TEKNO RC

BUILDING INSTRUCTIONS

NB-48.3

Introduction

Thank you for purchasing the Tekno RC NB48.3 1/8th 4WD Nitro Competition Buggy. The NB48.3 represents the state-of-the-art in 1/8th nitro buggy technology. We hope you have as much fun driving your new vehicle as we did developing it. We are always working on new projects, so please check our website (www.teknorc.com) regularly for the latest news, parts, and kits. Thanks again.

Additional equipment and parts needed:

2/3 channel surface radio transmitter and receiver
High torque steering and brake servo (at least 300 oz/in)
RX battery, switch harness
.21 nitro engine, tuned pipe, manifold, and glow plug
Fuel bottle, fuel, 1/8th buggy starter box, and glow ignitor
1/8th scale buggy tires, wheels & CA glue
Paint for body

Tools needed:

Hex drivers 1.5mm (TKR1104), 2.0mm (TKR1105), 2.5mm (TKR1106)
Nut drivers 5.0mm (TKR1107, 5.5mm (TKR1108), 7.0mm (TKR1109)
17mm Wheel Wrench (TKR1116)
Hobby knife
Needle-nose pliers
Pivot Ball and Shock Multi-tool (TKR1115, for shock assembly)
4mm turnbuckle wrench (TKR1103)
4mm arm reamer
Lexan Body Scissors

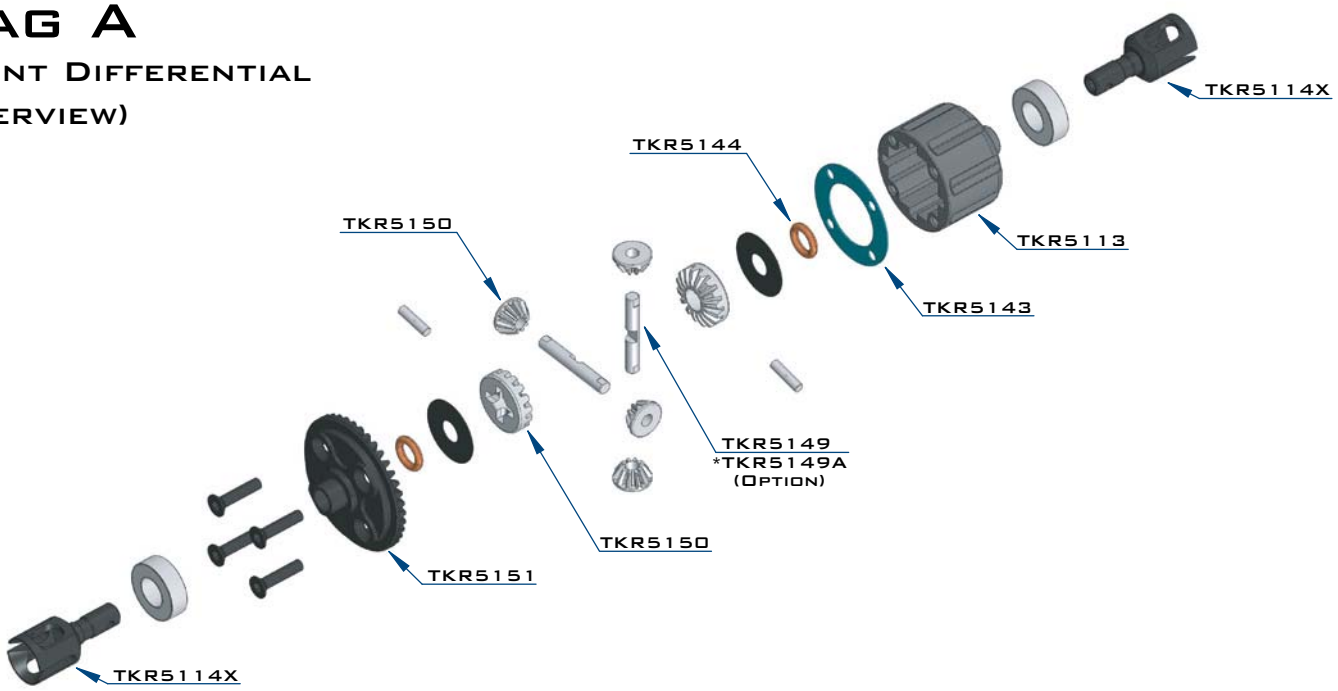
Disclaimer: Tekno RC is not responsible or liable for any property or personal damage, loss, or injury incurred as a result of using this product. This kit is meant for use by persons 14 years of age or older and in the strict confines of a legally permitted RC track or facility.

Warnings: Always double-check that your radio gear is working properly before operating vehicle. Never operate the vehicle indoors (unless the RC track is an indoor facility). Use caution while operating vehicle so as not to collide with people who may be turn marshalling or who might otherwise not be aware that a fast moving RC vehicle is in the vicinity.

Warranty: We warrant that the parts included in this kit are free from defects. If you find a defective part in your kit, please contact us @ info@teknorc.com and we will help you to resolve the issue. We do not warranty parts that may be broken during operation of the vehicle or otherwise. Refer to the end of this instruction manual for a listing of spare/replacement and option parts. All spare parts and other info are available on our website (www.teknorc.com) and through our network of domestic and international dealers and distributors.

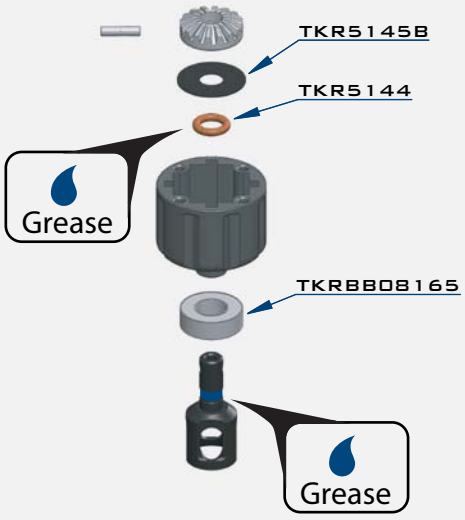
Bag A

Front Differential (overview)



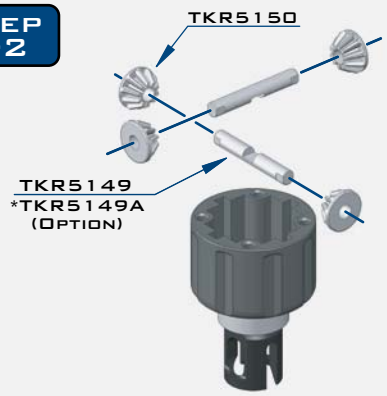
Step A-1

Apply grease to the groove where the o-ring is placed as well as the o-ring itself



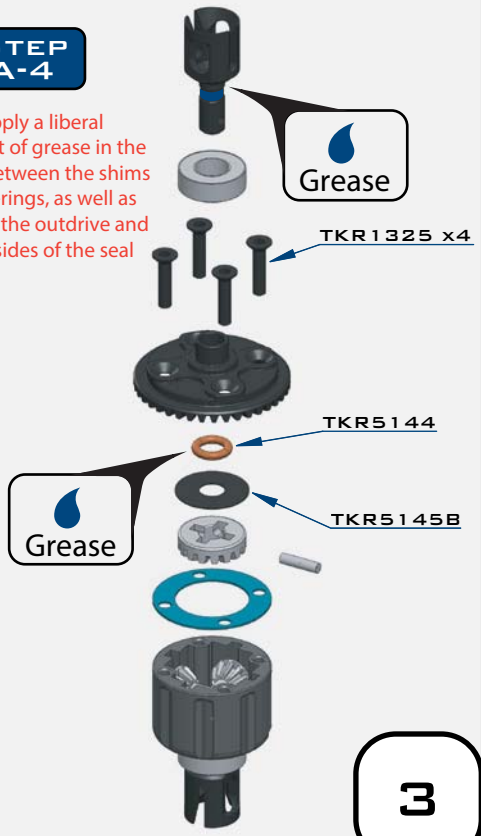
Apply grease to the groove in the outdrive

Step A-2

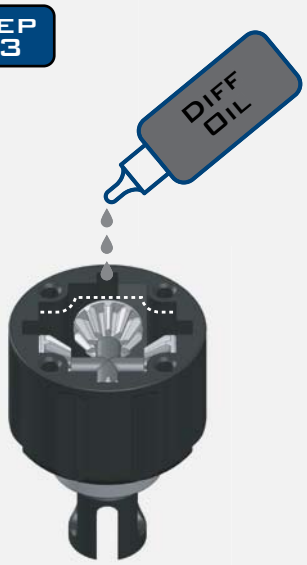


Step A-4

Apply a liberal amount of grease in the areas between the shims and o-rings, as well as around the outdrive and both sides of the seal



Step A-3



Fill with 5000 wt oil to 1mm below full
DO NOT OVER FILL



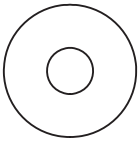
x4

TKR1325
M3x14mm Flat Head Screw



x2

TKR5144
Differential O-rings



x2

TKR5145B
Differential Shims (6x17mm)

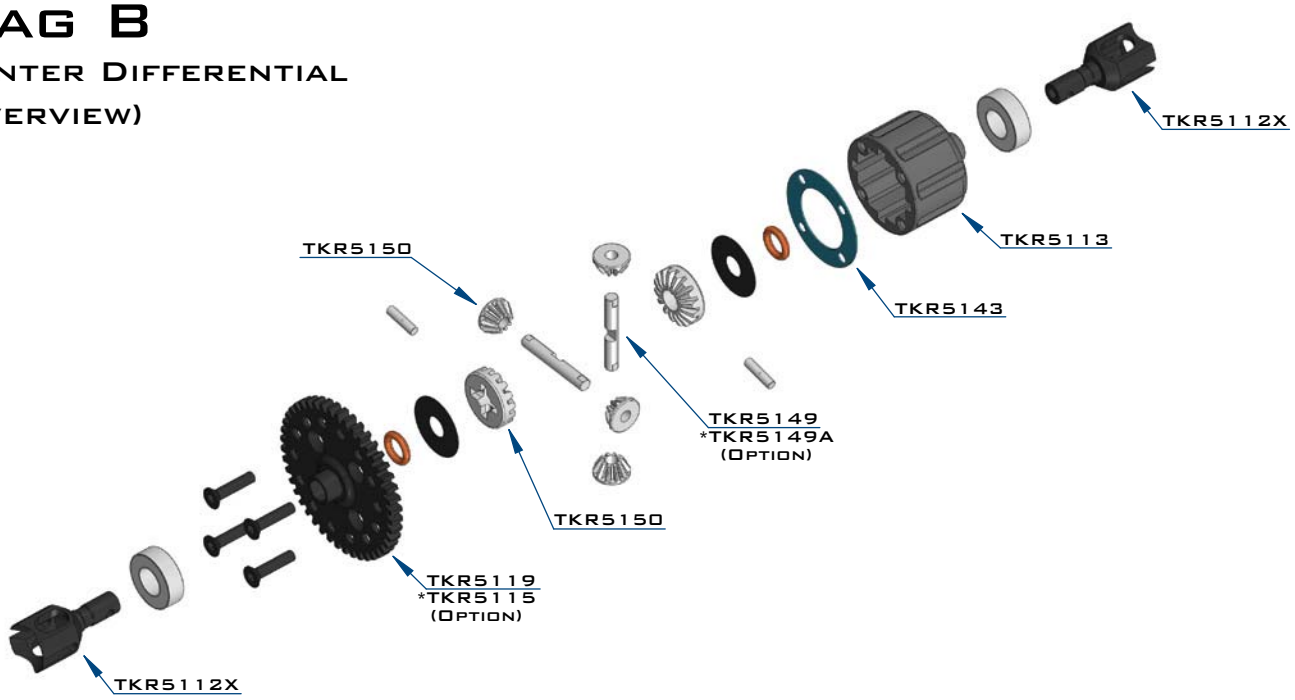


x2

TKRBB08165
Ball Bearing(8x16x5mm)

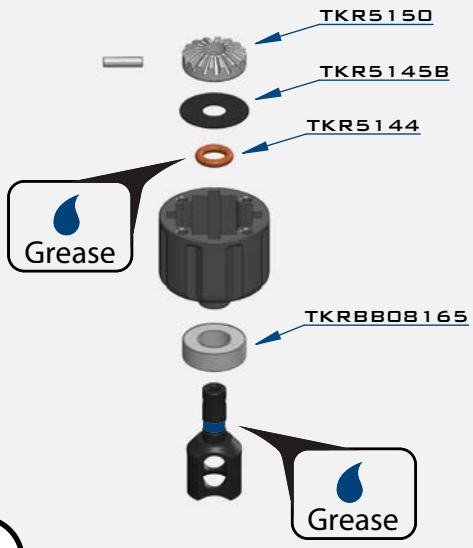
Bag B

Center Differential (Overview)



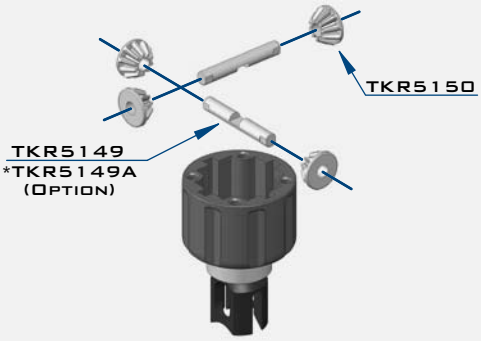
Step B-1

Apply grease to the groove where the o-ring is placed as well as the o-ring itself



Apply grease to the groove in the outdrive

Step B-2



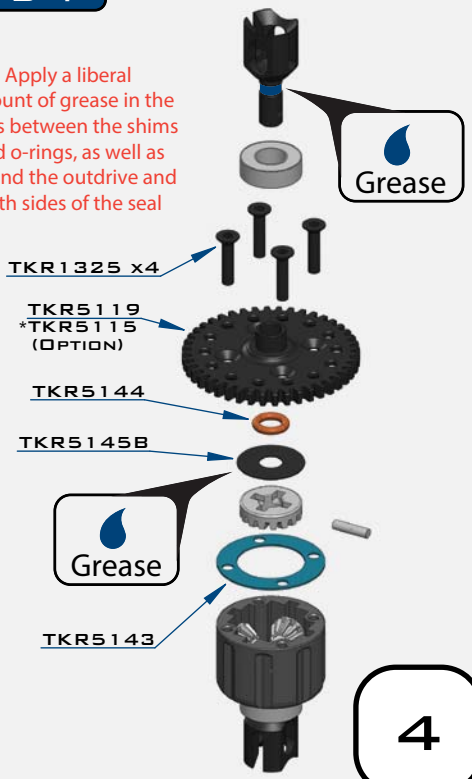
Step B-3



Fill with 5000 wt oil to 1mm below full
DO NOT OVER FILL

Step B-4

Apply a liberal amount of grease in the areas between the shims and o-rings, as well as around the outdrive and both sides of the seal



x4
TKR1325
M3x14mm Flat Head Screw

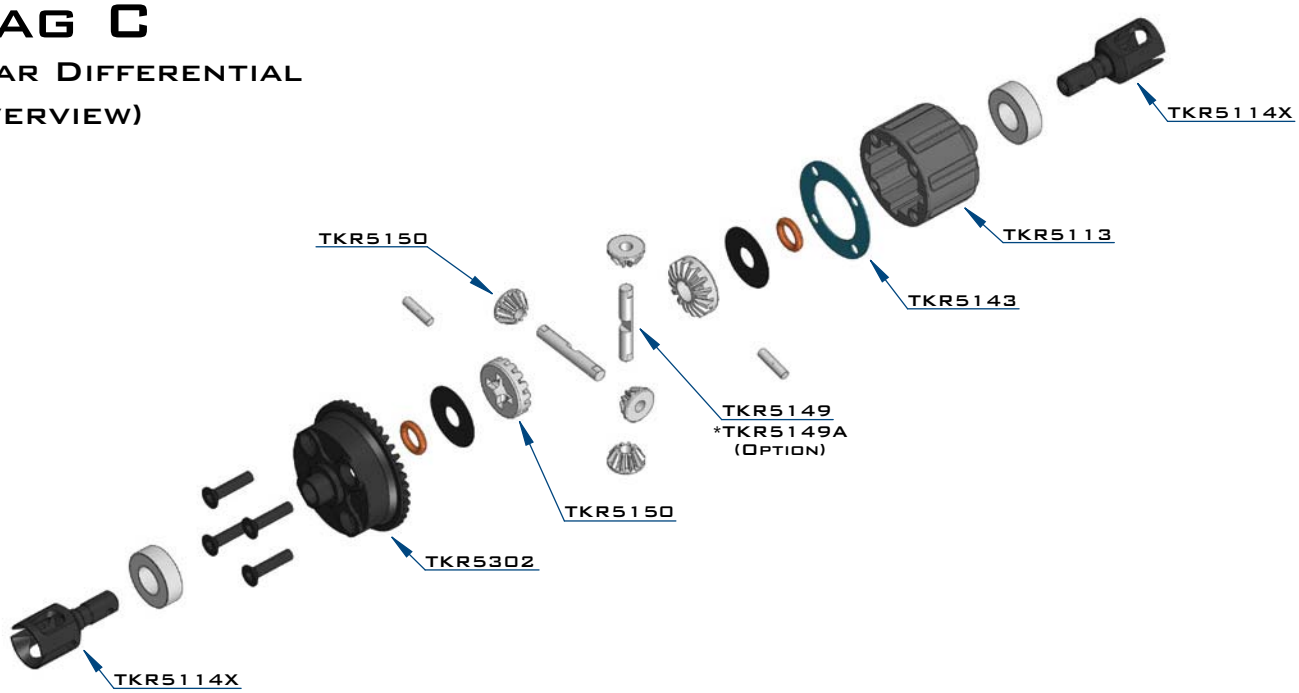
x2
TKR5144
Differential O-rings

x2
TKR5145B
Differential Shims (6x17mm)

x2
TKRBB08165
Ball Bearing(8x16x5mm)

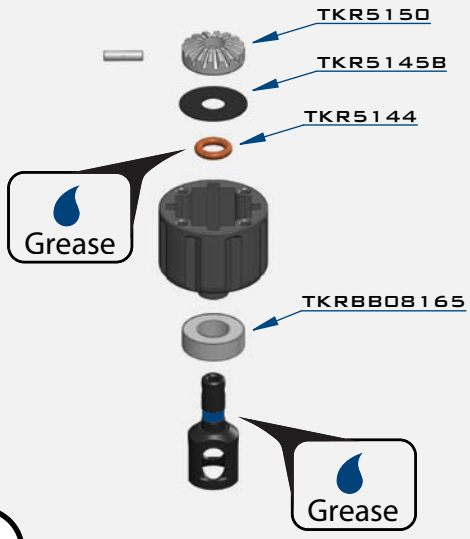
Bag C

Rear Differential (Overview)



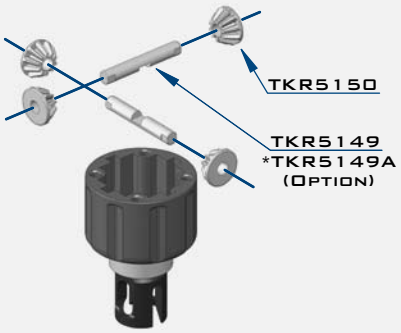
Step C-1

Apply grease to the groove where the o-ring is placed as well as the o-ring itself



Apply grease to the groove in the outdrive

Step C-2



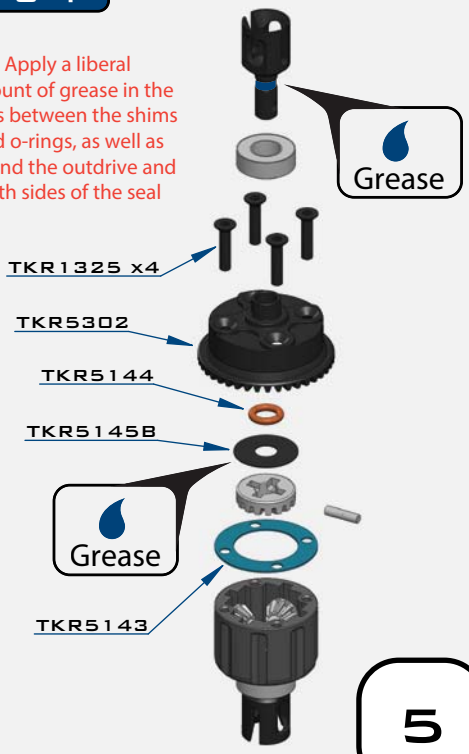
Step C-3



Fill with 5000 wt oil to 1mm below full
DO NOT OVER FILL

Step C-4

Apply a liberal amount of grease in the areas between the shims and o-rings, as well as around the outdrive and both sides of the seal



x4
TKR1325
M3x14mm Flat Head Screw

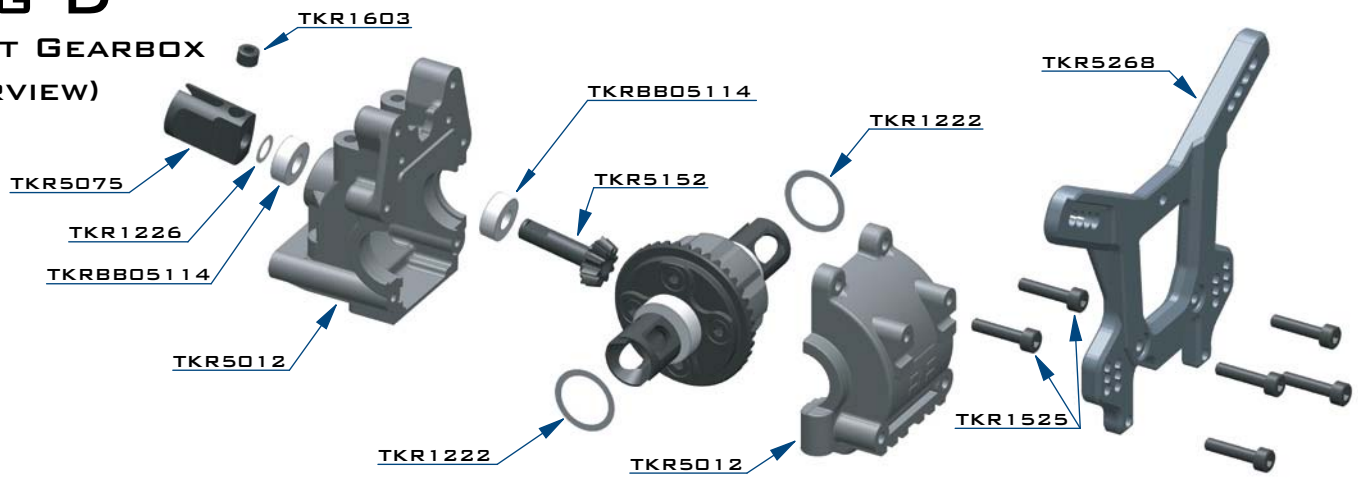
x2
TKR5144
Differential O-rings

x2
TKR5145B
Differential Shims (6x17mm)

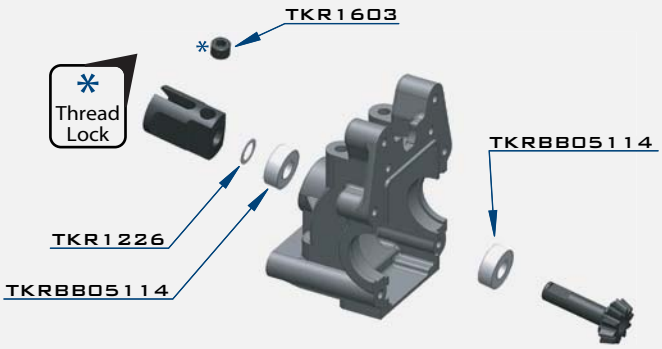
x2
TKRBB08165
Ball Bearing(8x16x5mm)

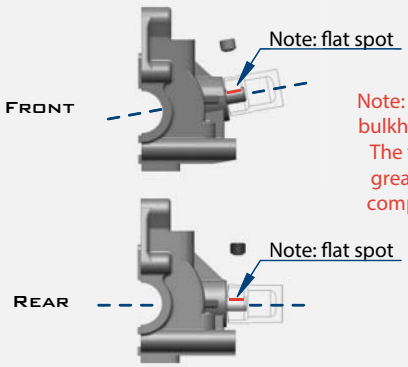
Bag D

Front Gearbox (overview)

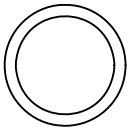


Step D-1





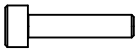
Note: TKR1222 and TKR1226 Shims - The gear mesh should be tight without any binding. TKR1226 should always be installed. Then test fitment of the diff with both TKR1222 shims on the gear-side of the diff. If the diff turns freely without binding, continue to next step. If the diff binds and does not turn freely (it will make a grinding or crunching sound when spun), remove one TKR1222 shim from the gear side and install it onto the other side of the diff. Reassemble and test the mesh again. If it is still binding, remove the second TKR1222 shim from the gear side and install it onto the other side of the diff. When you are satisfied that you have the best gear mesh possible continue to the next step. You may end up using only one shim on the gear side.



