RC10 4WD TEAM CAR

1:10 SCALE ELECTRIC 4WD COMPETITION OFF-ROAD CAR KIT

INSTRUCTION MANUAL

Due to ongoing research and development, photos may not match current kit components.
RC10 photos shown equipped with items that may NOT be included with vehicle.

TEAM ASSOCIATED

WORLD CHAMPIONSHIPS 34 TEAMRC TEAMRC

61st Anniversary ASSOCIATED Since 1964

:: Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new Kit. Please take a moment to read through this manual to help familiarize yourself with these steps.

We are continually changing and improving our designs; therefore, actual parts may appear slightly different than in the illustrations. New parts will be noted on supplementary sheets located in the appropriate parts bags.
Check each bag for these sheets before you start to build.

:: KIT Features

- Black anodized 6061-T6 aluminum monocoque 4wd tub chassis
- Black anodized nose plate and motor plate
- Exclusive blue anodized nose tubes and wing tubes
- New blue anodized aluminum chassis stiffeners
- New designed blue anodized thumb nuts
- New larger diameter pulley flanges
- New servo mount and belt guide system
- Fully adjustable four-wheel independent suspension
- Long travel, fluid-filled, hard-anodized aluminum coil-over shocks
- Race proven front and rear Stealth transmissions
- Adjustable ball differentials front and rear
- Exceptional ground clearance with low center of gravity
- Vintage 4wd spike tires included
- Clear Viper body included
- Precision bearings throughout
- Fits 6-cell NiMh and 2S LiPo battery packs
- Adjustable heavy duty 3.5mm turnbuckles and ball cups all around
- Front and rear CVA driveshafts
- Durable low friction center belt and tension system
- Long front arm geometry
- New front caster and spindle assembly designed for RC104wd
- Updated rear bulkhead and chassis stiffener
- Carbon fiber rear transmission brace
- Front 2.2" 12mm hex wheels included
- Rear 2.2" wheels included
- HD Metric Ball Studs throughout
- Race Proven V2 Slipper Clutch System
- All new 4wd Worlds style Specific Bell Crank system
- 5.5" High Downforce Lexan Race Wing Included

:: Additional

Your new RC10 4WD Kit comes as a kit. There are some items you will need to complete your kit (refer to website for suggestions):

- R/C two channel surface frequency radio system
- Electronic Speed Control (ESC)
- R/C Electric Motor
- Steering Servo
- Peak detection battery charger
- 2S, 7.4V Lipo stick battery or 7.2V NiMH battery
- 2mm Hex Driver (AE #1501)
- 5.5mm Hex Driver (AE #1507)
- Thread Lock (AE #1596)
- Polycarbonate specific paint
- Pinion gear, size to be determined by type and wind of motor you use

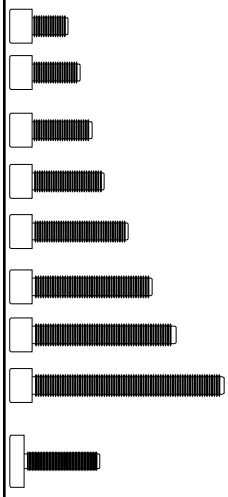
Tools included:
- Allen wrenches (.035", .050", 1/16", 3/32")
- Shock building tool

:: Other Helpful Items

- Silicone Shock Fluid (Refer to website for complete listings)
- Tire Adhesive (AE #1697)
- Body Scissors (AE #1737)
- Reamer / Hole Punch (AE #1499)
- Shock Pliers (AE #1681)
- Green Slime shock lube (AE #1105)
- Calipers or a Precision Ruler
- Wire Cutters / Hobby Knife
- Needle Nose Pliers
- Soldering Iron

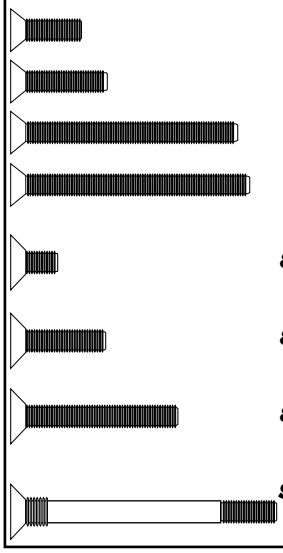
:: Hardware - 1:1 Scale View

Cap Head (shcs)



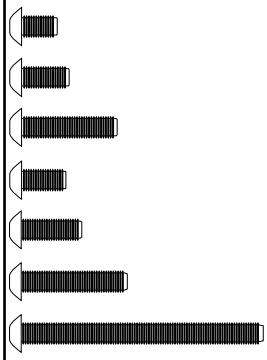
2-56x3/16
4-40x1/4"
4-40x5/16"
4-40x3/8"
4-40x1/2"
4-40x5/8" (6926)
4-40x3/4"
4-40x1"
3x10mm (41090)

Flat Head (fhcs)



4-40x3/8"
4-40x1/2"
4-40x1 3/16"
4-40x1 1/4"
8-32x1/4" (6316)
8-32x1/2" (6316)
8-32x7/8" (6316)
Servo Saver Screw, Long (7306)

Button Head (bhcs)



4-40x3/16"
4-40x1/4"
4-40x1/2"
3x6mm (31531)
3x8mm (31532)
3x14mm (25187)
3x32mm

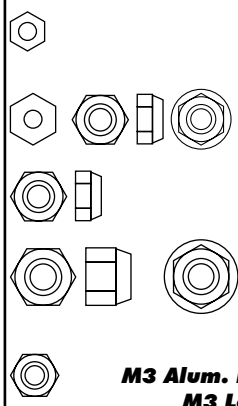
Clips

E-clip 1/8" (6299)

