougar KC/D  
 U7137 Cougar KC to KD Conversion Kit - Cougar KC

**SHOCK AND DIFF OIL**

CR200 CORE RC Silicone Oil - 100cSt - 60ml  
 CR201 CORE RC Silicone Oil - 150cSt - 60ml  
 CR202 CORE RC Silicone Oil - 200cSt - 60ml  
 CR203 CORE RC Silicone Oil - 250cSt - 60ml  
 CR204 CORE RC Silicone Oil - 300cSt - 60ml  
 CR205 CORE RC Silicone Oil - 350cSt - 60ml  
 CR206 CORE RC Silicone Oil - 400cSt - 60ml  
 CR207 CORE RC Silicone Oil - 450cSt - 60ml  
 CR208 CORE RC Silicone Oil - 500cSt - 60ml  
 CR209 CORE RC Silicone Oil - 550cSt - 60ml  
 CR210 CORE RC Silicone Oil - 600cSt - 60ml  
 CR211 CORE RC Silicone Oil - 700cSt - 60ml  
 CR212 CORE RC Silicone Oil - 800cSt - 60ml  
 CR213 CORE RC Silicone Oil - 900cSt - 60ml  
 CR214 CORE RC Silicone Oil - 1000cSt - 60ml  
 CR215 CORE RC Silicone Oil - 1300cSt - 60ml  
 CR216 CORE RC Silicone Oil - 2000cSt - 60ml  
 CR217 CORE RC Silicone Oil - 3000cSt - 60ml  
 CR218 CORE RC Silicone Oil - 4000cSt - 60ml  
 CR219 CORE RC Silicone Oil - 5000cSt - 60ml  
 CR220 CORE RC Silicone Oil - 6000cSt - 60ml  
 CR221 CORE RC Silicone Oil - 7000cSt - 60ml  
 CR222 CORE RC Silicone Oil - 10000cSt - 60ml  
 CR223 CORE RC Silicone Oil - 20000cSt - 60ml  
 CR224 CORE RC Silicone Oil - 30000cSt - 60ml  
 CR225 CORE RC Silicone Oil - 40000cSt - 60ml  
 CR226 CORE RC Silicone Oil - 50000cSt - 60ml  
 CR227 CORE RC Silicone Oil - 100000cSt - 60ml  
 CR228 CORE RC Silicone Oil - 300000cSt - 60ml  
 CR229 CORE RC Silicone Oil - 12000cSt - 60ml  
 CR230 CORE RC Silicone Oil - 15000cSt - 60ml

**SHOCK AND DIFF OIL Cont....**

G010 Pure Silicone Shock Oil - 10w  
 G015 Pure Silicone Shock Oil - 15w  
 G020 Pure Silicone Shock Oil - 20w  
 G025 Pure Silicone Shock Oil - 25w  
 MR33-OB MR33 New Oil Bag

**PINIIONS**

U2305 16T Steel Pinion - 48 D.P.  
 U2306 17T Steel Pinion - 48 D.P.  
 U2307 18T Steel Pinion - 48 D.P.  
 U2308 19T Steel Pinion - 48 D.P.  
 U2309 20T Steel Pinion - 48 D.P.  
 U2310 21T Steel Pinion - 48 D.P.  
 U2311 22T Steel Pinion - 48 D.P.  
 U2312 23T Steel Pinion - 48 D.P.  
 U2313 24T Steel Pinion - 48 D.P.  
 U2314 25T Steel Pinion - 48 D.P.  
 U2315 26T Steel Pinion - 48 D.P.  
 U2316 27T Steel Pinion - 48 D.P.  
 U2317 28T Steel Pinion - 48 D.P.  
 U2318 29T Steel Pinion - 48 D.P.  
 U3417 Pinion; Hard Alloy 48dp - 17T  
 U3418 Pinion; Hard Alloy 48dp - 18T  
 U3419 Pinion; Hard Alloy 48dp - 19T  
 U3420 Pinion; Hard Alloy 48dp - 20T  
 U3421 Pinion; Hard Alloy 48dp - 21T  
 U3422 Pinion; Hard Alloy 48dp - 22T  
 U3423 Pinion; Hard Alloy 48dp - 23T  
 U3424 Pinion; Hard Alloy 48dp - 24T  
 U3425 Pinion; Hard Alloy 48dp - 25T  
 U3426 Pinion; Hard Alloy 48dp - 26T  
 U3427 Pinion; Hard Alloy 48dp - 27T  
 U3428 Pinion; Hard Alloy 48dp - 28T  
 U3429 Pinion; Hard Alloy 48dp - 29T  
 U3430 Pinion; Hard Alloy 48dp - 30T  
 U3431 Pinion; Hard Alloy 48dp - 31T  
 U3432 Pinion; Hard Alloy 48dp - 32T

**ELECTRONICS**

CR162 CORE RC Sensor Checking Widget  
 CR195 Portable Emergency 60W Soldering Iron  
 CR249 Futaba Servo Wires Black  
 CR250 JR Servo Wires Black  
 ED199502 EDS Ultra Bright L.E.D. Light Stand  
 MR33-GOLD2 4mm Gold Connectors pk 4  
 SK-500015 Corner Weight System  
 SK-600089-01 LED Pit Light 11-18V DC - Black  
 SK-600089-02 LED Pit Light 11-18V DC - Blue

**SERVOS**

CR495 CORE RC - 9009LP Low Profile Servo 8Kg .09 Sec  
 CR496 CORE RC - 9008TG Digital Servo 9Kg .08 Sec  
 CR497 CORE RC - 1012TG Digital Servo 10Kg .12 Sec  
 HSDR420 Servo (Speed) 1/10 .07s 6.2kg  
 HSDS1000 Servo (Speed) - 1/10 .08s 10.2kg  
 HSDS400 Servo (Speed) 1/10 .09s 7.2kg  
 HSDS700 Servo (Speed) 1/10 .08s 9.9kg  
 HSDT450 Servo (Torque) 1/10 .11s 7.9kg  
 HSDT750 Servo (Torque) 1/10 HV .12s 13.8kg  
 KO30049Servo - PDS-25011CS - .12 - 7.4Kg  
 KO30050Servo - PDS-25021CS - .15 - 8.3Kg  
 KO30051Servo - PDS-25111CS - .13 - 9.6Kg  
 KO30052Servo - PDS-25121CS - .16 - 10.8Kg  
 KO30059Servo - PDS-25311CS Yellow - .13 - 9.5Kg

**SERVOS Cont...**

KO30104Servo - RSx one 10 low profile - .10 - 10Kg  
 KO30105Servo - RSx one 10 Response Low Profile-.09-7K  
 KO30106Servo - RSx2 Response HC - .07 - 14.5Kg  
 KO30108Servo - RSx2 Response - .07 - 14.5Kg  
 KO30120RSx-One 10 Type-S  
 KO30201Servo - BSx2 Response HC - .09 - 15.4Kg  
 KO30203Servo - BSx2 Response - .09 - 15.4Kg  
 KO30207Servo - BSx2-one 10 Grasper  
 SA107A53471A SDX-801 Low Profile Digital Servo  
 SA107A54061A ERS-971 Low Profile HS Digital WP Servo  
 SA107A54071A ERS-961 High Speed Ti Gear WP Servo  
 SA107A54081A ERS-962 Hi Torque St Gear WP Servo  
 SA107A54371A SRG-LS Servo  
 SA107A54381A SRG-BX Servo  
 SA107A54383A SRG-BS Servo  
 SA107A54385A SRG-BX - Type R - Servo  
 SA107A54401A Low Profile Servo - HVS-702

**TRANSMITTERS AND RECEIVERS**

CR151 CODE 2.4G FHSS LCD 2 Stick TxRx  
 CR152 CODE 2.4G FHSS LCD - Rx Only  
 CR153 CODE 2.4G FHSS Sport 2 Stick TxRx  
 CR154 CODE 2.4G FHSS Sport - Rx Only  
 CR155 Antenna 2.4G  
 CR277 CODE 2.4G FHSS Steerwheel Radio TxRx  
 CR278 CODE 2.4G FHSS - Rx Only  
 CR498 Battery Holder - Code Stick Transmitter  
 KO21007KR-413FH Micro Receiver  
 KO80540EX-1 Ver 3 (KIY) KR-413FH Set - TX + RX  
 KO80700Esprit IV - Stick Radio Set  
 SA101A30885A MX-V Radio Set  
 SA101A31671A M12S Radio Set  
 SA101A31691A M12S Radio Set - Ltd Ed-Piano Black  
 SA101A32171A MT-44 Radio Set - w/RX-482  
 SA101A31871A MT-4S Radio Set  
 SA101A31971A MT-S Radio Set  
 SA101A32071A EXZES ZZ Radio Set  
 SA101A32075A EXZES ZZ Radio Set-Ltd Ed-Piano Black  
 SA107A40843A RX-371FS FHSS-2 Receiver  
 SA107A40973A RX-451R Receiver  
 SA107A41044A RX-461 Receiver for MT-4  
 SA107A41074A RX-380 FHSS-3 Receiver  
 SA107A41111A RX-471 Receiver  
 SA107A41117A RX-472 Telemetry/SSL Receiver  
 SA107A41131A RX-471WP FH4 Waterproof Receiver  
 SA107A41144A RX-371WP FHSS-2 Waterproof Receiver  
 SA107A41151A RX-471 Dual ID Receiver  
 SA107A41251A RX-481 Receiver  
 SA107A41257A RX-482 Telemetry/SSL Receiver

**CHARGERS AND DISCHARGERS**

CR031 UDC Charger Connector Set - 8pcs  
 CR114 UDC Balance Adaptor Set JST-XH to JST-EH 2-6S  
 CR161 UAC50 Charger 12v/110-240v 6A  
 NR91400 Sigma Power Charger  
 NR91555 Stealth Touch Evolution Charger  
 NR93160 Nosram Power Supply 13.8V / 20A  
 NR95815 Nosram Universal Charging Lead-Tamiya/JST Plug  
 NR95816 Nosram Universal Chg Lead-2S Lipo H/Case/Bal Adpt  
 NR95817 Nosram Universal Chg Lead- US-Style Plug  
 SK-100013 SKY RC - Quattro B6 Charger 50Wx4 AC/DC  
 SK-100064 T6755 Charger 7A 55W AC/DC Touch Screen  
 SK-100068-01 SKY RC 6 x 80+ Charger Blue Version  
 SK-100069 Synchronous DC Charger 1000W 40A  
 SK-100072 T6200 Charger 12A 200W DC Touch Screen  
 SK-100084 Imax B6 Mini Charger 6A 60W DC  
 SK-100087 Ultimate Duo Charger 700Wx2 - 30A DC  
 SK-100089 D100 Dual Charger 100W AC or 2x100w DC - 10A  
 SK-100097 D200 AC/DC Dual Charger 200W 20A + soldering iron  
 SK-100104 Q200 Quattro Charger  
 SK-100106 S60 AC Charger 60W 6A  
 SK-200008 SKY RC 15V - 4A AC Adapter

**CHARGERS AND DISCHARGERSCont....**

SK-200013-01 eFuel 30A 540W Power Supply  
 SK-200015 eFuel 50A 1200W Power Supply  
 SK-200017-01 SKY RC 17A Power Supply (UK Plug)  
 TP1201P100-240V AC - 12V DC, 1.0A Switching Adaptor TP103  
 TP1205P100-240V AC-12V DC, 5.0A Switching Adaptor  
 TP14SAB-TPJXH Balance Conn Adaptor 2S-14S JST-XH - TP1430C  
 TP205V Thunder Power 2-5 Cell Lipo Smart Balancer  
 TP610C Thunder Power 10 Amp DC Balance Charger  
 TP610C-ACDC Thunder Power 10 Amp AC/DC Balance Charger  
 TP610C-BL2 Balance Conn Adaptor 2S/6S JST-XH 610C-ADC  
 TP820CD Dual Port 20A DC charger/Cycler  
 TP8SAB-TPJXH Balance Conn Adaptor Board 2S-8S JST-XH 820CD  
 TPDLC-250A Thunder Power Balancer to Charger Data Link Cable

**BRUSHLESS MOTORS**

HW30401102 XERUN-V10-5.5T-1/10-Sensored-BL-Motor-Black-G2  
 HW30401103 XERUN-V10-6.5T-1/10-Sensored-BL-Motor-Black-G2  
 HW30401104 XERUN-V10-7.5T-1/10-Sensored-BL-Motor-Black-G2  
 HW30401105 XERUN-V10-8.5T-1/10-Sensored-BL-Motor-Black-G2  
 HW30404300 QUICRUN-3650-6.5T-Sensored-Motor  
 HW30404301 QUICRUN-3650-8.5T-Sensored-Motor  
 HW90040060 XERUN-1/10-Sensored BL Motor 8.5T  
 HW90040170 XERUN-1/10-Sensored BL Motor 6.5T  
 NR90648 Nosram Pure 2 BL - 10.5T  
 NR90649 Nosram Pure 2 BL - 9.5T  
 NR90674 Nosram Pure 2 BL - 6.5T  
 NR90689 Nosram Pure 2 BL - 5.0T  
 NR90704Nosram Pure 2 BL - 4.0T  
 SK-400003-23 ARES Pro BL Motor 5.5T  
 SK-400003-24 ARES Pro BL Motor 6.5T  
 SK-400003-25 ARES Pro BL Motor 7.5T  
 SK-400003-26 ARES Pro BL Motor 8.5T  
 SK-400003-27 ARES Pro BL Motor 9.5T  
 SP000148 1/10 Competition MMM Series 5.0R BL Motor  
 SP000149 1/10 Competition MMM Series 5.5R BL Motor  
 SP000151 1/10 Competition MMM Series 4.0R BL Motor  
 SP000259 Speed Passion V3.0 Comp BL Motor-6.0T  
 SP001224 Speed Passion Comp V4.0 Motor 5.5T  
 SP001226 Speed Passion Comp V4.0 Motor 6.5T  
 SP001227 Speed Passion Comp V4.0 Motor 7.5T  
 SP001228 Speed Passion Comp V4.0 Motor 8.5T  
 SP001229 Speed Passion Comp V4.0 Motor 9.5T  
 SP13855V3 Speed Passion V3.0 Comp BL Motor; 5.5T  
 SP13865V3 Speed Passion V3.0 Comp BL Motor; 6.5T  
 SP13875V3 Speed Passion V3.0 Comp BL Motor; 7.5T  
 SP13885V3 Speed Passion V3.0 Comp BL Motor; 8.5T  
 TPM-540A055 Thunder Power 5.5T Modified 540 BL Motor  
 TPM-540A060 Thunder Power 6.0T Modified 540 BL Motor  
 TPM-540A065 Thunder Power 6.5T Modified 540 BL Motor  
 TPM-540A075 Thunder Power 7.5T Modified 540 BL Motor  
 TPM-540A085 Thunder Power 8.5T Modified 540 BL Motor  
 TPM-540A095 Thunder Power 9.5T Modified 540 BL Motor

**BRUSHLESS ACCESSORIES**

CR133 Core Sensor Lead; 80mm  
 CR134 Core Sensor Lead; 180mm  
 CR253 110mm Flat Bonded Flex Sensor Wire  
 CR254 150mm Flat Bonded Flex Sensor Wire  
 CR255 200mm Flat Bonded Flex Sensor Wire  
 CR256 270mm Flat Bonded Flex Sensor Wire  
 HW2361200 XERUN-Sensor Cable-120mm  
 HW2362000 XERUN-Sensor Cable-200mm  
 HW30502000014 XERUN-EZRUN-Multifunction-LCD-Program Box  
 HW305030000 WiFi-Express Module  
 HW30860200010 XERUN-Fan-2510SH-13000RPM-5V/0.16A for 2S  
 HW86020010 XERUN-EZRUN-Program Card for ESC  
 HW86030030 XERUN-Capacitors

**BRUSHLESS ACCESSORIES Cont....**

HW86080120 EZRUN-Heat Sink with Fan for 3660,3674 Motors  
 HW86080130 EZRUN-Heat Sink with Fan for 4465 Motors  
 HW86080150 XERUN-Large Fan 3010HB-5V/0.18A for 2S  
 NR90644PURE Evo Tuning Sintered Rotor - 12.0mm  
 NR92501USB Bridge Spec2 - Speedo Firmware Update Device  
 NR92512Cooling Fan; Low Profile - Include Mounting Screws  
 NR925307 NOSRAM Sensor Wire HighFlex 70mm  
 NR925315 NOSRAM Sensor Wire HighFlex 150mm  
 NR925320 NOSRAM Sensor Wire HighFlex 200mm  
 SK-300046-01 Program Box  
 SP000007 Muti LED Program Card Version 2.0  
 SP000029 Sensor Unit +20 Timing"for V3.0 Motor-Green Color"  
 SP000034 Sensor Unit +10 Timing" for V3.0 Motor-Red Color"  
 SP000041 Sensor Unit for V3.0 - 4.0T/5.0T Motor  
 SP000059 Sensor Unit +40 Timing for V3.0 Motor Blue  
 SP001130 Reventon PRO 1.1 Fan  
 SP162801 SP - Sensor Cable 180mm  
 SP162802 SP - Sensor Cable 90mm  
 SP162810 SP - HiPower Solder Post; 3pcs  
 SP162820 SP - HiPower Connector; V3.0 Motors 3pcs  
 SP1EB01 SP Endbell; Fixed Timing V3.0  
 SPAMSSC3M SP - Super Capacitor 3 Farads 6 Volt rated  
 SPRM13802 Rotor; V3.0 3.5T- 8.5R 12.3mm S7 Purple  
 SPRM13802NA Rotor; V3.0 3.5T- 8.5T 12.3mm S7 Silver  
 SPRM13803NA Rotor; V3.0 3.5T- 8.5T 12.5mm Silver  
 SPRM13804 Rotor; V3.0 3.5T-8.5R 12.8mm Golden  
 SPRM13806 Rotor; V3.0 3.5T-8.5T 13mm S7 Orange  
 TPM-P1000 Thunder Power Bearing Replacement Tool  
 TPM-P1001 T-Power Bearing Std 1/8x3/8x5/32 (2pcs) S/M 540"  
 TPM-P1002 T-Power Bearing Ceramic 1/8x3/8/5/32 (2pcs)S/M540"  
 TPM-P1005 Thunder Power Sensor Unit w/Std Bearing S/M540/550  
 TPM-P1007 Thunder Power Outer Can/Case w/Screws S/M 540  
 TPM-P1008 Thunder Power Timing Cap w/Screws S/M540/550  
 TPM-P1010 Thunder Power Sensor Wire Harness 110mm  
 TPM-P1011 Thunder Power Sensor Wire Harness 200mm  
 TPM-P1012 Thunder Power Sensor Wire Harness 270mm  
 TPM-P1014 Thunder Power Insulator Set (Fr/Rr) S/M 540/550  
 TPM-R540AHT Stock Spec 540 Hi-Torque Rotor 12.5/7.25/25.0 Grn  
 TPM-R540AMR Thunder Power Mod 540 Rotor 12.2/5.2/25.0 Purple  
 TPM-R540AMR-S Thunder Power Mod 540 Rotor 12.0/5.0/25.3 Gold  
 TPM-R540ASR T-Power Stock Spec 540 Rotor 12.2/7.25/24.2 Red  
 TPM-R540AST T-Power StockSpec Torque Rotor 12.2/7.25/25.0 Blue  
 TPM-S540A055 Thunder Power 5.5T Modified 540 Stator  
 TPM-S540A060 Thunder Power 6.0T Modified 540 Stator  
 TPM-S540A065 Thunder Power 6.5T Modified 540 Stator  
 TPM-S540A075 Thunder Power 7.5T Modified 540 Stator  
 TPM-S540A085 Thunder Power 8.5T Modified 540 Stator  
 TPM-S540A095 Thunder Power 9.5T Modified 540 Stator