TKR1222
13x16x0.1mm Diff Shim



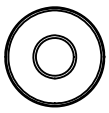
TKR1226
5x7x0.2mm Shim



TKR1525
M3x14mm Cap Head Screw



TKR1603
M5x4mm Set Screw

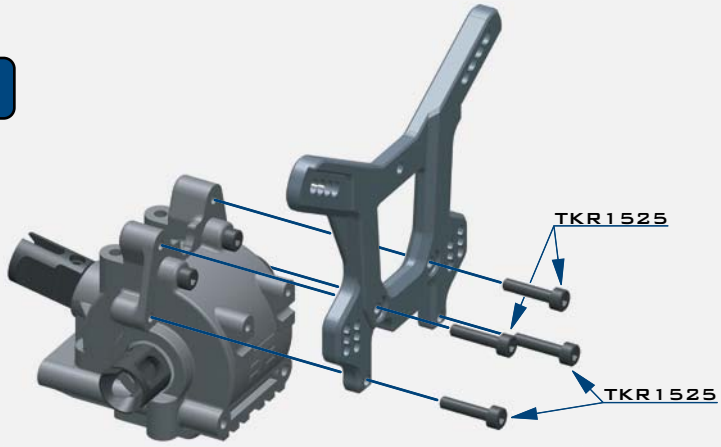


TKRBB05114
Ball Bearing (5x11x4)

Step D-2

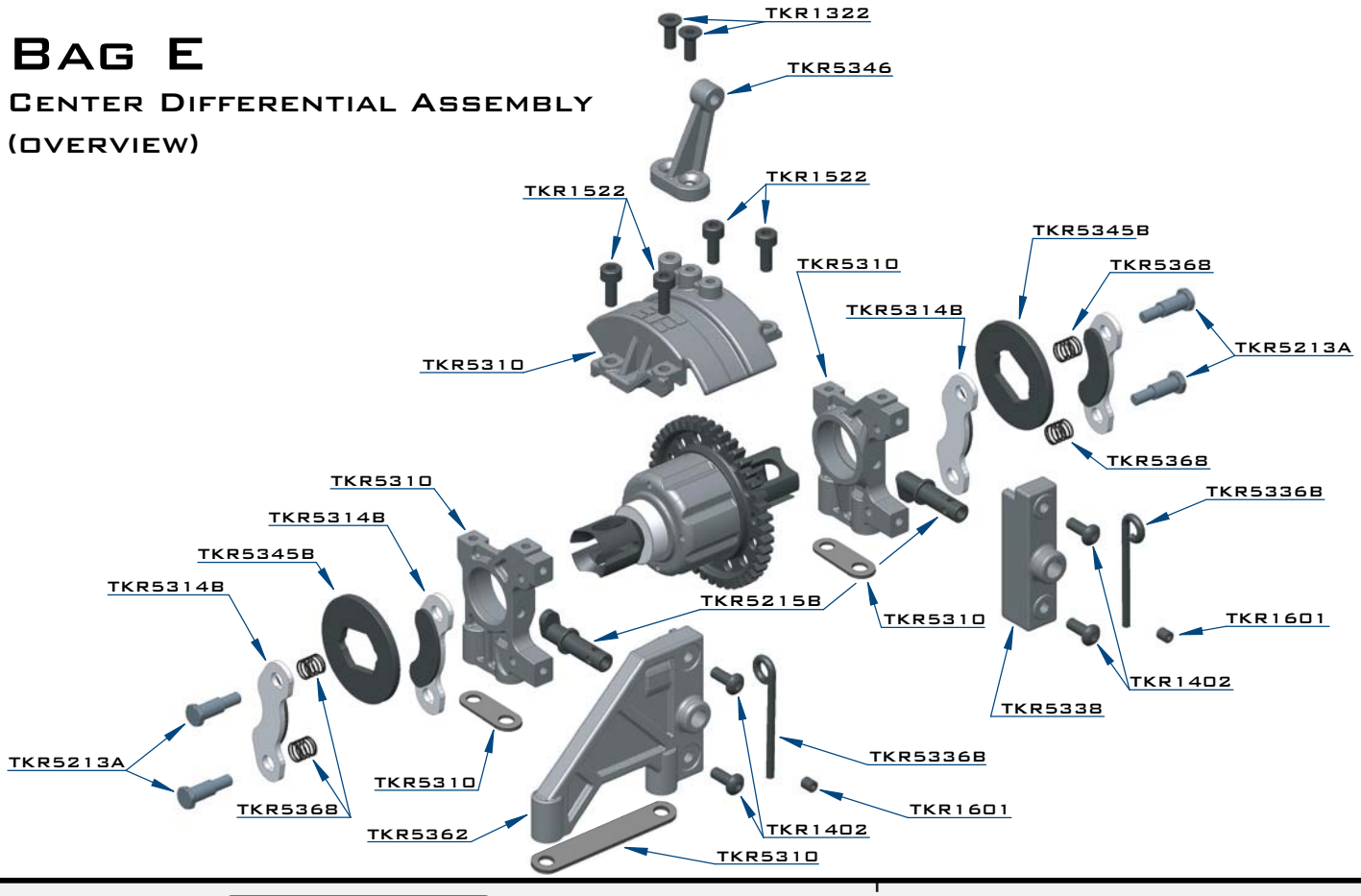


Step D-3



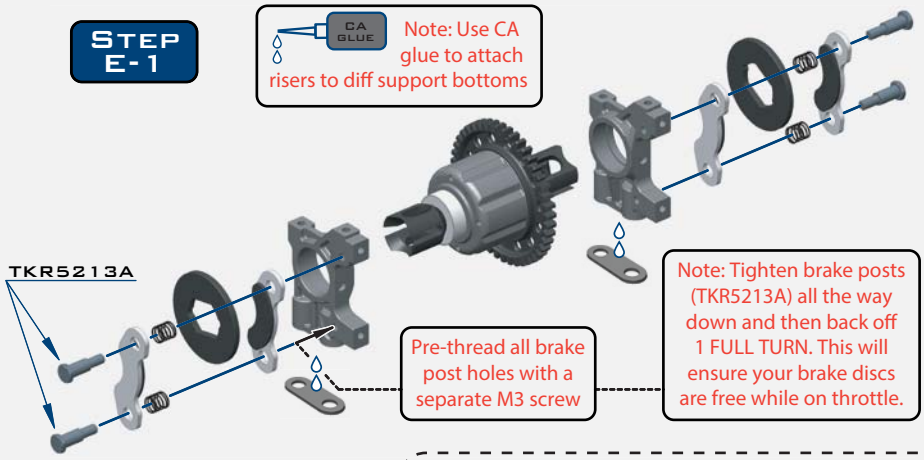
Bag E

Center Differential Assembly (overview)



Step E-1

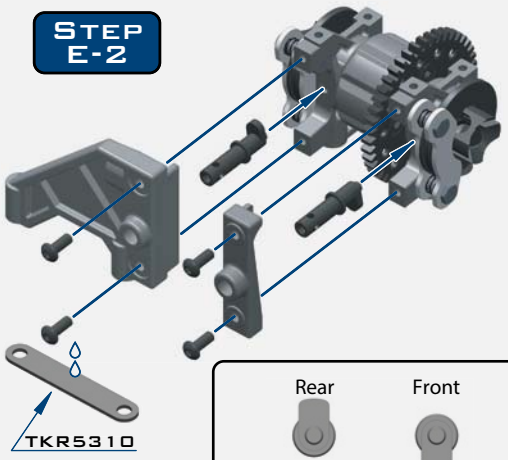
CA GLUE Note: Use CA glue to attach risers to diff support bottoms



Pre-thread all brake post holes with a separate M3 screw

Note: Tighten brake posts (TKR5213A) all the way down and then back off 1 FULL TURN. This will ensure your brake discs are free while on throttle.

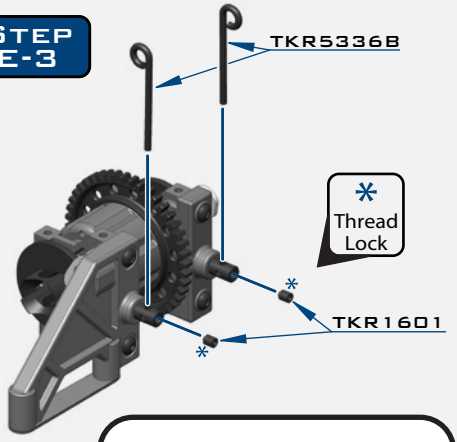
Step E-2

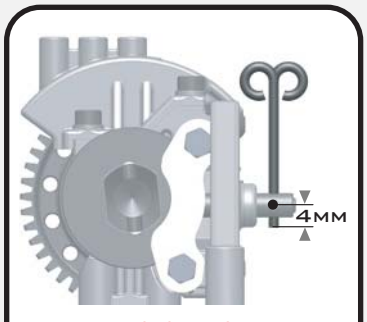


CA GLUE Note: Use CA glue to attach riser to diff brace bottom

Note: Orientation of the brake cams TKR5215B. The rear cam should be pointing up & the front cam should be pointing down.

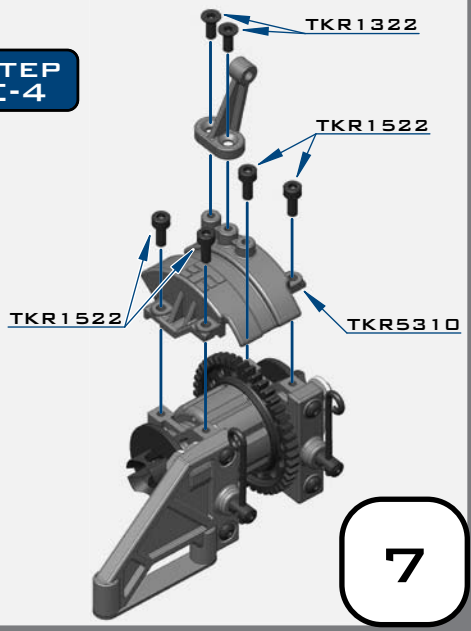
Step E-3





Note: Brake lever alignment

Step E-4



x2
TKR1322
M3x8mm Flat Head Screw

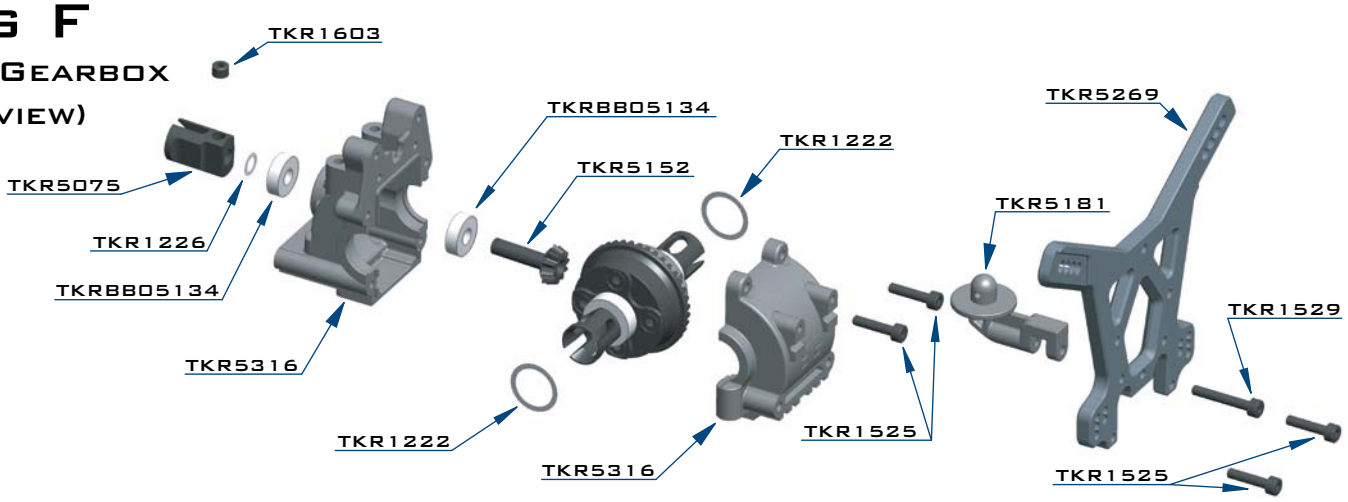
x4
TKR1402
M3x8mm Button Head Screw

x4
TKR1522
M3x8mm Cap Head Screw

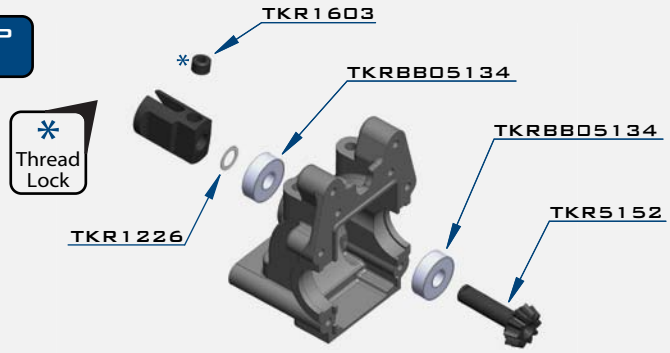
x2
TKR1601
M3x4mm Set Screw

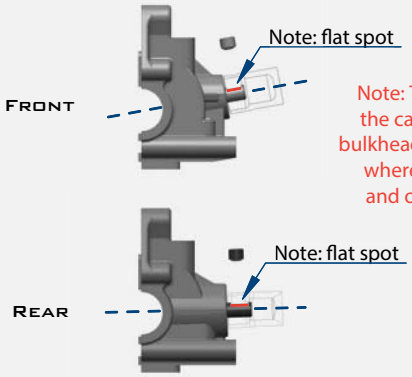
Bag F

Rear Gearbox (overview)



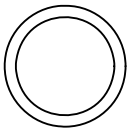
Step F-1





Note: The front and rear of the car use different inner bulkheads. The front is angled whereas the rear is offset and only slightly angled.

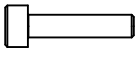
Note: TKR1222 - The gear mesh should be as close as possible without any binding. Test the fitment of the diff with both TKR1222 shims on the gear-side of the diff. If the diff turns freely without binding, continue to next step. If the diff binds and does not turn freely (it will make a grinding or crunching sound when spun), remove one TKR1222 shim from the gear side and install it onto the other side of the diff. Reassemble and test the mesh again. If it is still binding, remove the second TKR1222 shim from the gear side and install it onto the other side of the diff. When you are satisfied that you have the best gear mesh possible continue to the next step.


x2

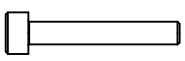
TKR1222
13x16x0.1mm Diff Shim


x1

TKR1226
5x7x0.2mm shim


x4

TKR1525
M3x14mm Cap Head Screw


x1

TKR1529
M3x20mm Cap Head Screw

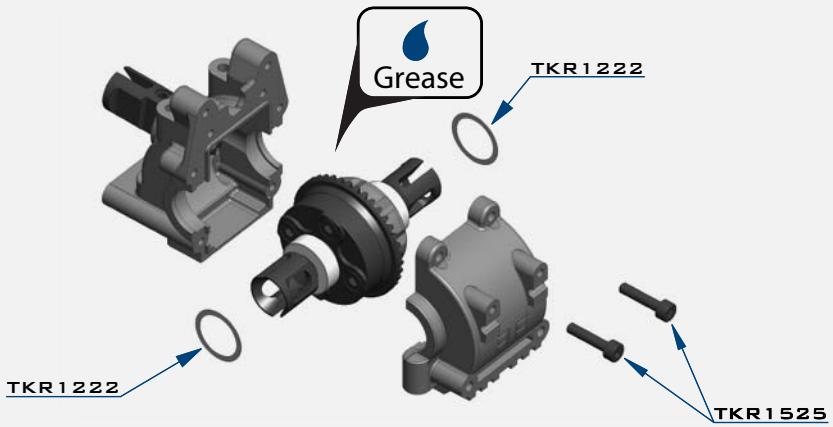

x1

TKR1603
M5x4mm Set Screw

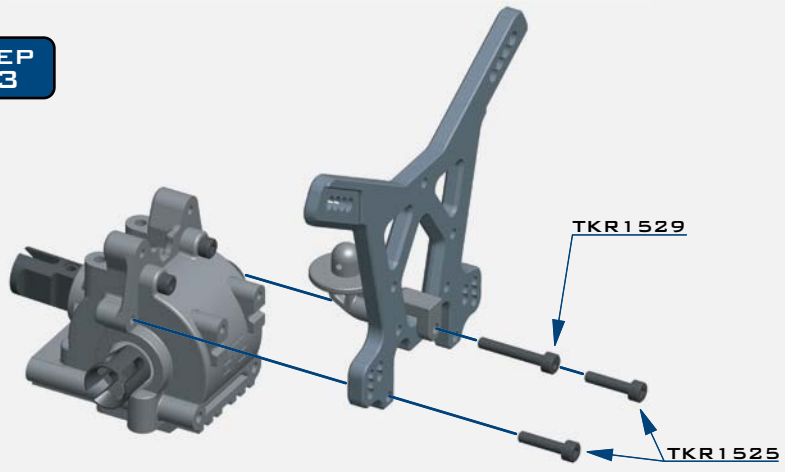

x2

TKRBB05134
Ball Bearing (5x13x4)

Step F-2



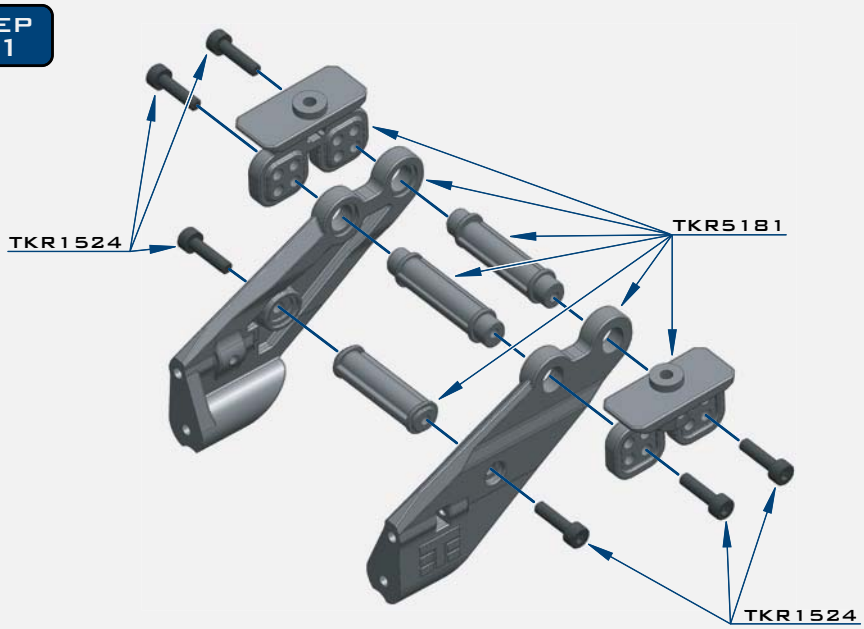
Step F-3



Bag G

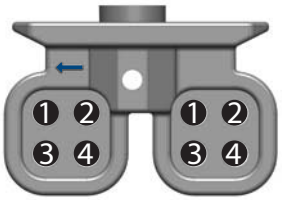
Low Profile Wing Mount

Step G-1



Settings

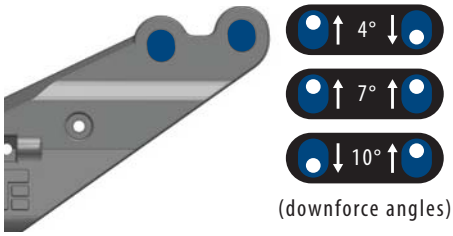
Position Settings



1 - Rearward Low | 2 - Forward Low
3 - Rearward High | 4 - Forward High

Note: Stock position setting is # 4, Forward High

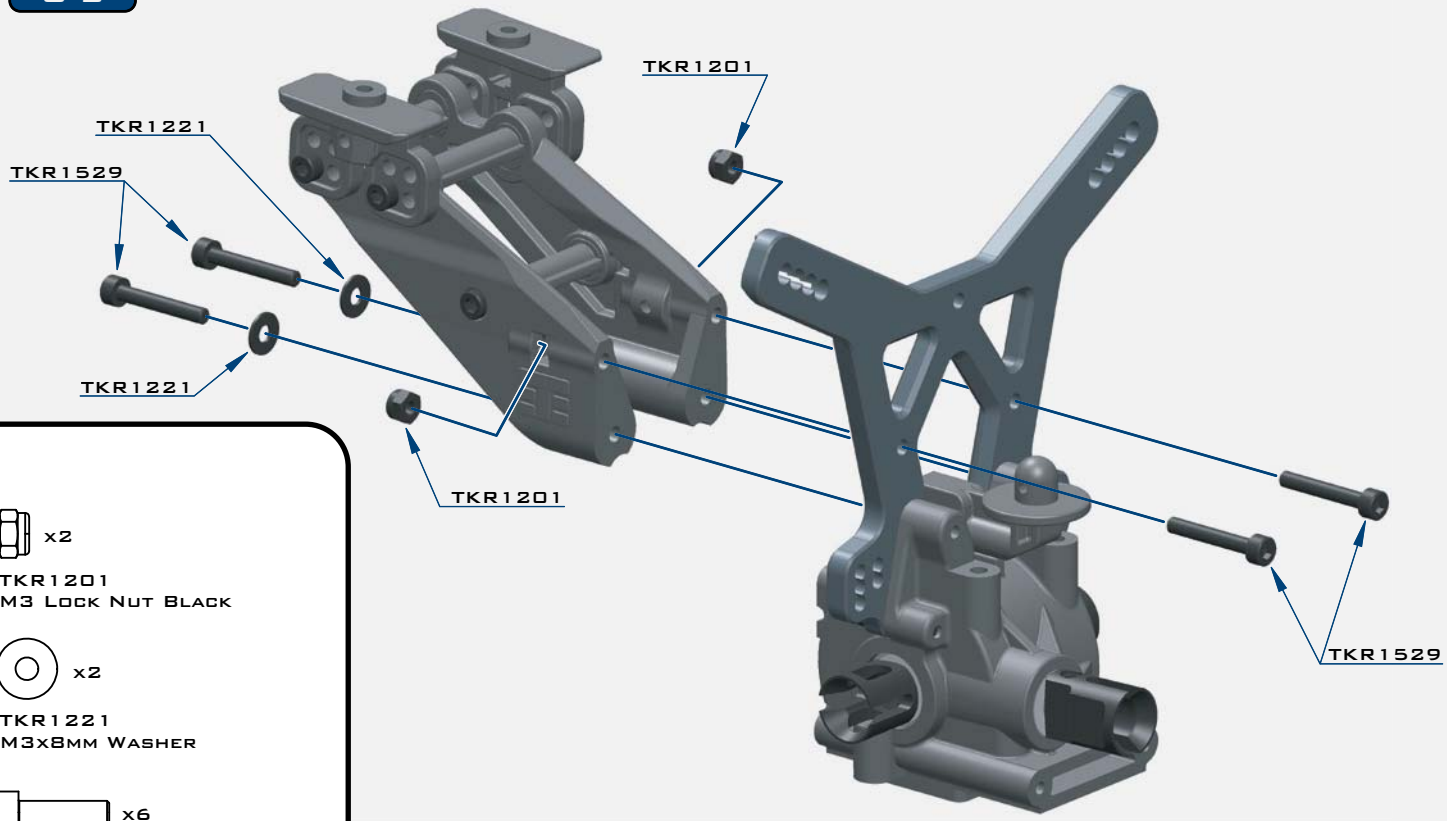
Downforce Settings



(downforce angles)

Note: Stock downforce setting is 4°

Step G-2



x2
TKR1201
M3 Lock Nut Black

x2
TKR1221
M3x8mm Washer

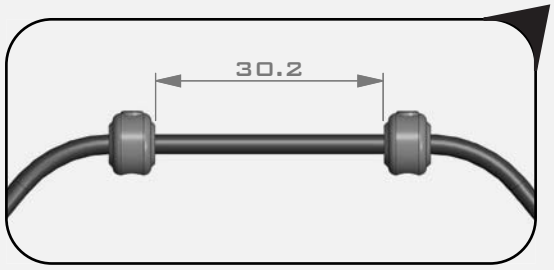
x6
TKR1524
M3x12mm Cap Head Screw

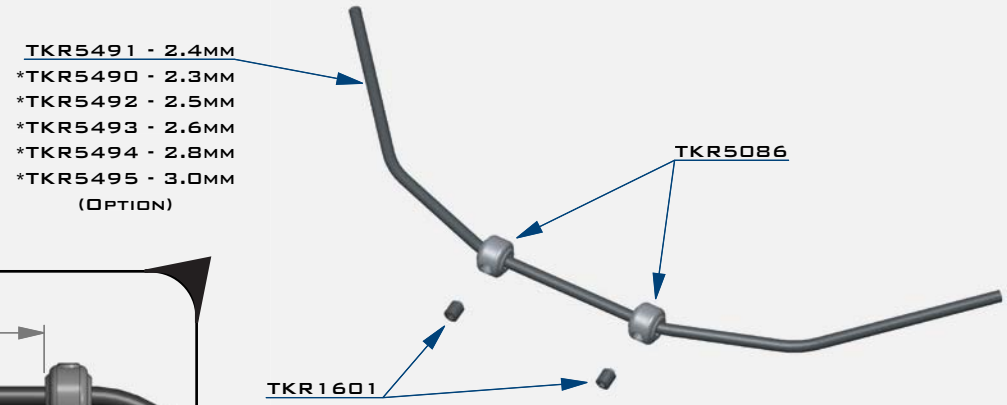
x4
TKR1529
M3x20mm Cap Head Screw

Bag H

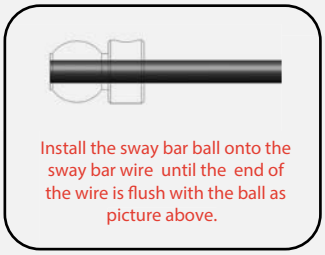
Rear End

Step H-1



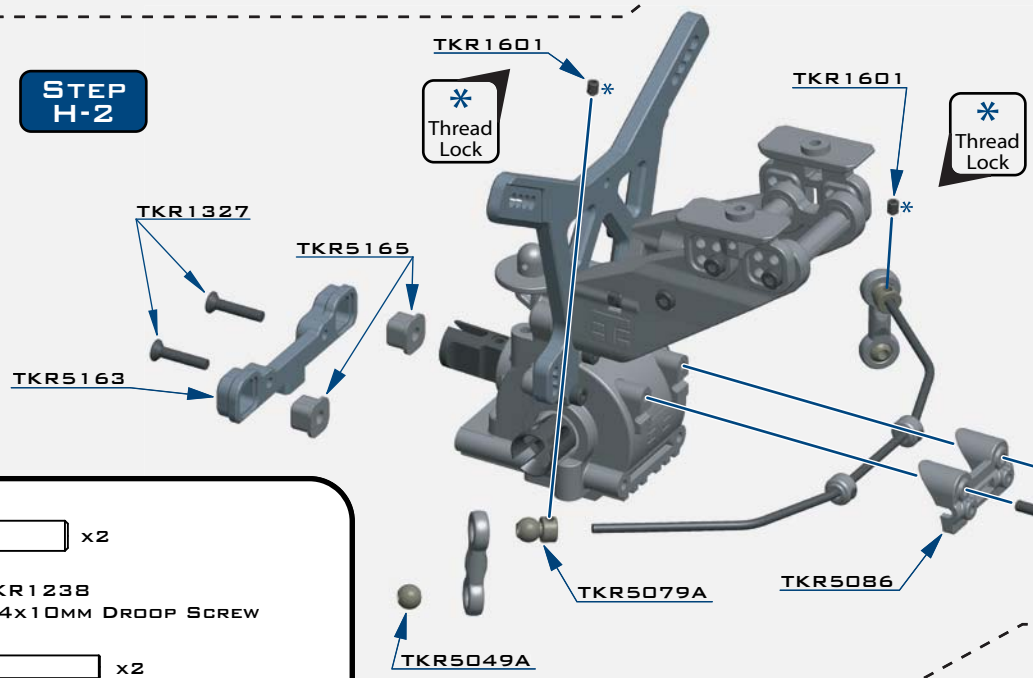


Note: Do not over-tighten

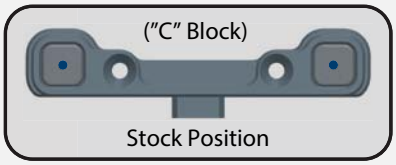


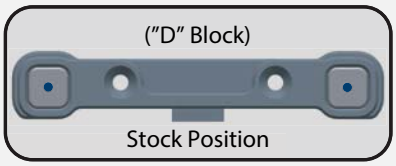
Install the sway bar ball onto the sway bar wire until the end of the wire is flush with the ball as picture above.