Shims and Washers

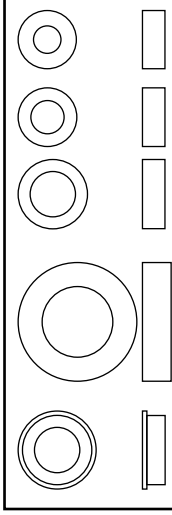
FT Ballstud Washer, Aluminum (2mm) (31383)
.030 Nylon Spacer (4187)
Shock Thin Washer
Shock Thick Washer
3/16" Axle Shim
#4 Washer
Bellcrank Shim
Diff Thrust Washers
5mm x 9.5mm 0.17mm
#8 Aluminum Thick Washer

Nuts (lock/plain)



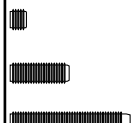
4-40 Small Pattern Plain Nut
4-40 Nuts
5-40 Locknut (6629)
8-32 Steel Locknut
M3 Nut (91477)
M3 Alum. Locknut, Blue (31550)
M3 Locknut, Black (25215)

Bearings



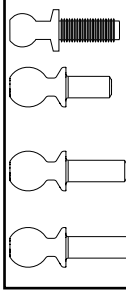
5/32 x 5/16 x 1/8
1/4 x 3/8 x 1/8 (8682)
3/16 x 3/8 x 1/8 (3977)
3/8 x 5/8 x 5/32(3976)
1/4 x 3/8 x 1/8 Flanged

Set Screws



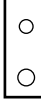
4-40x3/32"
4-40x5/16"
3x16mm (4689)

Ballstuds



Silver 8mm Long (31284)
HD 6mm (91047)
Titanium HD 6mm (91751)
HD 8mm (91048)
Titanium HD 8mm (91752)
HD 10mm (91049)
Titanium HD 10mm (91753)

Diff Balls



5/64 Thrust Balls
3/32 Diff Balls

Notes:

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:: Notes

This symbols indicates a special note or instruction in the manual.

There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardare with the correct drawing until you find the exact size.

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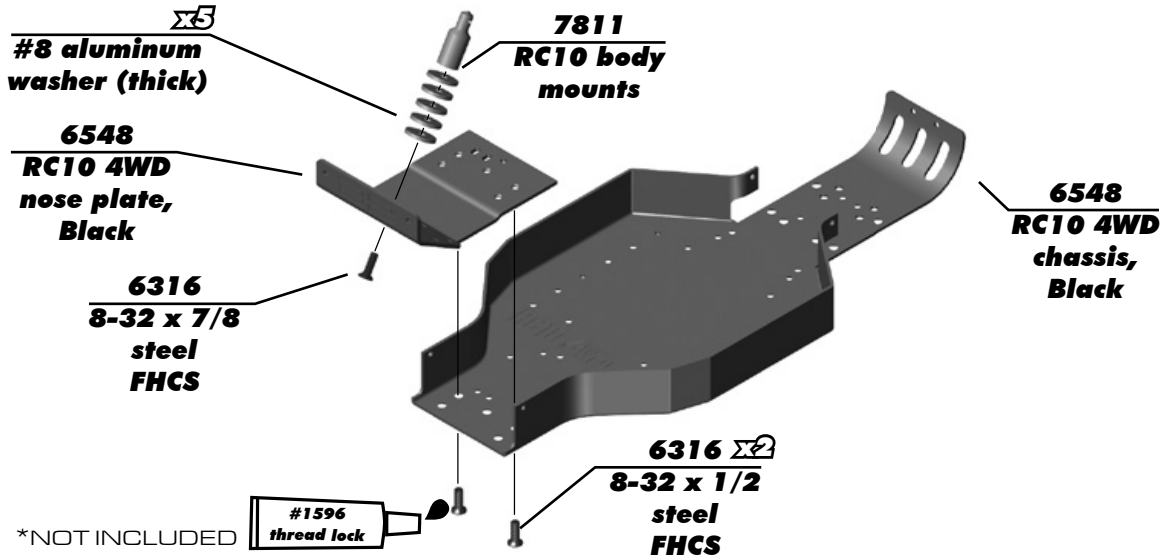
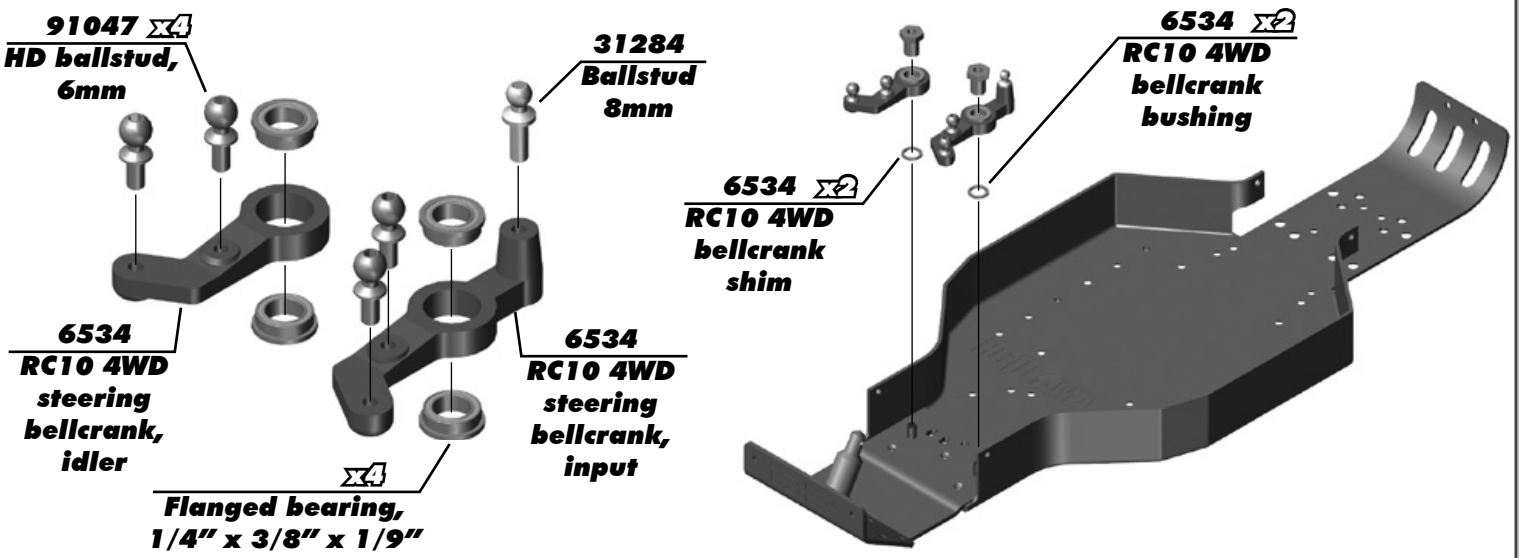
:: Nose Plate / Steering Build - Bag A - Step 1