**BRUSHLESS ESC and MOTOR COMBO**

HW81030050 EZRUN-Combo-B4-5.5T 6000kV+EZRRun-60A-SL  
 HW81030060 EZRUN-Combo-B5-8.5T 4000kV+EZRRun-60A-SL  
 HW81030150 EZRUN-Combo-B6-9T 4300kV+EZRRun-60A-SL  
 SP000191 Reventon-R ESC-2S-Comp V3.0-7.5R Combo  
 SP000192 Reventon-R ESC-2S-Comp V3.0-8.5R Combo  
 SP000199 Reventon Stock Club Race 8.5 Combo Comp V3 Motor  
 SP001032 Reventon Pro V1.1 ESC Comp V3.0-5.5R Combo  
 SP001033 Reventon Pro V1.1 ESC Comp V3.0-6.0R Combo  
 SP001034 Reventon Pro V1.1 ESC Comp V3.0-6.5R Combo  
 SP001035 Reventon Pro V1.1 ESC Comp V3.0-7.5R Combo  
 SP001036 Reventon Pro V1.1 ESC Comp V3.0-8.5R Combo  
 SP001037 Reventon Pro V1.1 ESC Comp V3.0-9.5R Combo  
 SP001038 Reventon Pro V1.1 ESC Comp V3.0-10.5R Combo  
 SP001039 Reventon Pro V1.1 ESC Comp V3.0-13.5R Combo  
 SP001040 Reventon Pro V1.1 ESC Comp V3.0-17.5R Combo  
 SP001041 Reventon Pro V1.1 ESC Comp V3.0-21.5R Combo  
 SP001147 Reventon Pro V1.1 ESC MMM 13.5R Combo

**BRUSHLESS SPEEDCONTROLS**

CR173 PACE 45R Brushless ESC 1s/2s  
 CR174 PACE 45R/60R Programming Card  
 CR199 PACE 60R Brushless ESC 1S/2S  
 HW30112600 XERUN-XR10-Pro-V4-Black  
 HW30112601 XERUN-XR10-Pro-V4-Orange  
 HW30112602 XERUN-XR10-Pro-V4-Red  
 HW81010190 EZRUN-60A-SL-BL-ESC-1/10th Car & Truck  
 HW81010390 EZRUN-WP-80A-SL-BL-ESC-1/10th-Waterproof  
 HW81020170 XERUN-V2.1-BL-ESC-120A-Blue  
 HW81020340 XERUN-V3.1-BL-ESC-120A-Blue  
 HW81020350 XERUN-V3.1-BL-ESC-120A-Black  
 NR90960Comet EVO Brushless Speed Control  
 NR90970Comet HD Brushless Speed Control  
 SA107A54393A Super Vortex Stock ESC - SVZ Stock  
 SA107A54413A Super Vortex Generation 2 ESC - SVZ G2  
 SK-300044-01 Toro TS 120A ESC  
 SK-300062-02 Toro TS 120A Alloy ESC - Black  
 SK-300064-01 Toro TS 160 ESC  
 SP000063 Reventon-R ESC - 2S - Blue  
 SP000064 Reventon-R ESC - 2S - Silver  
 SP000739 Reventon Pro ESC-2S - V1.1 Black  
 SP000740 Reventon Pro ESC-2S - V1.1 - Laser Blue  
 SP001278 Reventon-R ESC - 2S - Black

**BATTERIES**

AM199502 Lipo Safe Bag (185 x 75 x 60mm)  
 CR007 CORE RC Silicone Wire 12g - Red/Black 2x50cm  
 CR008 CORE RC RED Connector with 2x4mm Tubes  
 CR009 CORE RC RED Connector with 2x4mm Males  
 CR050 CORE RC Silicone Wire 12g - Red 1 Metre  
 CR051 CORE RC Silicone Wire 12g - Black 1 Metre  
 CR052 CORE RC Silicone Wire 12g - Blue 1 Metre  
 CR053 CORE RC Silicone Wire 12g - Red 50 Metre Reel  
 CR054 CORE RC Silicone Wire 12g - Black 50 Metre Reel  
 CR055 CORE RC Silicone Wire 12g - Blue 50 Metre Reel  
 CR059 CORE RC - Safe Charge Pouch 23x30cm  
 CR115 CORE RC Silicone Wire 12g - Red/Black/Blue 3x50cm  
 CR124 Heatshrink 6.0mm dia Black - 20pcs  
 CR125 Heatshrink 6.0mm dia Red - 20pcs  
 CR170 CORE RC Lipo Locker - 17 x 8 x 7cm  
 CR287 Silicone Wire Black 14 AWG - 1Mtr  
 CR288 Silicone Wire Black 16 AWG - 1Mtr  
 CR294 CORE RC-4000mAhR 7.4V 30/60C 2S Shorty Lipo  
 CR295 CORE RC-5000mAhR 7.4V 30/60C 2S Saddle Lipo  
 G719 GP Alkaline AA Pencil; Card 8 + 4  
 H1046 T Connector; Red 2 Way - Male and Female  
 H1047 T Connector; Black 2 Way - Male and Female  
 H1048 T Connector; Red Sockets - pk4  
 H1049 T Connector; Black Sockets - pk4  
 IPBG2S4000V4 Intellect-Lipo 4000mAh 40C 2S Shorty  
 IPBG2S5000SV1 Intellect-Lipo 5000mAh 100C 2S Shorty SHV  
 IPSQ2S6000V9 Intellect Lipo 6000mAh 2S-90C-7.4V-Square  
 IPTP2S6000SV1 Intellect-Lipo 6000mAh 100C 2S Saddle SHV  
 IPTP2S6000V8 Intellect - Saddle Lipo 6000mAh 2S - 80C- 7.4V  
 MR-SB MR33 Lipo Bag  
 NR999512 Lipo 2600 1/10 X-treme Super Shorty 110C/55C-7.4V  
 NR999519 Lipo 5500 1/10 X-treme Saddle Pack 110C/55C-7.4V  
 NR999522 Lipo 4300 1/10X-treme Shorty Stk Spec 110C/55C-7.4  
 NR999528 Lipo 5600 1/10 X-treme TC Mid Shorty P5-7.4V  
 NR999529 Lipo 4500 1/10 X-treme Shorty P5 - 7.4V  
 NR999530 Lipo 4500 1/10 X-treme-Shorty Stk Spec P5-7.4V  
 NR999531 Lipo 3000 1/10 X-treme Shorty LCG P5-7.4V  
 NR999532 Lipo 4000 1/10 X-treme Real Shorty LCG P5-7.4V  
 NR999533 Lipo 5800 1/10 X-treme Saddle P5-7.4V  
 NR999534 Lipo 3900 1/10 X-treme Saddle LCG P5-7.4V

**BATTERIES Cont....**

NR999535 Lipo 3900 1/10 X-treme Shorty Saddle P5-7.4V  
 NR999536 Lipo 3900 1/10 X-treme Small Saddle P5-7.4V  
 NR999538 Lipo 2600 1/10 X-treme Super Shorty P5-7.4V  
 NR999541 Lipo 4900 1/10 Outlaw Race Shorty P5-7.6V  
 SK-500007-01 SKY RC Lipo Pal  
 TP4P10E Thunder Power 4 Pin Balance connector 10Extension"  
 TP4P8 TP 4 Pin Balance Connector 8 Colour Coded Wires"  
 TP6P10E Thunder Power 6 Pin Balance Connector 10Extension"  
 TP6P13 TP 6 Pin Balance Connector 13 Colour Coded Wires"  
 TP6P4PE Thunder Power 6 Pin Adaptor/Extension  
 TPLSBL Thunder Power Lipo Charge Bag Large 9" x 12"  
 TPLSBS Thunder Power Lipo Charge Bag Small 7" x 8"

**GENERAL ACCESSORIES**

CR043 CORE RC - Silver X-Weights 16pcs  
 CR058 CORE RC - Black X-Weights 16pcs  
 CR197 CORE RC - Glass Setup Board  
 CR297 CORE RC - Neoprene Bag  
 CR518 Super Glue Nozzles - pk10  
 CR520 Medium Thread Lock 3ml  
 CR521 Super Glue Activator 63ml  
 CR522 CORE RC - 522 Pro Tyre Glue + 2 Nozzles  
 CR548 CORE RC - Tool Bag  
 CR549 CORE RC - Oil Bag  
 G353 Schumacher Glass Setup Board  
 G354 Schumacher - Neoprene Bag  
 J003 Contact RC - Glass Setup Board  
 J004 Contact RC - Neoprene Bag  
 MR-CSOFFROAD MR33 Car Stand Off Road  
 MR-SUPER GLUE Perfect Super Glue for Rubber Tyres  
 U4831 Aerial Tube Cap - Black - 6pk

**1-10 BUGGY ON ROAD TYRES**

JY35 1/10 Buggy Foam Donuts Rear 35Sh  
 JY45 1/10 Buggy Foam Donuts Front 45Sh  
 U6720 VENOM 88 Tyre - Rascal/ 1/10th buggy (pr) - Silver  
 U6790 Venom 88 Tyre 1/10th Buggy Rear - White

**1-10 BUGGY OFF ROAD TYRES**

T650 Full Spike - Rear Tyres - Soft CAT (pr)  
 T652 Full Spike - Front Tyres - Soft CAT (pr)  
 T692 Block - Rear Tyres - Blue - CAT (pr)  
 U6515 Mini Spike 2; Front Tyres - Green - 2.2 (pr)  
 U6516 Mini Spike 2; Rear Tyres - Green - 2.2 (pr)  
 U6517 Mini Spike 2; Front Tyres - Blue - 2.2 (pr)  
 U6518 Mini Spike 2; Rear Tyres - Blue - 2.2 (pr)  
 U6549 Mini Spike 2; Blue - Slim (pr)  
 U6550 Mini Spike 2; Green - Slim (pr)  
 U6557 Mini Spike 2; Front Tyres - Yellow (pr)  
 U6558 Mini Spike 2; Rear Tyres - Yellow (pr)  
 U6581 Mini Spike 2; standard -Yellow - Slim (pr)  
 U6592 Stagger Rib - Yellow - Slim  
 U6596 Full Spike - Rear Tyres- Yellow - 2.2 (pr)  
 U6601 Mini Pin - Blue - Front - 2.2 (pr)  
 U6607 Mini Pin - Yellow - Front - 2.2 (pr)  
 U6609 Mini Pin - Yellow - Slim (pr)  
 U6759 Cut Stagger - Yellow - Slim (pr)  
 U6761 Mini Spike 2; Silver - Slim (pr)  
 U6762 Mini Spike 2; Front Tyres - Silver (pr)  
 U6763 Mini Spike 2; Rear Tyres - Silver (pr)  
 U6765 Cut Stagger Green - Slim (pr)  
 U6770 Cut Stagger - Low Profile - Yellow (pr)  
 U6771 Cut Stagger - Low Profile - Green (pr)  
 U6775 Cut Stagger - Low Profile - Silver (pr)  
 U6776 Cut Stagger - Low Profile - Blue (pr)  
 U6779 Mini Pin - Silver - Slim (pr)  
 U6786 Block - Rear Tyres - Yellow - CAT pr  
 U6794 Mini Spike2 -Pre-Glued Yellow Rear Hex Drive(pr)  
 U6795 Mini Pin; Slim Yellow - Pre-Glued Hex Drive (pr)  
 U6797 Stud 2 Row Front - Yellow (pr)  
 U6801 Cut Stagger Low Pro-Yel-Pre-Glued Hex(pr)

**1-10 BUGGY OFF ROAD TYRES Cont....**

U6817 Mini Pin 1 - Rear - 1/10 - Yellow-pr  
 U6818 Mini Pin 1 - Rear - 1/10 - Yellow - Pre-Glued  
 U6819 Mini Pin 1 - Rear - 1/10 - Blue - pr  
 U6820 Mini Pin 1 - Rear - 1/10 - Silver - pr  
 U6821 Mini Pin 2 - Front - 1/10 - Yellow pr  
 U6822 Mini Pin 2 - Front - 1/10 - Yellow-Pre-Glued pr  
 U6824 Mini Dart 1/10 - Front - 2WD - Yellow (pr)  
 U6826 Mini Dart 1/10 - Rear - Yellow (pr)  
 U6827 Mini Dart 1/10 - Front - 2WD - Blue (pr)  
 U6829 Mini Dart 1/10 - Rear - Blue (pr)  
 U6830 Mini Dart 1/10 - Front - 2WD - Silver (pr)  
 U6832 Mini Dart 1/10 - Rear - Silver (pr)  
 U6833 Mini Dart 1/10-Front-2WD-Pre-Glued Yellow (pr)  
 U6835 Mini Dart 1/10-Rear-Pre-Glued-Yellow (pr)

**1-10 BUGGY WHEELS AND INSERTS**

U4365 Wheel; Hex Rear - Black - Off Road - pr  
 U4366 Wheel; Hex Rear - White - Off Road - pr  
 U4367 Wheel; Hex Front - Black - 2wd - pr  
 U4368 Wheel; Hex Front - White - 2wd - pr  
 U4660 Wheel; Hex - Slim - 2WD - Black  
 U4661 Wheel; Hex - Slim - 2WD - White  
 U6652 Foam Tyre Insert; Hard - Front - CAT (pr)  
 U6653 Foam Tyre Insert; Hard - Rear - CAT (pr)  
 U6667 Foam Tyre Insert; Hard - Slim 2WD (pr)  
 U6668 Foam Tyre Inserts; Soft - Ultra Wide (pr)  
 U6669 Foam Tyre Inserts; Hard - Ultra Wide (pr)  
 U6733 Foam Tyre Insert; Med - Front - CAT (pr)  
 U6734 Foam Tyre Insert; Med - Rear - CAT (pr)  
 U6738 Foam Tyre Insert; Med - Slim 2WD (pr)  
 U6746 Tubby Insert; Med Front - CAT (pr)  
 U6747 Tubby Insert; Med Rear - CAT (pr)

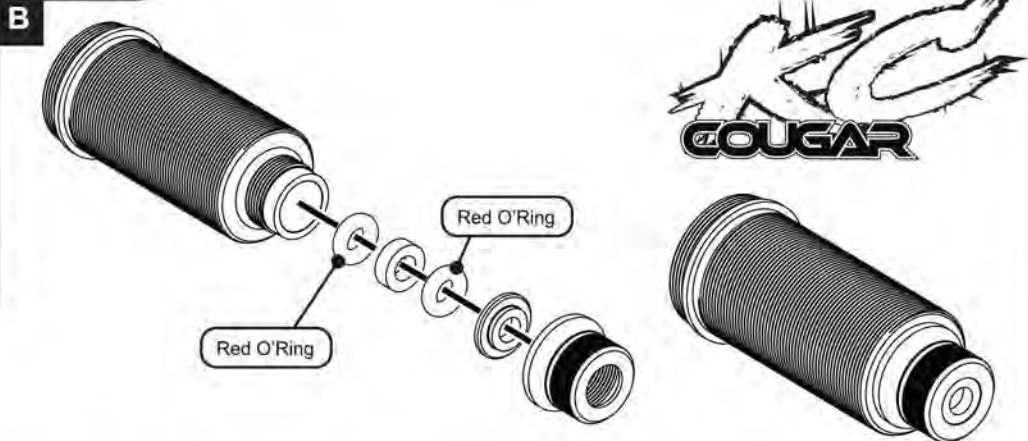
**PAINT**

CR600 Aerosol Paint - White Knight  
 CR601 Aerosol Paint - Yellow Taxi  
 CR602 Aerosol Paint - Fire Red  
 CR603 Aerosol Paint - French Blue  
 CR604 Aerosol Paint - Petrol Blue  
 CR605 Aerosol Paint - Racing Green  
 CR606 Aerosol Paint - Jet Black  
 CR607 Aerosol Paint - Lime Green  
 CR608 Aerosol Paint - Tangerine  
 CR609 Aerosol Paint - Hot Pink  
 CR610 Aerosol Paint - Berry Purple  
 CR611 Aerosol Paint - Neon Yellow  
 CR612 Aerosol Paint - Neon Orange  
 CR613 Aerosol Paint - Neon Red  
 CR614 Aerosol Paint - Neon Green  
 CR615 Aerosol Paint - Neon Fire  
 CR616 Aerosol Paint - Neon Carrot  
 CR617 Aerosol Paint - Neon Pink  
 CR618 Aerosol Paint - Neon Blue  
 CR619 Aerosol Paint - Metallic Blue  
 CR620 Aerosol Paint - Metallic Graphite  
 CR621 Aerosol Paint - Metallic Silver  
 CR622 Aerosol Paint - Metallic Purple  
 CR623 Aerosol Paint - Metallic Green  
 CR624 Aerosol Paint - Metallic Red  
 CR625 Aerosol Paint - Metallic White  
 CR626 Aerosol Paint - Clear Sparkle  
 CR627 Aerosol Paint - True Chrome  
 CR628 Aerosol Paint - Clear Backing  
 CR629 Aerosol Paint - Window Tint  
 CR631 Aerosol Paint - Spearmint