Step H-2



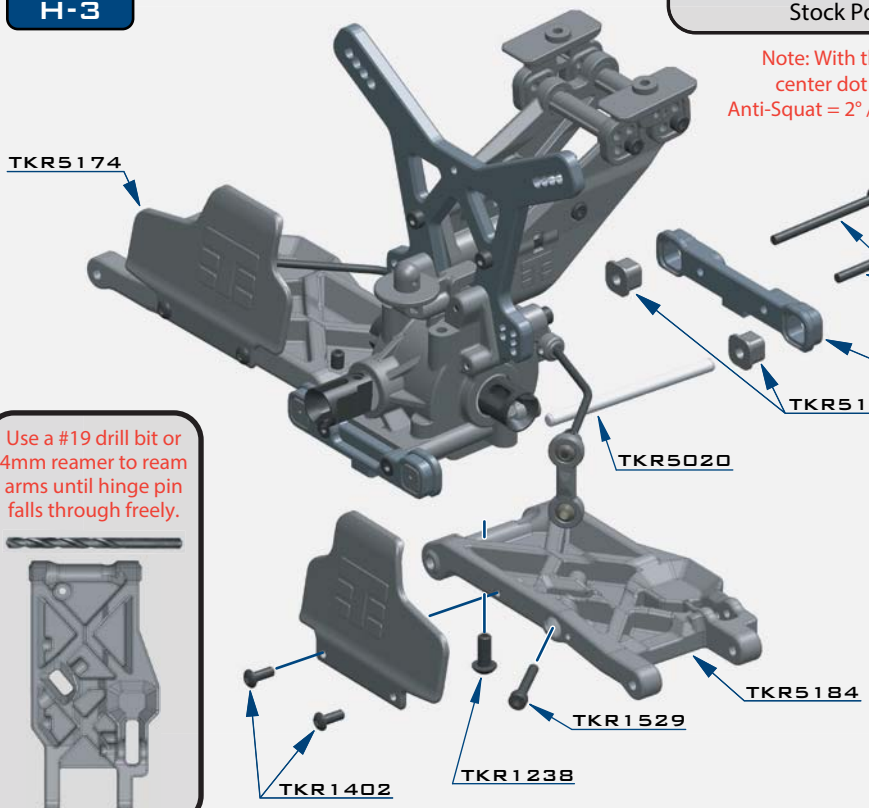
Note: Loosen the M3x4 set screw (TKR1601) if the anti-roll bar does not turn freely.





Note: With these stock center dot settings, Anti-Squat = 2° / Rear Toe = 3°

Step H-3

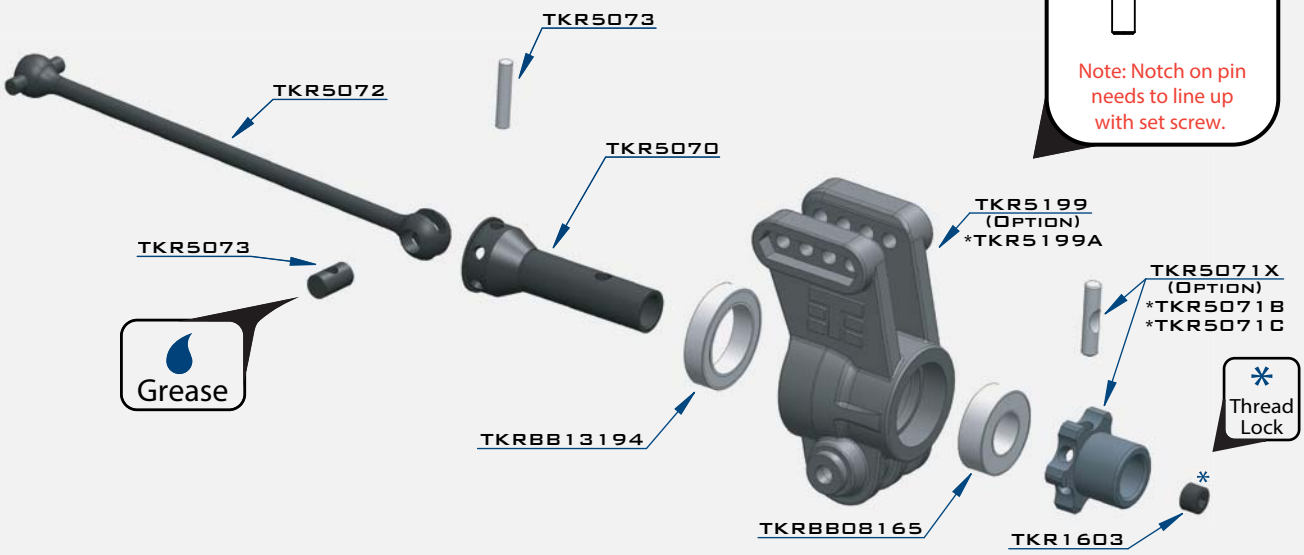


Use a #19 drill bit or 4mm reamer to ream arms until hinge pin falls through freely.

- x2 — TKR1238 — M4x10mm Droop Screw
- x2 — TKR1327 — M3x16mm Flat Head Screw
- x2 — TKR1333 — M3x40mm Flat Head Screw
- x4 — TKR1402 — M3x8mm Button Head Screw
- x2 — TKR1522 — M3x8mm Cap Head Screw
- x2 — TKR1529 — M3x20mm Cap Head Screw
- x6 — TKR1601 — M3x4mm Set Screw
- x2 — TKR5049A — Pivot Ball Sway Bar
- x2 — TKR5079A — Stabilizer Ball

Bag 1

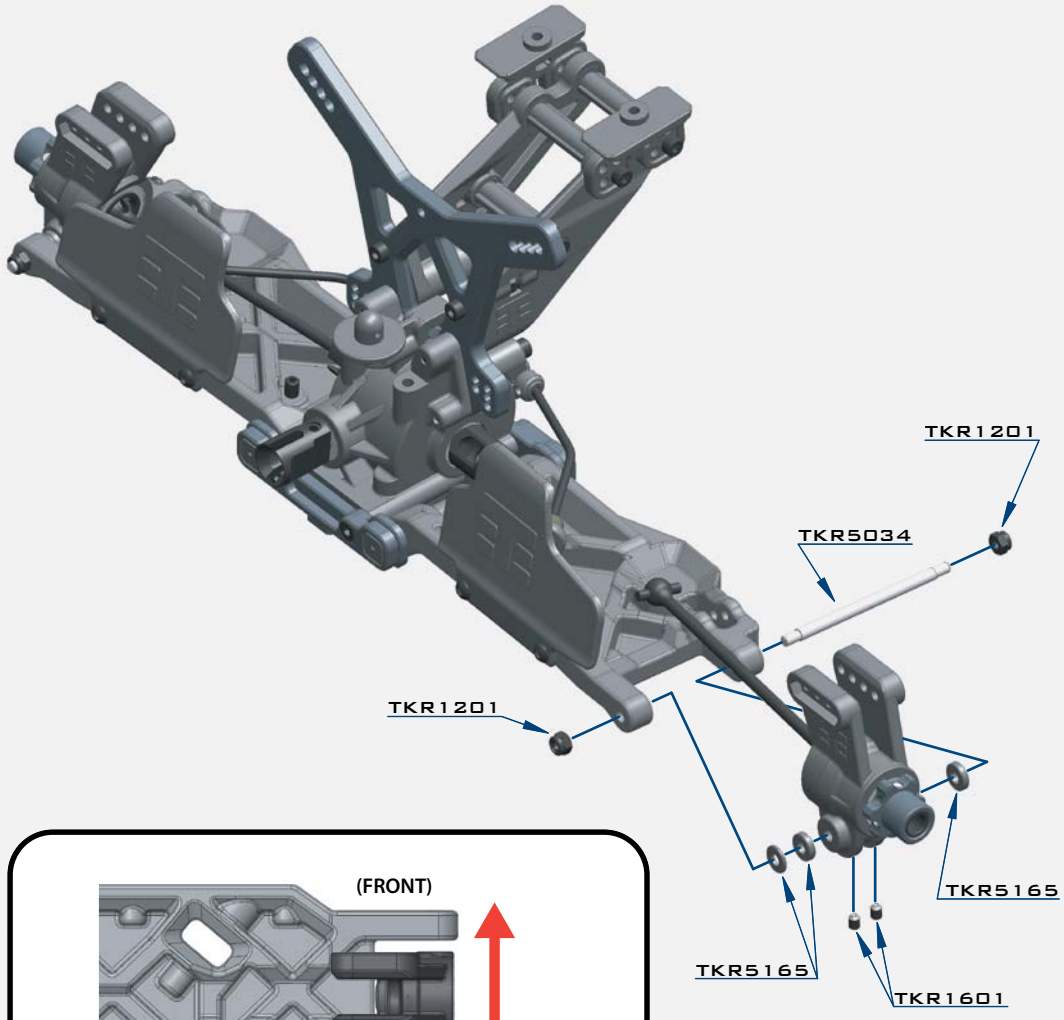
Rear Hub/CVA Assembly



Note: Notch on pin needs to line up with set screw.

Step 1-1

Step 1-2



x4
TKR1201
M3 Locknut Black

x4
TKR1601
M3x4mm Set Screw

x2
TKR1603
M5x4mm Set Screw

x2
TKR5071X
M3x13.8mm Pin

x2
TKR5073
CV Joint Pin

x2
TKRBB08165
Ball Bearing (8x16x5)

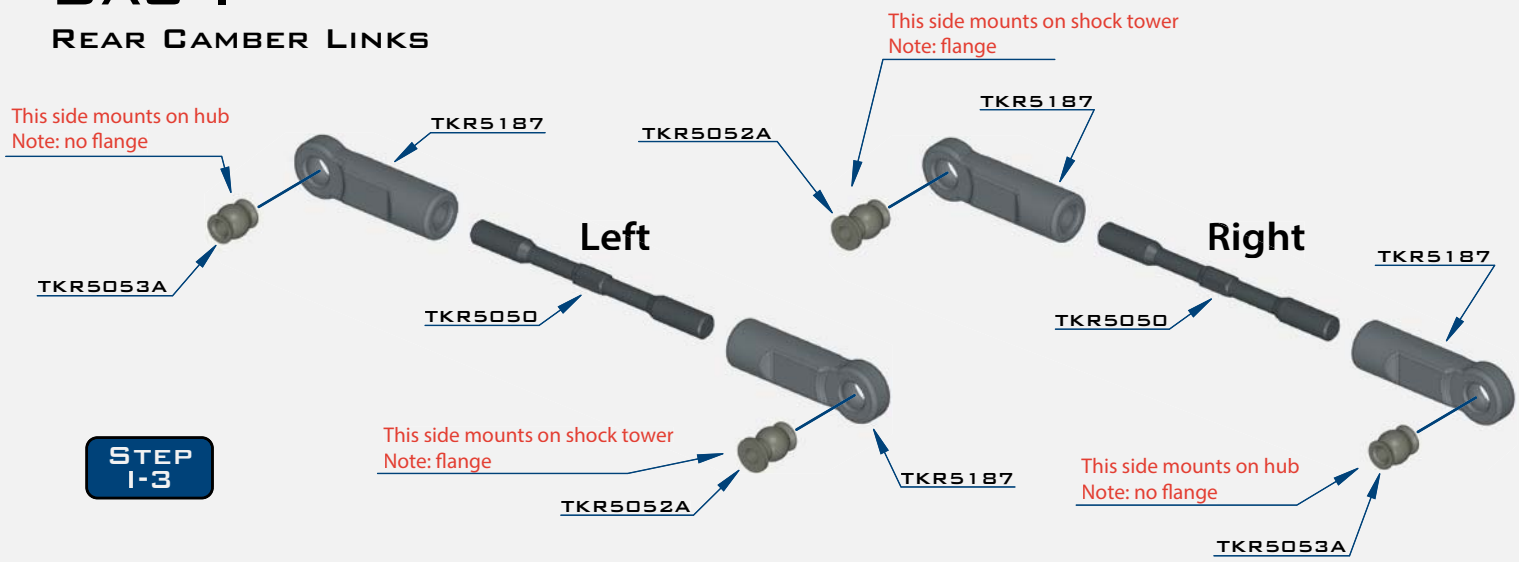
x2
TKRBB13194
Ball Bearing (13x19x4)

Changes to the wheelbase have a dramatic effect on handling, since it shifts the disribution of weight over the rear wheels. This adjusts traction. By shortening the wheelbase at the rear, you are placing more weight over the rear wheels.

Changes to the wheelbase also change the amount of sweep the rear driveshaft will have. More driveshaft sweep creates an effect similar to anti-squat, where the rear end gets pushed upwards on throttle. This helps reduce chassis slap when landing jumps on throttle.

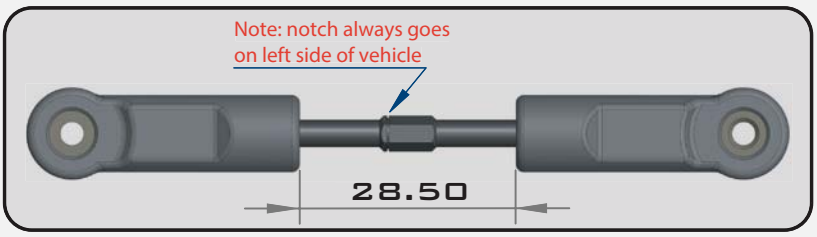
Bag 1

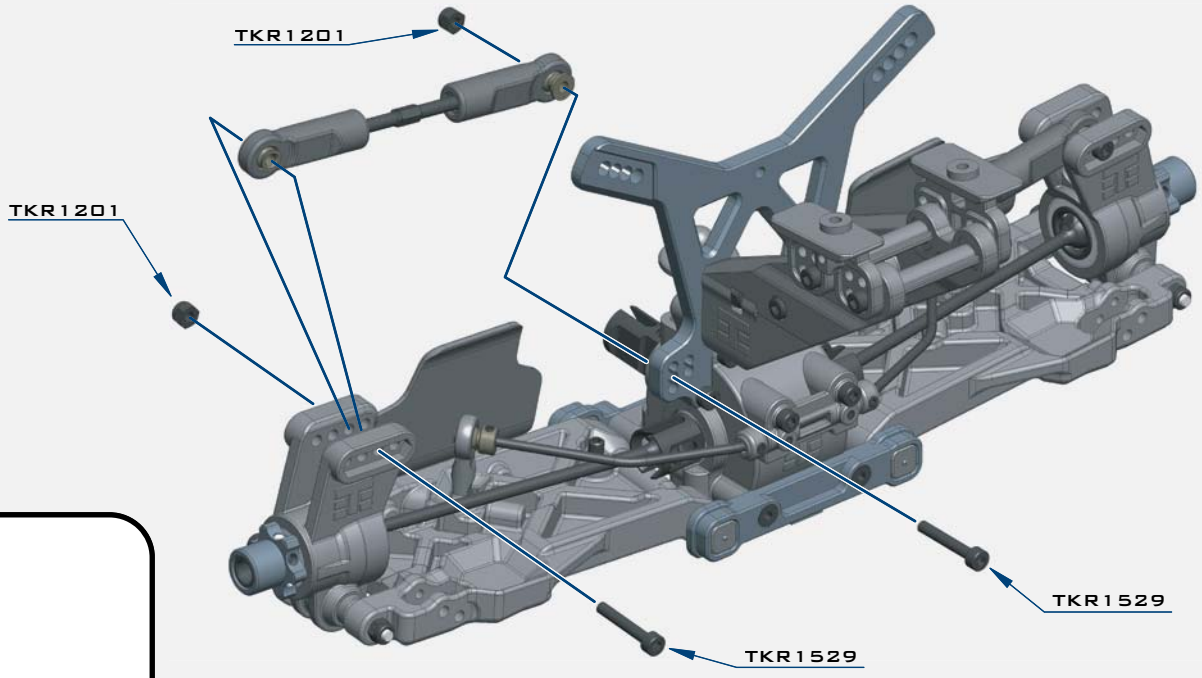
Rear Camber Links



Step 1-3

Step 1-4





x4

TKR1201
M3 Locknut Black

x4

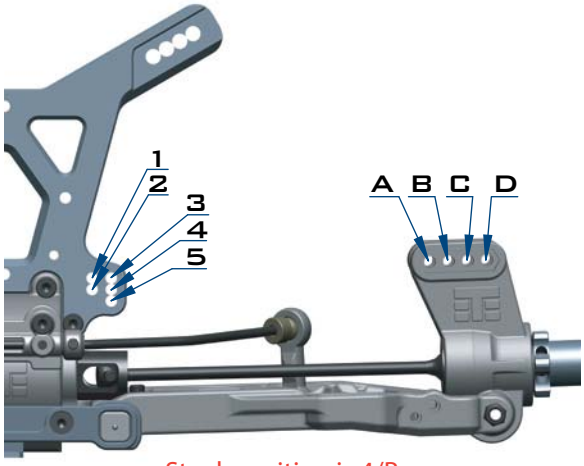
TKR1529
M3x20mm Cap Head Screw

x2

TKR5052A
Pivot Ball M3x6.8mm

x2

TKR5053A
Pivot Ball M3x6.8mm
No Flange



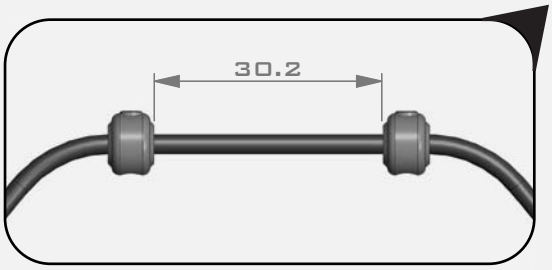
Stock position is 4/B

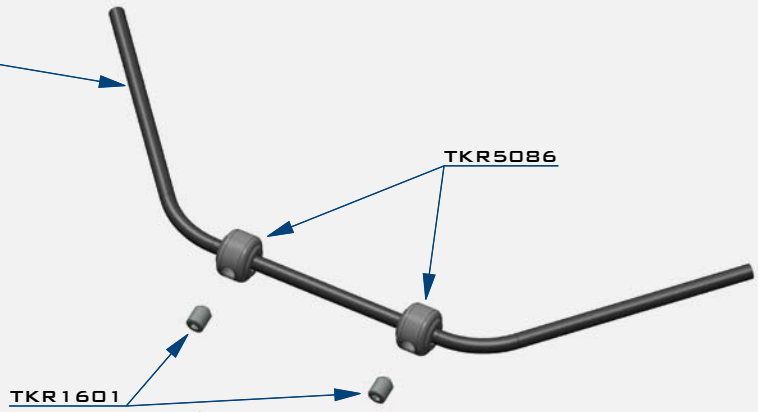
Bag J

Front End

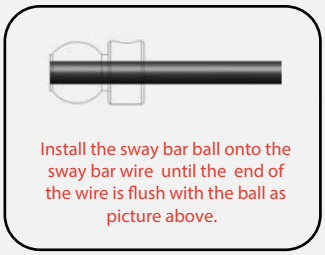
Step J-1

TKR5082 - 2.4mm
*TKR5080 - 2.2mm
*TKR5081 - 2.3mm
*TKR5083 - 2.5mm
*TKR5084 - 2.6mm
*TKR5085 - 2.8mm
*TKR5087 - 3.0mm
(Option)



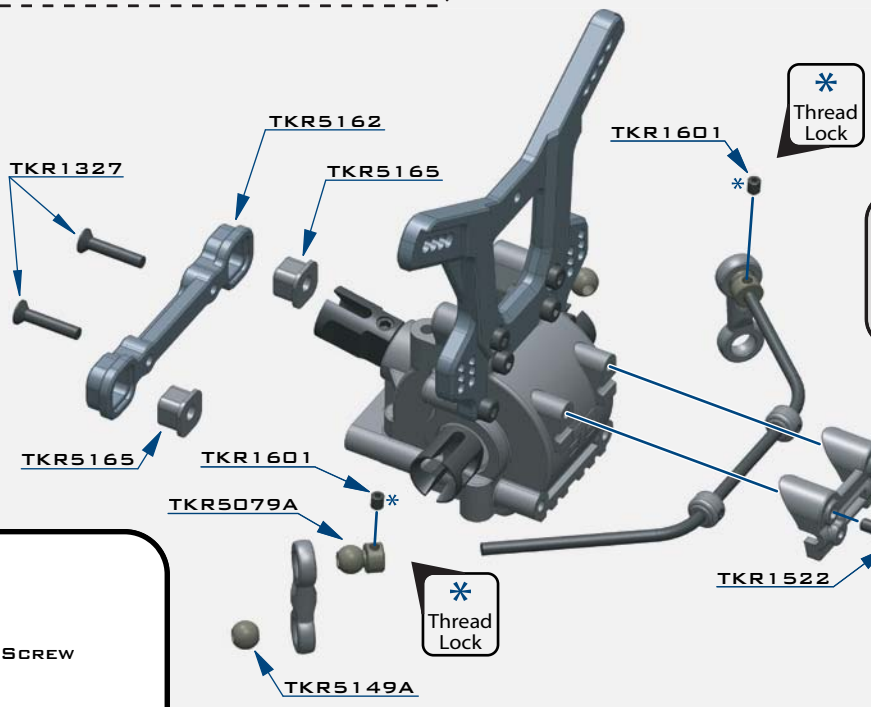


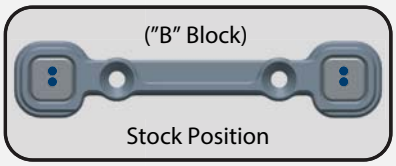
Note: Do not over-tighten



Install the sway bar ball onto the sway bar wire until the end of the wire is flush with the ball as picture above.