Washers are used to adjust to your preffered body height.



:: Nose Plate / Steering Build - Bag A - Step 2

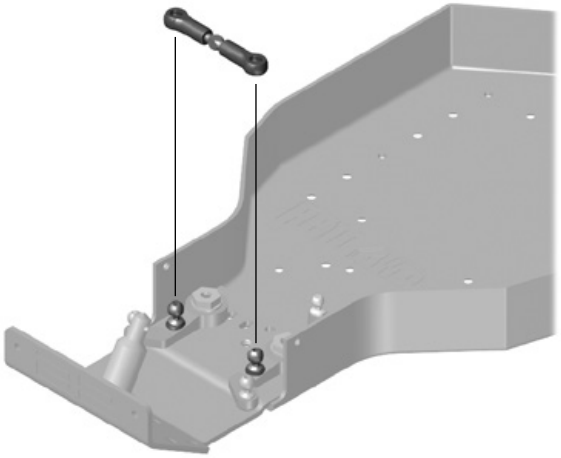


:: Nose Plate / Steering Build - Bag F - Step 3

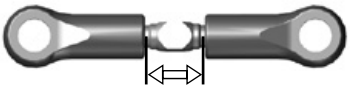
The steering rack turnbuckle parts are in bag F.

Note the direction of the ball cups!

Orient the notch to the left throughout the car. It indicates which end has the left hand threads!

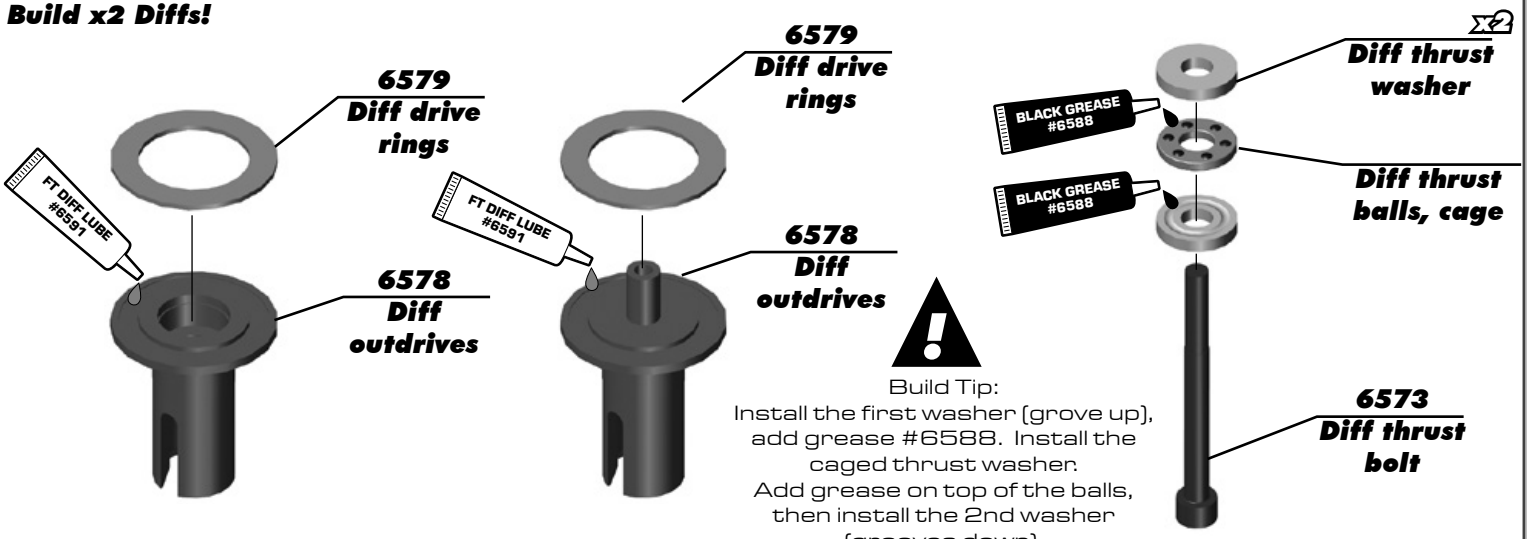


Steering Rack Turnbuckle 0.31" (8mm)