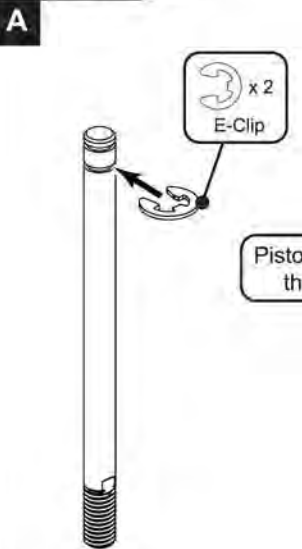
STEP 38



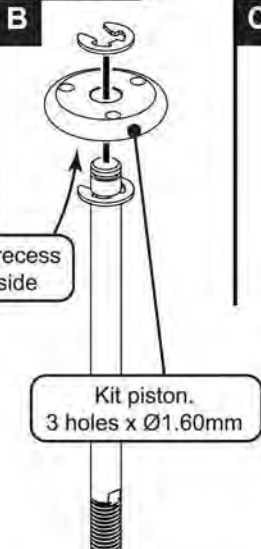
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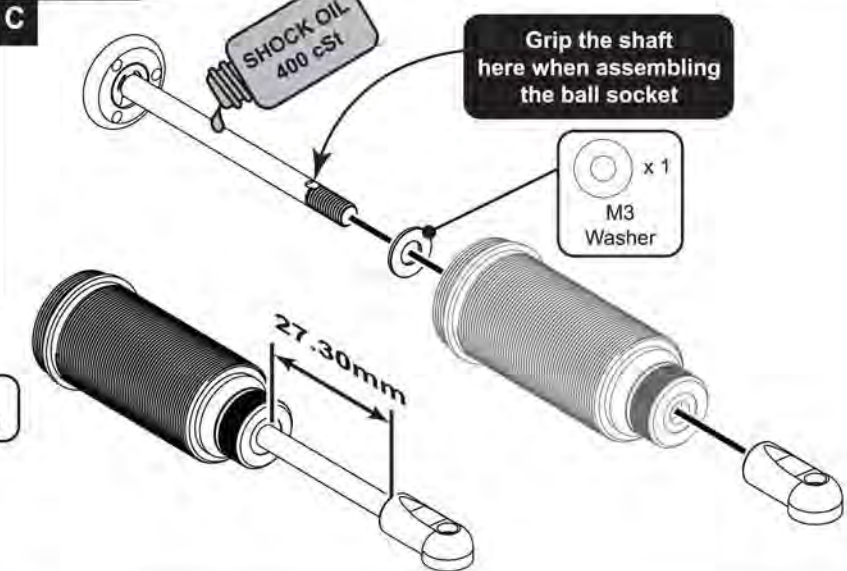
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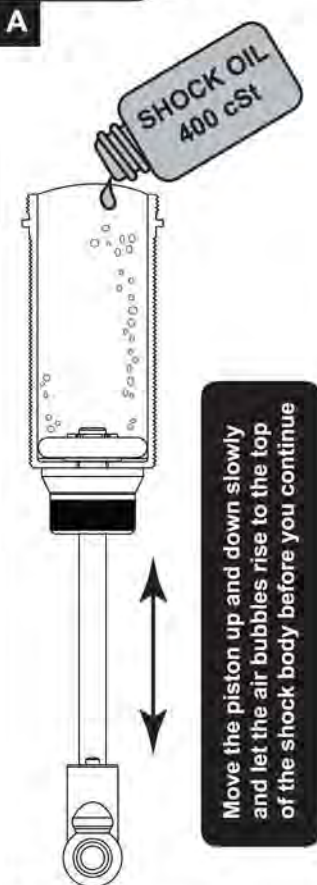
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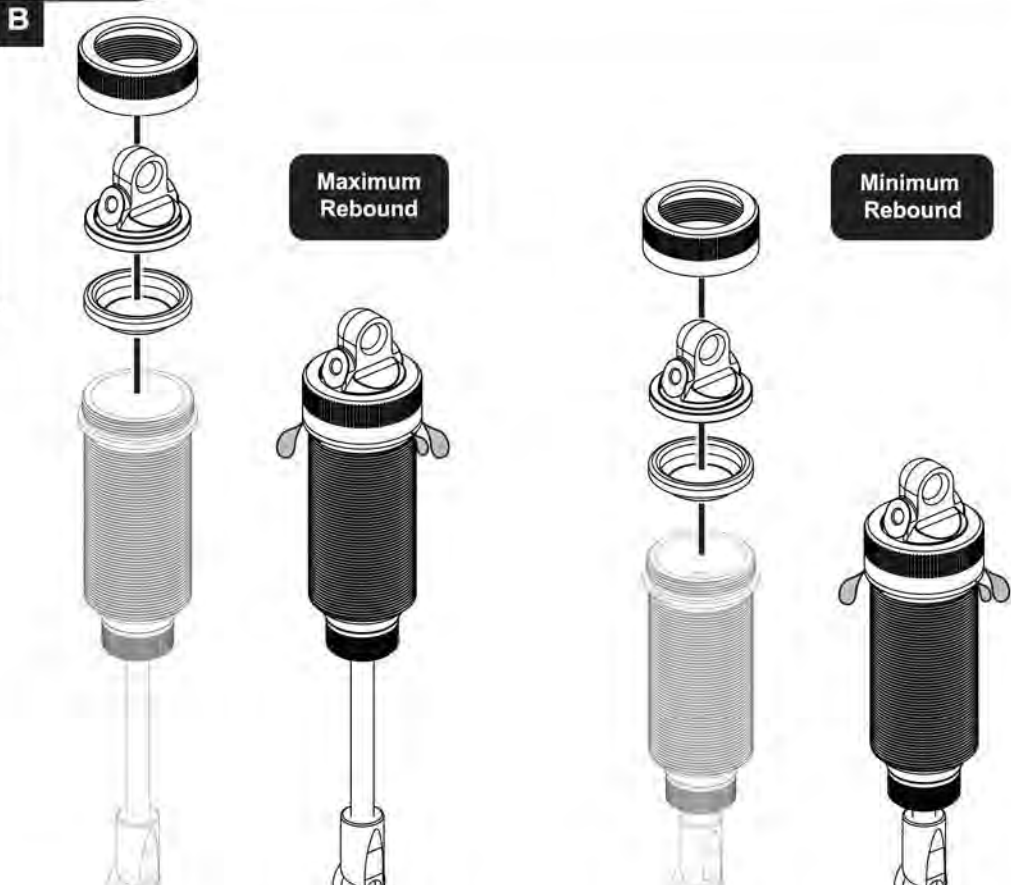
STEP 39



STEP 40



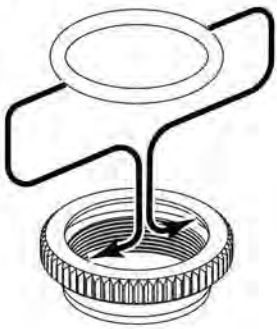
STEP 40





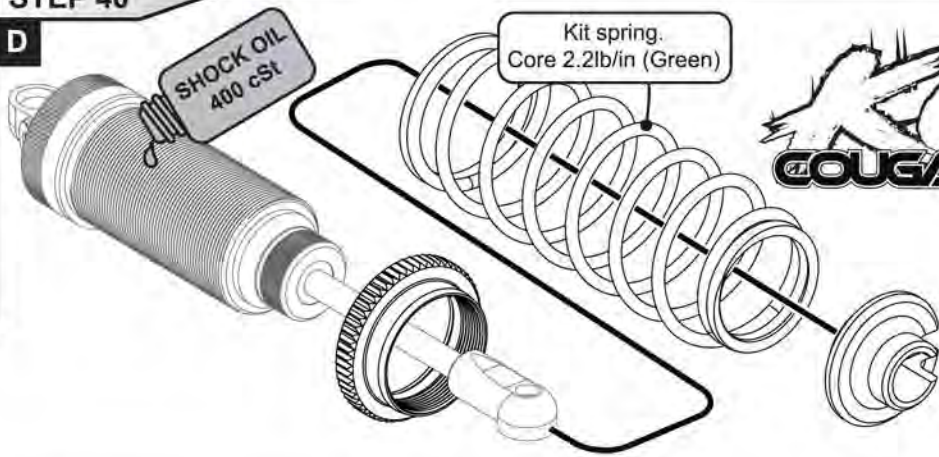
STEP 40

C

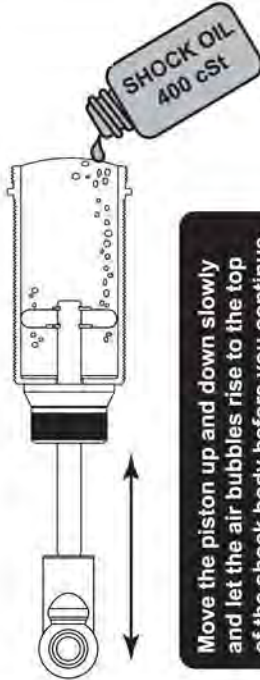
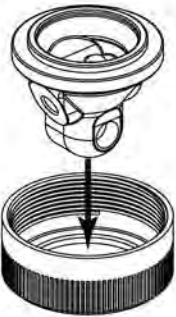


STEP 40

D



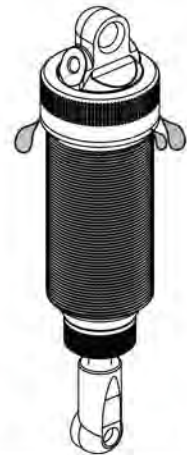
Optional Emulsion Shock



Move the piston up and down slowly and let the air bubbles rise to the top of the shock body before you continue.



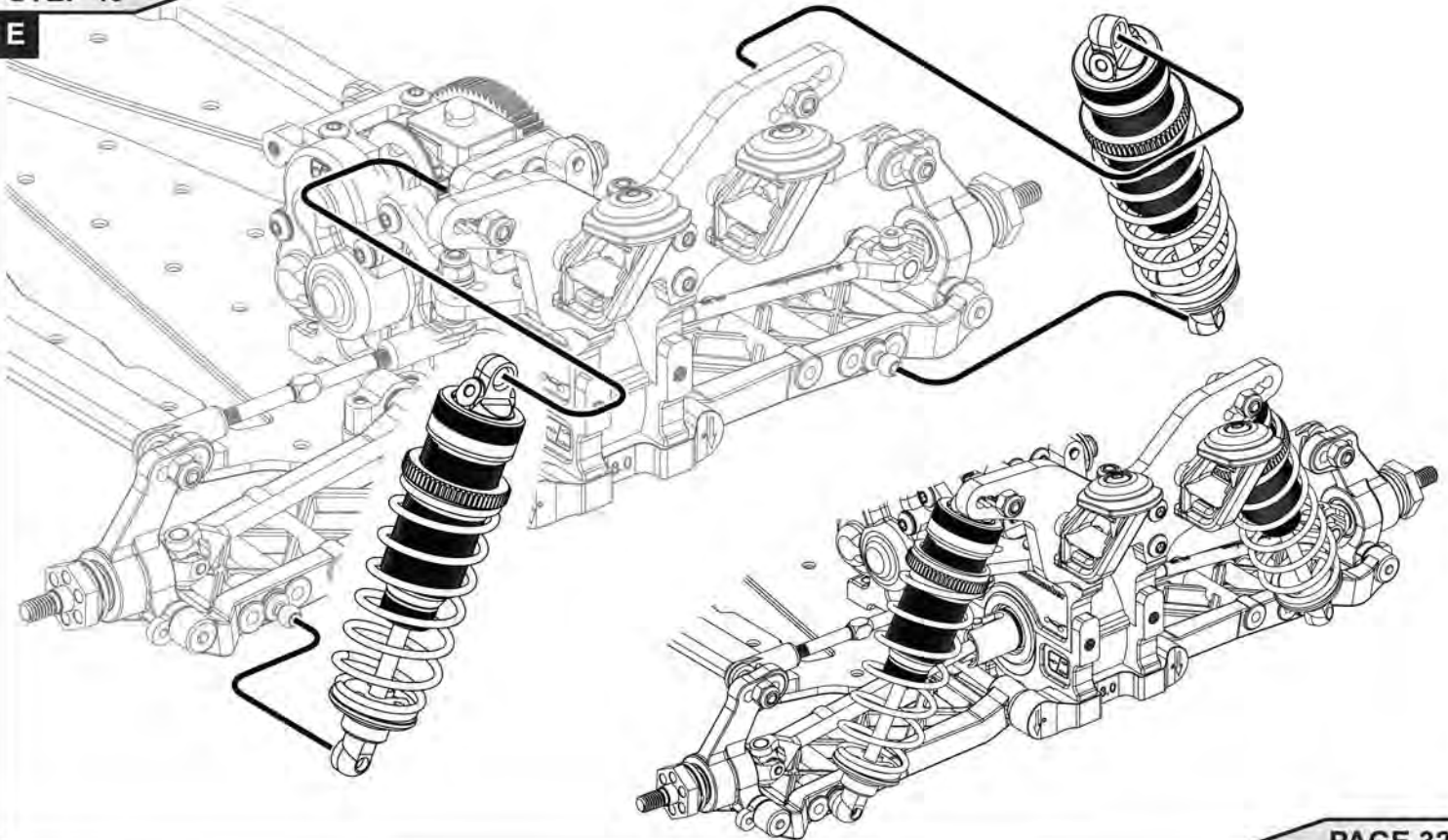
Screw the cap and O-ring onto the body. Then tighten the cap fully and undo two full turns.



Fully compress the shaft into the body. Once the excess oil has been expelled from the shock, then fully tighten the cap.

STEP 40

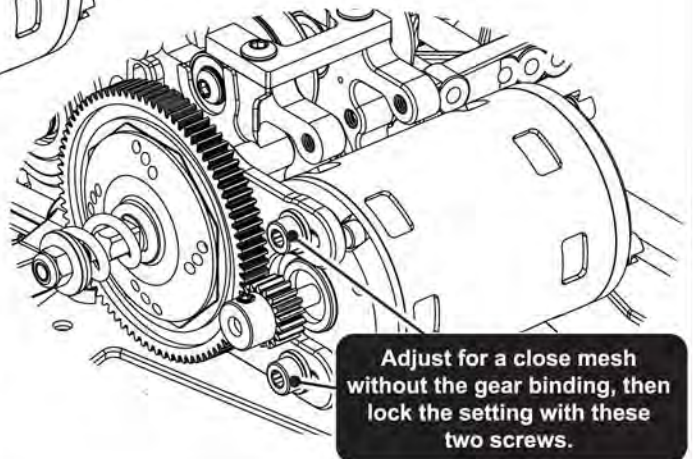
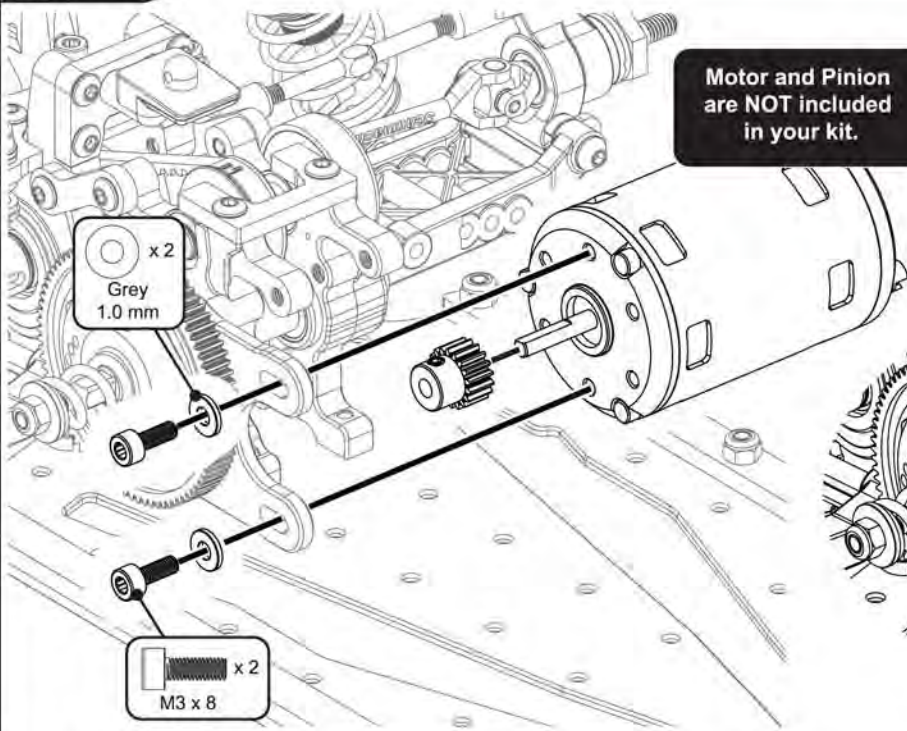
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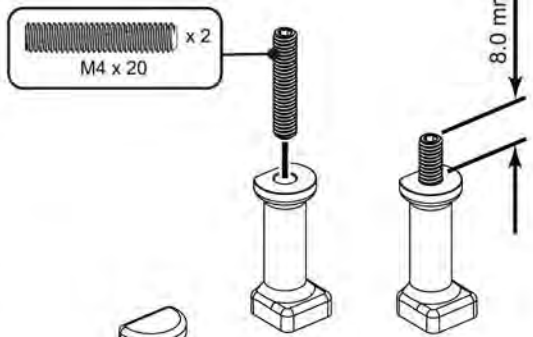
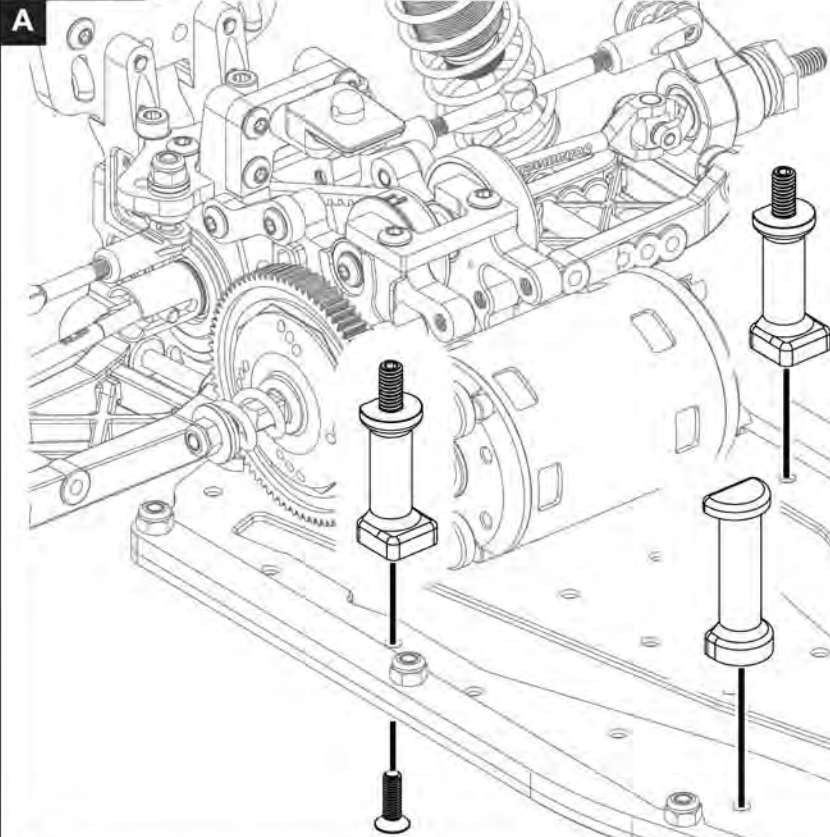
**STEP 41**



Motor and Pinion are NOT included in your kit.

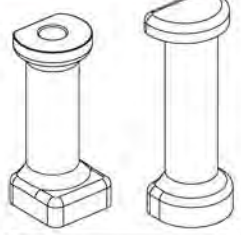
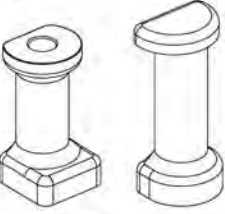


**STEP 42**



The kit contains long and short LiPo posts. The long posts are for Regular Saddle pack and shorty LiPo's. The short Posts are for LCG LiPo's.