Step J-2





Loosen the M3x4 set screw (TKR1601) if the anti-roll bar does not turn freely.

x2
TKR1238
M4x10mm Droop Screw

x2
TKR1327
M3x16mm Flat Head Screw

x2
TKR1333
M3x40mm Flat Head Screw

x2
TKR1522
M3x8mm Cap Head Screw

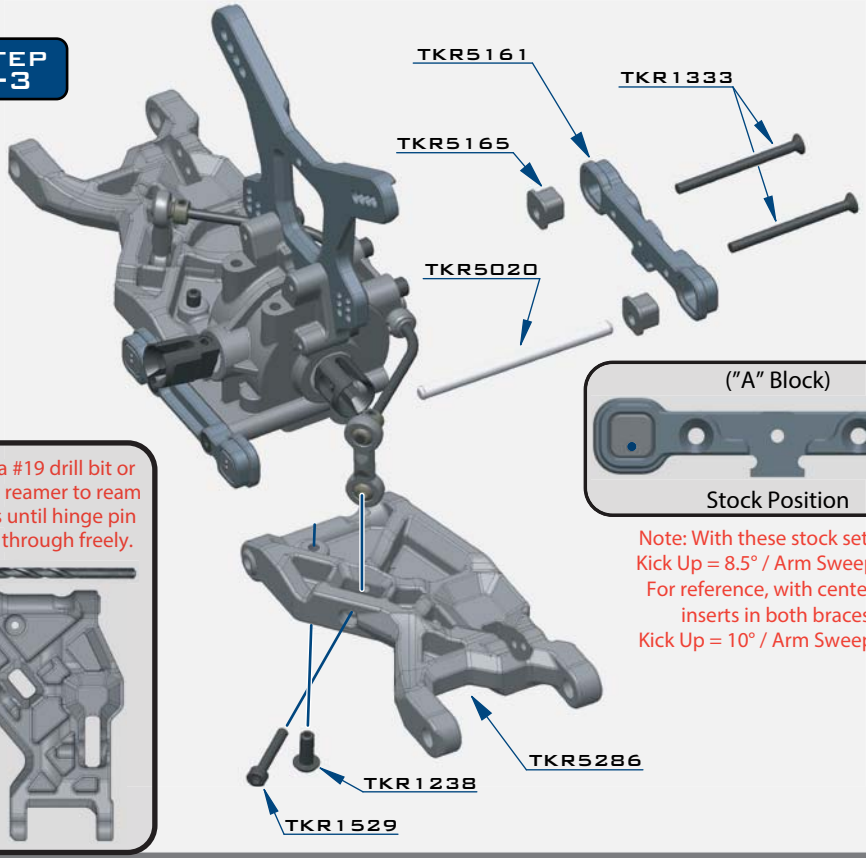
x2
TKR1529
M3x20mm Cap Head Screw

x6
TKR1601
M3x4mm Set Screw

x2
TKR5049A
Pivot Ball Sway Bar

x2
TKR5079A
Stabilizer Ball

Step J-3

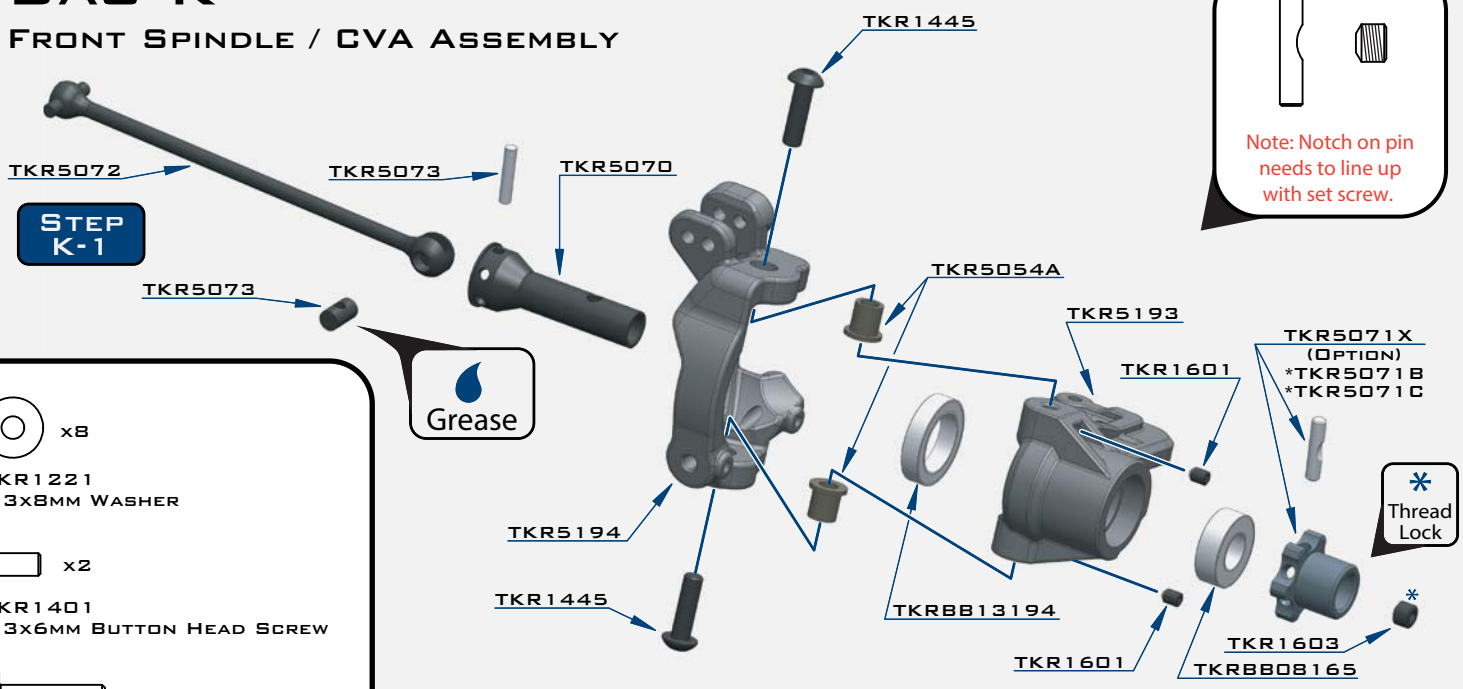


Note: With these stock settings, Kick Up = 8.5° / Arm Sweep = 0°
For reference, with center dot inserts in both braces, Kick Up = 10° / Arm Sweep = 0°

Use a #19 drill bit or 4mm reamer to ream arms until hinge pin falls through freely.

Bag K

Front Spindle / CVA Assembly



Note: The TKR1601 set screws are meant to keep the TKR1445 screws from coming loose. After installing TKR1445 and ensuring the steering action is free, install TKR1601 in the locations indicated. Very slowly tighten the screws until you feel some resistance from contacting the TKR1445 screws. DO NOT OVERTIGHTEN. Also be sure to loosen TKR1601 before unscrewing TKR1445 or you will damage the screws and the parts.

x8
TKR1221
M3x8mm Washer

x2
TKR1401
M3x6mm Button Head Screw

x4
TKR1445
M4x14mm Button Head Screw

x4
TKR1447
M4x16mm Button Head Screw

x8
TKR1601
M3x4mm Set Screw

x2
TKR1603
M5x4mm Set Screw

x4
TKR5054A
Spindle Pin Sleeve

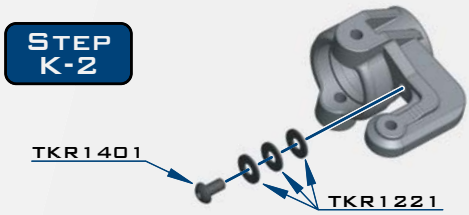
x4
TKR5055A
Suspension Pin Sleeve

x2
TKR5071X
M3x13.8mm Pin

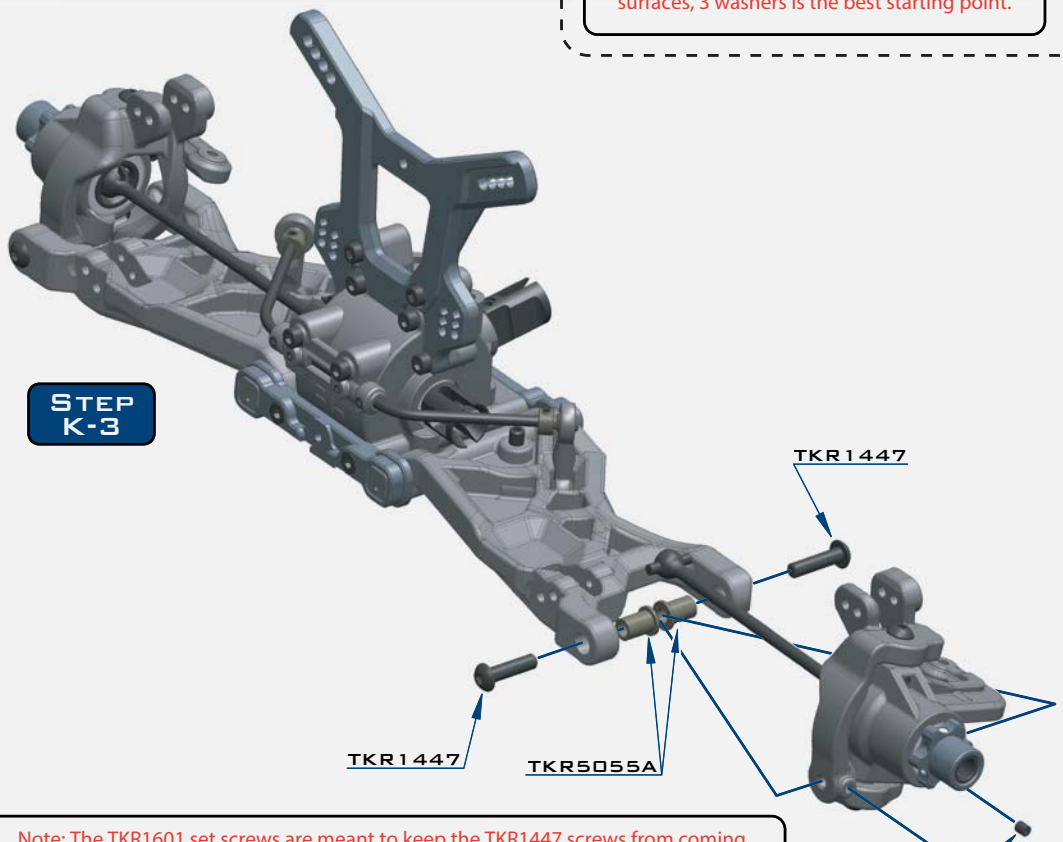
x2
TKR5073
CV Joint Pin

x2
TKRBB08165
Ball Bearing (8x16x5)

x2
TKRBB13194
Ball Bearing (13x19x4)



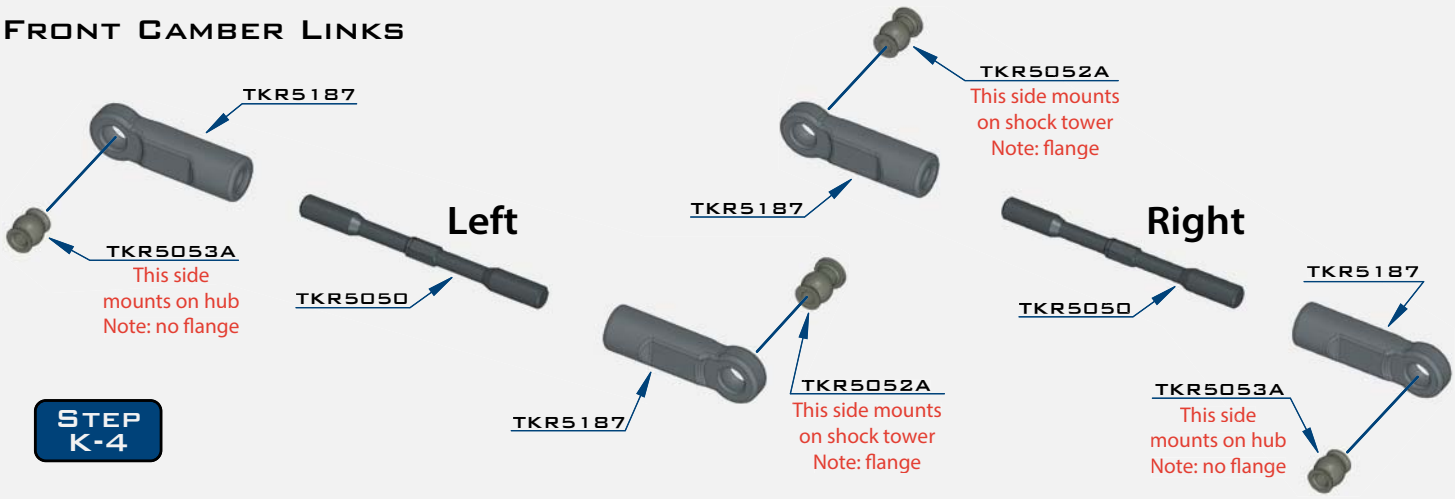
Note: The steering stops provide adjustable travel limiters that you can adjust to your driving style. For very tight tracks you may want to experiment with less limiting washers (more steering travel). However, with too much steering travel the rear end can lose traction more easily coming out of corners. After months of testing on different track surfaces, 3 washers is the best starting point.



Note: The TKR1601 set screws are meant to keep the TKR1447 screws from coming loose. After installing TKR1447 and ensuring the steering action is free, install TKR1601 in the locations indicated. Very slowly tighten the screws until you feel some resistance from contacting the TKR1447 screws. DO NOT OVERTIGHTEN. Also be sure to loosen TKR1601 before unscrewing TKR1447 or you will damage the screws and the parts.

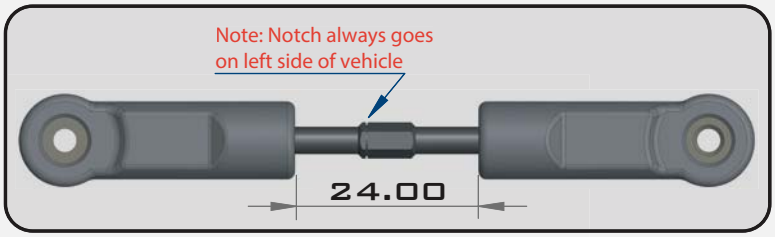
Bag K

Front Camber Links



Step K-4

Step K-5

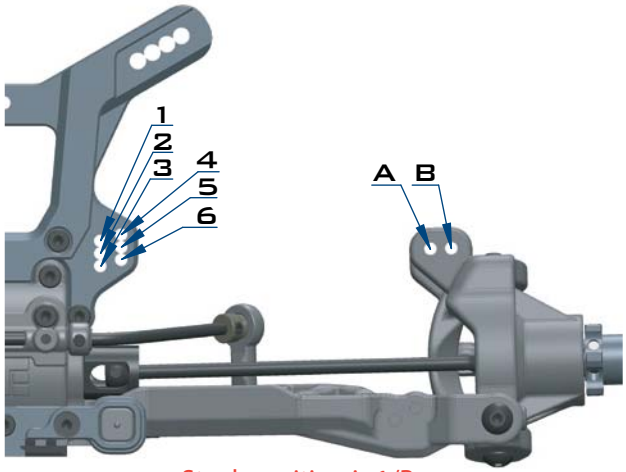


x4
TKR1201
M3 Lock Nut Black

x4
TKR1529
M3x20mm Cap Head Screw

x2
TKR5052A
Pivot Ball M3x6.8mm

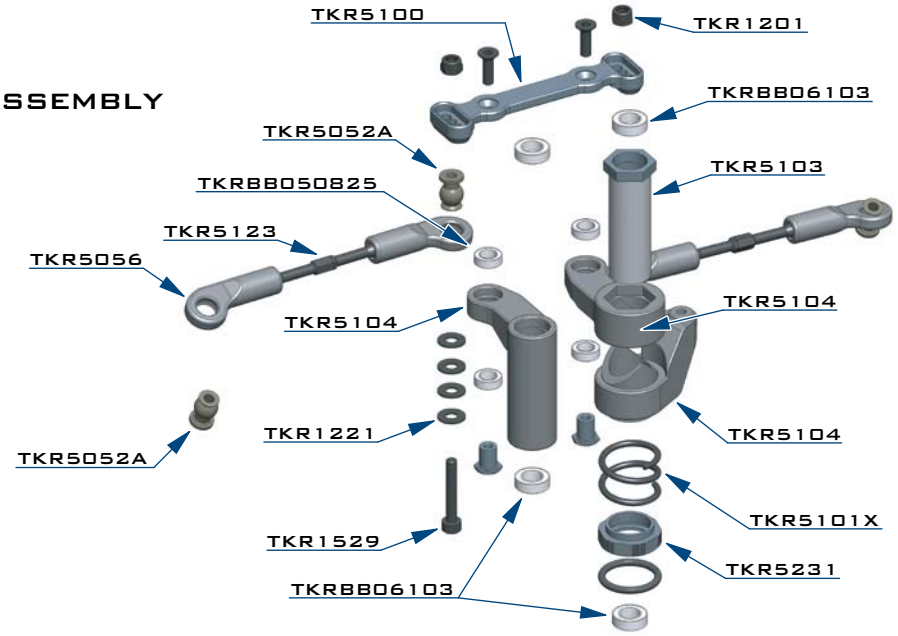
x2
TKR5053A
Pivot Ball M3x6.8mm
No Flange



Stock position is 1/B

Bag L

Steering Assembly (overview)



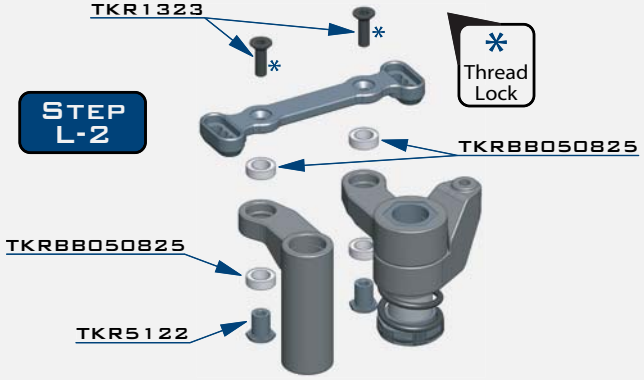
Step L-1



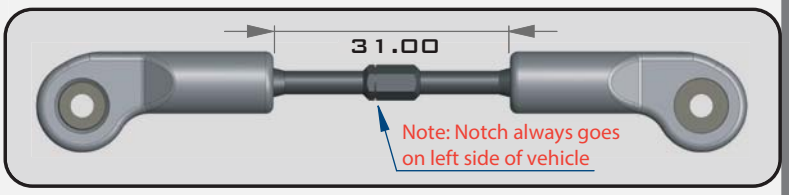
Note: Tighten nut all the way down, then back it off 3 full turns

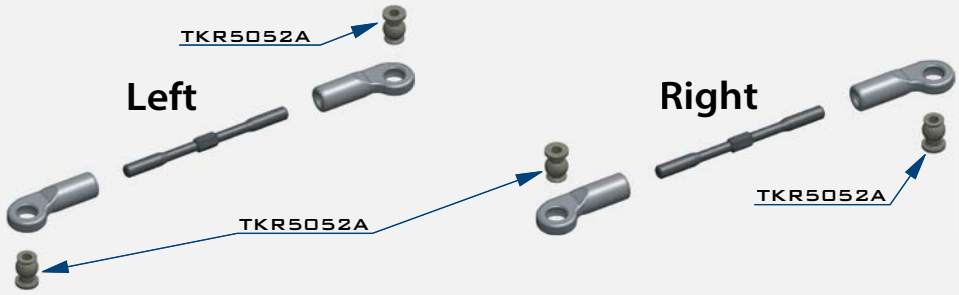


Step L-2

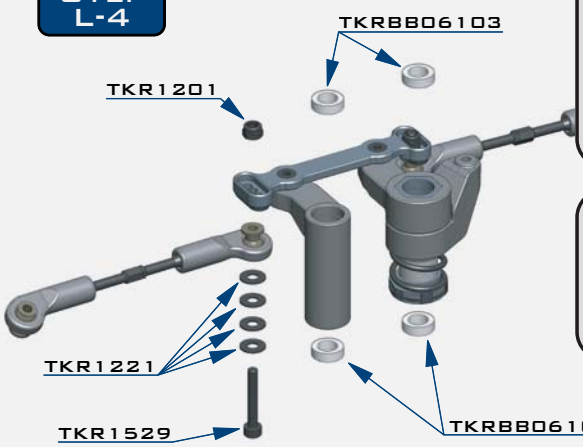


Step L-3



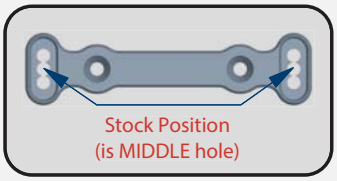


Step L-4



Note: Stock bumpsteer setting is 4 washers under the steering ball link.







x2

TKR1201
M3 Lock Nut Black



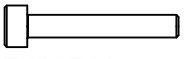
x8

TKR1221
M3x8mm Washer



x2

TKR1323
M3x10mm Flat Head Screw



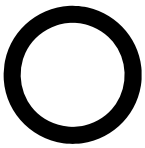
x2

TKR1529
M3x20mm Cap Head Screw



x4

TKR5052A
Pivot Ball M3x6.8mm



x1

TKR5231
O-ring 16x12x2



x4

TKRBB050825
Ball Bearing (5x8x2.5)



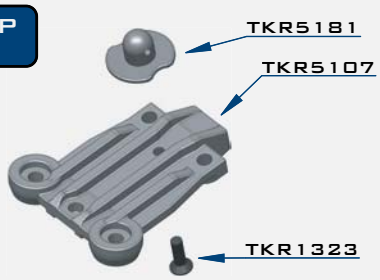
x4

TKRBB06103
Ball Bearing (6x10x3)

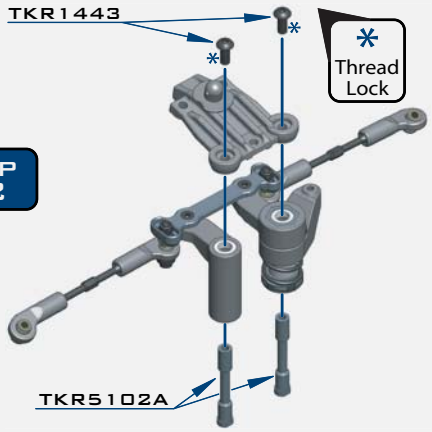
Bag M

Front End Assembly

Step M-1



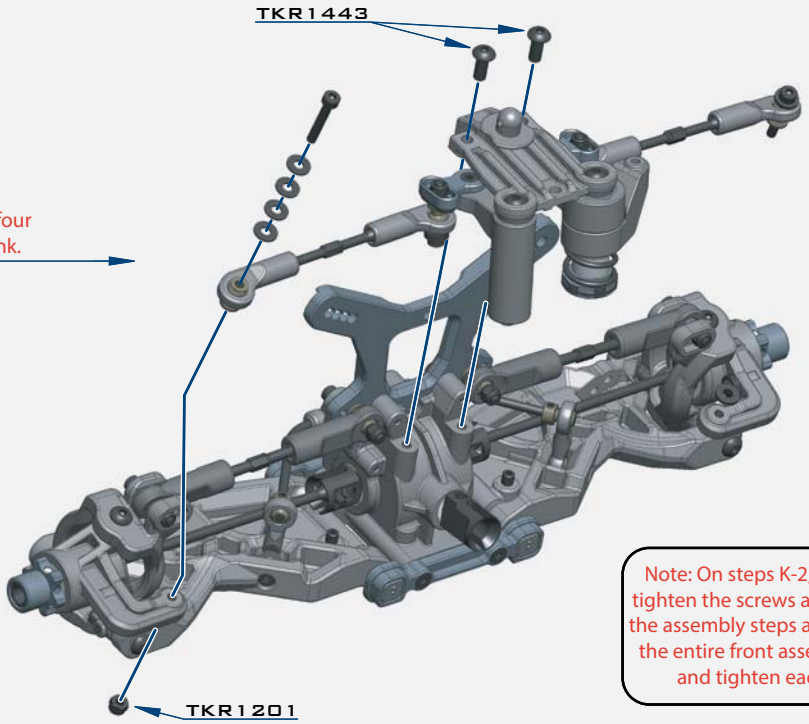
Step M-2



Note Step K-2:
Line up the bottom of the steering posts (TKR5102A) with the corresponding recessed cut in the chassis.

Step M-3

Note: Initial bumpsteer setting is four washers above the steering ball link.



Note: On steps K-2, K-3 and K-4 Do not tighten the screws all the way down until the assembly steps are complete. Position the entire front assembly on the chassis and tighten each screw evenly.