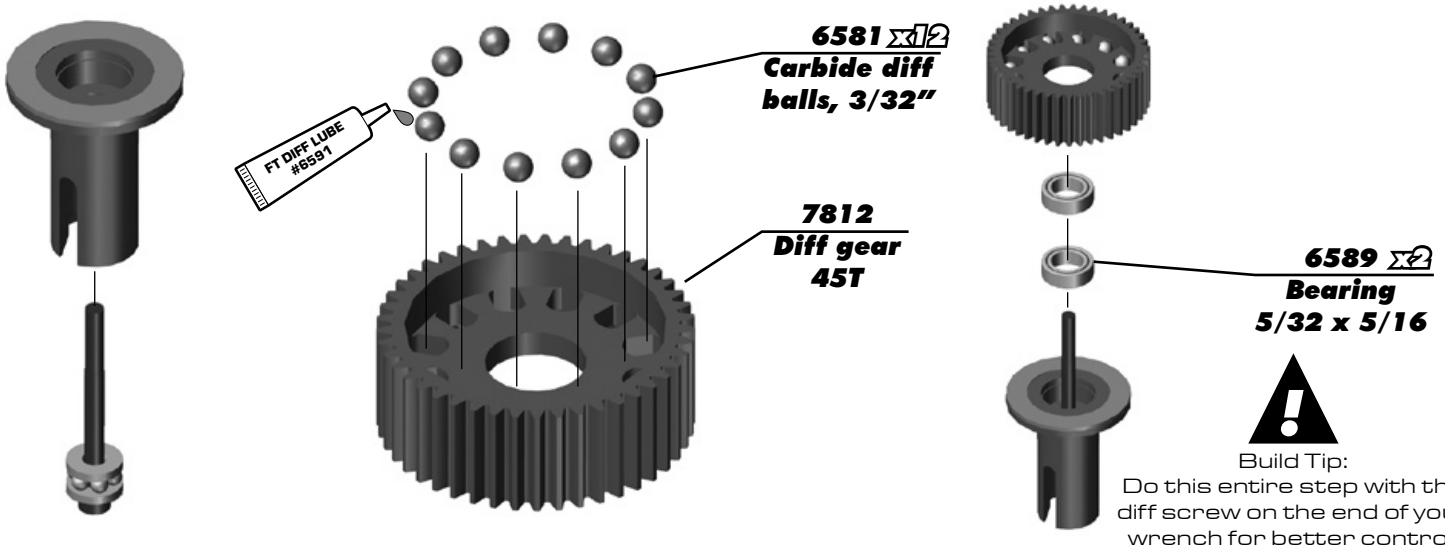
:: Differential Build - Bag B - Step 1

Build x2 Diffs!



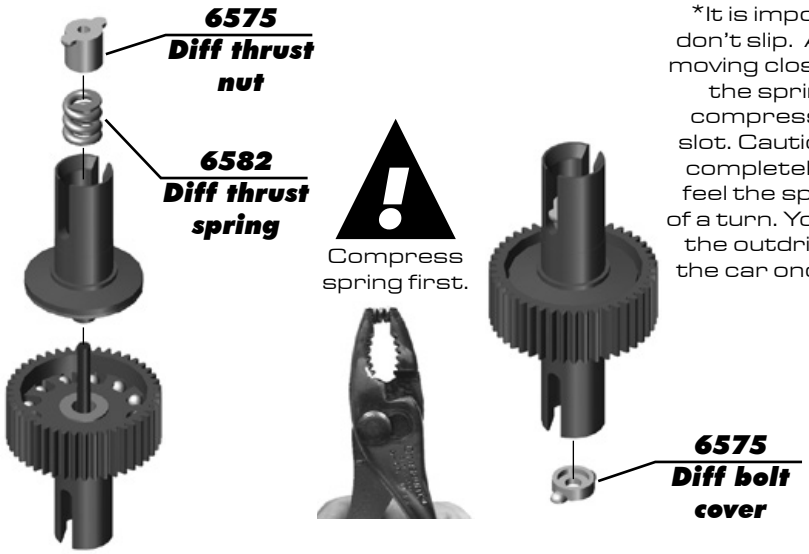
Build Tip:
Install the first washer (grove up), add grease #6588. Install the caged thrust washer.
Add grease on top of the balls, then install the 2nd washer (grooves down).

:: Differential Build - Bag B - Step 2

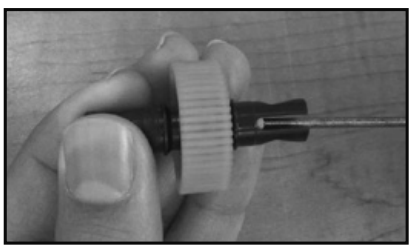


Build Tip:
Do this entire step with the diff screw on the end of your wrench for better control.

:: Differential Build - Bag B - Step 3



*It is important to tighten your RC10 4WD Ball diffs x2 so they don't slip. As you tighten the diff bolt, you will notice the T-nut ears moving closer to the bottom of the outdrive slot. This compresses the spring behind the T-nut. The spring should be completely compressed at the same time the T-nut reaches the end of the slot. Caution! Pay close attention to the feeling when the spring is completely compressed. Do not overtighten the bolt. When you feel the spring completely compressed, loosen the diff bolt 1/4" of a turn. Your diff should now operate smoothly with resistance as the outdrives move in opposite directions. After you have driven the car once, recheck the diff settings as they may loosen up with a new differential system.