LCG LiPo Posts

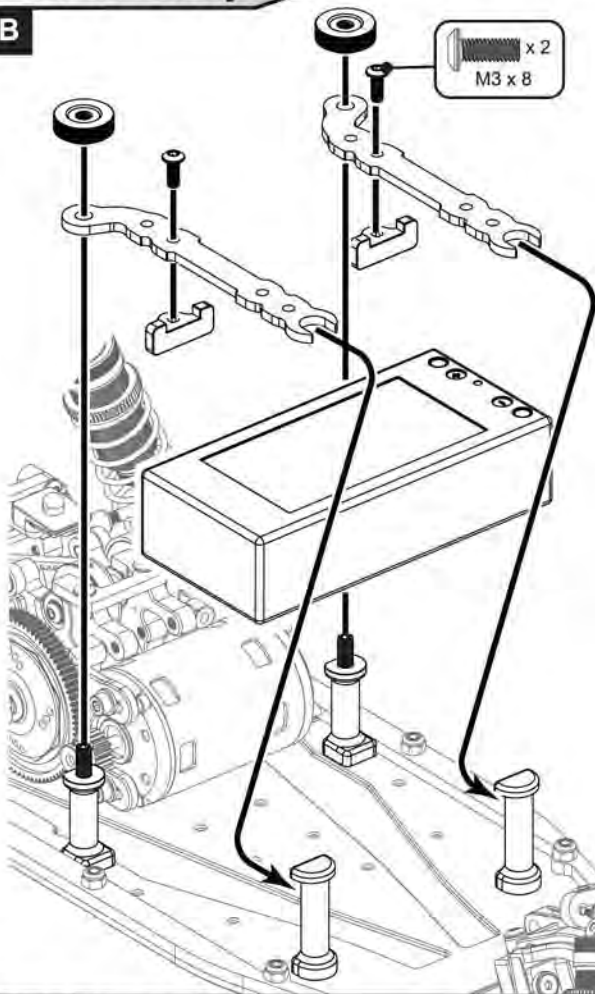


Regular LiPo Posts

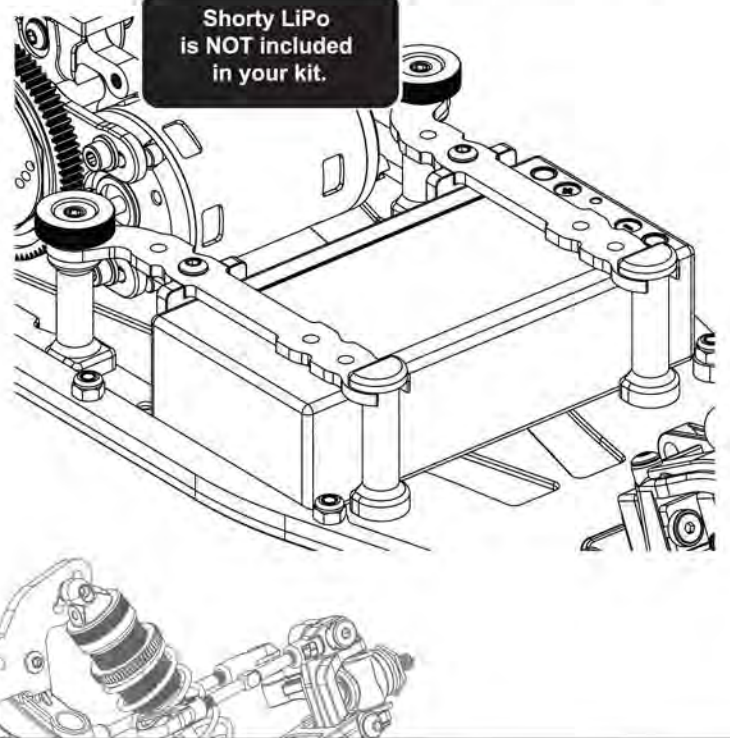
x4 M3 x 8

**STEP 42 - Shorty**

**B**

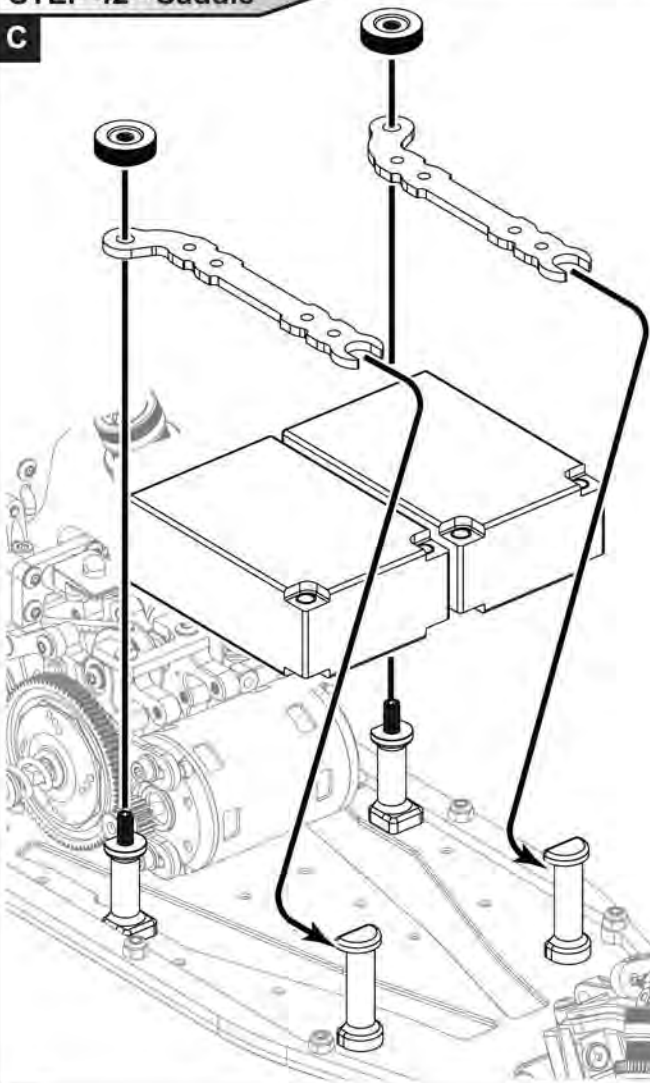


Shorty LiPo is NOT included in your kit.

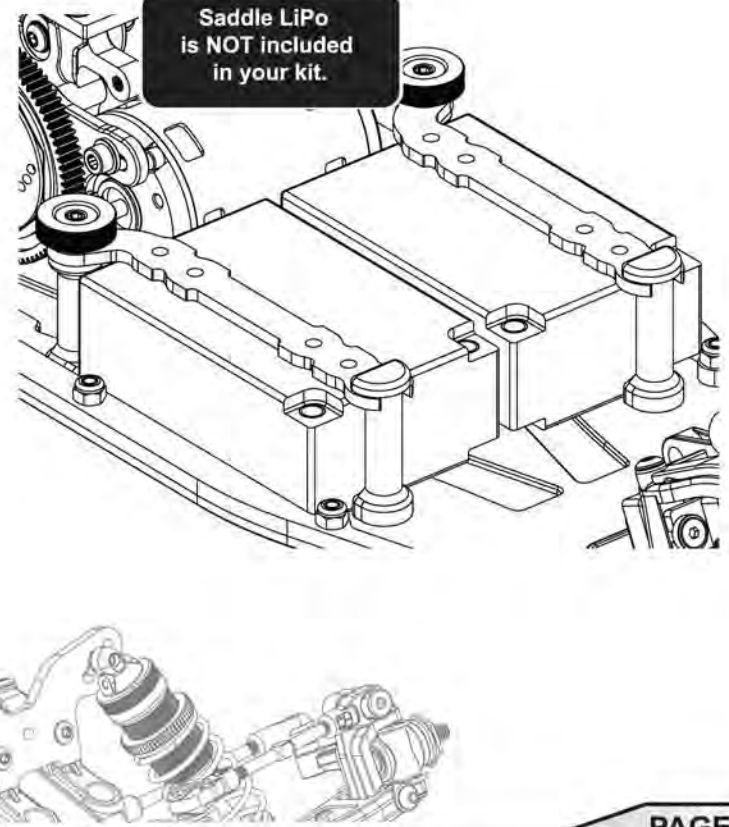


**STEP 42 - Saddle**

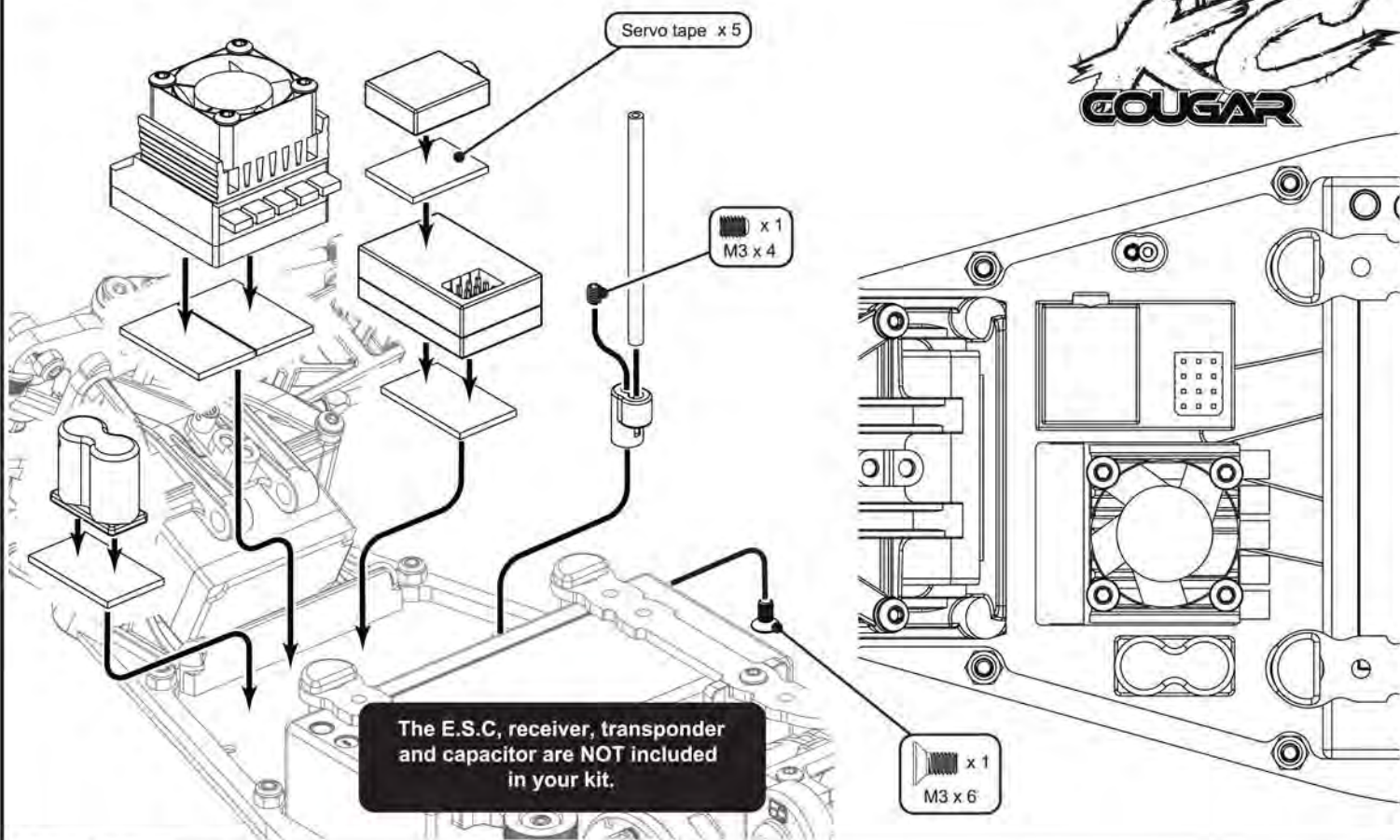
**C**



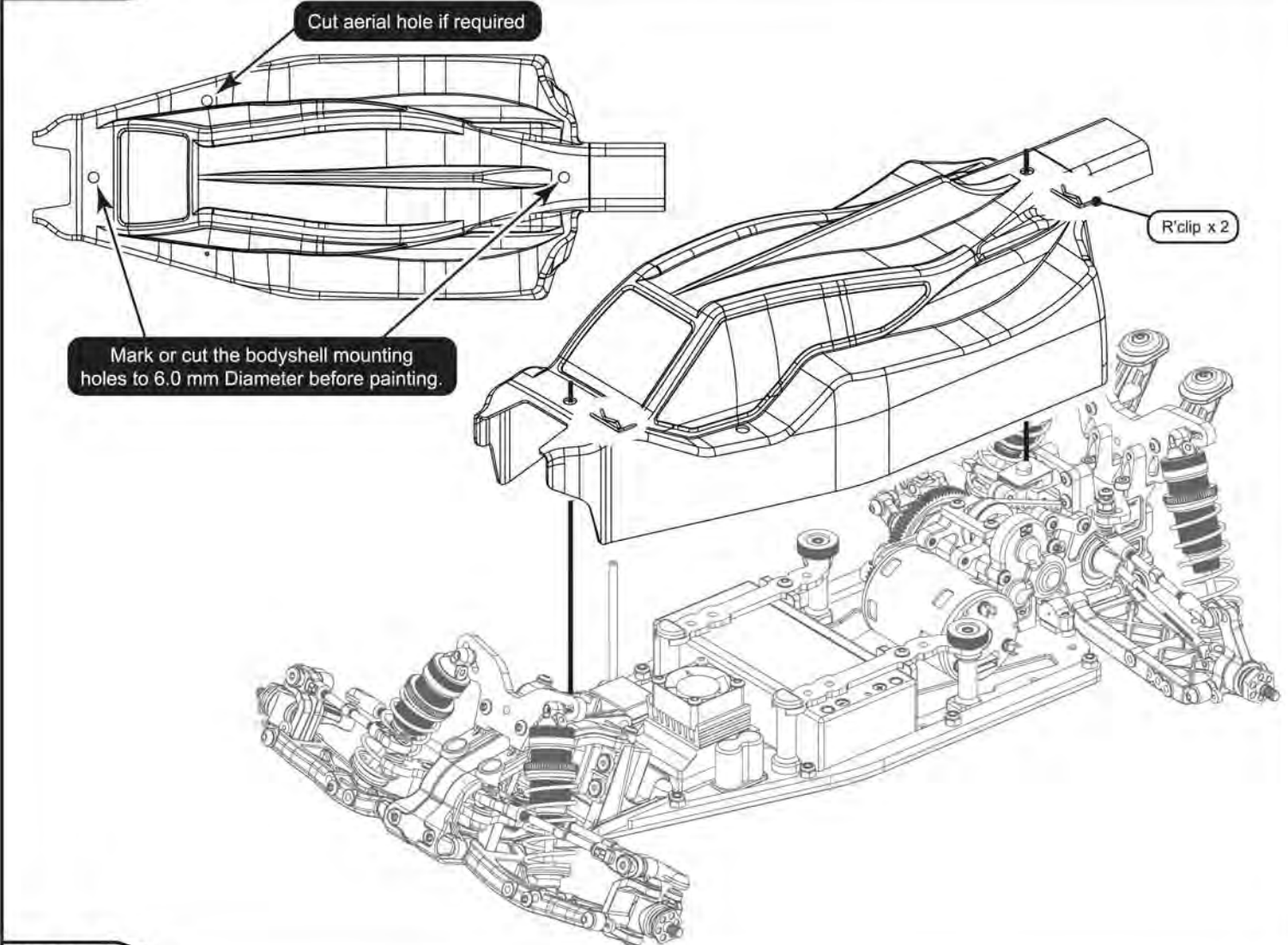
Saddle LiPo is NOT included in your kit.



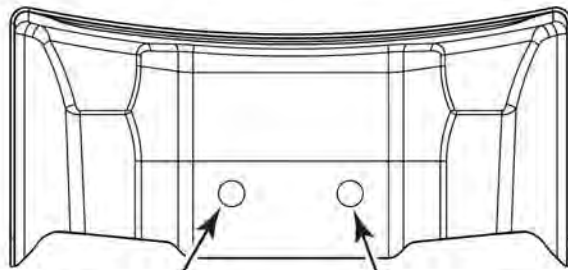
STEP 43



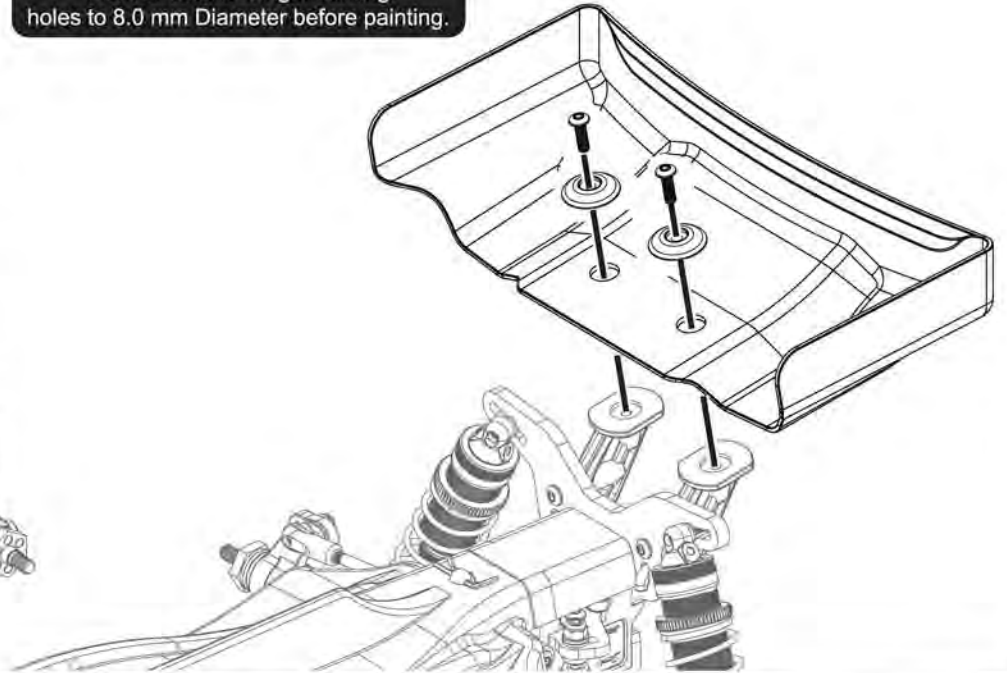
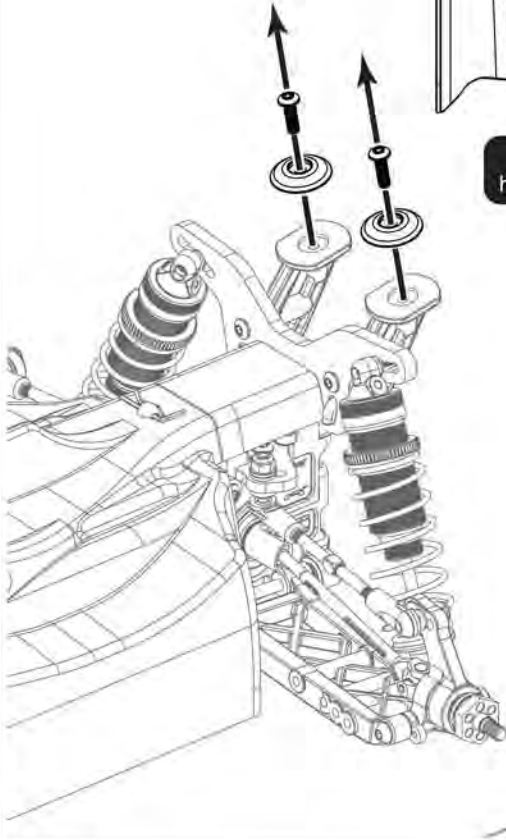
STEP 44



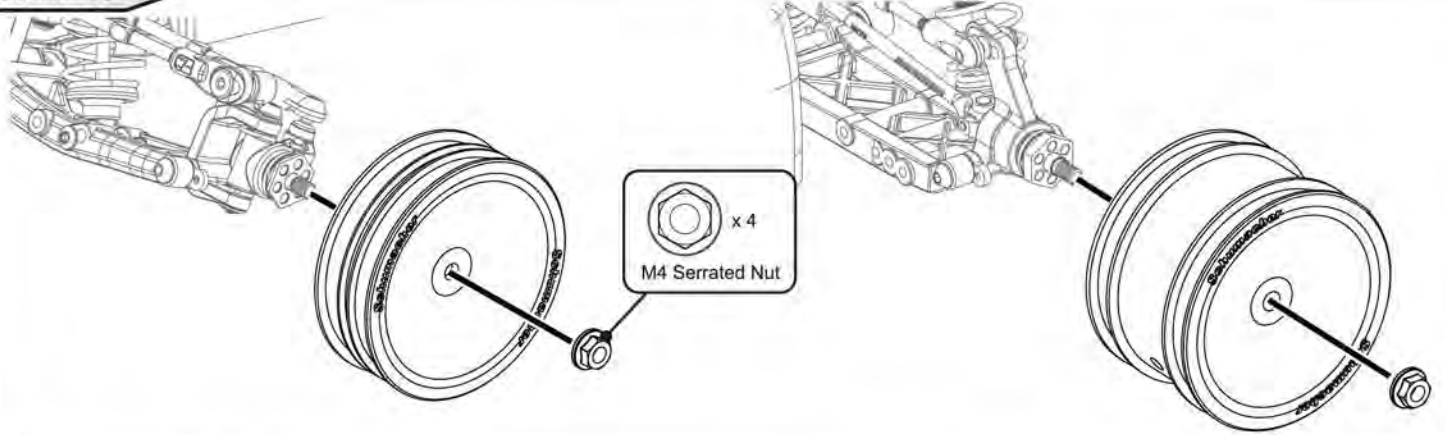
**STEP 45**



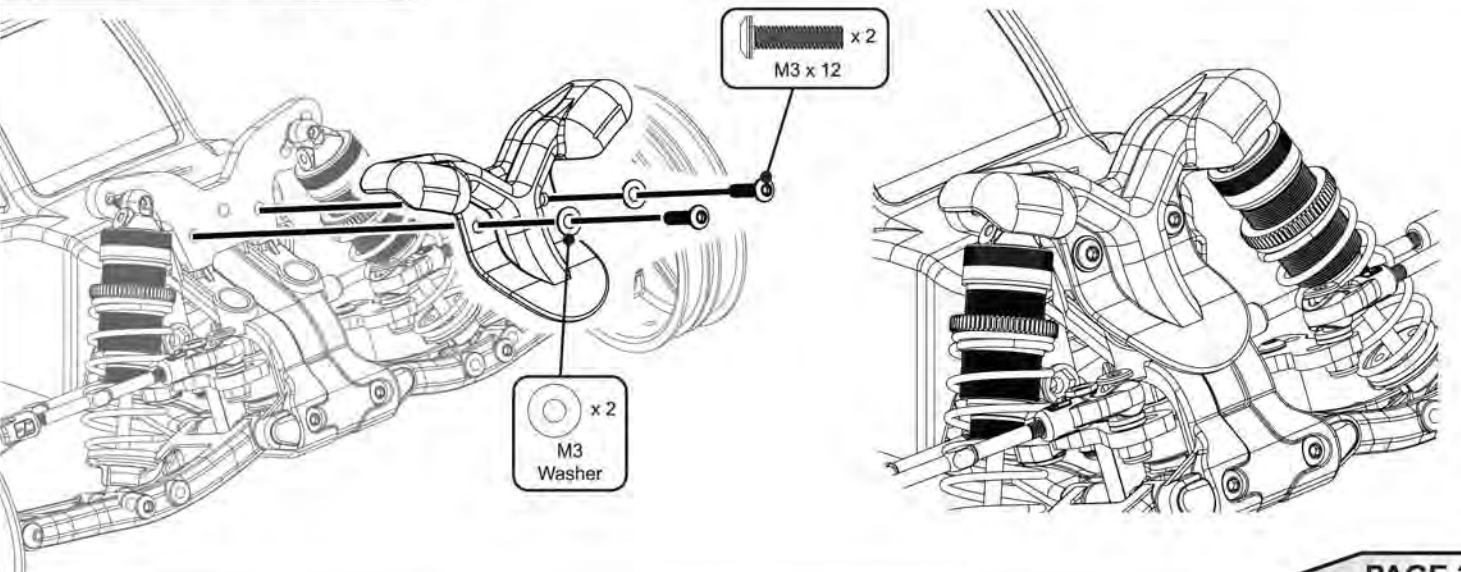
Mark or cut the wing mounting holes to 8.0 mm Diameter before painting.