x2
TKR1201
M3 Lock Nut Black

x8
TKR1221
M3x8mm Washer

x1
TKR1323
M3x10mm Flat Head Screw

x2
TKR1343
M4x10mm Flat Head Screw

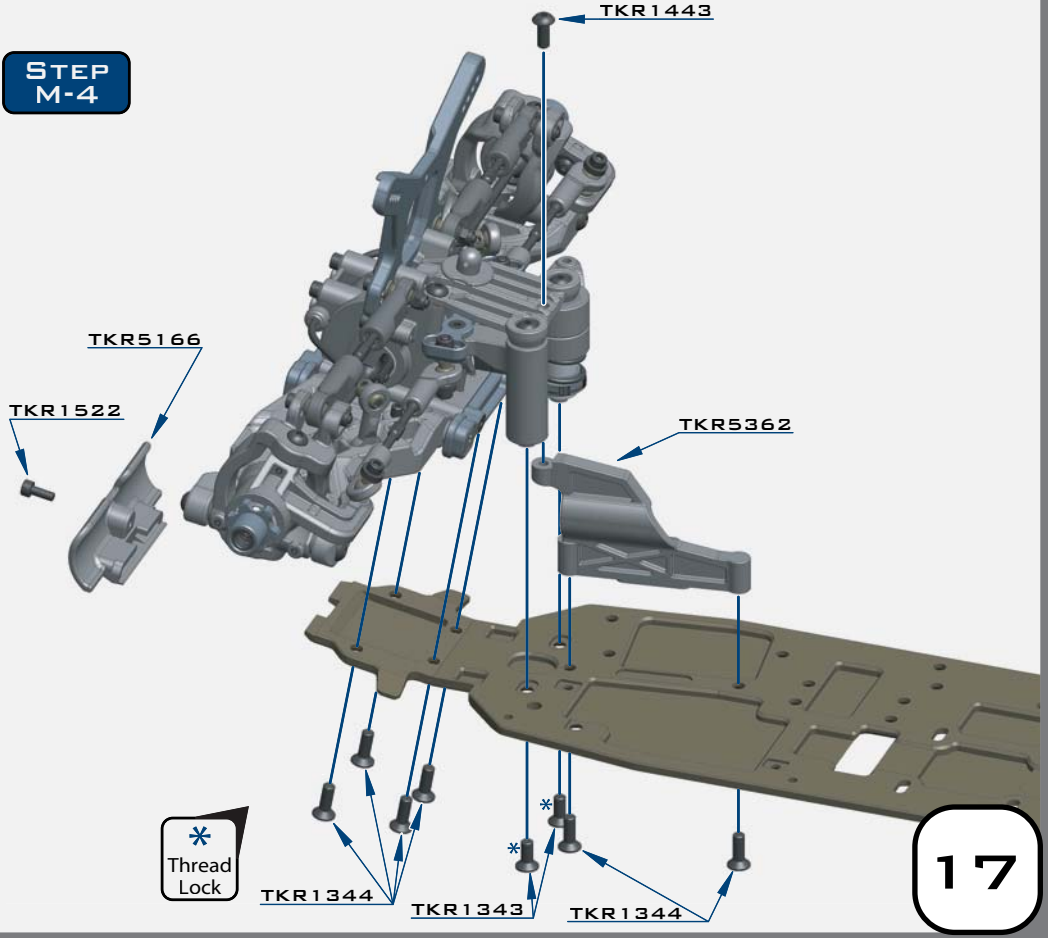
x6
TKR1344
M4x12mm Flat Head Screw

x5
TKR1443
M4x10mm Button Head Screw

x1
TKR1522
M3x8mm Cap Head Screw

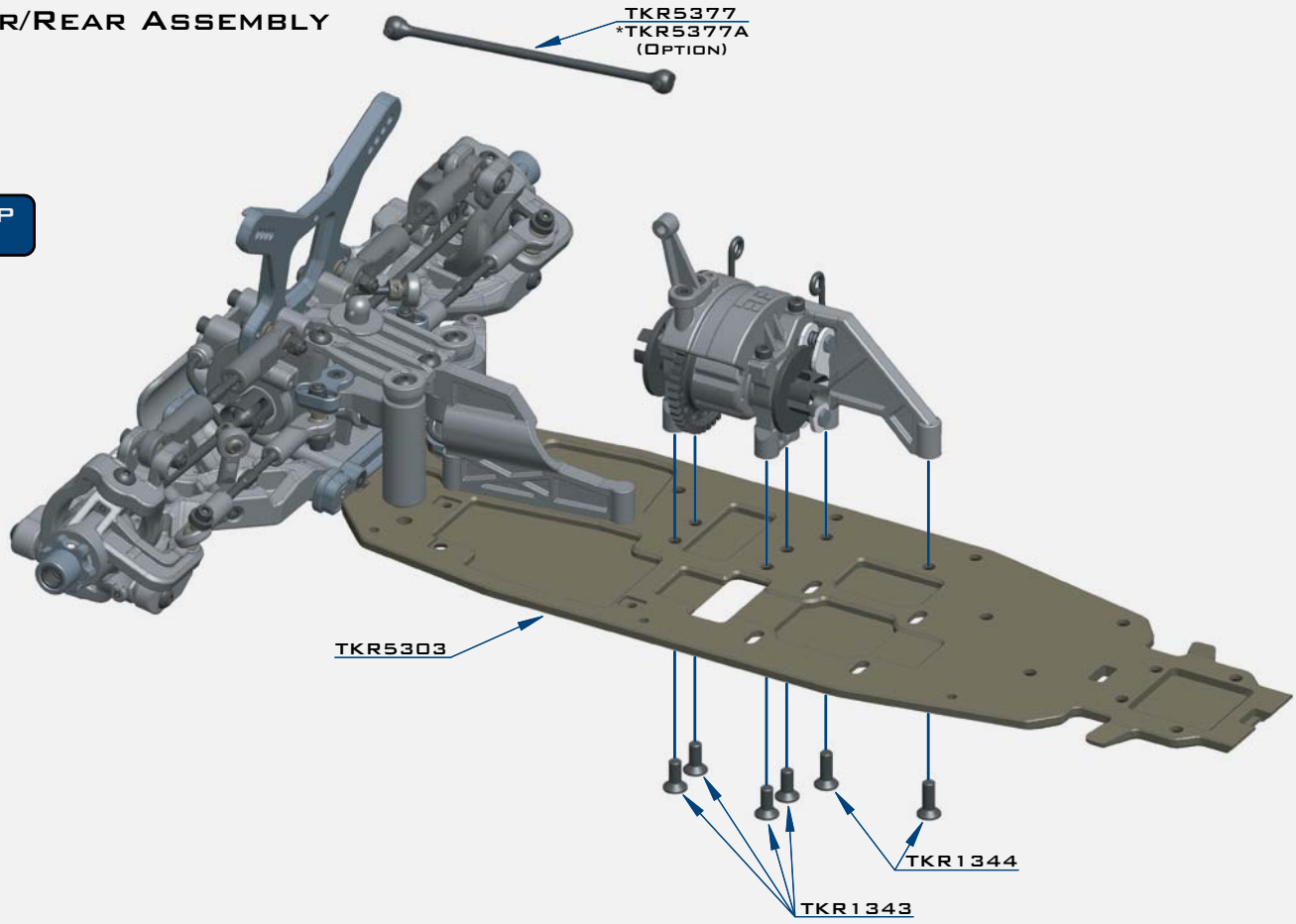
x2
TKR1529
M3x20mm Cap Head Screw

Step M-4



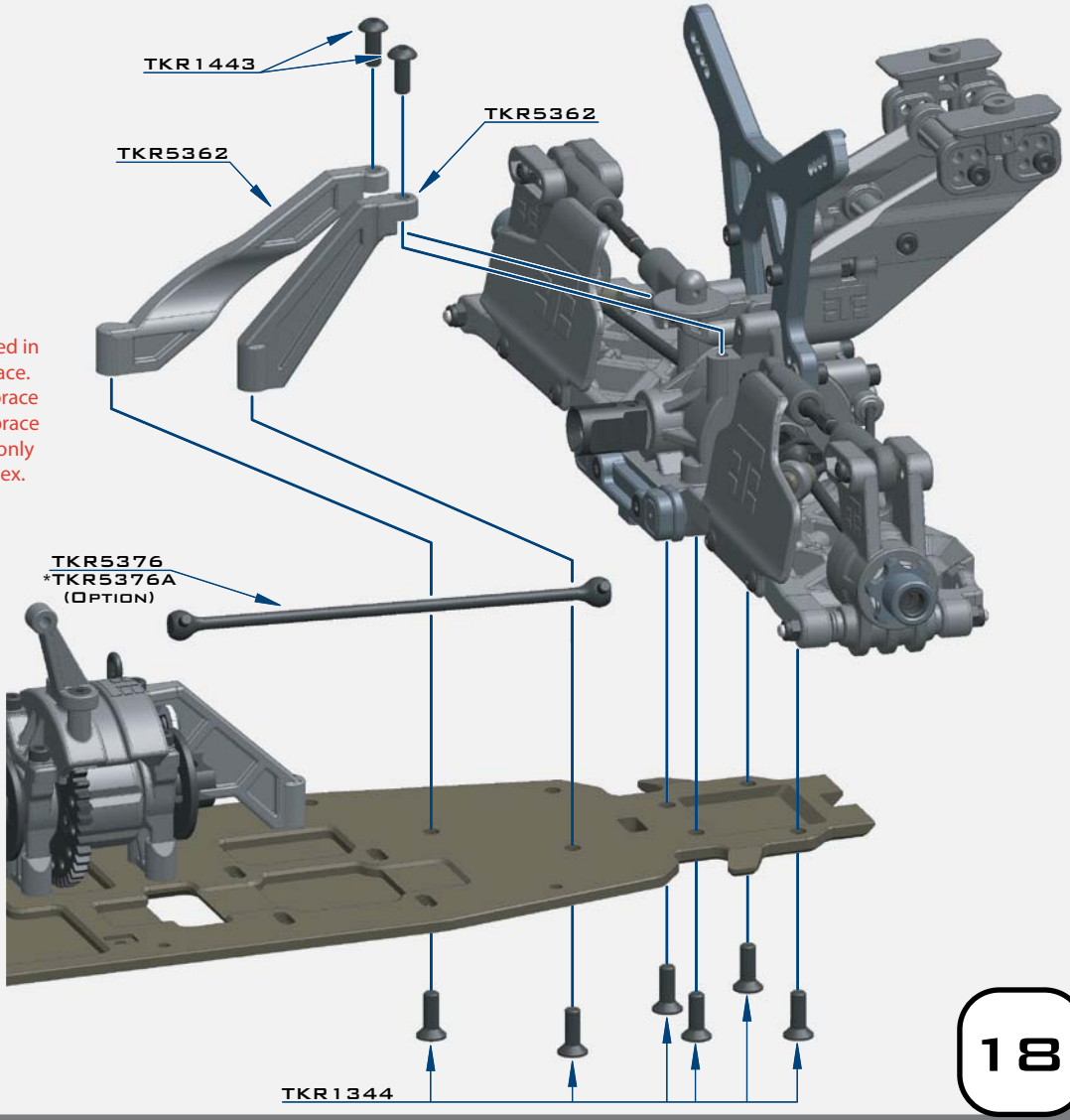
Bag N

Center/Rear Assembly

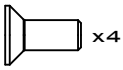


Step N-1

Step N-2

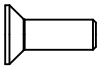


Note: Two rear chassis braces are included in the kit. The longer brace is the stock brace. The short brace is optional. The longer brace will provide less flex. Adding the short brace will further stiffen the chassis. Running only the short brace will provide the most flex.



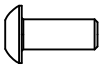
x4

TKR1343
M4x10mm Flat Head Screw



x8

TKR1344
M4x12mm Flat Head Screw



x2

TKR1443
M4x10mm Button Head Screw

Shock Filling Instructions

For both front and rear shocks

The following steps and information will provide you with the best way to fill and bleed your shocks. After thorough testing, we've found it's easiest to complete steps 1 through 3 on each shock before moving onto step 4. By the time you've finished step 3 on the last shock the first one will be ready for step 4.

Standard or Vented Cap Build:

Step 1: Extend the shock shaft all the way down. Fill the shock with oil until the it is about 90% full.
Step 2: Slowly pump the shock shaft up and down 3-5 times to release air bubbles from underneath the piston.
Step 3: Let the shock rest vertically with the shock shaft fully extended for five minutes or until all the air bubbles have released.
Step 4: Next you will top off the shock with oil, to about 1-2mm below the top edge.
(If you do overfill the shock, it won't hurt performance, it will just spill out and make a little bit of a mess. If you underfill the shock, it will cause air to be trapped inside.)
Step 5: Place the bladder *INSIDE* the shock cap and put a few drops of oil on the bladder.
Step 6: Put a paper towel down below the build to catch drips and have another ready to wipe off excess oil. Place the cap on the shock and screw down about half way. Lay the shock over about 45 degrees with the bleeder hole facing up.

Step 6A: (Standard non-vented) Push the shaft in for the amount of rebound desired.
Step 6B: (Vented "Stock") Push the shaft in until about 15mm of shaft is showing.

- Make sure that you match the rebound amount between the left and right shocks.
- Oil should be oozing out of the bleeder hole.

Step 7: Hold the cap firmly in place with the bleeder hole facing up and turn the shock body until hand tight. The shock will continue to ooze oil.
Step 8: Fully tighten down each shock with shock tools until cap is secure and wipe excess oil away.

Emulsion Build:

Prep your shock caps TKR6018 (optional for NB48.3) accordingly by drilling out the large angled bleeder hole in the top of the cap. Place the larger thin o-ring around the base of the threads where the shock cap screws on (see diagram on the next page). This seal is crucial to the build.

Follow steps 1-4 above.

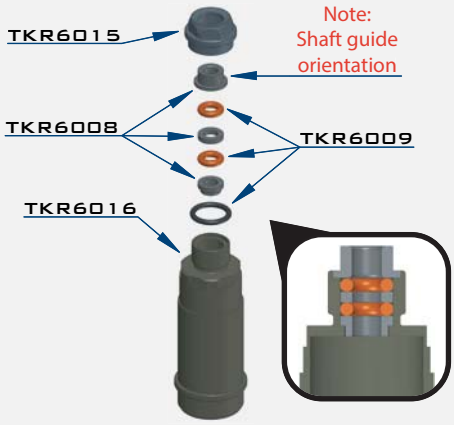
Step 5: Rebound is more of a natural side effect of an emulsion shock. It's not something that can be set accurately because you run the risk of hydrolocking the shock if you do not push the shaft all the way in when you bleed it. For now leave the shaft fully extended.
Step 6: Fill the shock up, over filling just slightly without spilling to create a small dome of oil.
Step 7: Place a little bit of oil in the shock cap and quickly put the shock cap on the shock body. Tighten the cap all the way down. Very slowly push the shaft in. Oil will start to bleed out of the top of the cap. While wiping away excess oil, continue to slowly push the shaft in *ALL THE WAY*.
If no oil comes out when the shaft is fully inserted, you will need to start over at step 6.
Step 8: Install the TKR1341 M4x6mm flat head screw and TKR5125 black o-ring to seal the cap (see diagram). Tighten until o-ring is fully seated.

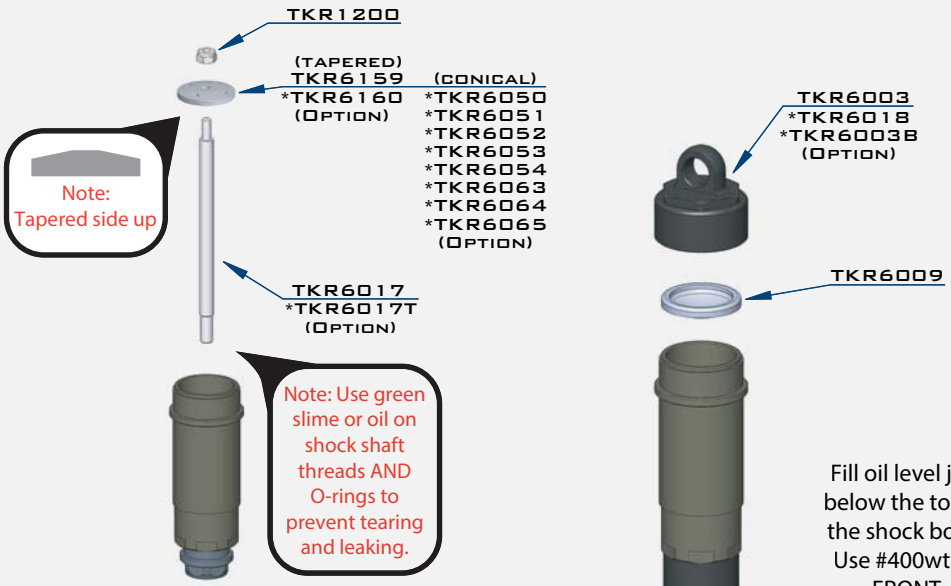
Bag O

Front Shock Assembly

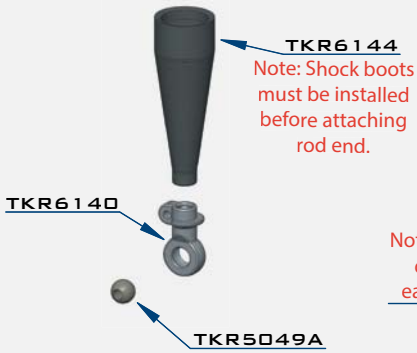
Step O-1

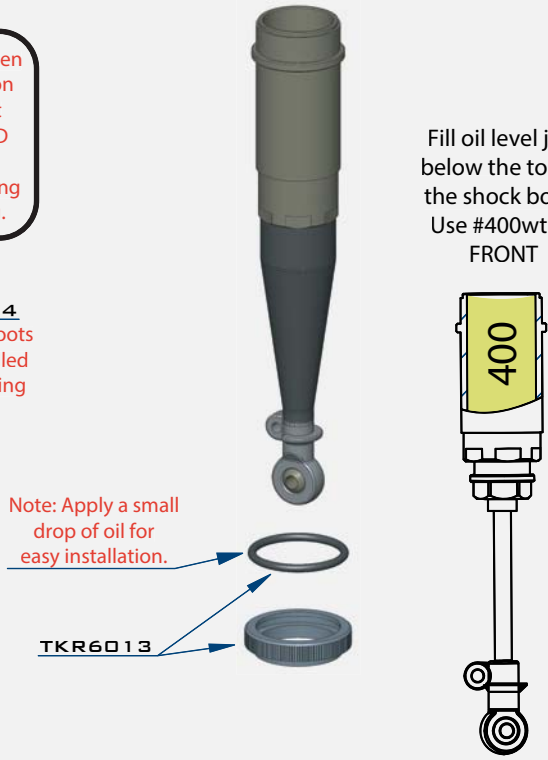
Note: Make sure to tighten both cartridge cap (TKR6015) and shock cap (TKR6003) to ensure a proper seal. Tools may be required.





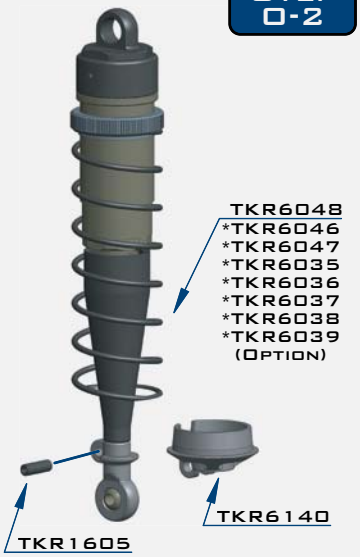
Note: Use green slime or oil on shock shaft threads AND O-rings to prevent tearing and leaking.





Fill oil level just below the top of the shock body. Use #400wt oil FRONT

Step O-2



Note: Front shocks use shorter shock bodies - TKR6016, shorter shock shafts - TKR6017, shorter springs - TKR6048 and shorter shock boots - TKR6144

x2
TKR1200
M2.5 Lock Nut Zinc

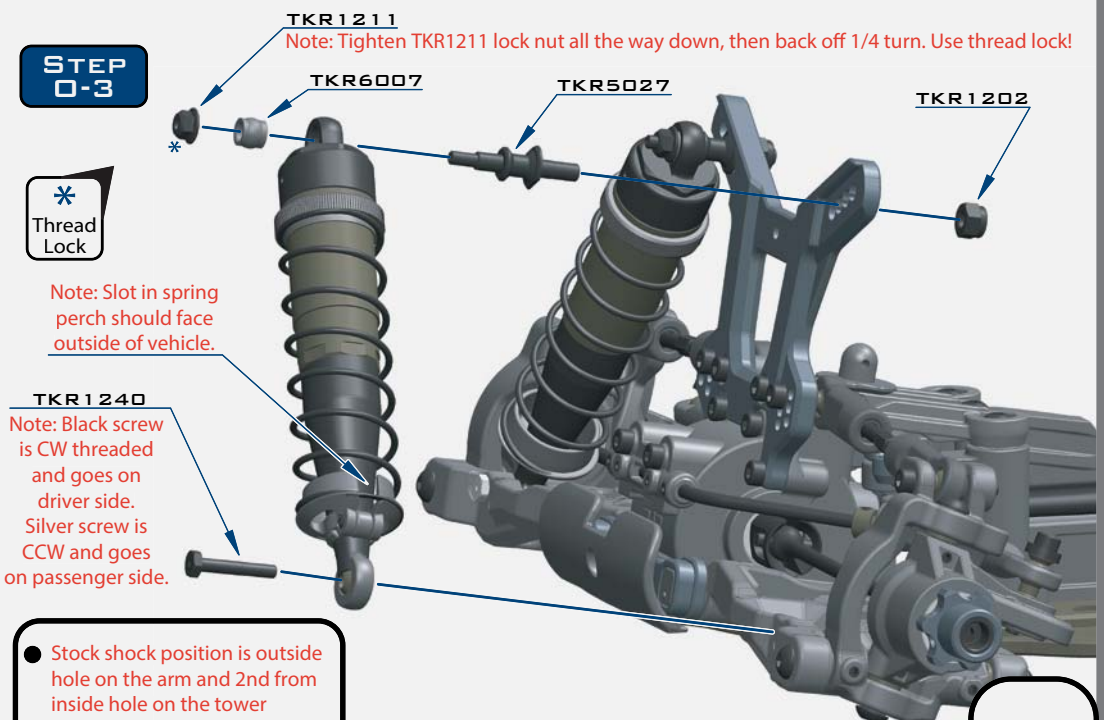
x2
TKR1202
M4 Lock Nut Black

x2
TKR1211
M3 Lock Nut Flange Black

x2
TKR1240
M3x18mm Shock Mnt Screw

x2
TKR1605
M3x10mm Set Screw

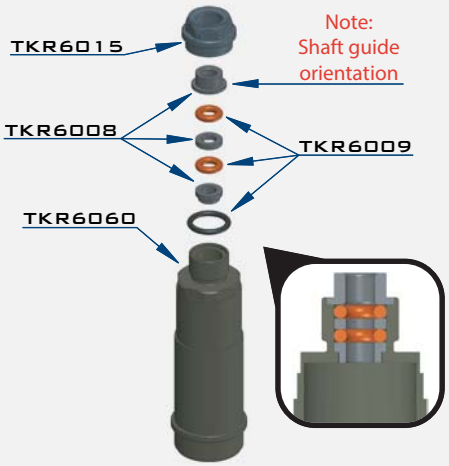
Step O-3



- Stock shock position is outside hole on the arm and 2nd from inside hole on the tower
- Stock front ride height 27mm
- Shock length (droop) 122mm

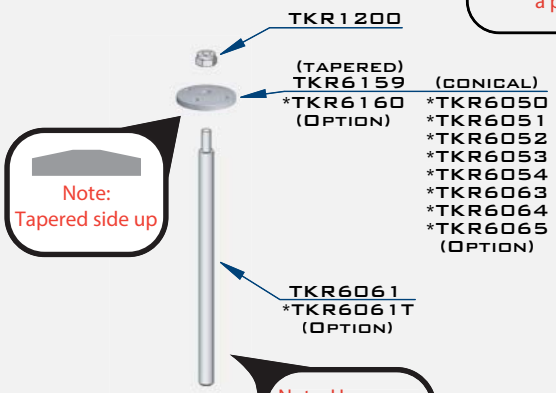
Bag P

Rear Shock Assembly



Step P-1

Note: Make sure to tighten both cartridge cap (TKR6015) and shock cap (TKR6003) to ensure a proper seal. Tools may be required.



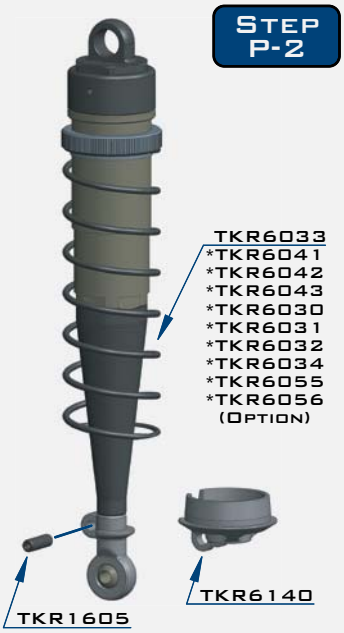






Fill oil level just below the top of the shock body. Use #450wt oil REAR

Step P-2



Note: Rear shocks use longer shock bodies - TKR6060, longer shock shafts - TKR6061, longer springs - TKR6033 and longer shock boots - TKR6145

x2
TKR1200
M2.5 Lock Nut Zinc

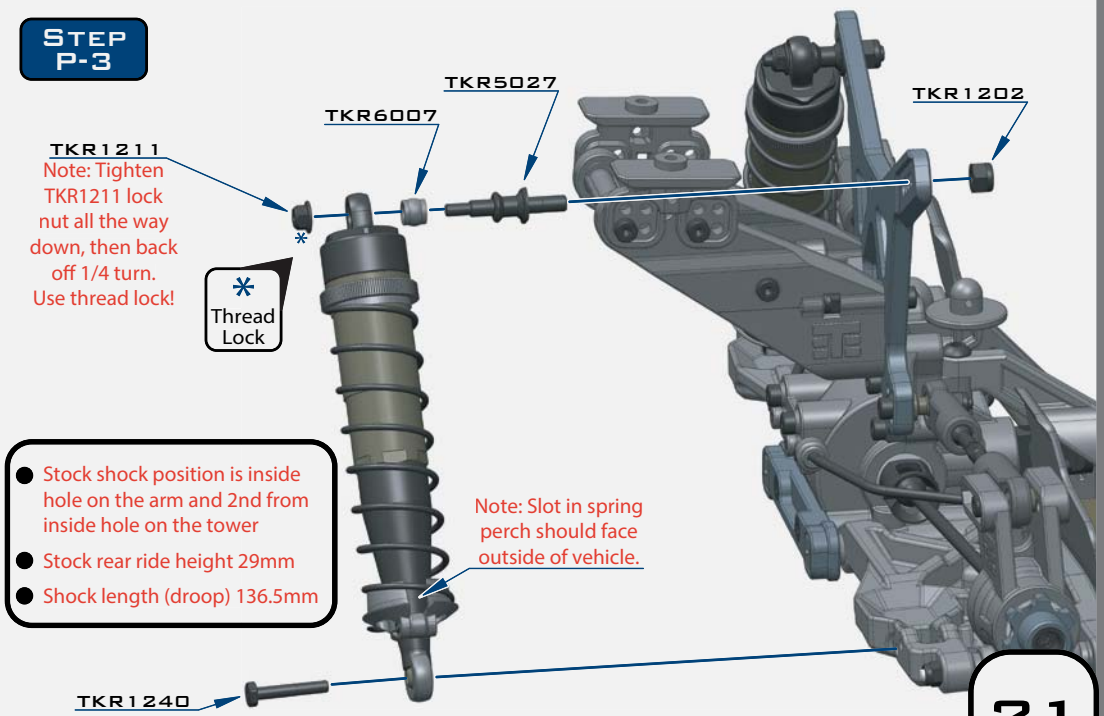
x2
TKR1202
M4 Lock Nut Black

x2
TKR1211
M3 Lock Nut Flange Black

x2
TKR1240
M3x18mm Shock Mnt Screw

x2
TKR1605
M3x10mm Set Screw

Step P-3

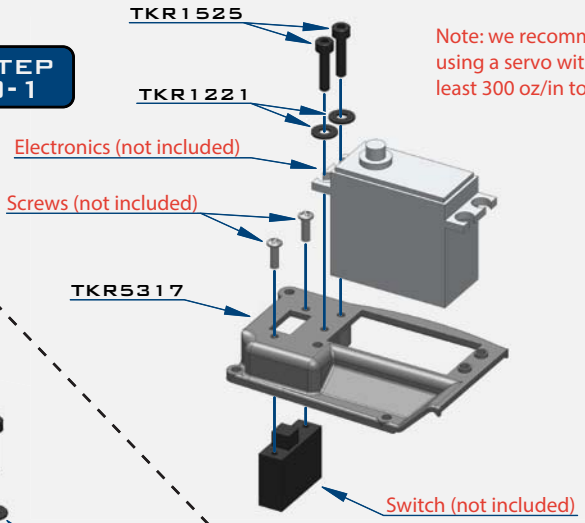


- Stock shock position is inside hole on the arm and 2nd from inside hole on the tower
- Stock rear ride height 29mm
- Shock length (droop) 136.5mm

Bag Q

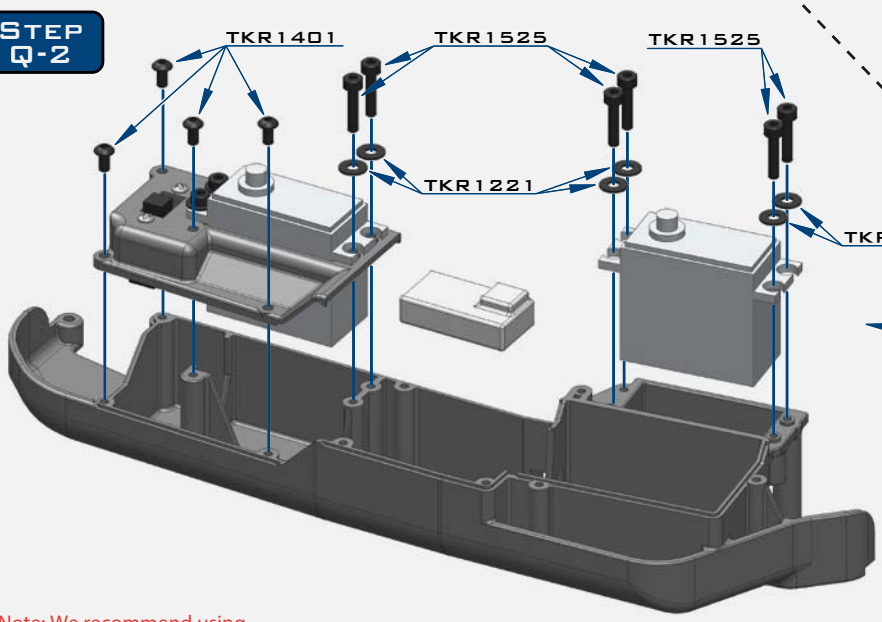
RX Tray Mud Guard

Step Q-1

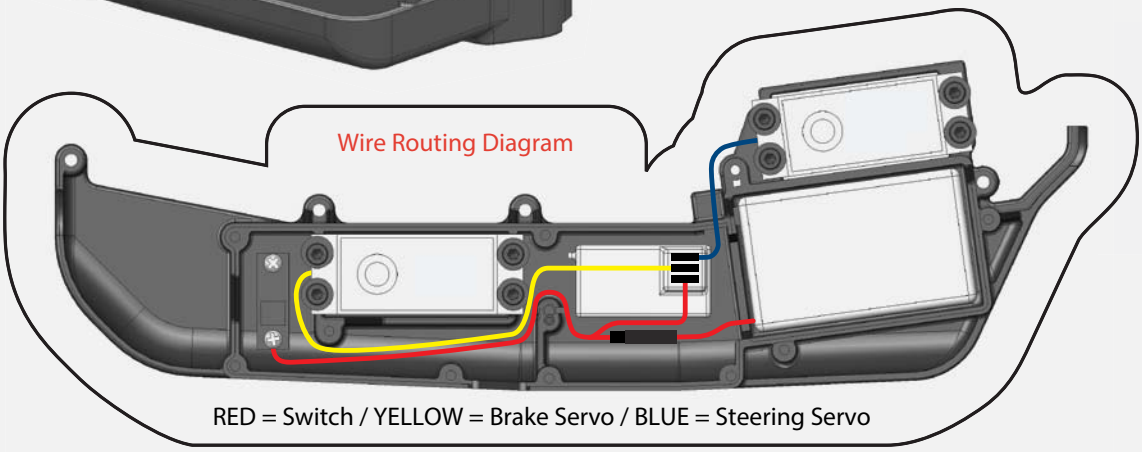


Note: we recommend using a servo with at least 300 oz/in torque.