:: Differential Build - Bag B - Step 4

Front diff settings and setup notes / tips:

When installing your Ball Differentials, make sure to install the Diff Bolt on the same side as the Top Shaft End.

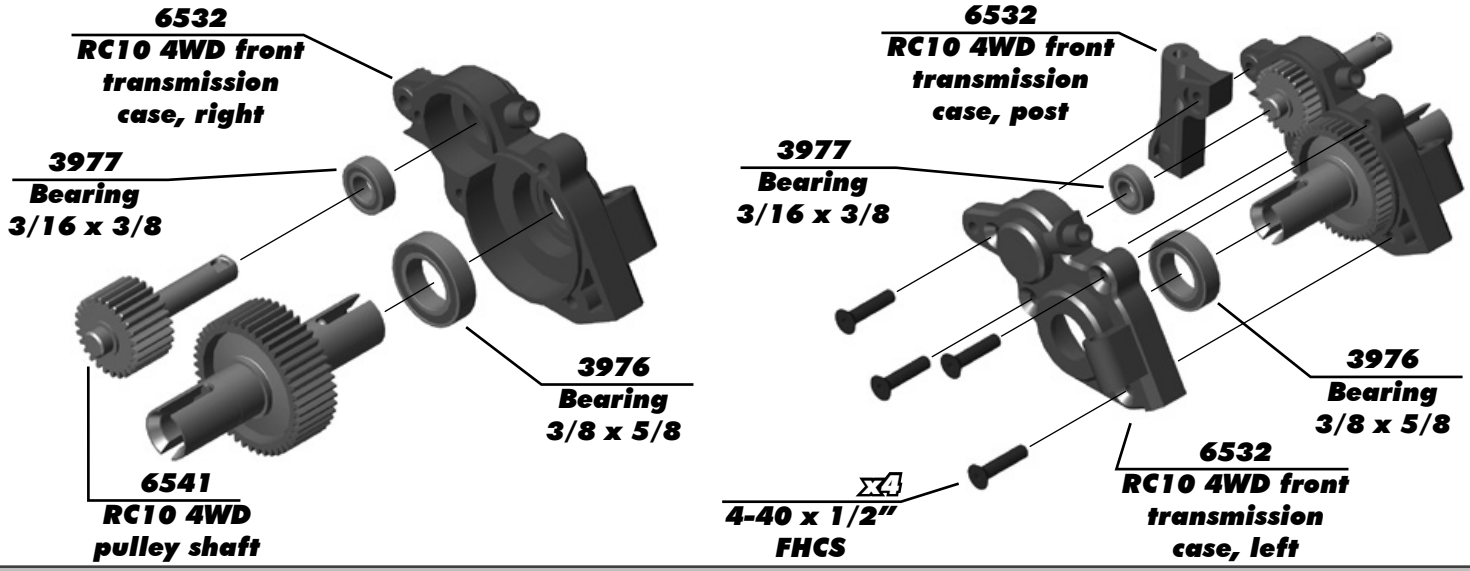
- Front Diff: Diff Bolt should be on the Driver Side
- Rear Diff: Diff Bolt should be on the Passenger Side

Tighter Front Diff: Tighter front diff compared to the rear will give you more on power steering and off power stability.
Looser Front Diff: Looser front diff compared to the rear will provide more off power steering and on power stability.

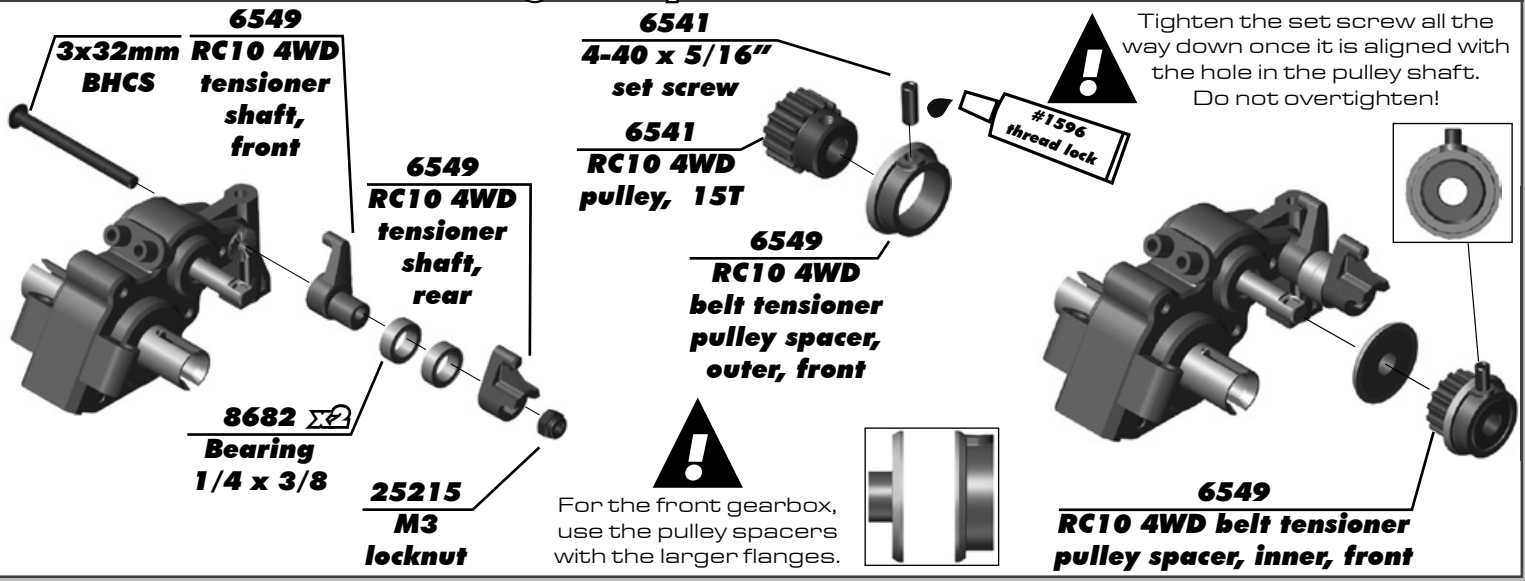
Rear diff settings and setup notes / tips:

Tighter Rear Diff: Tighter rear diff compared to the front will provide more rear end stability.
Looser Rear Diff: Looser rear diff compared to the front will provide more off power corner speed and on power stability.

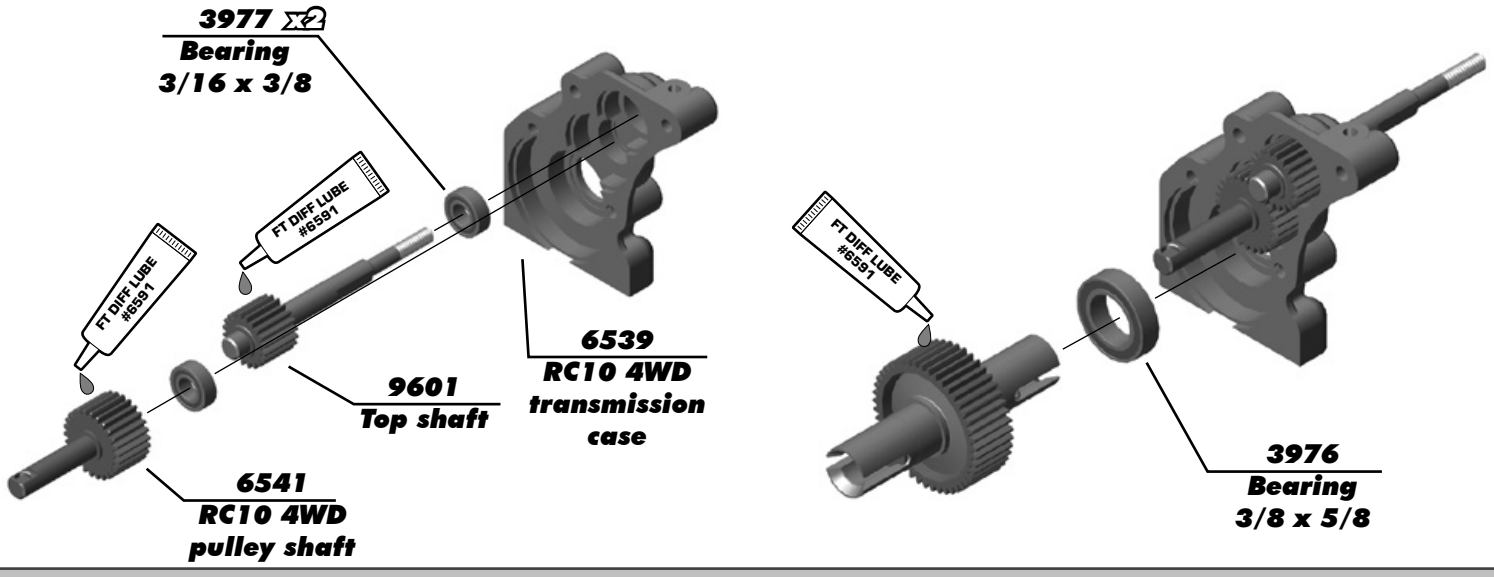
:: Front Transmission Build - Bag B - Step 1



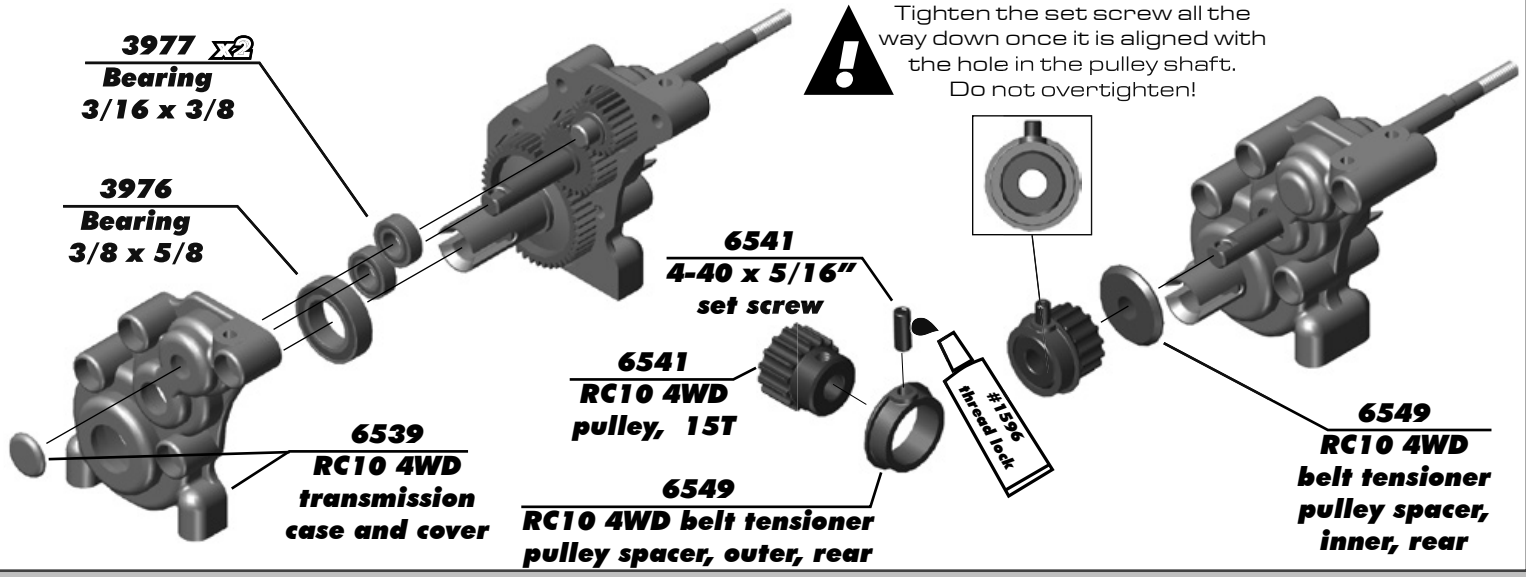
:: Front Transmission Build - Bag B - Step 2