**STEP 46**

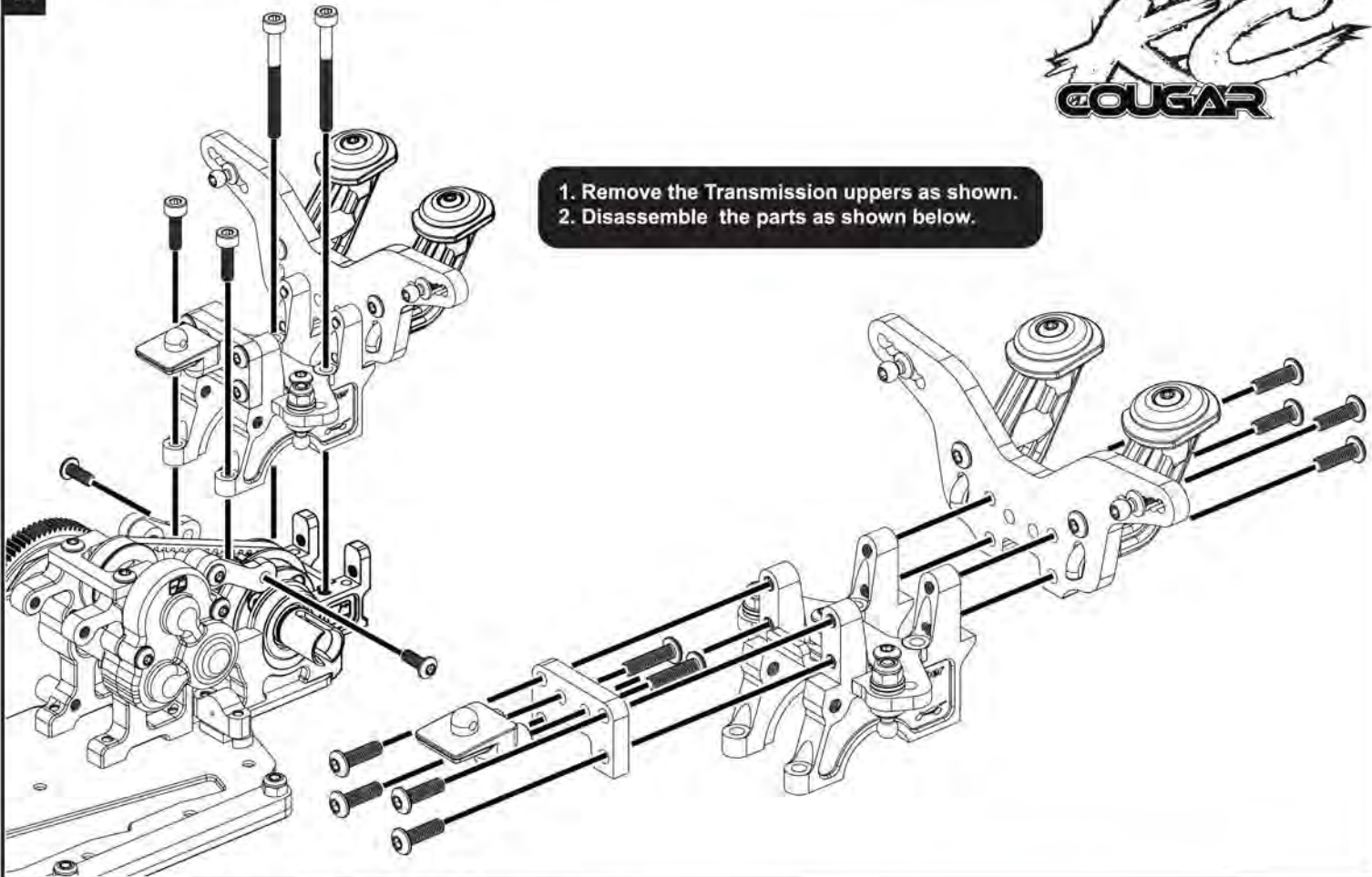


**Optional front shock cover**



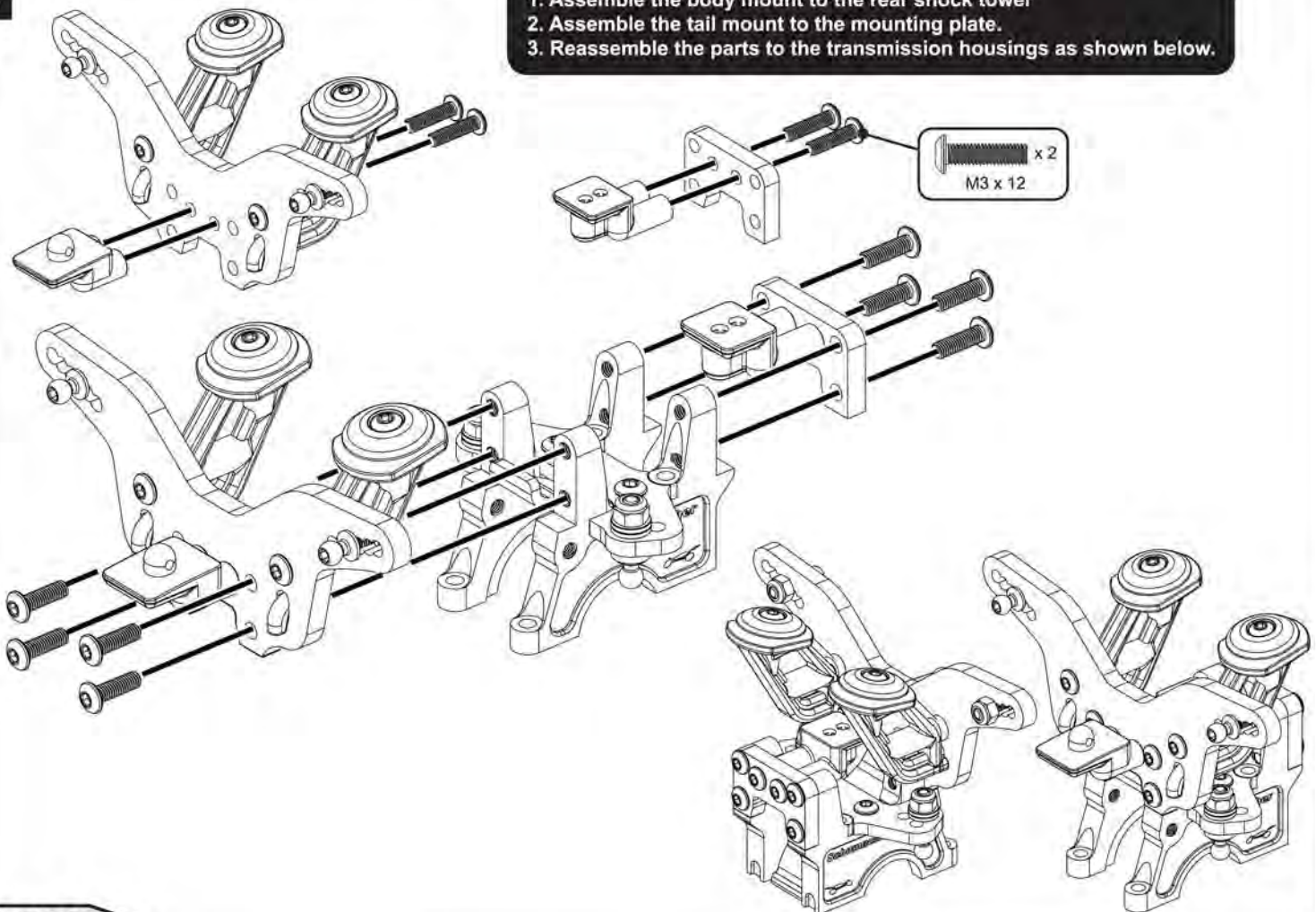


A



- 1. Remove the Transmission uppers as shown.
- 2. Disassemble the parts as shown below.

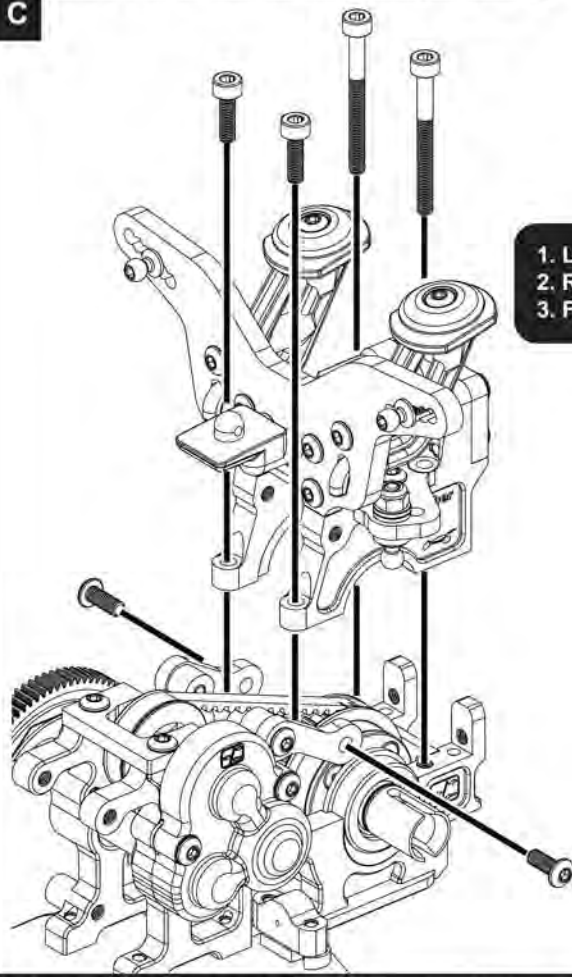
B



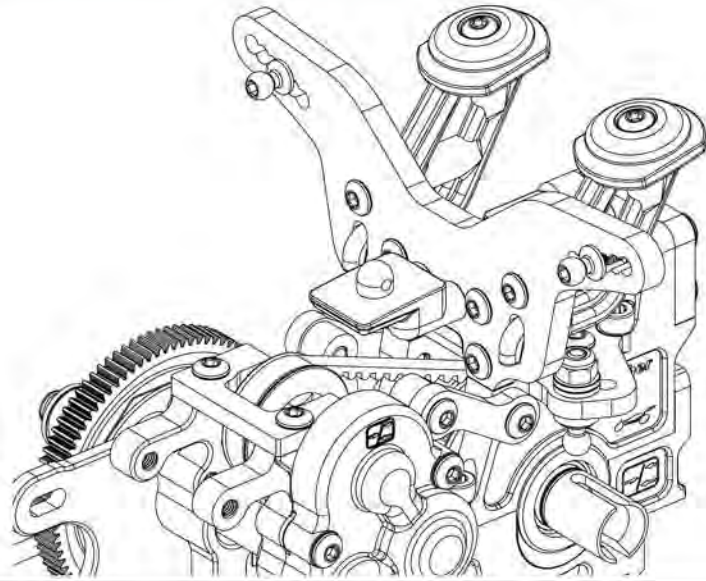
- 1. Assemble the body mount to the rear shock tower
- 2. Assemble the tail mount to the mounting plate.
- 3. Reassemble the parts to the transmission housings as shown below.



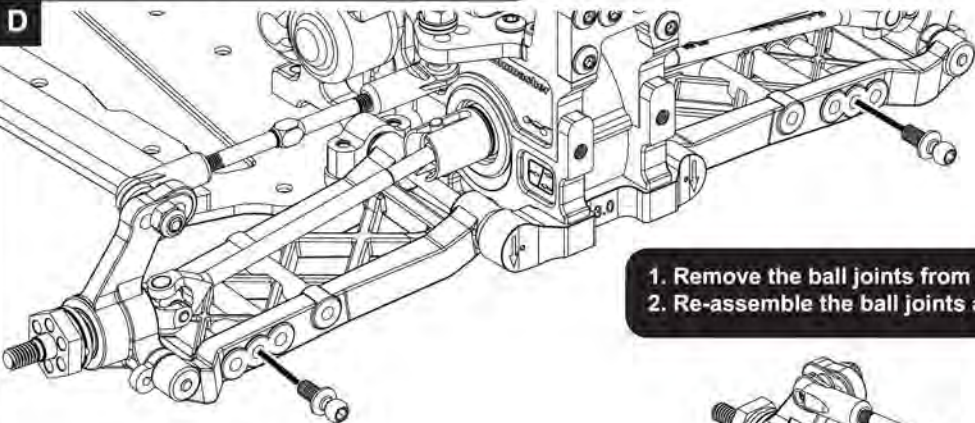
C



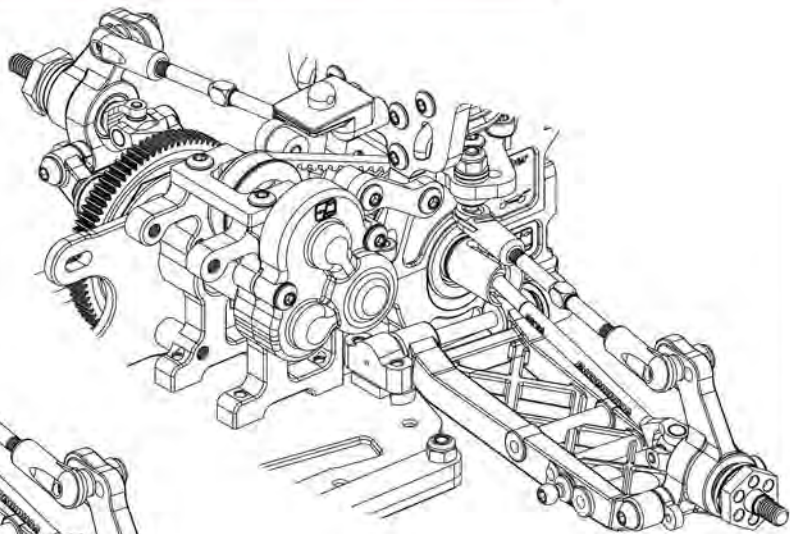
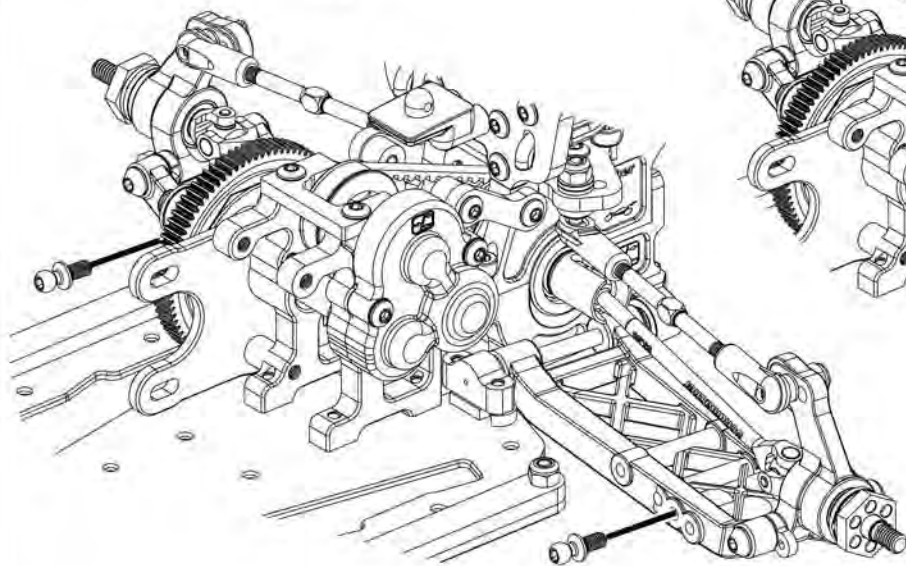
- 1. Loosen the two remaining topdeck screws.
- 2. Reassemble the Transmission upper assembly as shown.
- 3. Fully tighten all screws.



D



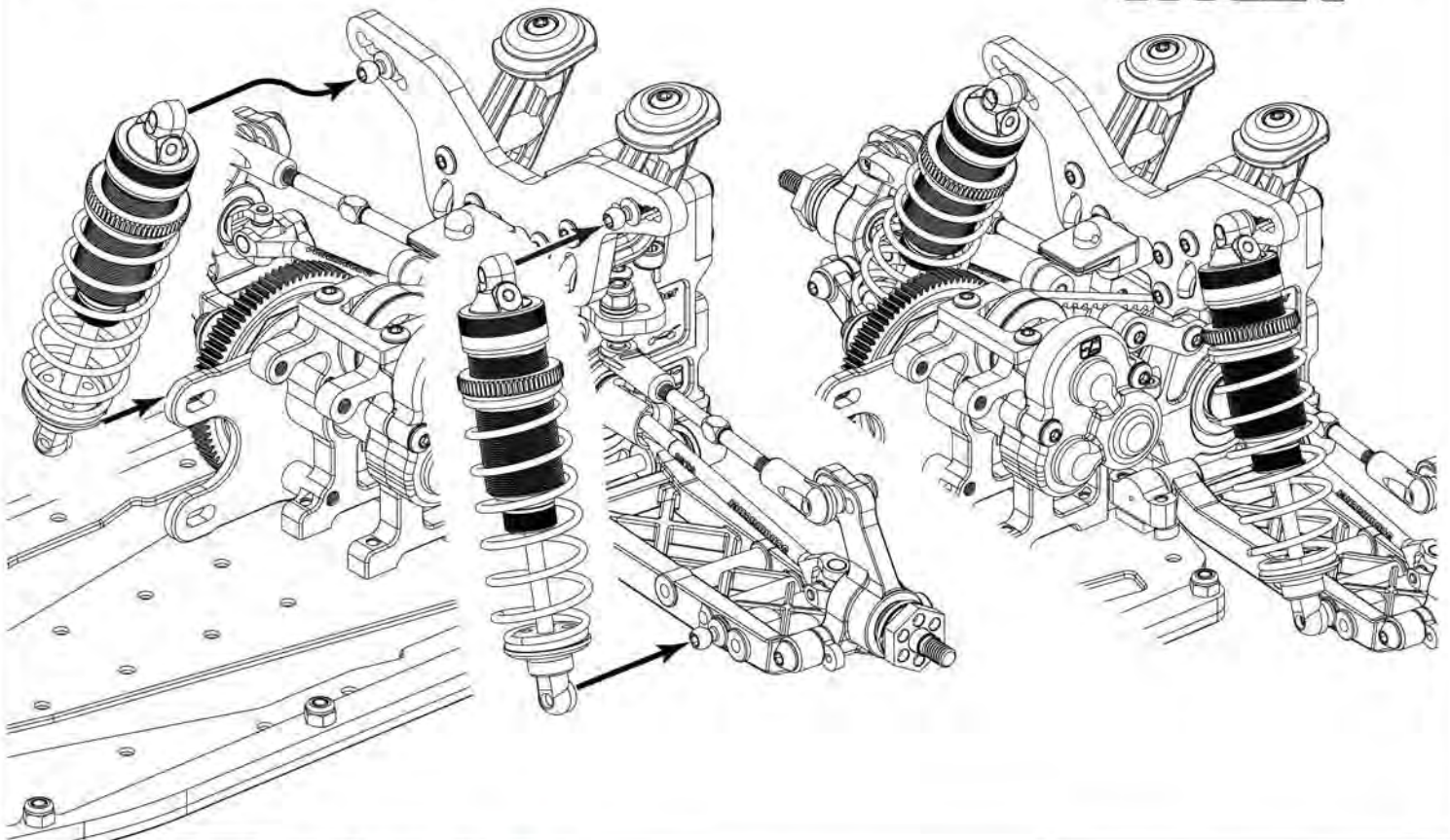
- 1. Remove the ball joints from the rear of the wishbones.
- 2. Re-assemble the ball joints as shown below.