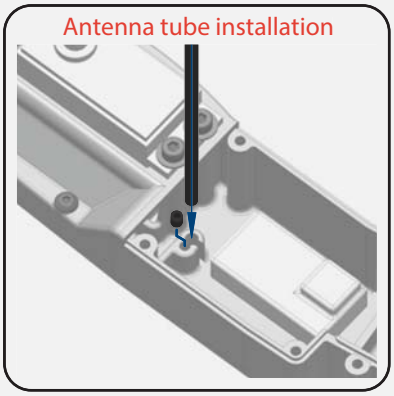
Step Q-2



Note: We recommend using a piece of thin foam or other type of padding under the battery to reduce shock. Likewise, we suggest either using a couple layers of 2-sided tape under the receiver or simply use another piece of foam and let the receiver 'float' in the box. The servo wires will help keep the receiver in place and provide shock protection.



Step Q-3



x8
TKR1221
M3X8MM WASHER

x13
TKR1401
M3X6MM BUTTON HEAD SCREW

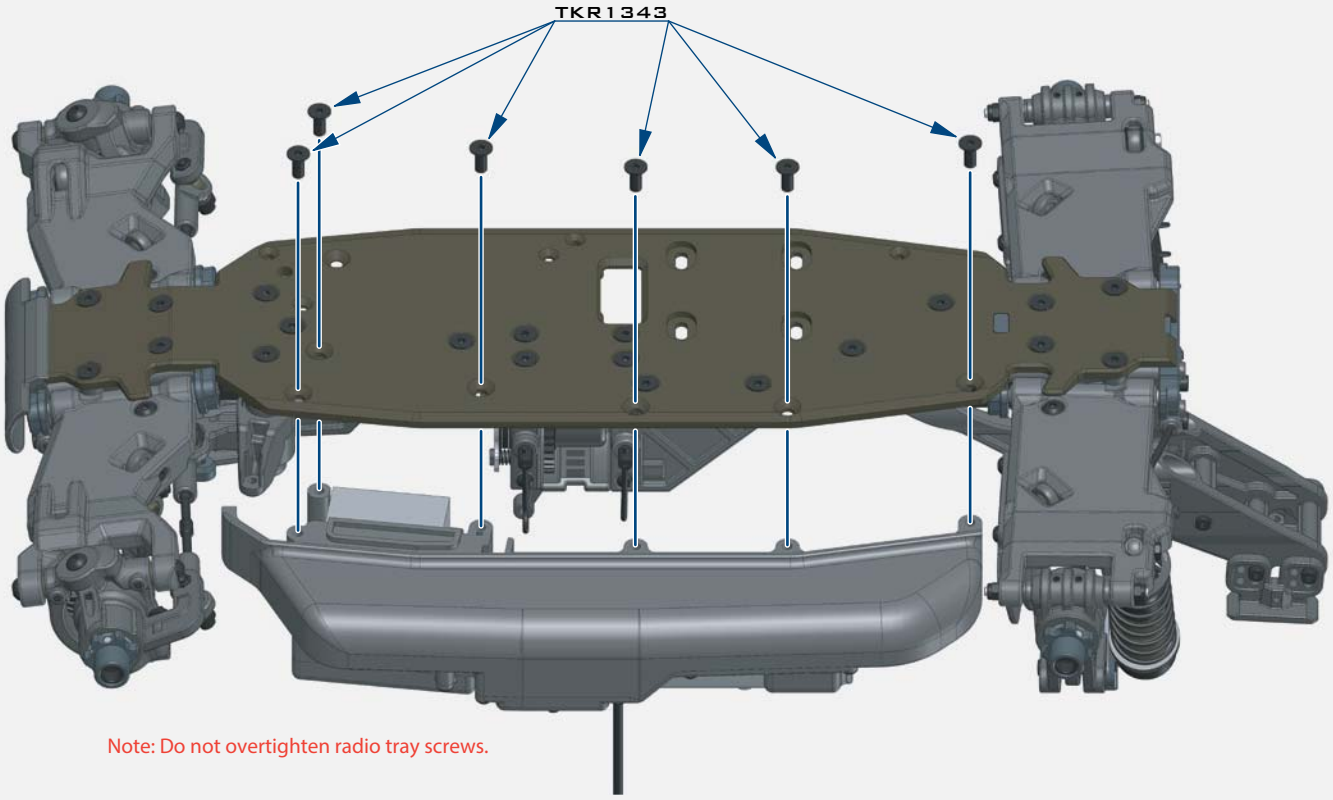
x8
TKR1525
M3X14MM CAP HEAD SCREW

x6
TKR1601
M3X4MM SET SCREW

Bag Q

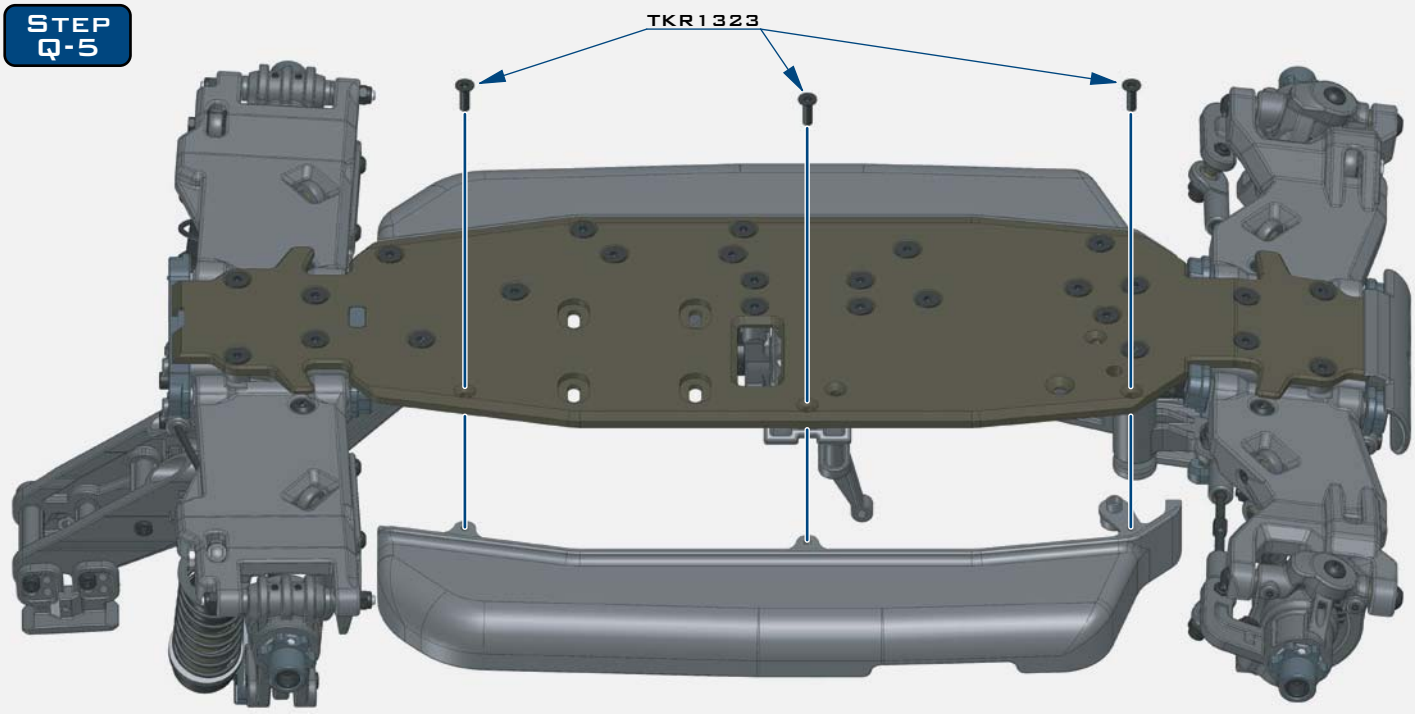
Mud Guard Installation

Step Q-4



Note: Do not overtighten radio tray screws.

Step Q-5



Note: Do not overtighten radio tray screws.

x3

TKR1323
M3x10mm Flat Head Screw

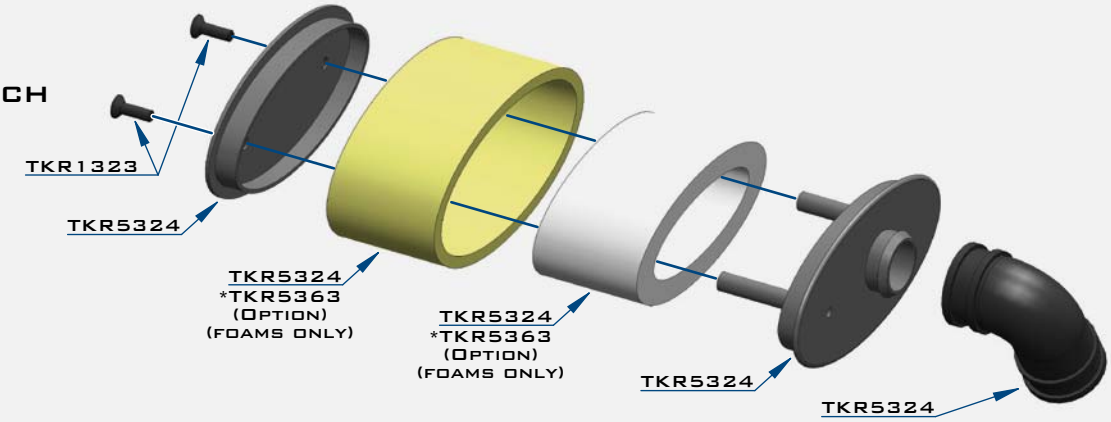
x6

TKR1343
M4x10mm Flat Head Screw

Bag R

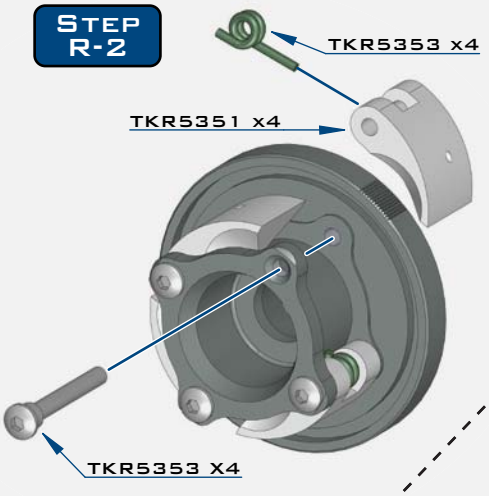
Air Filter / Clutch

Step R-1



Note: Your kit contains 3 sets of clutch springs. 0.9mm (green), 1.0mm (gold), and 1.1mm (red) springs are included. The stock setting is to use (2x) 0.9mm springs on opposing shoes and then use (2x) 1.0mm springs on the other shoes. If the track is very high bite you can use (2x) 1.0mm springs and (2x) 1.1mm springs for more 'pop'. However, we strongly recommend trying the stock setting first and adjusting from there.

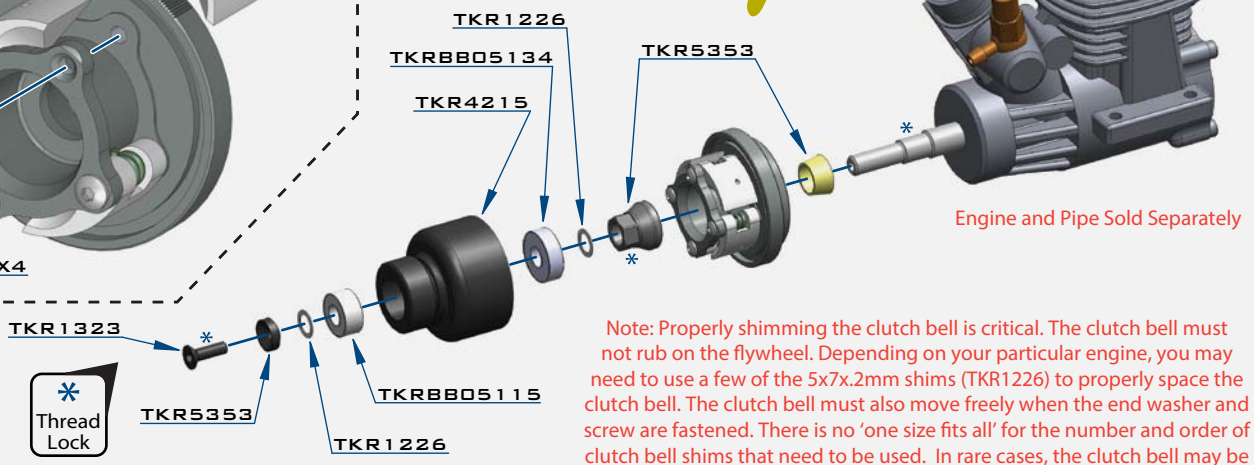
Step R-2



Step R-3

Note: Secure air filter hose with 2 zip ties (included).





Note: Properly shimming the clutch bell is critical. The clutch bell must not rub on the flywheel. Depending on your particular engine, you may need to use a few of the 5x7x.2mm shims (TKR1226) to properly space the clutch bell. The clutch bell must also move freely when the end washer and screw are fastened. There is no 'one size fits all' for the number and order of clutch bell shims that need to be used. In rare cases, the clutch bell may be too long. Simply put the clutch bell flat on a sheet of 200 grit sand paper (teeth side up) and sand about .2mm off the bottom. This should only take a minute and it will ensure that your clutch is working properly.

x4
TKR1226
5x7x0.2mm shim

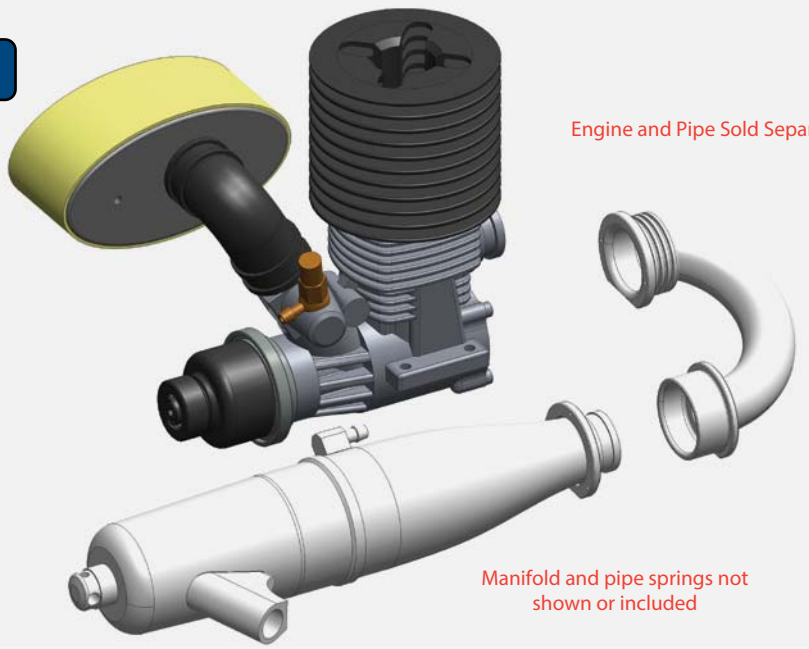
x3
TKR1323
M3x10mm Flat Head Screw

x4
TKR5353
Clutch Pin

x1
TKRBB05115
Ball Bearing (5x11x5)

x1
TKRBB05134
Ball Bearing (5x13x4)

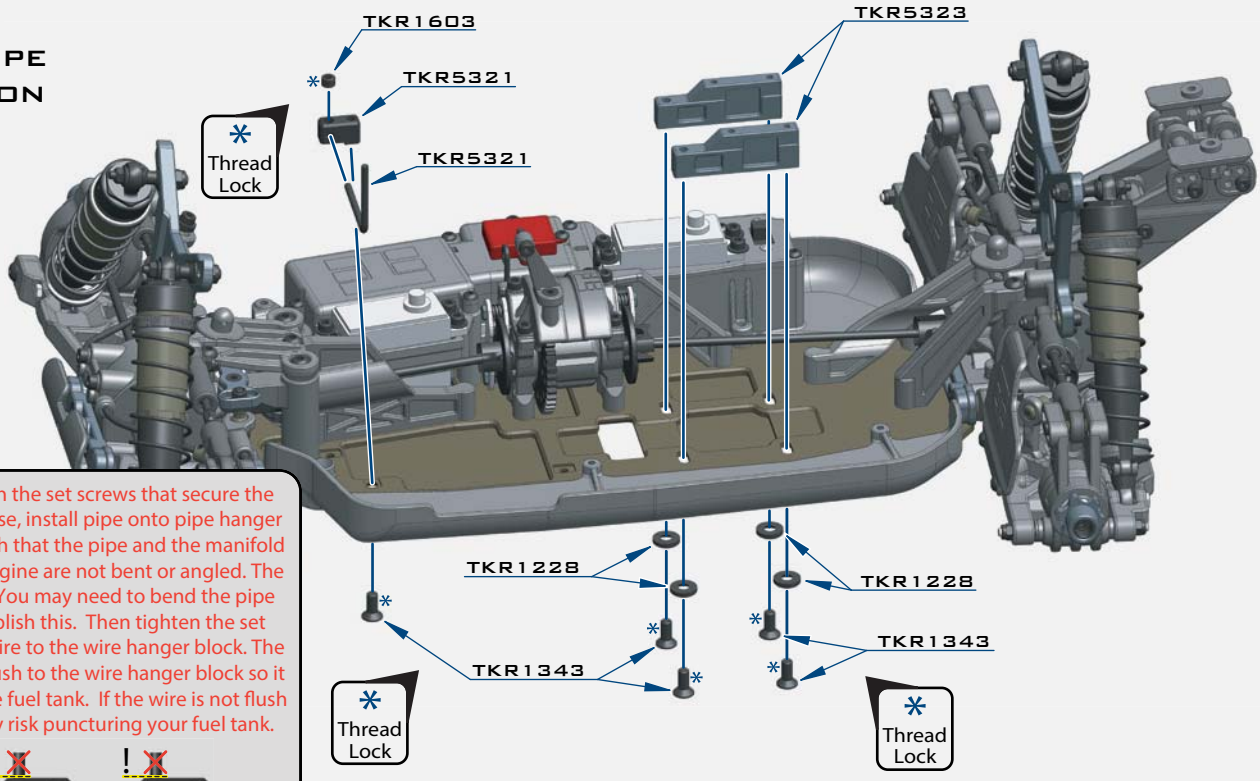
Step R-4



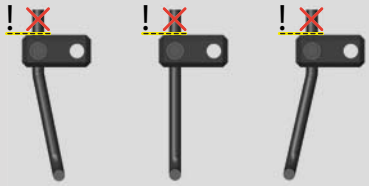
Bag S

Engine / Pipe Installation

Step S-1

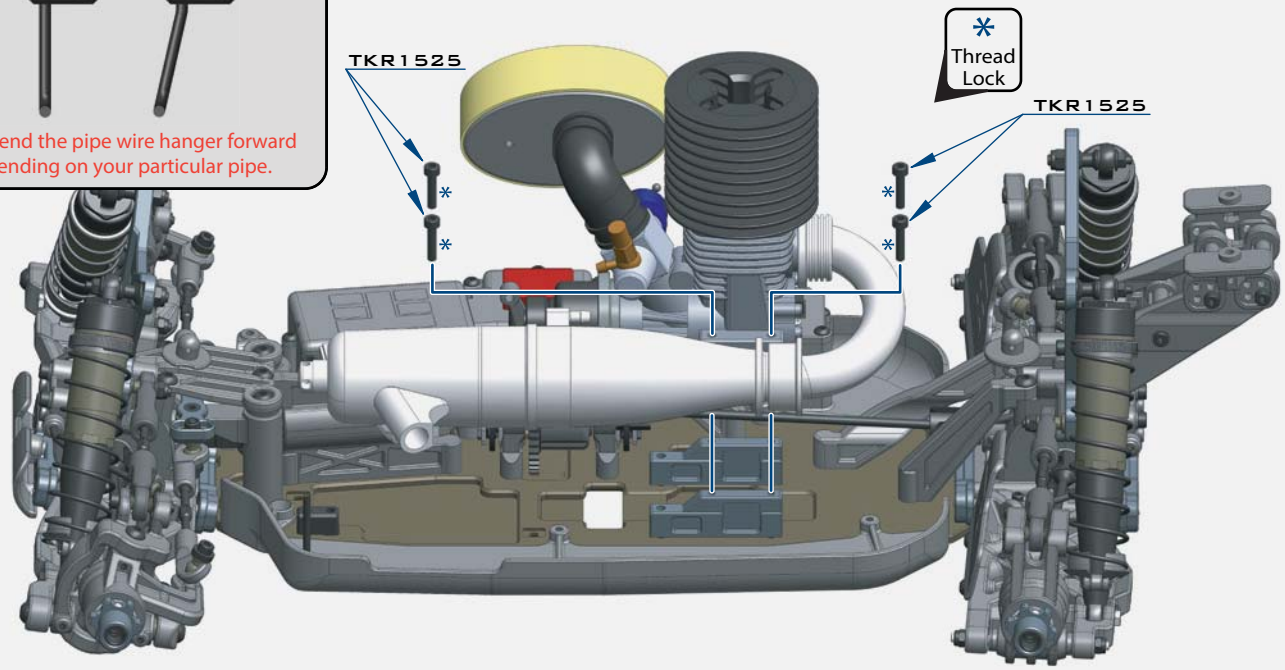


VERY IMPORTANT - With the set screws that secure the pipe hanger wire set loose, install pipe onto pipe hanger wire. Adjust the wire such that the pipe and the manifold connections from the engine are not bent or angled. The pipe must fit naturally. You may need to bend the pipe hanger wire to accomplish this. Then tighten the set screw that secures the wire to the wire hanger block. The wire must then be cut flush to the wire hanger block so it will not interfere with the fuel tank. If the wire is not flush with the block, you may risk puncturing your fuel tank.



*You may need to bend the pipe wire hanger forward or backward depending on your particular pipe.