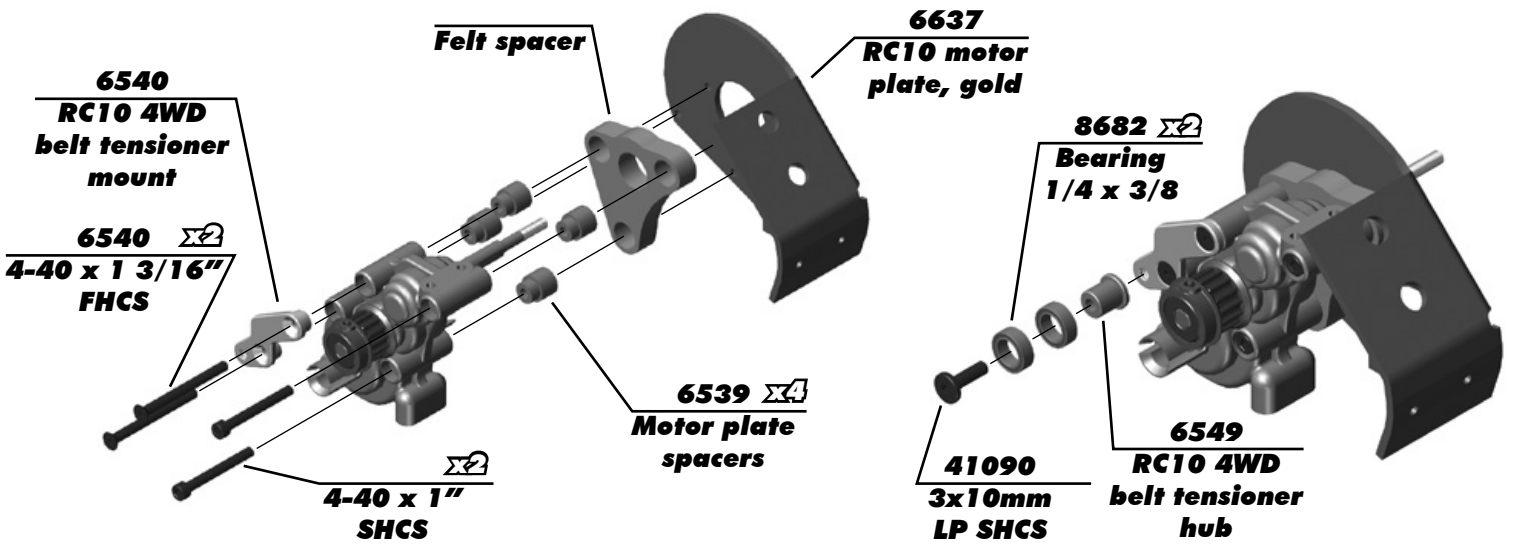
:: Rear Transmission Build - Bag B - Step 1



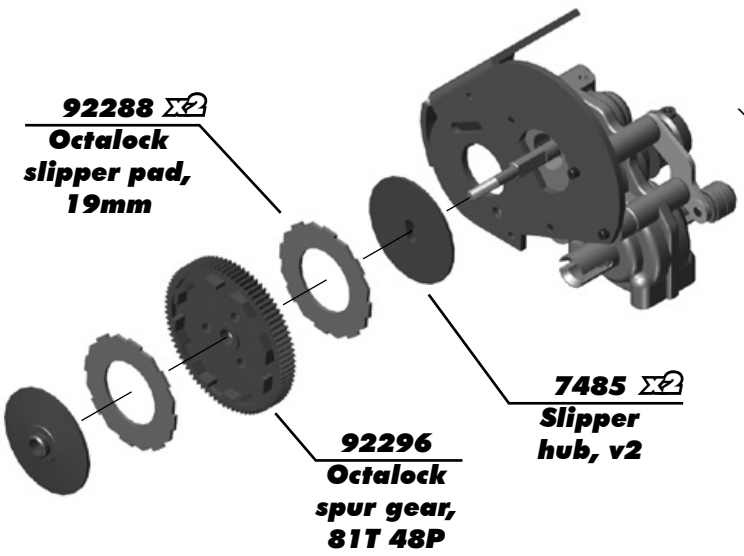
:: Rear Transmission Build - Bag B - Step 2