E



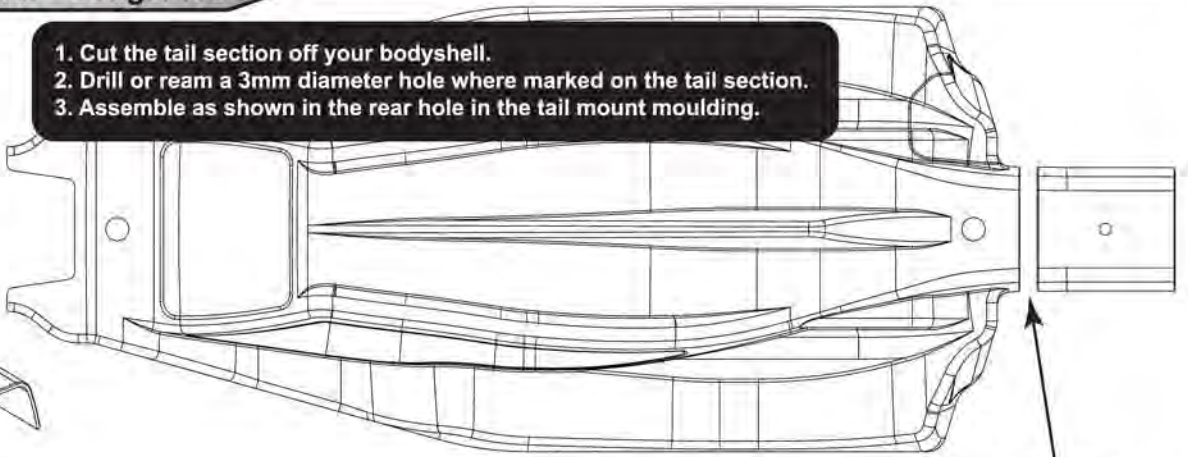
1. Assemble the shocks as shown.



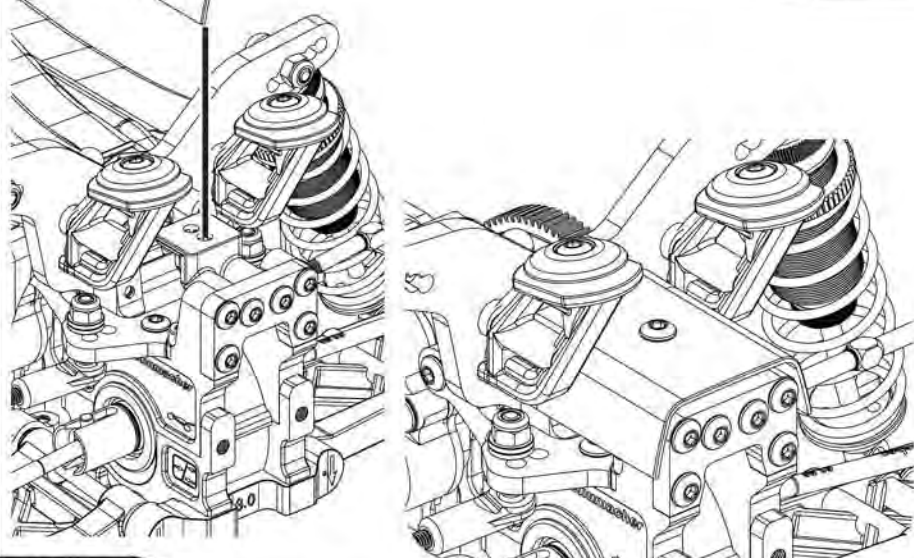
F

1. Cut the tail section off your bodyshell.
2. Drill or ream a 3mm diameter hole where marked on the tail section.
3. Assemble as shown in the rear hole in the tail mount moulding.

x 1  
M3 x 10



Carefully remove the Tail of the bodyshell at the cut line.

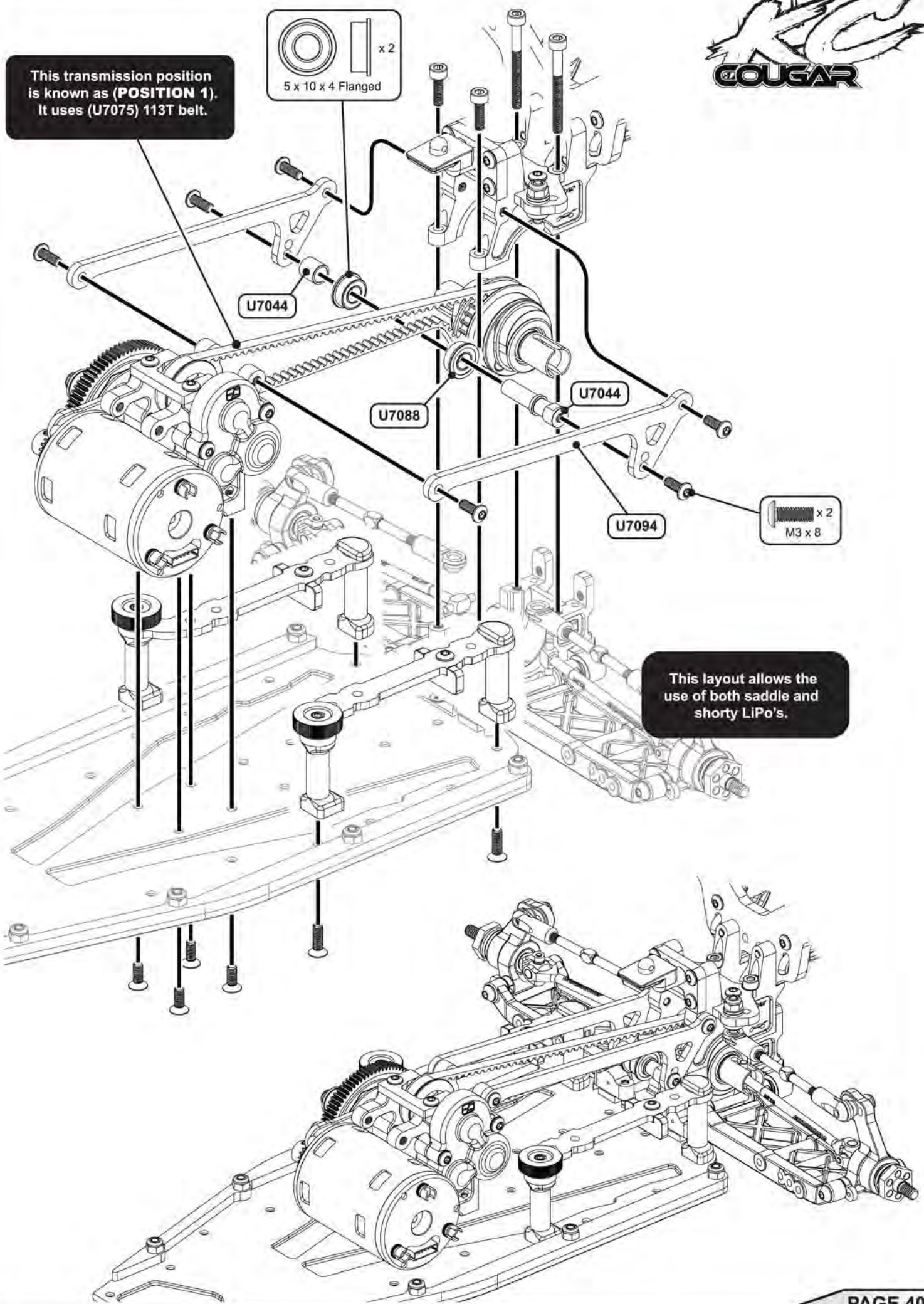
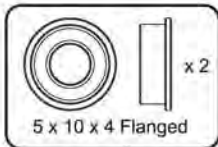


**IMPORTANT**  
When going back to the kit shock mounting position, swap the rear tower and mounting plate back to their original positions, the tail mount must then be screwed to the rear shock tower. Then screw the tail to the front hole in the tail mount moulding.





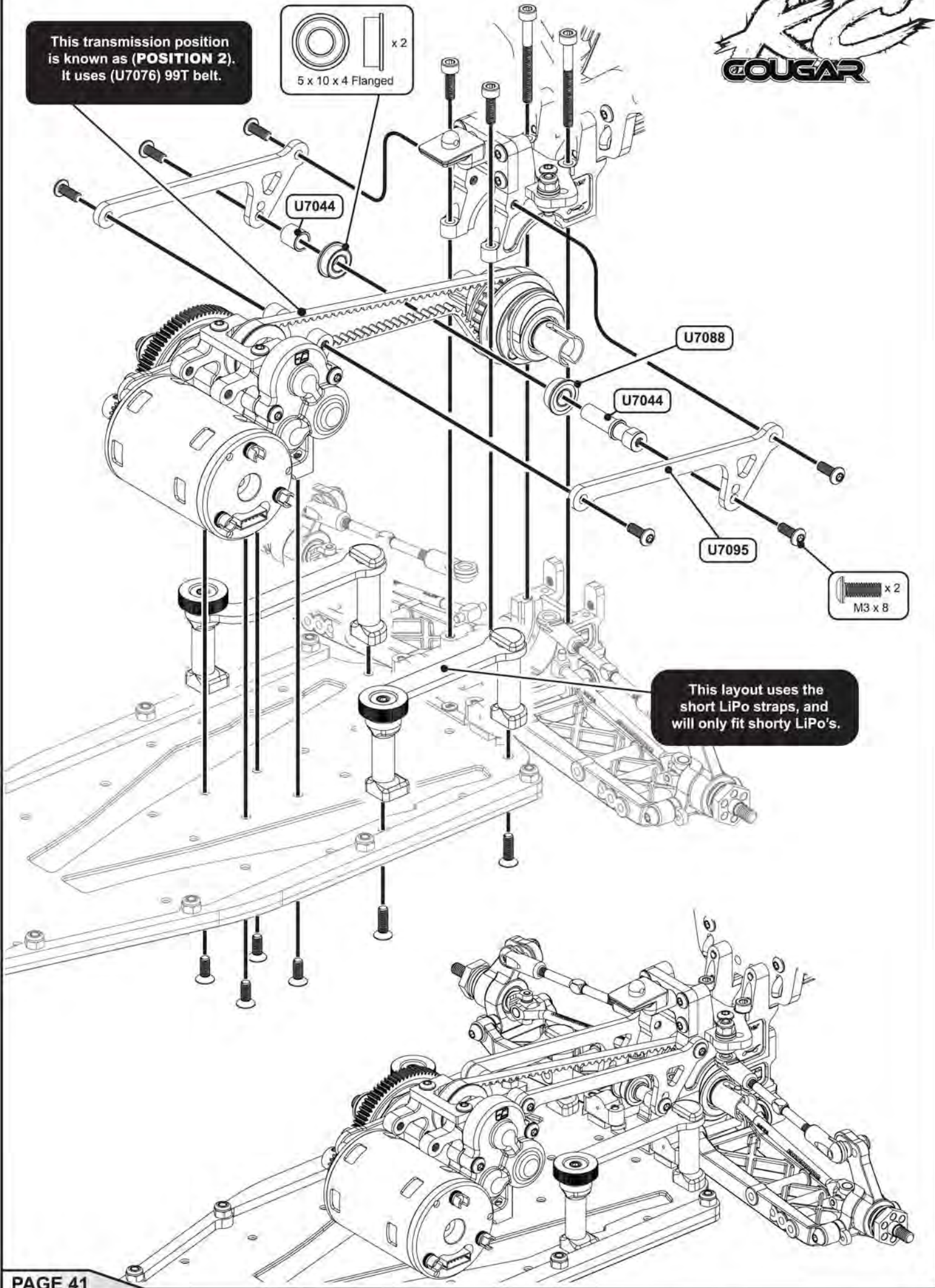
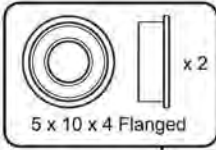
This transmission position is known as **(POSITION 1)**. It uses (U7075) 113T belt.



This layout allows the use of both saddle and shorty LiPo's.

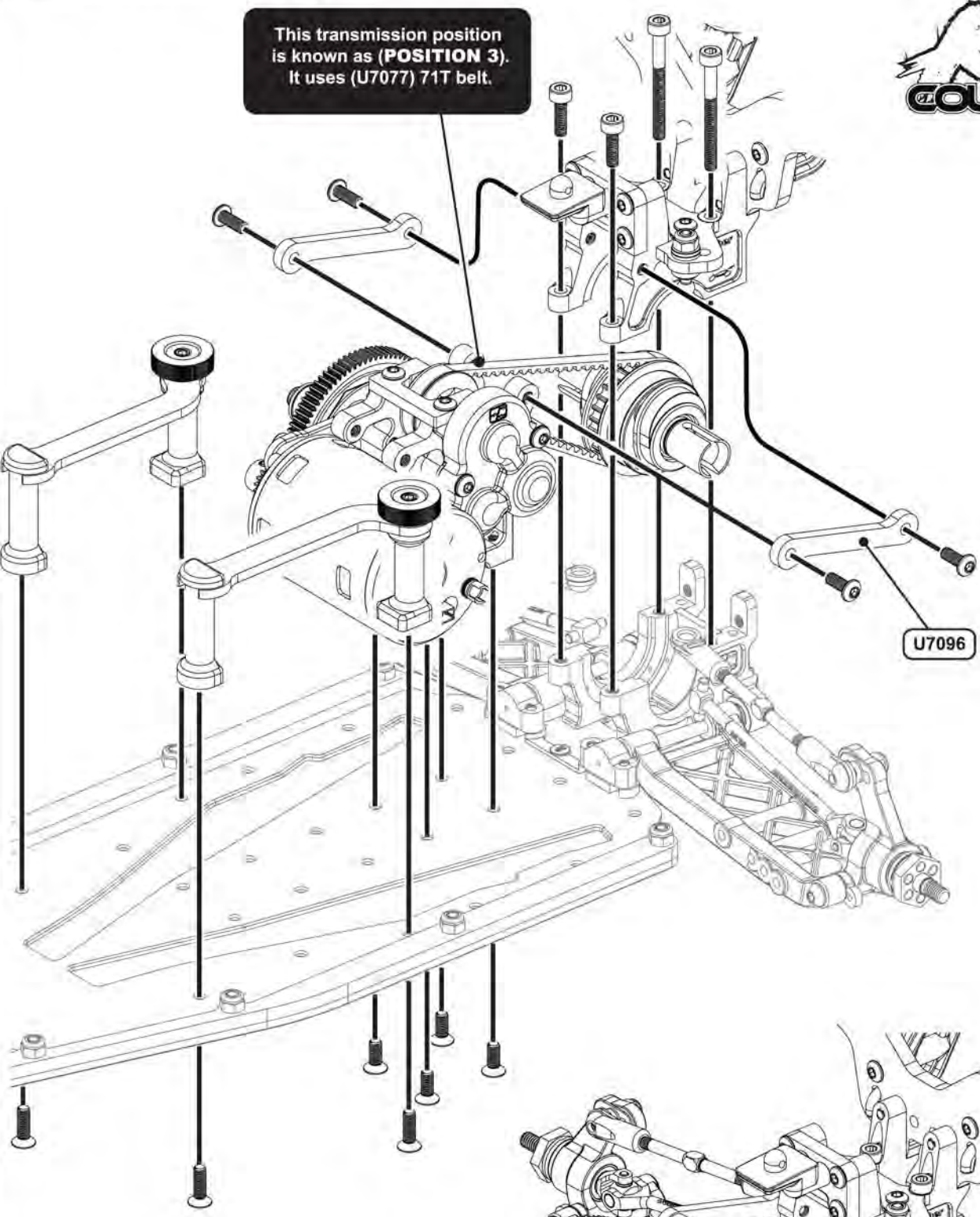


This transmission position is known as **(POSITION 2)**. It uses (U7076) 99T belt.



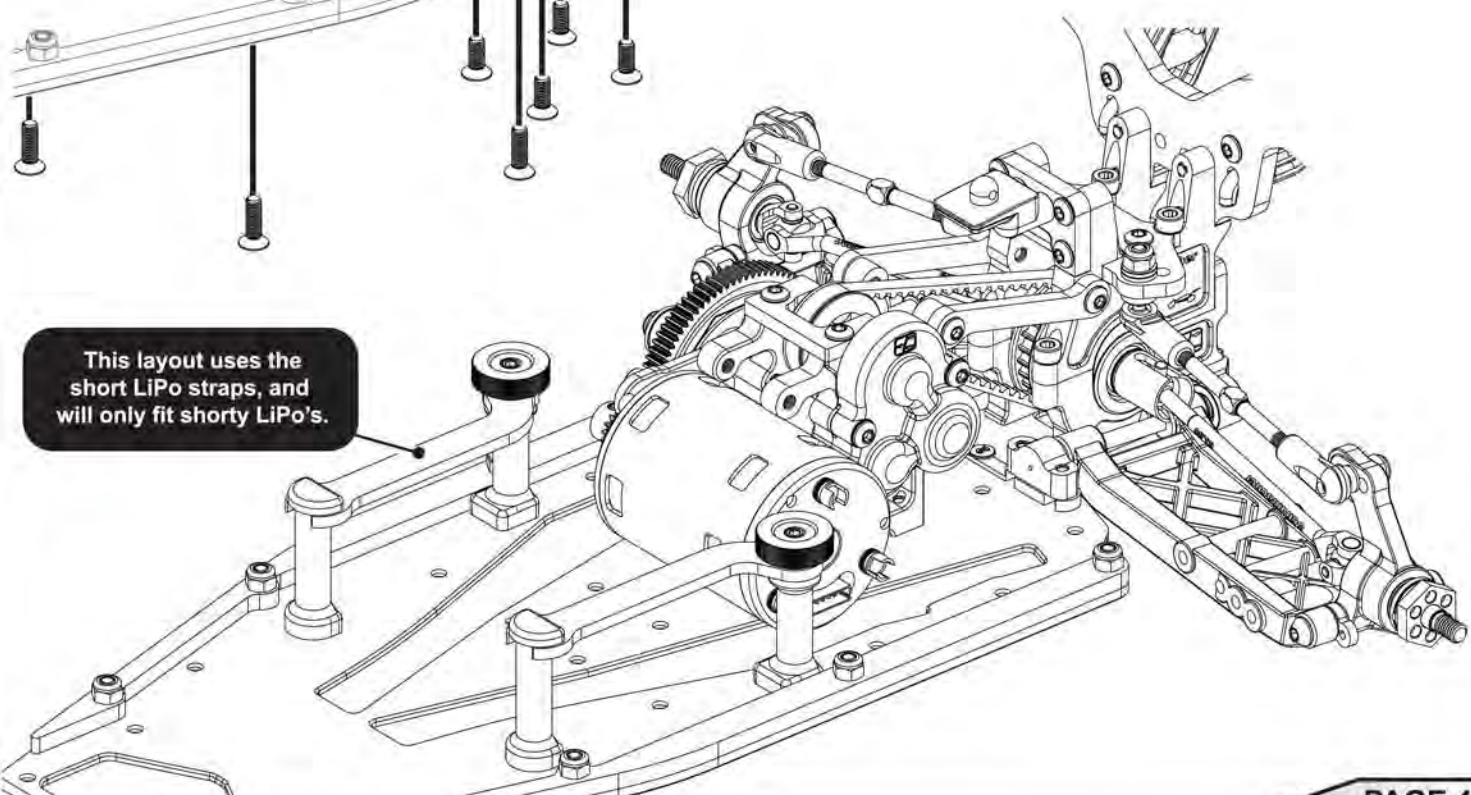


This transmission position is known as (POSITION 3). It uses (U7077) 71T belt.