Step S-2



x5

TKR1343
M4x10mm Flat Head Screw

x1

TKR1524
M3x12mm Cap Head Screw

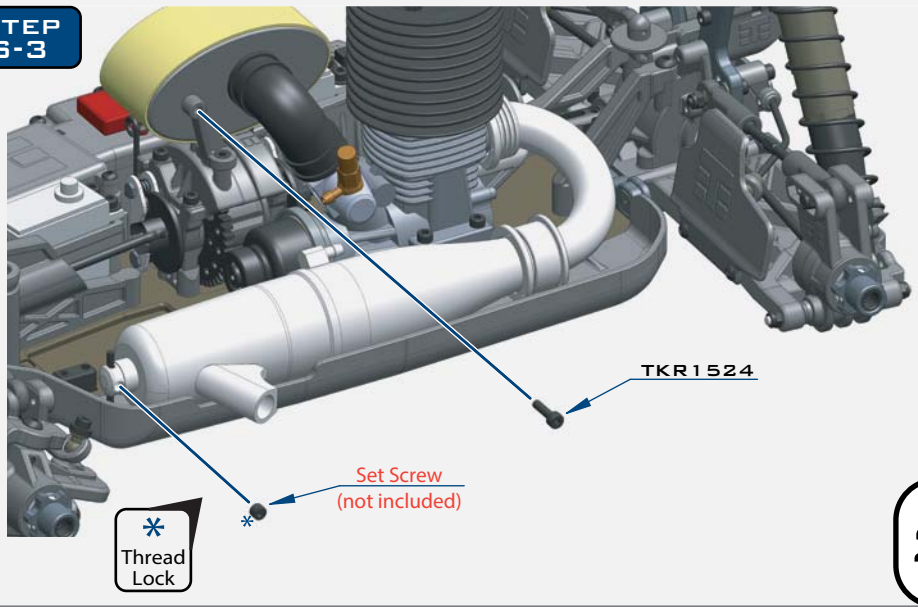
x4

TKR1525
M3x14mm Cap Head Screw

x1

TKR1603
M5x4mm Set Screw

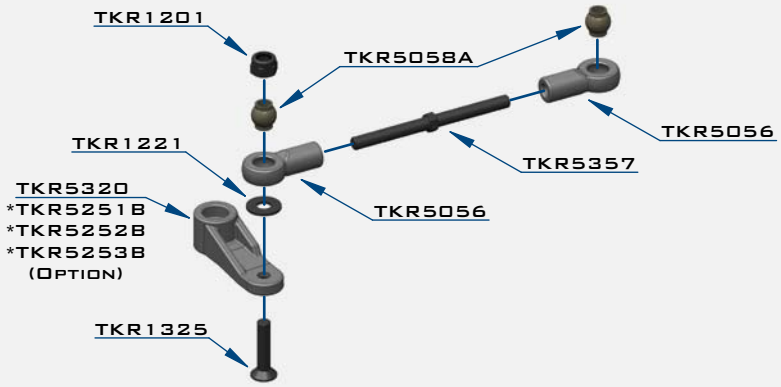
Step S-3



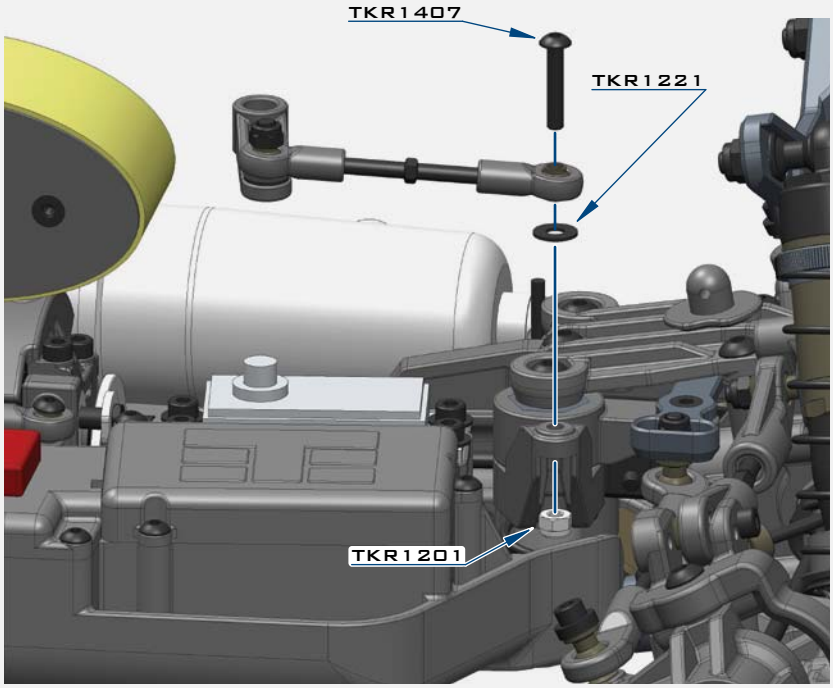
Bag T

Steering Linkage

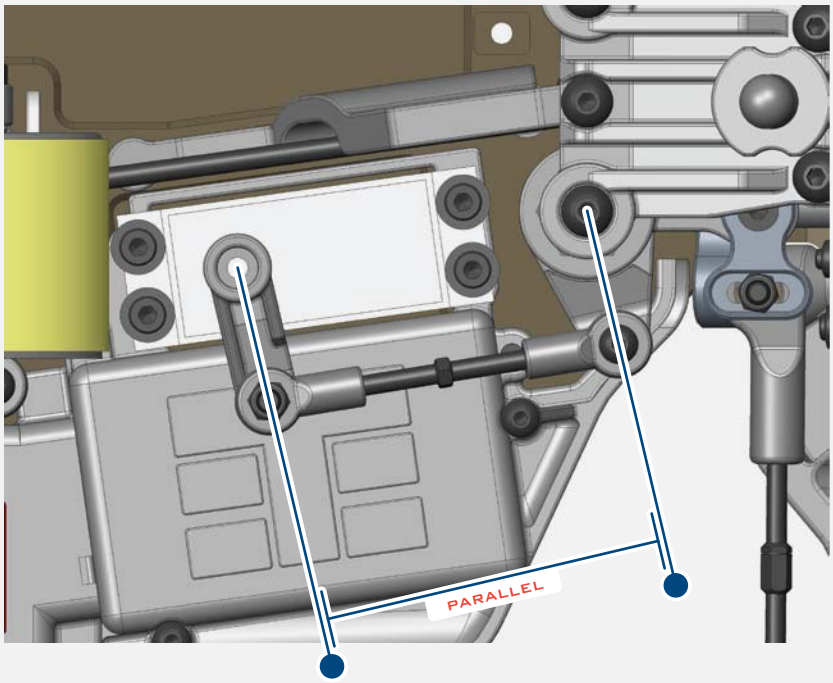
Step T-1



Step T-2



Step T-3



Note: Offset servo arm so it is parallel with the connecting arm at neutral or zero servo position.

x2
TKR1201
M3 Lock Nut Black

x2
TKR1221
M3x8mm Washer

x1
TKR1325
M3x14mm Flat Head Screw

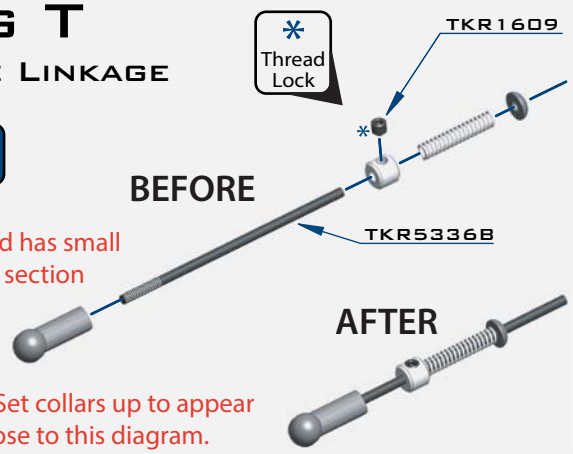
x1
TKR1407
M3x16mm Button Head Screw

x2
TKR5058A
Pivot Ball M3x5.8mm
No Flange

Bag T

Brake Linkage

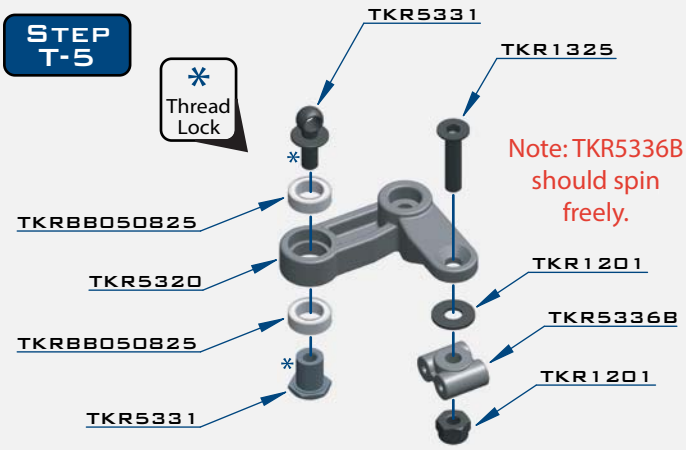
Step T-4



Note: This rod has small threaded section

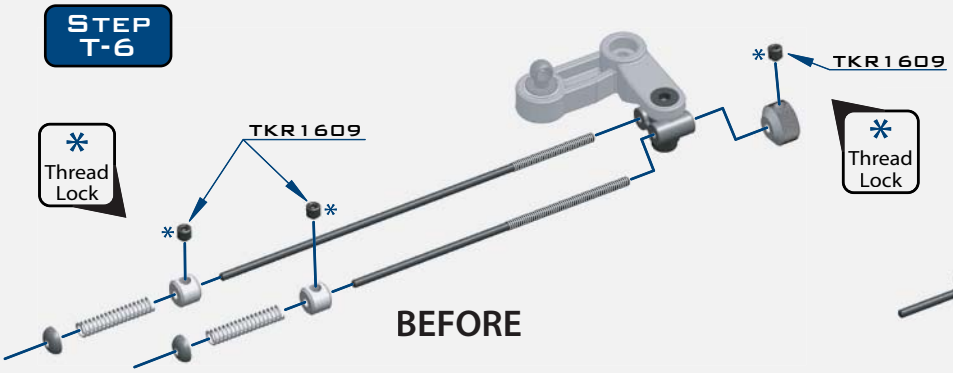
Note: Set collars up to appear close to this diagram.

Step T-5



Note: TKR5336B should spin freely.

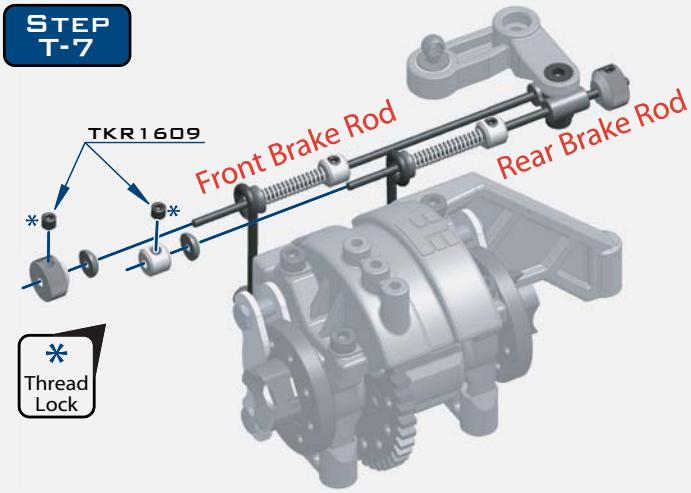
Step T-6



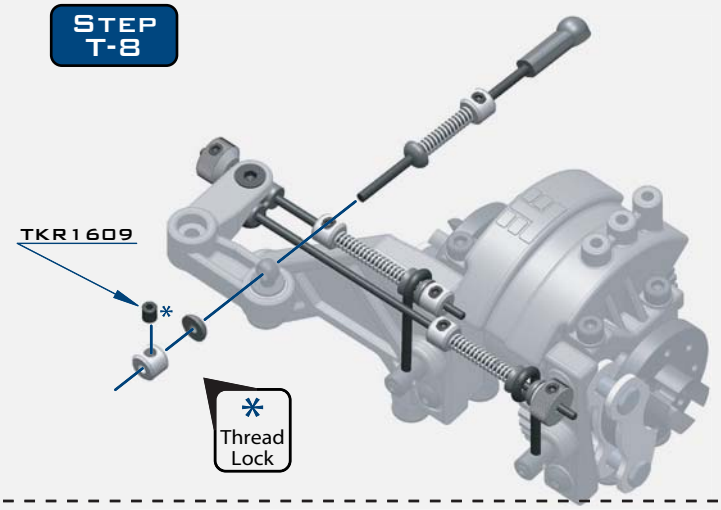
Note: Set collars up to appear close to this diagram.



Step T-7



Step T-8



x1

TKR1201
M3 Lock Nut Black

x1

TKR1221
M3x8mm Washer

x1

TKR1325
M3x14mm Flat Head Screw

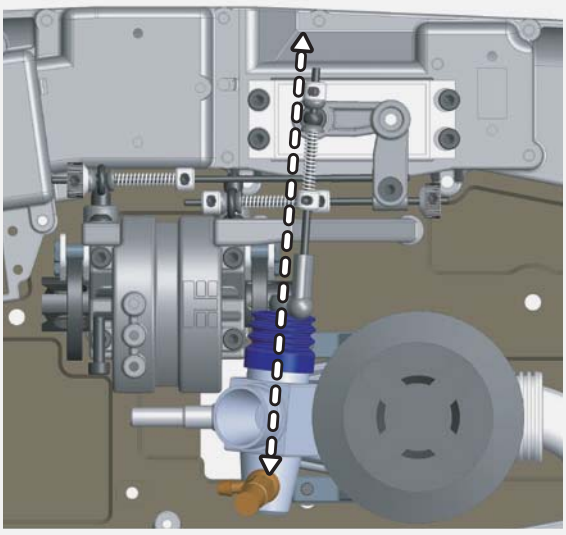
x7

TKR1609
M3x3mm Set Screw

x2

TKRBB050825
Ball Bearing (5x8x2.5)

Step T-9



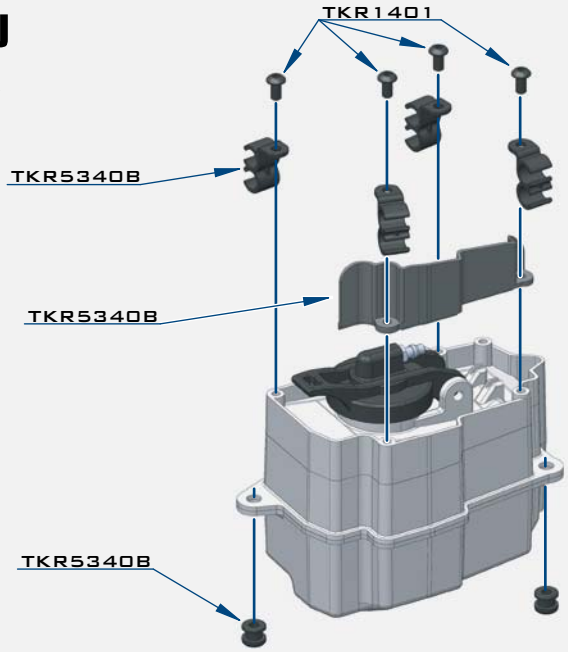
NOTES:

- Align the carberator so it forms a straight line to the servo linkage, with the servo in the neutral position
- Attach all linkages before setting brake bias
- All collars should be snug against the springs without being compressed
- Turn on radio equipment for final adjustment of collars, total brake force, F/R brake bias, and throttle EPA
- Brakes should be fully disengaged and the carburetor should be fully closed at neutral position

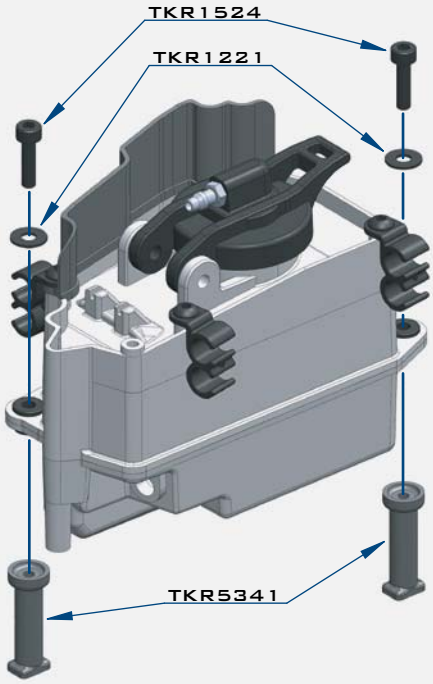
Bag U

Fuel Tank

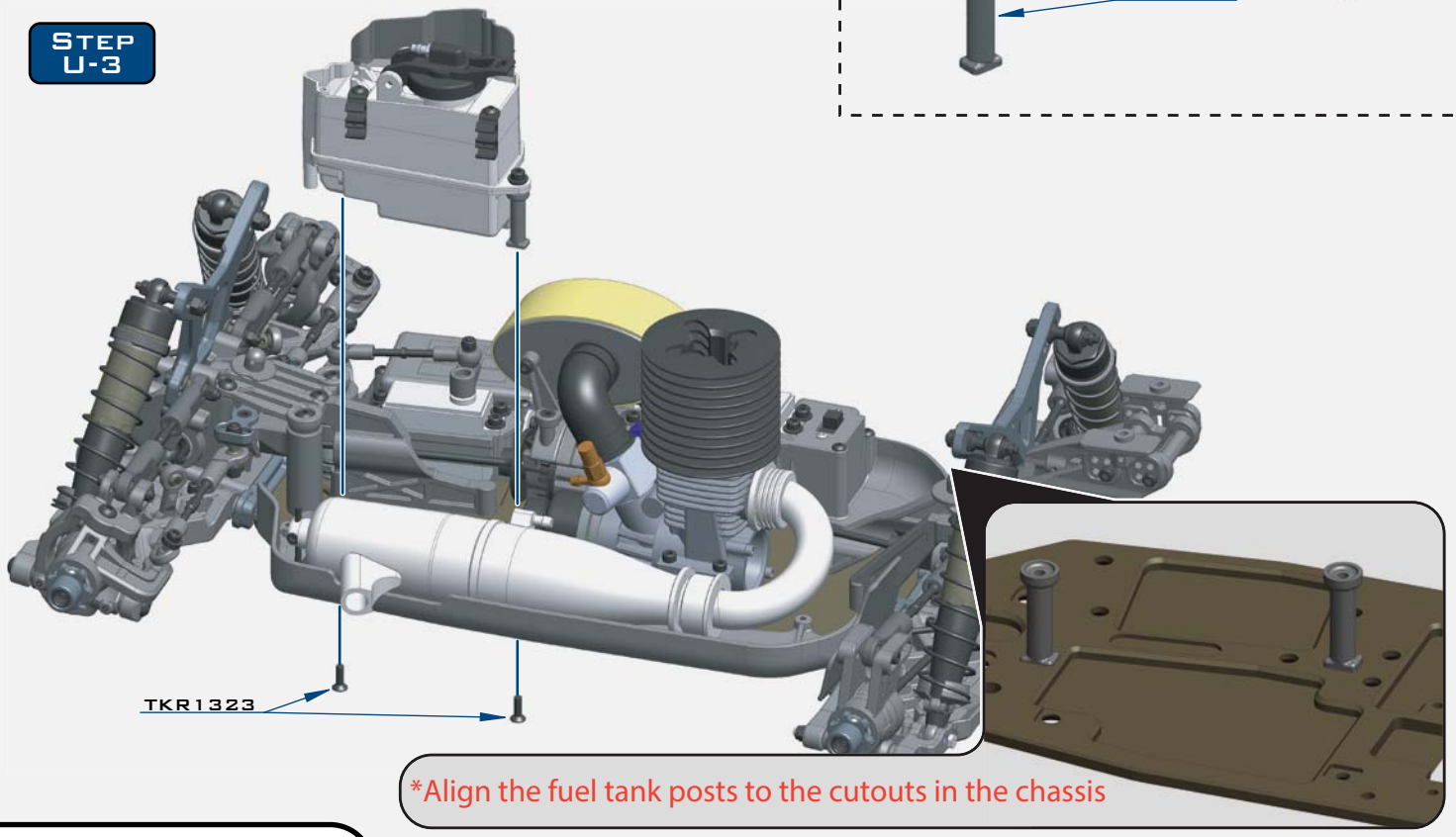
Step U-1



Step U-2



Step U-3



*Align the fuel tank posts to the cutouts in the chassis

x2
TKR1221
M3x8mm Washer

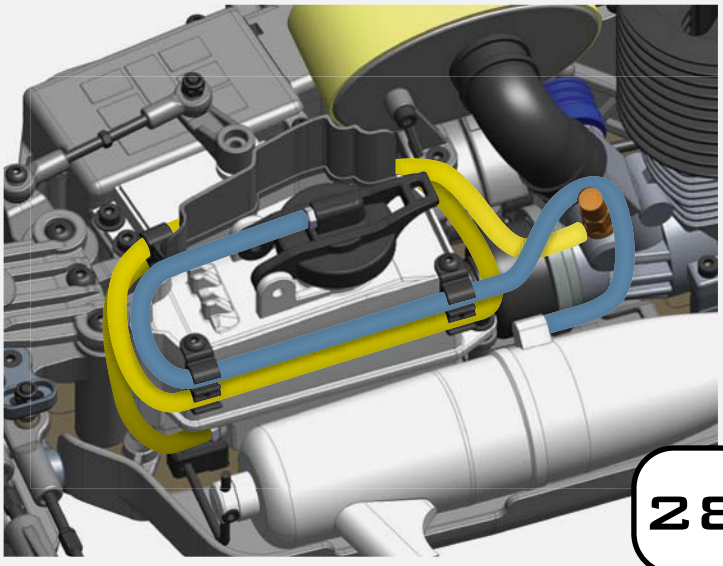
x2
TKR1323
M3x10mm Flat Head Screw

x4
TKR1401
M3x6mm Button Head Screw

x2
TKR1524
M3x12mm Cap Head Screw

Step U-4

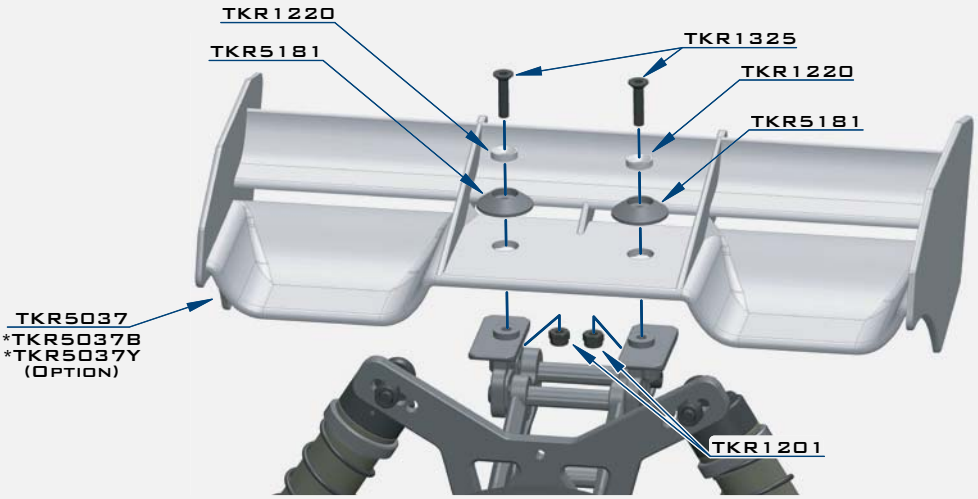
Note: Fuel tubing wraps around the tank 1 1/2 times from the pick up nipple (yellow line). Pressure line is shown in blue.



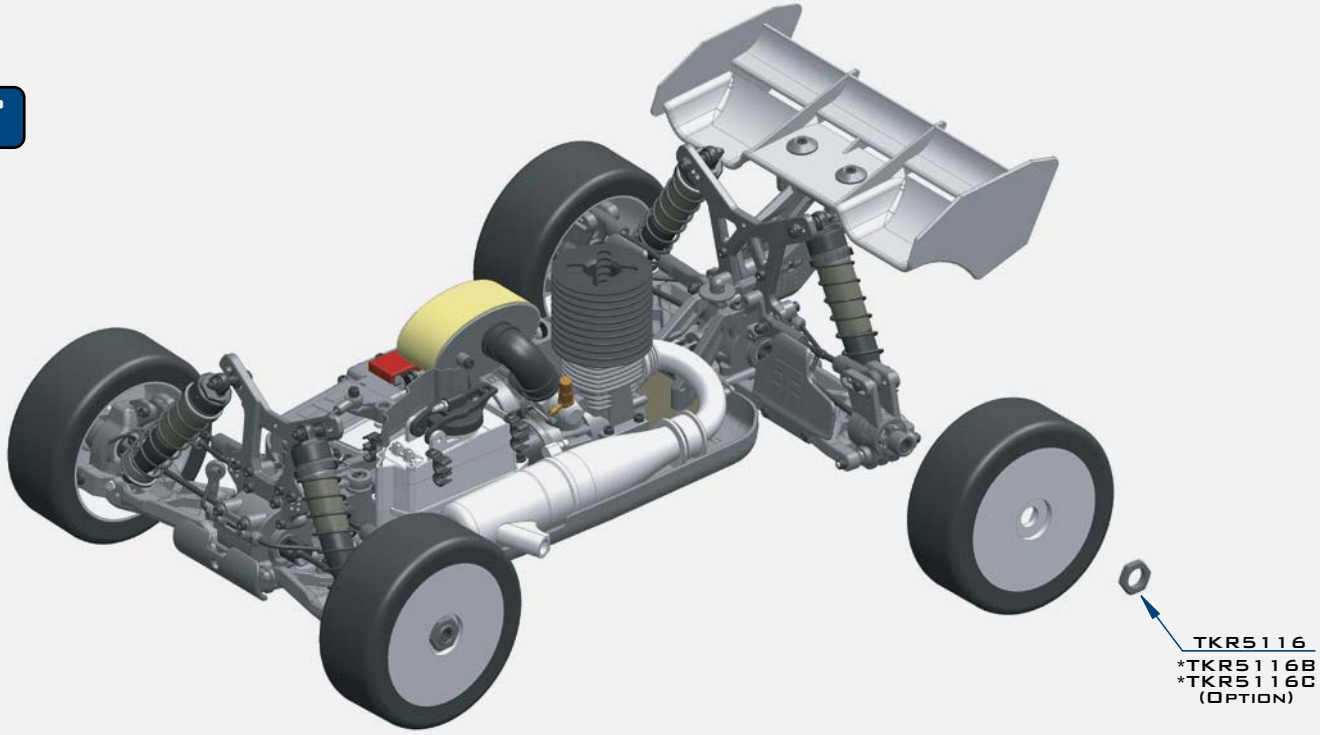
Bag V

Wing and Body

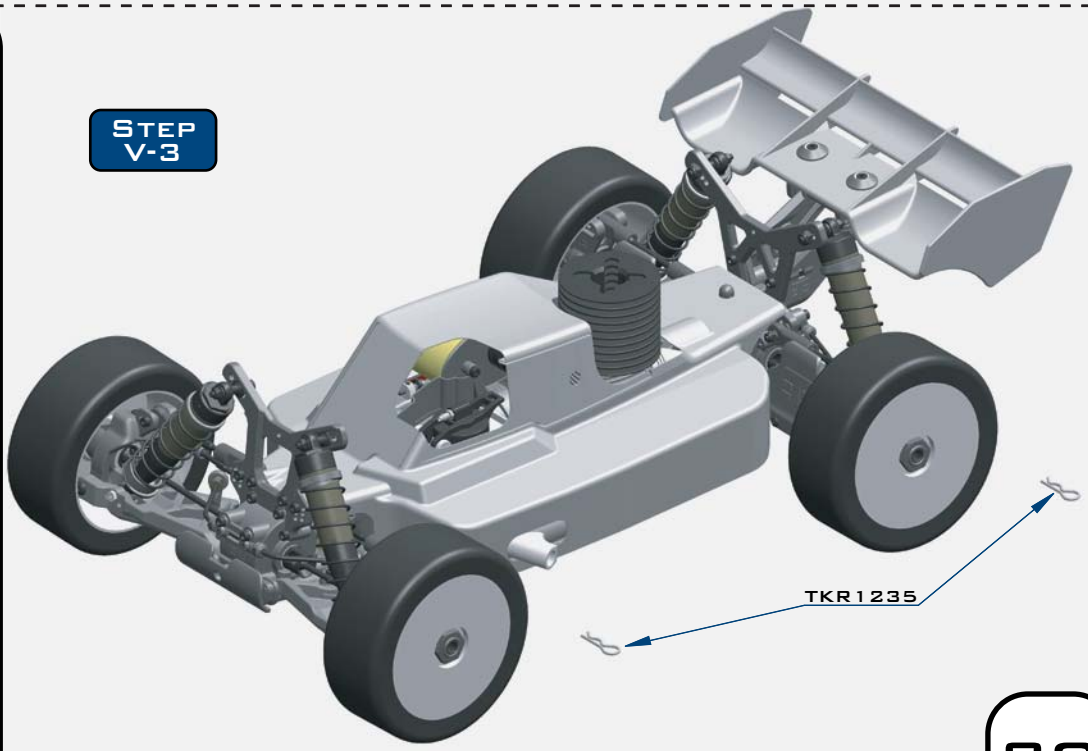
Step V-1



Step V-2



Step V-3



x2

TKR1201
M3 Lock Nut Black

x2

TKR1220
M4 Countersunk Washer

x2

TKR1325
M3x14mm Flat Head Screw

x2

TKR1235
Body Clip

x4

TKR5116
Wheel Nut

TKR5304 - NB48.3 1/8th Competition Nitro Buggy Kit

Parts List
TKR4215 - Clutch Bell (15t, NB48)
TKR5012 – Gearbox (front)
TKR5020 – Hinge Pins (inner, front/rear)
TKR5027 – Shock Standoffs (2pcs)
TKR5034 – Hinge Pins (outer, rear)
TKR5037 – Wing (white)
TKR5049A – Pivot Balls (6.8mm, no flng, sway bar, shck ends, almnm, 4pcs)
TKR5052A – Pivot Balls (6.8mm, inside camber, steering links, aluminum, 4pcs)
TKR5053A – Pivot Balls (6.8mm, flanged, outside camber, aluminum, 4pcs)
TKR5054A – Spindle Bushings (4pcs, aluminum, hard ano)
TKR5055A – Arm Bushings (4pcs, aluminum, hard ano)
TKR5056 – Rod Ends (5.8mm, brake/steering/sway bar linkage, 8pcs)
TKR5058A – Pivot Balls (5.8mm, no flange, brake/steering link, aluminum, 4pcs)
TKR5070 – Stub Axles (hardened steel, 2pcs)
TKR5071X – Wheel Hubs (17mm, aluminum, lightened, gun metal ano, w/pins, 2pcs)
TKR5072 – Driveshafts (f/r, hardened steel, 2pcs)
TKR5073 – CV Rebuild kit (f/r, for 2 axles)
TKR5075 – Diff Coupler (f/r, hardened steel)
TKR5079A – Stabilizer Balls (6.8mm, sway bars, aluminum, 4pcs)
TKR5082 – Sway Bar (2.4mm, front)
TKR5086 – Sway Bar Mounts
TKR5100 – Ackerman Plate (aluminum, gun metal ano)
TKR101X - Servo Saver Spring (HD, EB48, SCT410, NB48)
TKR5102A – Steering Posts (aluminum)
TKR5103 – Servo Saver Post (aluminum, gun metal ano)
TKR5104 – Steering Bell Cranks
TKR5107 – Steering Top Plate, Center Diff Top Plate, Center Diff Rear Support
TKR5116 – Wheel Nuts (17mm, serrated, gun metal ano, M12x1.0, 4pcs)
TKR5122 – Steering Rack Bushings (aluminum, gun metal ano, 2pcs)
TKR5123 – Turnbuckle (steering links, 2pcs)
TKR5126 – Antenna tube (universal, w/ caps, 5pcs)
TKR5161 - V2 Adj. Hinge Pin Brace ("A" block, 7075, EB/NB/ET/NT/SCT)
TKR5162 - V2 Adj. Hinge Pin Brace ("B" block, 7075, EB/NB/ET/NT/SCT)
TKR5163 - V2 Adj. Hinge Pin Brace ("C" block, 7075, EB/NB/ET/NT/SCT)
TKR5164 - V2 Adj. Hinge Pin Brace ("D" block, 7075, EB/NB/ET/NT/SCT)
TKR5165 - V2 Hinge Pin Inserts, Wheelbase Shims (EB/NB/ET/NT/SCT)
TKR5166 - Front Bumper (revised, EB/NB/ET/NT48)
TKR5174 - Rear Arm Mud Guards (for TKR5184, EB/NB)
TKR5181 - Low Profile Wing Mount and Body Mounts (EB/NB48/EB48SL)
TKR5184 - Suspension Arms (rear, EB/NB48.3)
TKR5187 - Rod Ends (straight, 6.8mm, EB/NB/ET/NT48, 8pcs)
TKR5193 - Spindles (trailing, L/R, requires TKR5194, EB/NB/ET/NT48, EB/NB.3)
TKR5194 - Spindle Carriers (trailing, 15 degree, L/R, EB/NB/ET/NT48, EB/NB.3)
TKR5199 - Rear Hubs (L/R, CV or uni, EB/NB/ET/NT48, EB/NB.3)
TKR5213A – Brake Posts (aluminum, 4pcs)
TKR5215B – Brake Cams (10 deg, steel, 2pcs)
TKR5231 – Servo Saver Nut and Spring
TKR5268 - Shock Tower (front, 7075 CNC, gun metal ano, EB/NB48.3)
TKR5269 - Shock Tower (rear, 7075 CNC, gun metal ano, EB/NB48.3)
TKR5286 - Suspension Arms (front, EB/NB48.3)
TKR5303 – Chassis (7075, 4mm, hard anodized, lightened, NB48)
TKR5310 – Center Differential Mount (NB48, NT48)
TKR5314B - Brake Pad Set (2pcs, NB/NT)
TKR5316 – Rear GearBox (offset, rear, NB48, NT48)
TKR5317 – Radio Tray and Mud Guard Set (left/right side, NB48, NT48)
TKR5319 – Radio Tray Covers (NB48, NT48)
TKR5320 - Servo Horns (steering, throttle, NB48, NT48)
TKR5321 - Exhaust Wire Mount Set (CNC, NB48, NT48)
TKR5323 - Engine Mounts (CNC, NB48, NT48)
TKR5324 - Air Filter Set (hose, filter, housing, NB48, NT48)
TKR5331 - Throttle Pivot Ball Assembly (CNC, NB48, NT48)
TKR5336B – Throttle, Brake Linkage (NB/NT, revised)
TKR5340B - Fuel Tank (w/ clunk, NB48, revised)
TKR5341 - Fuel Tank Post and Air Filter Hanger Set (NB48, NT48)
TKR5345B - Brake Disc (steel, NB/NT, revised, 1pc)
TKR5350 - Flywheel (4-shoe)
TKR5351 - Clutch Shoes (7075, 4pcs, NB48, NT48)
TKR5353 - Clutch Springs and Hardware Set (NB48, NT48)
TKR5357 - Steering Servo Turnbuckle (NB48, NT48)
TKR5362 - Chassis Brace Set (NB48, NT48)
TKR5363 - Air Filter Foams (inner, outer, pre-oiled, 3pcs each, NB48, NT48)
TKR5368 - Brake Post Spring (NB/NT, 4pcs)
TKR5376 - Driveshaft (center, rear, steel, NB48)
TKR5377 - Driveshaft (center, front, steel, NB48, NT48)
TKR5383 - Body (NB48, w/ window mask)
TKR5396 - Decal Sheet (NB48.3)
TKR5491 - Sway Bar (2.4mm, rear)

Differential List
TKR5112X – Differential Outdrives (center, lightened)
TKR5113 – Differential Case (f/c/r)
TKR5114X – Differential Outdrives (f/r, lightened)
TKR5119 – Spur Gear (46t, steel)
TKR5143 – Differential Seals (3pcs)
TKR5144 – Differential O-Rings (6pcs)
TKR5145B – Differential Shims (revised, 6x17mm, 6pcs)
TKR5149 – Differential Cross Pins (steel, 6pcs)
TKR5150 – Differential Gear Set (internal gears only)
TKR5151 – Differential Ring Gear (40t, straight cut)
TKR5152 – Diff Pinion (10T, straight cut)
TKR5302 - Differential Ring Gear (40t, rear, CNC, NB48)

Shocks List
TKR6003 – Vented Shock Caps (aluminum, black ano, 2pcs)
TKR6007 - Shock Cap Bushings (4pcs, EB/NB/ET/NT/SCT)
TKR6008 – Shock Shaft Guide, Piston, and Bushing Set (for 2 shocks)
TKR6009 – Shock O-Ring and Bladder Set (for 2 shocks)
TKR6013 – Shock Adjustment Nuts (aluminum, gun metal ano, 2pcs)
TKR6015 – Shock Cartridge Caps (aluminum, gun metal ano, 2pcs)
TKR6016 – Shock Body (rear, aluminum, hard ano, 2pcs)
TKR6017 – Shock Shafts (rear, steel, 2pcs)
TKR6033 – Shock Spring Set (rear, 1.4 x 9.5T, 85mm, orange)
TKR6048 – Shock Spring Set (front, 1.5 x 9.5T, 65mm, black)
TKR6060 – Shock Body (rear, x-long, aluminum, hard ano, 2pcs)
TKR6061 – Shock Shafts (rear, x-long, steel, 2pcs)
TKR6140 - Locking Shock Rod End and Spring Perch Set (EB/NB/ET/NT/SCT)
TKR6144 - Shock Boots (long length, EB/NB, 2pcs)
TKR6145 - Shock Boots (X-long length, rear EB/NB, 2pcs)

Bearings List
TKRBB050825 – Ball Bearing (5x8x2.5mm, 4pcs)
TKRBB05114 – Ball Bearing (5x11x4, 4pcs)
TKRBB05115 – Ball Bearing (5x11x5, 4pcs)
TKRBB05134 – Ball Bearing (5x13x4, 4pcs)
TKRBB06103 – Ball Bearing (6x10x3, 4pcs)
TKRBB08165 – Ball Bearing (8x16x5, 4pcs)
TKRBB13194 – Ball Bearing (13x19x4, 4pcs)

Hardware List
TKR1200 – M2.5 Locknuts (zinc finish, 10pcs)
TKR1201 – M3 Locknuts (black, 10pcs)
TKR1202 - M4 Locknuts (black, 10pcs)
TKR1211 – M3 Locknuts (flanged, black, 10pcs)
TKR1220 – M3 Countersunk Washers (aluminum, natural, 10pcs)
TKR1221 – M3x8mm Washer (black, 10pcs)
TKR1222 – 13x16x.1mm Diff Shims (10pcs)
TKR1226 - 5x7x.2mm shims (10pcs)
TKR1228 - M4 Countersunk Washer (black, 10pcs)
TKR1235 – Body Clips (10pcs)
TKR1238 - Droop Adjustment Screws (M4x10mm, 8pcs)
TKR1240 - Lower Shock Mount Screws (2 CW thread, 2 CCW thread, EB/NB/SCT)
TKR1322 – M3x8mm Flat Head Screws (black, 10pcs)
TKR1323 – M3x10mm Flat Head Screws (black, 10pcs)
TKR1325 - M3x14mm Flat Head Screws (black, 10pcs)
TKR1327 - M3x16mm Flat Head Screws (black, 10pcs)
TKR1333 - M3x40mm Flat Head Screws (black, 10pcs)
TKR1343 - M4x10mm Flat Head Screws (black, 10pcs)
TKR1344 - M4x12mm Flat Head Screws (black, 10pcs)
TKR1401 - M3x6mm Button Head Screws (black, 10pcs)
TKR1402 - M3x8mm Button Head Screws (black, 10pcs)
TKR1407 - M3x16mm Button Head Screws (black, 10pcs)
TKR1443 - M4x10mm Button Head Screws (black, 10pcs)
TKR1445 - M4x14mm Button Head Screws (black, 10pcs)
TKR1447 - M4x16mm Button Head Screws (black, 10pcs)
TKR1522 - M3x8mm Cap Head Screws (black, 10pcs)
TKR1523 – M3x10mm Cap Head Screws (black, 10pcs)
TKR1524 - M3x12mm Cap Head Screws (black, 10pcs)
TKR1525 - M3x14mm Cap Head Screws (black, 10pcs)
TKR1529 - M3x20mm Cap Head Screws (black, 10pcs)
TKR1601 - M3x4mm Set Screws (black, 10pcs)
TKR1603 - M5x4mm Set Screws (black, 10pcs)
TKR1605 - M3x10mm Set Screws (black, 10pcs)
TKR1609 - M3x3mm Set Screws (black, 10pcs)

Option Parts
TKR1103 - Turnbuckle Wrench (4mm, 5mm, hardened steel)
TKR1104 - XT Hex Wrench (1.5mm, adjustable length, 4mm shank)
TKR1105 - XT Hex Wrench (2.0mm, adjustable length, 4mm shank)
TKR1106 - XT Hex Wrench (2.5mm, adjustable length, 4mm shank)
TKR1116 - 17mm Wheel Wrench, Shock Cap Tool
TKR1119 - 5.5mm / 7.0mm Wrench (hardened steel)
TKR5037B – Wing (black)
TKR5037Y – Wing (yellow)
TKR5071B – Wheel Hubs (17mm, alum, ltnd, gun metal ano, 1mm off, w/pins, 2pcs)
TKR5071C – Wheel Hubs (17mm, alum, ltnd, gun metal ano, 2mm off, w/pins, 2pcs)
TKR5080 – Sway Bar (f/r, 2.2mm)
TKR5081 – Sway Bar (f/r, 2.3mm)
TKR5083 – Sway Bar (f/r, 2.5mm)
TKR5084 – Sway Bar (f/r, 2.6mm)
TKR5085 – Sway Bar (f/r, 2.8mm)
TKR5087 – Sway Bar (f/r, 3.0mm)
TKR5149A - Diff Cross Pins (aluminum, 6pcs, requires TKR5150)
TKR5199A - Aluminum Rear Hubs (gun metal ano, EB/NB/ET/NT, 2pcs)
TKR5251B – Aluminum Servo Horn (23t spline, Airtronics/JR/KO Servos)
TKR5252B – Aluminum Servo Horn (24t spline, Hitec Servos)
TKR5253B – Aluminum Servo Horn (25t spline, Futaba/Pro-Tek/Savox Servos)
TKR5376A - Driveshaft (center, rear, aluminum, NB48)
TKR5377A - Driveshaft (center, front, alminum, NB48, NT48)
TKR5389 – Complete Rear Differential
TKR5447B – Complete Center Differential (revised, NB48.3, NT48.3)
TKR5490 – Sway Bar (rear, 2.3mm)
TKR5492 – Sway Bar (rear, 2.5mm)
TKR5493 – Sway Bar (rear, 2.6mm)
TKR5494 – Sway Bar (rear, 2.8mm)
TKR5495 – Sway Bar (rear, 3.0mm)
TKR6003B – Non-Vented Shock Caps (aluminum, black ano, 2pcs)
TKR6009B – Shock O-Ring Set (16pcs)
TKR6017T – Shock Shafts w/ TiNi coating (rear, steel, 2pcs)
TKR6018 – Shock Cap and Spring Adjuster Set (composite, for 2 shocks)
TKR6030 – Shock Spring Set (rear, 1.4 x 11.0T, 85mm, pink)
TKR6031 – Shock Spring Set (rear, 1.4 x 10.5T, 85mm, green)
TKR6032 – Shock Spring Set (rear, 1.4 x 10.0T, 85mm, yellow)
TKR6034 – Shock Spring Set (rear, 1.4 x 9.0T, 85mm, red)
TKR6035 – Shock Spring Set (front, 1.5 x 9.0T, 70mm, pink)
TKR6036 – Shock Spring Set (front, 1.5 x 8.5T, 70mm, green)
TKR6037 – Shock Spring Set (front, 1.5 x 8.0T, 70mm, yellow)
TKR6038 – Shock Spring Set (front, 1.5 x 7.5T, 70mm, orange)
TKR6039 – Shock Spring Set (front, 1.5 x 7.0T, 70mm, red)
TKR6041 – Shock Spring Set (rear, 1.4 x 12.5T, 80mm, white)
TKR6042 – Shock Spring Set (rear, 1.4 x 12.0T, 80mm, grey)
TKR6043 – Shock Spring Set (rear, 1.4 x 11.5T, 80mm, black)
TKR6046 – Shock Spring Set (front, 1.5 x 10.5T, 65mm, white)
TKR6047 – Shock Spring Set (front, 1.5 x 10.0T, 65mm, grey)
TKR6050 - Shock Pistons (CNC, conical, 10x1.1mm)
TKR6051 - Shock Pistons (CNC, conical, 8x1.3mm)
TKR6052 - Shock Pistons (CNC, conical, 10x1.2mm)
TKR6053 - Shock Pistons (CNC, conical, 8x1.4mm)
TKR6054 - Shock Pistons (CNC, conical, 10x1.3mm)
TKR6055 – Shock Spring Set (rear, 1.4 x 8.5T, 80mm, blue)
TKR6056 – Shock Spring Set (rear, 1.4 x 8.0T, 80mm, purple)
TKR6061T – Shock Shafts w/ TiNi coating (rear, x-long, steel, 2pcs)
TKR6063 – Shock Pistons (CNC, conical, 6x1.5, 10.6mm^2)
TKR6064 – Shock Pistons (CNC, conical, 6x1.6, 12.1mm^2)
TKR6065 – Shock Piston Blanks (CNC, conical, 16 dimples, 16mm)
TKR6146 – Shock Cartridge Set (CNC, Delrin, EB/NB/ET/NT/SCT)
TKR6159 - Shock Pistons (CNC, tapered, 4x1.8mm)
TKR6160 - Shock Piston Blanks (CNC, tapered, 16 dimples)

TEKNO RC — Setup Sheet — NB-48.3

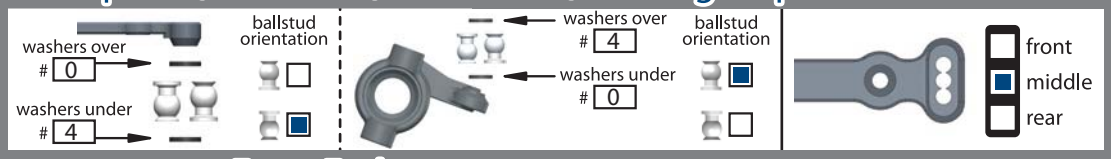
Name: Box Stock **Date:** **Event:**

Track: Indoor ☐ Outdoor ☐ **Size:** Small ☐ Medium ☐ Large ☐ **Traction:** Low ☐ Med ☐ High ☐

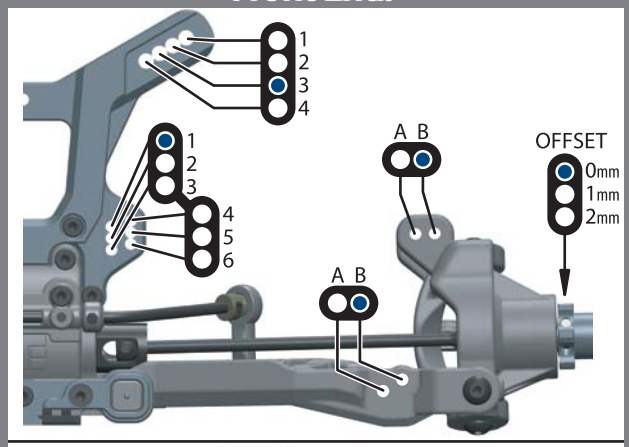
Surface: Smooth ☐ Bumpy ☐ Rutted ☐ **Type:** Loose/Loamy ☐ Hard Pack ☐ Blue Groove ☐ Clay ☐

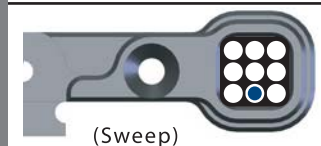
Condition: Dusty ☐ Dry ☐ Wet ☐ Muddy ☐

Bumpsteer/Ackerman/Servo Saver/Steering Stop:



Front End:



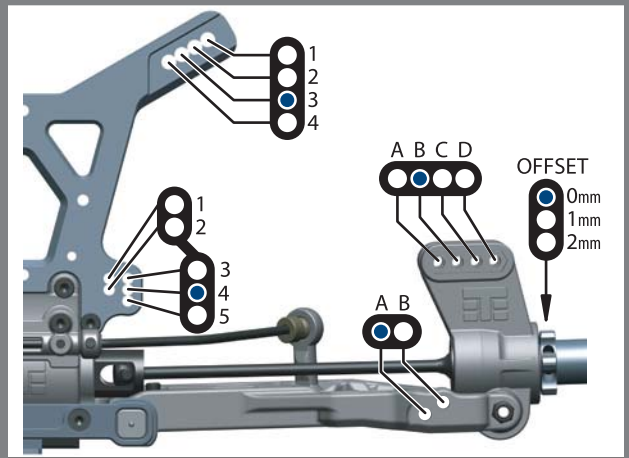

(Sweep)

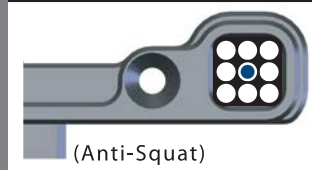
"A" Block
(0° WITH CENTER DOT INSERT)


(Kick Up)

"B" Block
(10° WITH CENTER DOT INSERT)

Rear End:



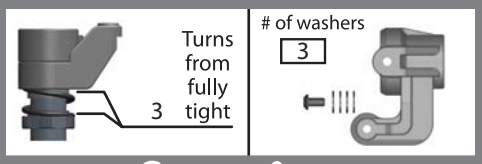

(Anti-Squat)

"C" Block
(2° WITH CENTER DOT INSERT)


(Rear Toe)

"D" Block
(3° WITH CENTER DOT INSERT)





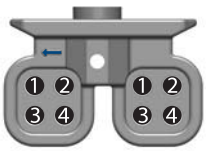
Suspension:

	FRONT	REAR
RIDE HEIGHT	27	29
CAMBER	-2	-2
CASTER	15 deg	
SWEEP	0 deg	
KICK UP	8.5 deg	
ANTI-SQUAT		2 deg
TOE (in/out)	.5 deg out	3 deg in
SWAY BAR	2.4	2.4
SHOCK LENGTH (DROOP)	122	136.5

Body/Wing:

BODY MAKE	stock
WING MAKE	stock

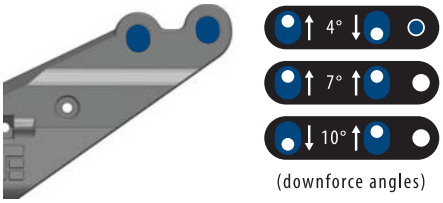
POSITION SETTINGS



1 - REARWARD LOW ○ 2 - FORWARD LOW ○

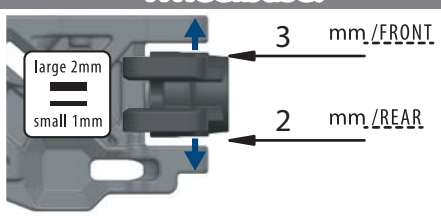
3 - REARWARD HIGH ○ 4 - FORWARD HIGH ●

DOWNFORCE SETTINGS



(downforce angles)

Wheelbase:



Shocks:

	FRONT	REAR
OIL	400	450
BRAND		
PISTON	4x1.8 taper up	4x1.8 taper up
SPRING	black	orange
REBOUND	0 %	0 %
STD/EMUL/VENT	vent	vent
NOTES:		

Tires / Wheels:

	FRONT	REAR
BRAND/TREAD		
COMPOUND		
INSERT		
WHEEL		
NOTES:		

Differential Oil:

FRONT	CENTER	REAR
5k	5k	5k

Equipment:

ENGINE/ PIPE:	/
PLUG:	
FUEL:	
RX BATT:	
SERVOS:	(steering) 300oz min / (throttle/brake) 300oz min

Drivetrain:

CLUTCH/SPUR:	15 / 46 (teeth)
CLUTCH SHOES:	aluminum
CLUTCH SPRINGS:	2x green / 2x gold
BRAKE BIAS:	(front) 60 % / (rear) 40 %

Chassis Braces:

Middle ■ Rear Left ☐ Rear Right ■

(front brace is always recommended)

Notes:



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USA

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