U7096

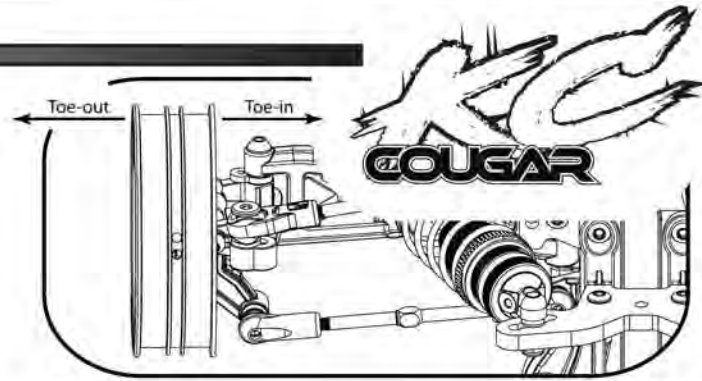
This layout uses the short LiPo straps, and will only fit shorty LiPo's.



## Settings

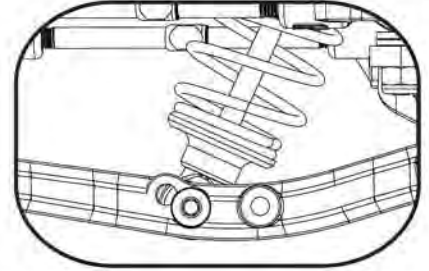
### Front Toe

Front toe in should be set to  $0^{\circ}$  (both front wheels pointing straight ahead) this will be the best setting for most track conditions. Adding slight toe out will increase initial turn in. Whereas slight toe in will make this initial turn in a little softer. The Team generally run  $1^{\circ}$  toe out on Astro tracks.



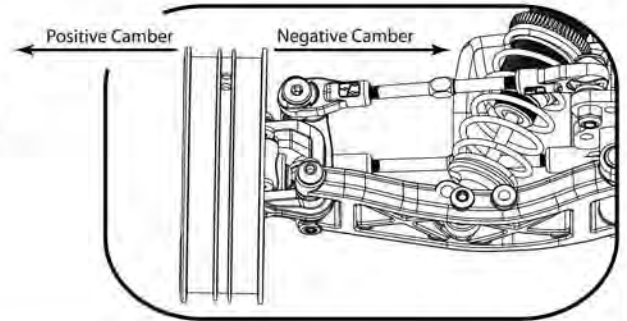
### Front Wishbone Shock Mounting Hole

The outboard hole on the wishbone is the standard setting for most tracks. Moving the shock to the inner hole makes the car more reactive. It increases the initial turn in and makes the front of the car roll more through the turns. This setting also makes the front end softer.



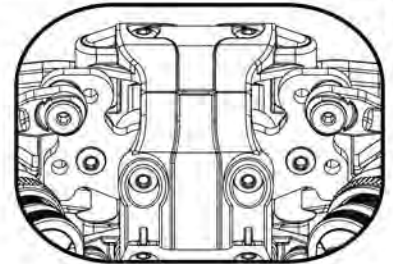
### Front Camber

The usual team setting for static front camber is  $1-2^{\circ}$  negative at ride height (the top of the wheel is leaning inwards towards the car). Increasing the static camber will generally increase the mid corner steering, whereas decreasing the static camber usually makes the car smoother to drive by reducing the steering response.



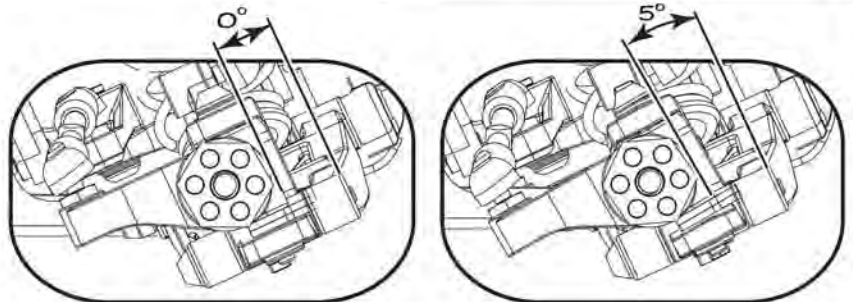
### Front Camber Links

The kit front camber link position and length are what the team recommend for most tracks. Using a long front link makes the front of the car roll more and will give less steering reaction at high speed. It is also not quite as good on very bumpy tracks. We would recommend this on fairly smooth high grip tracks. A shorter front link will make the car roll less and quicken the initial steering response. This is a better choice for bumpy low grip tracks. Lowering the inside ball stud will give a similar result to shortening the link, and raising it will give a similar result to lengthening the camber link, but with less total effect.



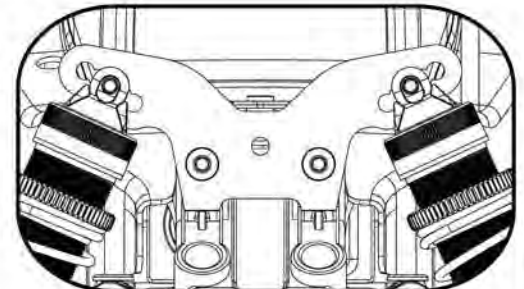
### Front Yoke

The rake angle (kick up) is  $25^{\circ}$  on the Cougar and needs adding to the castor block angle to get the total castor angle. The standard car uses a  $5^{\circ}$  castor block making the standard car  $30^{\circ}$  in total; this can be decreased to  $25^{\circ}$  by using the optional  $0^{\circ}$  castor block. The  $30^{\circ}$  angle will increase on power steering and stability, whereas using less castor will increase initial turn in.



### Front Shock Mount

The middle hole on the front shock mount is the most widely used position. Moving the shock to the outer position will make the car react faster and increase the initial steering response, it may however stiffen the suspension which may require an oil and spring change so that the cars suspension feels the same. By moving the shock to the inner hole will soften the suspension and slow down the steering reaction and make the car smoother on bumpy tracks. Again you may need to alter the oil and spring combination to get the suspension correct again.



## Settings

### Front Wheelbase Options

The Cougar KC has 2 ways of adjusting the wheelbase.

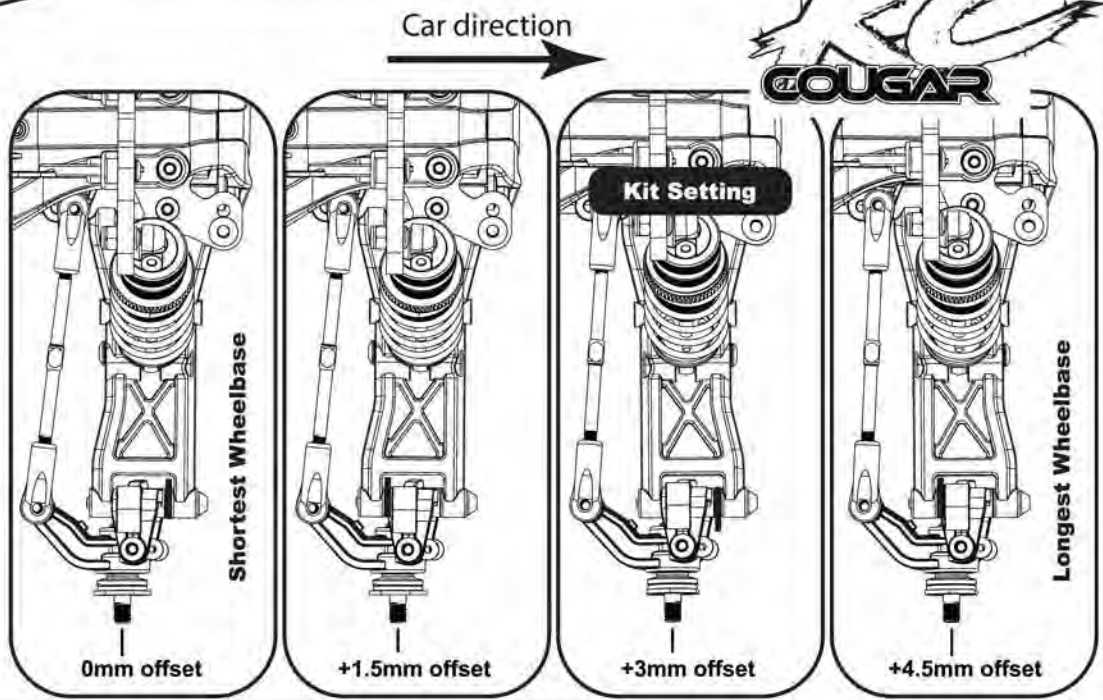
1. The adjustment is provided by re positioning the quick clip on the outer wishbone pin.

2. The Cougar KC front wishbone can be swapped left to right to alter the offset of the outer end of the wishbone.

The std offset is forward. Swapping the wishbones left to right will move the front hub carrier rearwards by 3.0mm

This only moves the hub carrier, it will not affect the angle of the shock absorber.

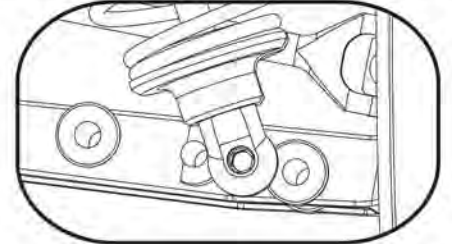
Moving the hub carrier rearwards will give more traction at the expense of stability over rough sections of the track, and moving the hub carrier forwards will usually improve stability over the rough sections.



### Rear Wishbone Shock Mounting Hole

The middle hole works best for most track conditions giving good traction and drive through the turns whilst maintaining good stability over the bumps. Moving to the outer hole on the wishbone will decrease traction but will allow the rear to free up more in the turns. This setting would usually only get used on high grip tracks and when moving the shock out you may have to change the oil and spring settings to get the same suspension feel.

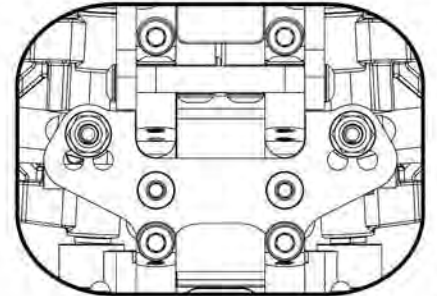
If the grip level is low and the track is bumpy, try the inside hole with harder spring, thicker oil and a 2mm internal limiter. This should help improve the handling.



### Rear Camber Link

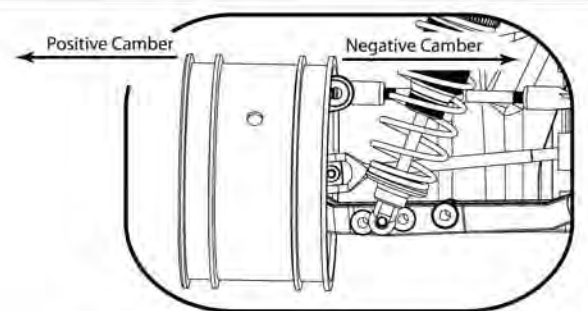
The kit build rear camber link setting is the best compromise for most tracks. This is the middle link option and gives good stability and straight line traction while allowing the rear of the car to free up on high speed turns. This reduces power on under steer on high grip tracks.

Shortening the rear camber link will make the rear of the car roll less in the corners, and square up faster when accelerating away from tight turns, longer links are generally used on high grip tracks and shorter links on low grip tracks. Lowering the inside ball stud will give a similar result to shortening the link, and raising it will give a similar result to lengthening the camber link, but with less total effect.



### Rear Camber

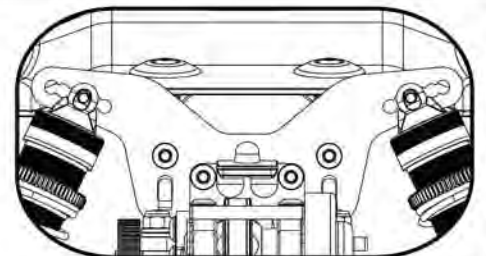
The usual team setting for static rear camber is 1° negative at ride height (the top of the tyre leaning inwards towards the car). Increasing the static rear camber will increase the traction when exiting the turns, but will be less stable at high speed. Decreasing the camber will reduce stability and traction in the turns but will be more stable at high speed. (Some drivers believe that adding slight positive camber where the tyre leans out at the top away from the car, will improve straight line traction on loose surfaces)



### Rear Shock Mount

The middle hole on the shock mount gives best all round results. Moving the shock to the outer hole will stiffen the suspension and increase the reaction of the steering. The downside is less compliance over bumpy sections of the track. Moving the shock to the inboard position softens the suspension and will slow the steering reaction making the car smoother over the bumps. Moving the shock to these holes may require an oil or spring change to maintain the suspension performance.

The rear shock mount is assembled to the back of the transmission as Kit Std, moving the mount to the front of the transmission makes the car more reactive but sacrifices stability.



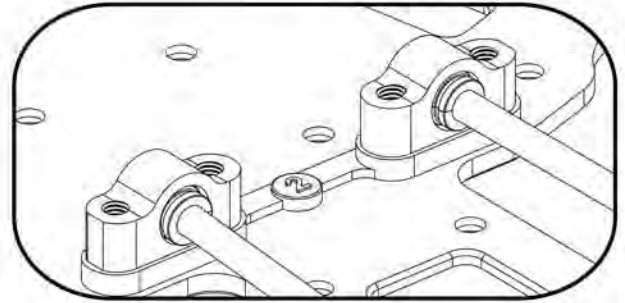


## Rear Toe-In Blocks

The standard rear toe in is  $3^{\circ}$  this is a good compromise between forward traction and the car binding in the turns. This setting is fine for most tracks. You can alter the toe in by flipping the rear pivot blocks so that the flats face inward this will give  $2.5^{\circ}$  toe in when using the std rear strap.

If you are running too much toe in, your car may suffer from instability at high speeds. Decreasing the toe in will reduce forward traction but will free the car up in the turns. Usually the team use less toe in on high grip tracks and more for low grip tracks.

Using the Optional (**U4719 - Alloy Pivot Block 4/1.5 deg**) gives the option of  $4^{\circ}$  toe in or  $1.5^{\circ}$  toe in when flipped.



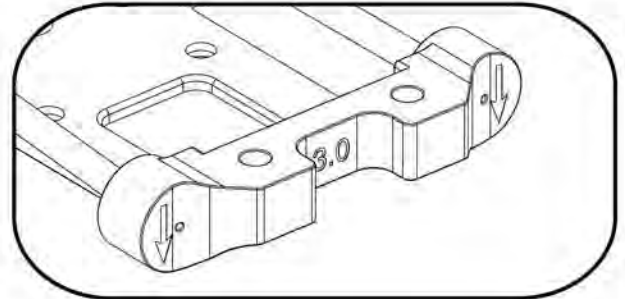
## Rear Toe-In Straps

The standard rear strap gives  $3^{\circ}$  toe in.

This is a good compromise between forward traction and the car binding in the turns, this setting is fine for most tracks.

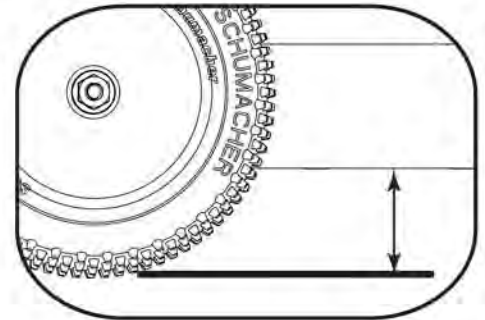
Using the Optional (**U7047 - Wide Brass Rear Strap 3.5 $^{\circ}$** ) gives  $3.5^{\circ}$  of rear toe in when the rear pivot blocks have their flats facing out.

It also increases the weight (by approx 12.5g) over the back of the car helping with low grip conditions.



## Ride Height

Use the spring adjusters on the shock absorbers to adjust the front and rear ride heights. We would recommend setting the ride height to around 19 mm with the car level. This is measured between the bottom of the chassis and the ground with the car in running trim. First press the car down on to the ground and release it once or twice to settle the suspension before adjusting the ride height. The chassis should be level when viewed from the side. Adjusting the spring collars does not increase or decrease the spring stiffness only the preload. So if the suspension needs to be softer or harder change the spring.



## Rear Anti Squat Spacers

With the arrows on the rear strap pointing down, the standard antisquat is set at  $2^{\circ}$ .

The team have found that this works best on most tracks, and with the included parts this can be increased or decreased.

Generally less antisquat allows the suspension to work better over the large bumps but usually gives less power on traction.

Adding more antisquat gives more forward traction up to the point where the car starts to pull wheelies.

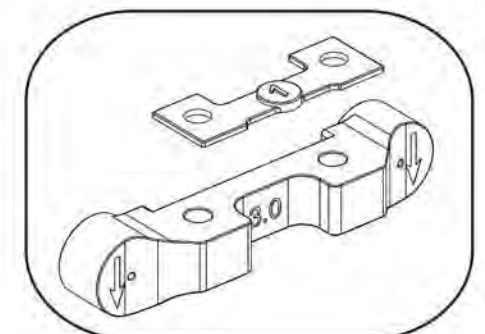
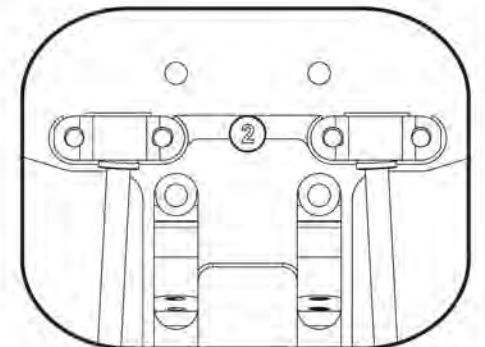
Backing off the slipper is not always an option to compensate for this as good initial bite is needed to clear big jumps. Reducing the antisquat seems to make the car handle better over small ripples but not so good on the tracks with large bumps.

The actual anti squat is the addition of the numbers on both strap and block spacers.

Using a 0 front block strap and using the rear straps to achieve antisquat will result in a lower rear pin height. This will lower the roll centre which allows the car to roll more in corners, this should give more side bite.

**When using the rear strap with arrows up you MUST fit U7099 - C/F Block Spacer 2mm - Cougar KC**

With the spacer fitted you have raised the roll centre. This will stiffen up the car in roll, which should make the car change direction quicker, but with a loss of side bite. We recommend this setting for tight high grip tracks.

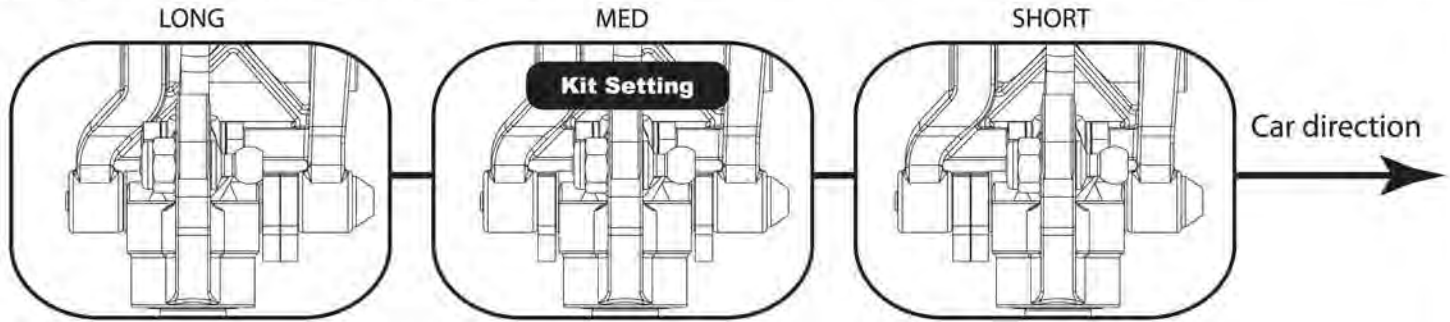


## Settings

### Rear Wheelbase options



The Cougar KC has 3 wheelbase options at the rear, short, med and long. The adjustment is provided by re positioning the quick clips on the outer wishbone pin. Moving the rear hub carrier forwards will give more traction at the expense of stability over rough sections of the track, and moving the hub carrier to the middle or rear position usually improves stability over the rough sections, running the car in long wheelbase form also free's up the car on sweeping sections of the track.



### Ball Differential

We recommend the ball differential is used for loose or wet conditions. For consistent performance it is vital that the differential action should be smooth and free. Diff adjustment is not a tuning aid and the diff should never be allowed to slip. A loose diff can usually be recognised by a "chirping" sound when powering away from turns or landing under power from large jumps. When rebuilding your ball differential we recommend using a U1954 thrust race.



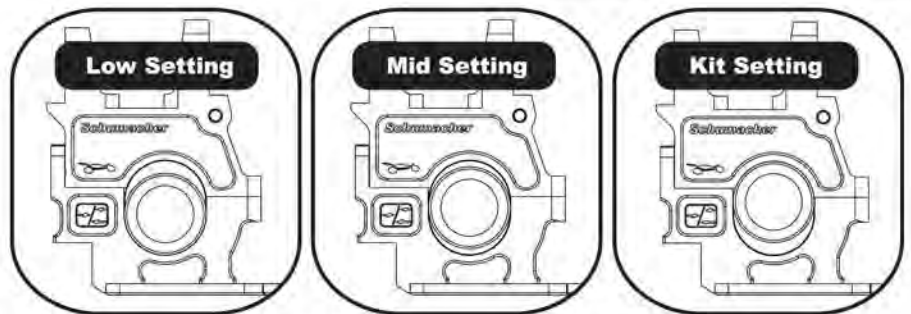
### Gear Differential

Geared Diffs can give different driving characteristics. The handling of the diff is tuned by changing the oil. A recommended starting point is 12,000 cSt (CR229). Recommended option oils would be 10,000 cSt (CR222) and 15,000 cSt (CR230).



### Diff Height

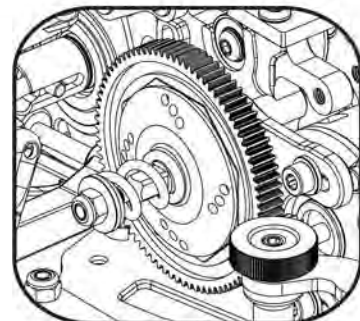
The std diff setting is high, this is better for jump landings. Lowering the diff improves bump stability and allows you to run higher ride heights.



### Slipper Clutch

On most tracks it is best to start with the slipper on a **LOOSE** setting, and gradually tighten the spring tension until you achieve the most consistent drive away from turns without spinning the car or pulling wheelies. Make sure you still have enough drive when launching the car from the up ramps. **WARNING**, do not run the slipper too loose as it could melt the plastic spur gear, also too tight may damage the transmission parts.

If you are generating too much heat at your preferred setting, use (**U7050 - Multi Plate Slipper Conversion**) this will give you a more durable slipper clutch.

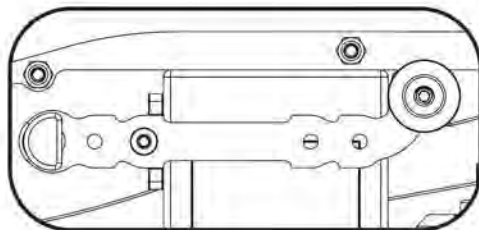
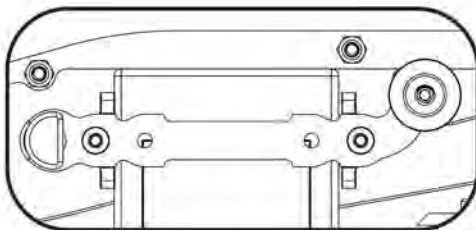
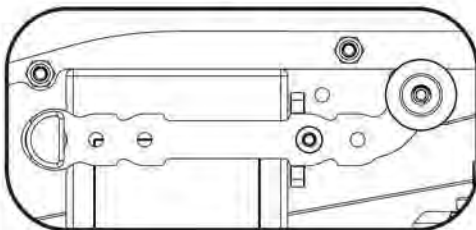


## Settings

### LiPo Position

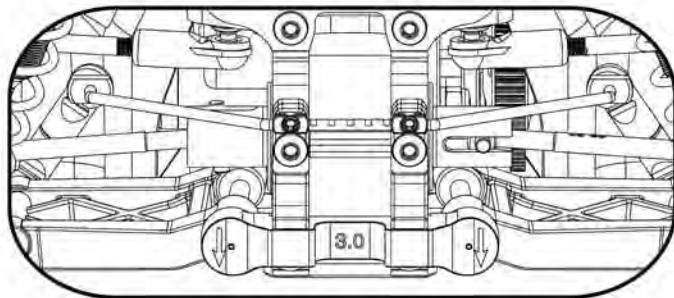
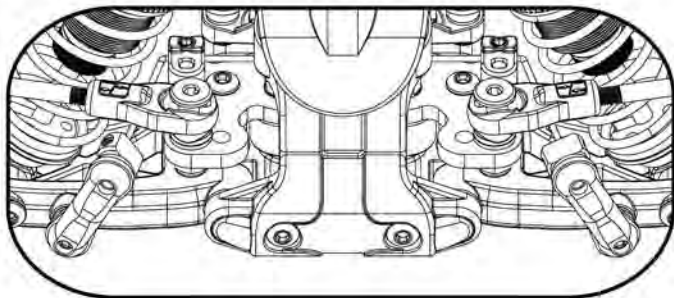
When using the Cougar KC in transmission Option 1 or Option 4 there are 3 shorty LiPo positions available to fine tune the chassis.

For increased traction run the rear Lipo position.  
For increased Steering run the front Lipo Position.



### Anti-Roll Bars

Anti-roll bars are an often overlooked set up aid that allows fine tuning of the suspension without major changes to the shock and spring settings. They are mainly used to add roll stiffness to the car without affecting the handling on bumps and jumps. Running anti-roll bars allows you to run softer suspension on bumpy tracks while reducing the roll in corners thus maintaining stability through the turns.

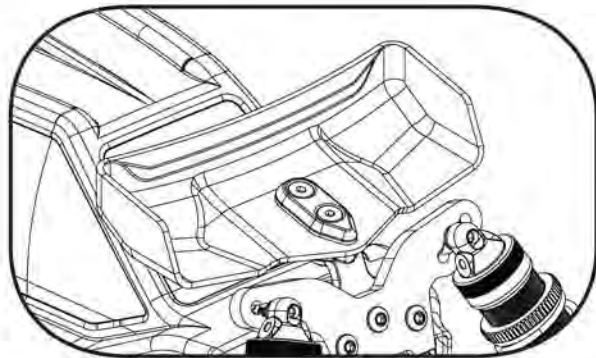
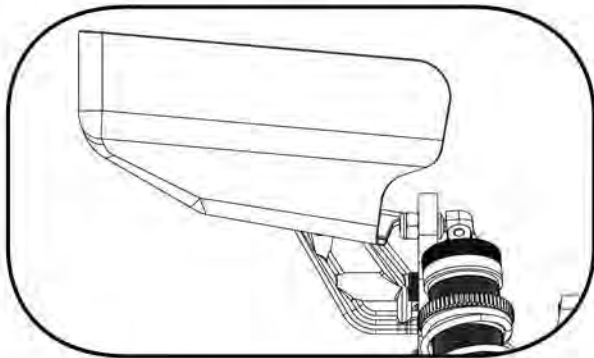


### Front and Rear Wings

Removing the washers at the front of the rear wing mount will give the wing more angle and increase rear downforce, adding washers will level the wing out giving less downforce.

The front wings will add more downforce to the front of the car, use the large wing for maximum downforce.

Trimming the gurney on both front and rear wings will reduce downforce.



### Gear Ratio's (2.10:1)

#### Pinion Gear

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
Spur Gear	83	10.25	9.68	9.17	8.72	8.30	7.92	7.58	7.26	6.97	6.70	6.46	6.23	6.01	5.81	5.45		
	82		9.57	9.06	8.61	8.20	7.83	7.49	7.18	6.89	6.62	6.38	6.15	5.94	5.74	5.55	5.38	
	81			8.95	8.51	8.10	7.73	7.40	7.09	6.80	6.54	6.30	6.08	5.87	5.67	5.49	5.32	5.15
	80				8.40	8.00	7.64	7.30	7.00	6.72	6.46	6.22	6.00	5.79	5.60	5.42	5.25	5.09
	76								6.65	6.38	6.14	5.91	5.70	5.50	5.32	5.15	4.99	4.84
	71													5.14	4.97	4.81	4.66	4.52

Tooth Sum 100 Minimum to 114 Maximum(or a Maximum 33T Pinion)





**3 Layer Soft Shell Team Jacket - Black**

- G339XS Extra Small - 34 inch chest
- G339S Small - 38 inch chest
- G339M Medium - 41 inch chest
- G339L Large - 44 inch chest
- G339XL X Large - 46 inch chest
- G339XXL XX Large - 48 inch chest
- G339XXXL XXX Large - 50 inch chest

**Team Hooded Sweatshirt - Navy Blue**

- G343S Small
- G343M Medium
- G343L Large
- G343XL Extra Large

**Caps - Black**

G340 Schumacher Baseball Cap



**2013 Team Polo Shirt - Navy blue**

- G344S Small
- G344M Medium
- G344L Large
- G344XL X Large
- G344XXL XX Large
- G344XXXL XXX Large
- G344XXXXL XXXX Large
- G344XXXXXL XXXXX Large

**2013 Team T-Shirt - Navy blue**

- G342S Small
- G342M Medium
- G342L Large
- G342XL X Large
- G342XXL XX Large
- G342XXXL XXX Large
- G342XXXXL XXXX Large
- G342XXXXXL XXXXX Large

G338 2 Tone Beanie Knitted Hat



G315 Schumacher Pit Towel



G310 Schumacher Rubber Pit Mat  
750mm x 500mm



S500B - Team Schumacher Banner 3ft x 6ft



U4890 - Alloy Spring Seat - Off Road - pr



U4996 - Ball Diff Complete - Cougar KC  
 U1954 - Pro - Thrust Bearing  
 U3740 - Diff Washers; 18mm - Cougar SV  
 U3750 - Diff Output; Male - Cougar SV  
 U3751 - Diff Output; Female - Cougar SV  
 U4997 - Ball Diff Pulley and Fences - Cougar KC  
 U7110 - Ball Diff Rebuild Kit - Cougar KC  
 U7030 - Diff Balls T/C 2.5mm (pk14)



U7072 - Front Roll Bar Kit - Cougar KC/D  
 U4550 - Roll Bar Clamps - Mi5evo - (pk4) FR  
 U7031 - Socket Grey 8mm (pk4)



U4228 - Alloy Yokes - 5deg - 2WD  
 U4703 - Alloy Yokes - 0deg - 2WD

U7050 - Multi Plate Slipper Conversion - Cougar KC/D  
 U4670 - Slipper Cage - KF2  
 U4671 - Mid Slipper Plate - KF2  
 U4673 - Slipper Spring - KF2



U4619 - Alloy Centre Track Rod - 2WD



CR192 - Alloy Servo Arm 25T - Futaba Short  
 CR193 - Alloy Servo Arm 23T - KO/Sanwa Short



U4620 - Alloy Hub Carrier Front L/R - 2WD



U4999 - Front Brass Weight - Cougar KC/D



U7100 - Rear Roll Bar Kit - Cougar KC  
 U3499 - Roll Bar Blocks - Mi4 pk4  
 U4800 - Rear Roll Bar Ball - Black - CAT K2 - (2pcs)



U3605 - Alloy Rear Hubs; 1 deg - CAT/Cougar



U7047 - Wide Brass Rear Strap 3.5° - Cougar KC/D



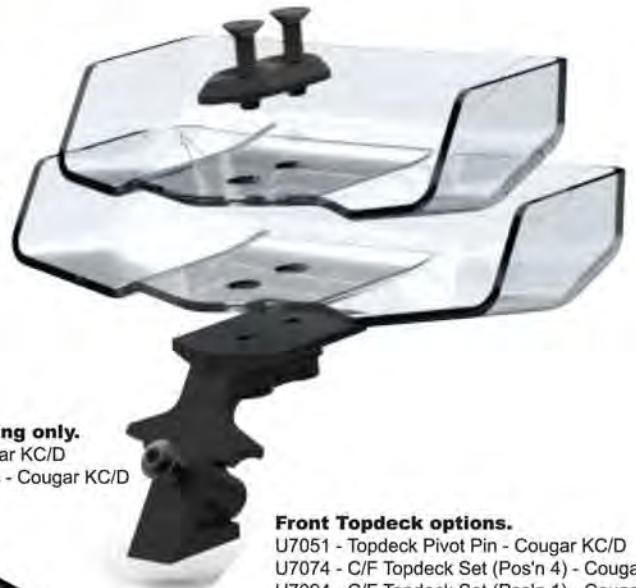
U1573 - Titanium Turnbuckle; purple - 53mm (pr)  
 U1574 - Titanium Turnbuckle; purple - 60mm (pr)  
 U2566 - Titanium Turnbuckle; purple - 45mm (pr)



U4998 - Alloy Rear Hub Carriers + Inserts - 2WD/4WD



U4860 - Narrow Wheel Hex - Rear - pr



**Front Topdeck options.**  
 U7051 - Topdeck Pivot Pin - Cougar KC/D  
 U7074 - C/F Topdeck Set (Pos'n 4) - Cougar KC/D  
 U7094 - C/F Topdeck Set (Pos'n 1) - Cougar KC  
 U7095 - C/F Topdeck Set (Pos'n 2) - Cougar KC  
 U7096 - C/F Topdeck Set (Pos'n 3) - Cougar KC

U7098 - Alloy Sidepods (pr) - Cougar KC/D

**Both Wings Shown, Fit ONE wing only.**  
 U7091 - Front Wing Mount Kit - Cougar KC/D  
 U7092 - Front Wing Mount Mouldings - Cougar KC/D  
 U7093 - Front Wings - Cougar KC/D



U7048 - Alloy Rear Link Mount - Cougar KC



U7134 - Alloy Front Link Mount - Cougar KC/D



U4719 - Alloy Pivot Blocks 4/1.5 deg - Cougar KC

## 2WD Slim Cut Stagger



U6759 - Yellow Compound (pair)  
U6765 - Green Compound (pair)

## Low Profile 2WD Slim Cut Stagger



U6770 - Yellow Compound (pair)  
U6771 - Green Compound (pair)  
U6775 - Silver Compound (pair)  
U6776 - Blue Compound (pair)

## 2WD Slim Mini Spike 2



U6549 - Blue Compound (pair)  
U6550 - Green Compound (pair)  
U6581 - Yellow Compound (pair)  
U6761 - Silver Compound (pair)

## 2WD Slim Mini Pin



U6609 - Yellow Compound (pair)  
U6779 - Silver Compound (pair)

## Rear Mini Spike 2



U6516 - Green Compound (pair)  
U6518 - Blue Compound (pair)  
U6558 - Yellow Compound (pair)  
U6763 - Silver Compound (pair)

## Rear 2" Block



T692 - Blue Compound (pair)  
U6786 - Yellow Compound (pair)

## Rear Mini Pin 1



U6817 - Yellow Compound (pair)  
U6819 - Blue Compound (pair)  
U6820 - Silver Compound (pair)

## Rear Mini Pin 2



U6803 - Blue Compound (pair)  
U6804 - Yellow Compound (pair)  
U6805 - Silver Compound (pair)

## 2.2" Rear Full Spike



U6596 - Yellow Compound (pair)

## Stud 2 Row Front



U6797 - Yellow Compound (pair)

## 2WD Slim Mini Dart



U6824 - Yellow Compound (pair)  
U6827 - Blue Compound (pair)  
U6830 - Silver Compound (pair)

## Rear Mini Dart



U6826 - Yellow Compound (pair)  
U6829 - Blue Compound (pair)  
U6832 - Silver Compound (pair)



## Tyre Grip Guide

		Tarmac	Carpet	Dry Astro	Dry Grass	Wet Grass	Wet Astro
Slim Cut Stagger	U6759 Yellow		●●	●●●	●●●	●●●	●●
	U6765 Green					●●●	●●
Slim Low Profile Cut Stagger	U6770 Yellow		●●	●●●	●●●		
	U6771 Green					●●●	●●
	U6775 Silver					●●	●●●
	U6776 Blue	●●					
Slim Mini Spike 2	U6581 Yellow		●●	●●●	●●●		
	U6550 Green			●		●●●	●●
	U6549 Blue	●●				●●	●●
	U6761 Silver					●●	●●●
Slim Mini Pin	U6609 Yellow	●	●●●	●●			●●
	U6779 Silver					●●	●●●
Slim Dart	U6824 Yellow		●●	●●●			
	U6827 Blue		●	●●			
	U6830 Silver						●●●
Front Stud 2 Row	U6797 Yellow	●	●	●●	●●	●	●
Rear 2.2" Full Spike	U6596 Yellow				●●		
Rear Mini Spike 2	U6558 Yellow	●	●	●●●	●●●		
	U6518 Blue	●●●		●●●	●●	●●	
	U6516 Green			●		●●●	●●
	U6763 Silver					●●	●●●
Rear Mini Pin 2	U6804 Yellow	●	●●●	●●			
	U6803 Blue	●●●	●				
	U6805 Silver					●	●●●
Rear Mini Pin 1	U6817 Yellow		●●●	●●●	●		
	U6819 Blue		●●	●●			
	U6820 Silver					●	●●●
Rear 2" Block	U6786 Yellow			●●●			
	T692 Blue	●●					
Rear Dart	U6826 Yellow		●●	●●●			
	U6829 Blue		●	●●			
	U6832 Silver						●●●

Excellent Grip ●●● Good Grip ●● Fair Grip ●

## 12mm Hex Wheels Black

U4365 - Rear  
U4367 - Front  
U4660 - Front Slim

## White

U4366 - Rear  
U4368 - Front  
U4661 - Front Slim



## Pre-Glued Yellow Compound Tyres on 12mm Hex White Wheels

**Slim Front**  
U6795 - Mini Pin  
U6801 - Cut Stagger Low Profile  
U6833 - Mini Dart

## Rear

U6794 - Mini Spike 2  
U6806 - Mini Pin 2  
U6818 - Mini Pin 1  
U6835 - Mini Dart

## Inserts

### Front Slim Foam Inserts

U6667 - Hard (pair)  
U6738 - Med (pair)

### Front Medium Foam Inserts

U6652 - Hard (pair)  
U6733 - Med (pair)  
U6746 - Med Tubby (pair)

### Rear Foam Inserts

U6653 - Hard (pair)  
U6734 - Med (pair)  
U6747 - Med Tubby (pair)