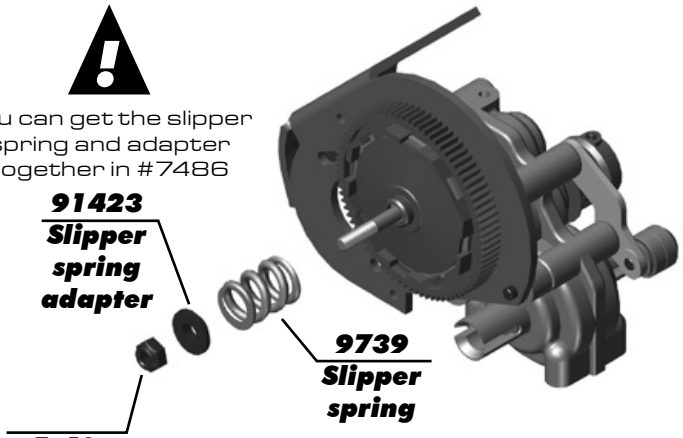
:: Rear Transmission Build - Bag B - Step 3



:: Rear Transmission Build - Bag B - Step 4



You can get the slipper spring and adapter together in #7486



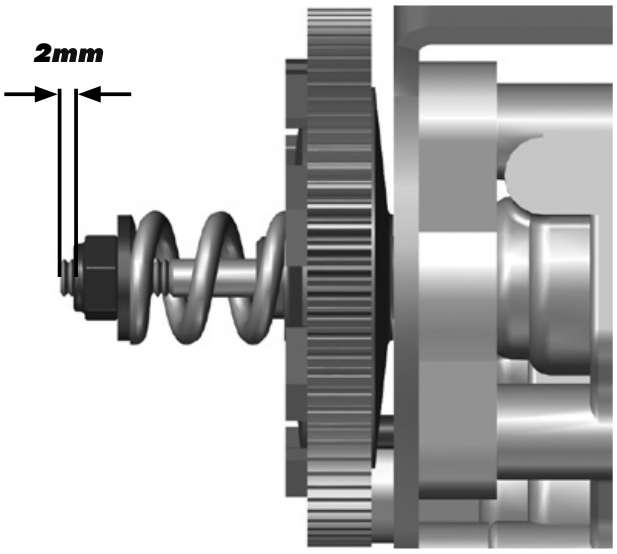
Slipper starting point. Tighten the slipper nut until 2.5mm of the top shaft threads are exposed. Adjust as needed.

:: Rear Transmission Build - Bag B - Step 5

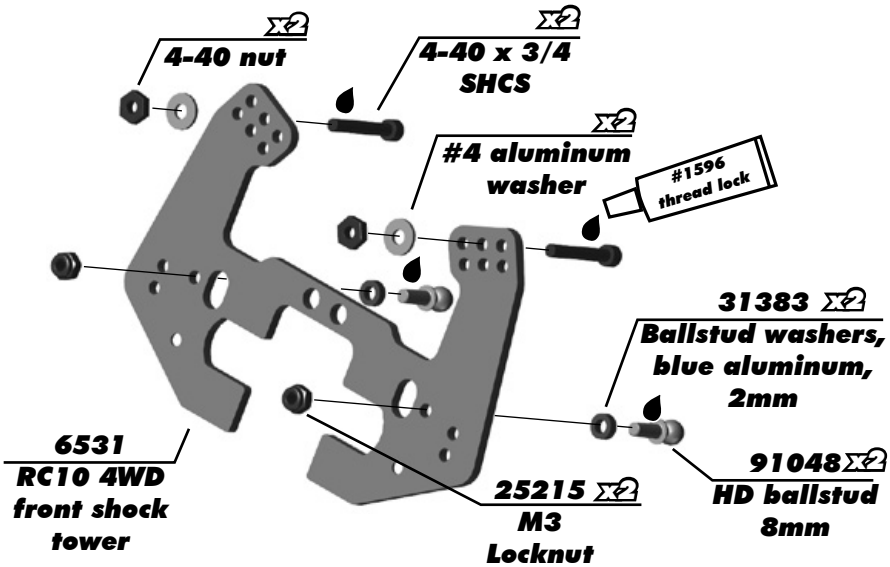
Slipper Clutch:
On high bite tracks:

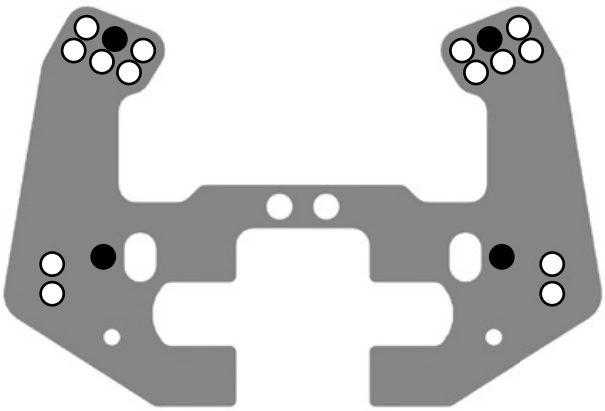
The slipper clutch setting is very important on higher bite tracks. Without much wheel spin, The slipper clutch will need to be set properly to engage under heavy braking to prevent the belt from skipping. The belt is on the same rear top shaft as the slipper system. IF the slipper is set too tight, this can cause issues with belt management. Recommended slipper clutch setting on high bite tracks = 2mm threads showing.

Caution: It is also recommended to set your esc brakes accordingly, too much brake can cause issues with the belt and slipper system.

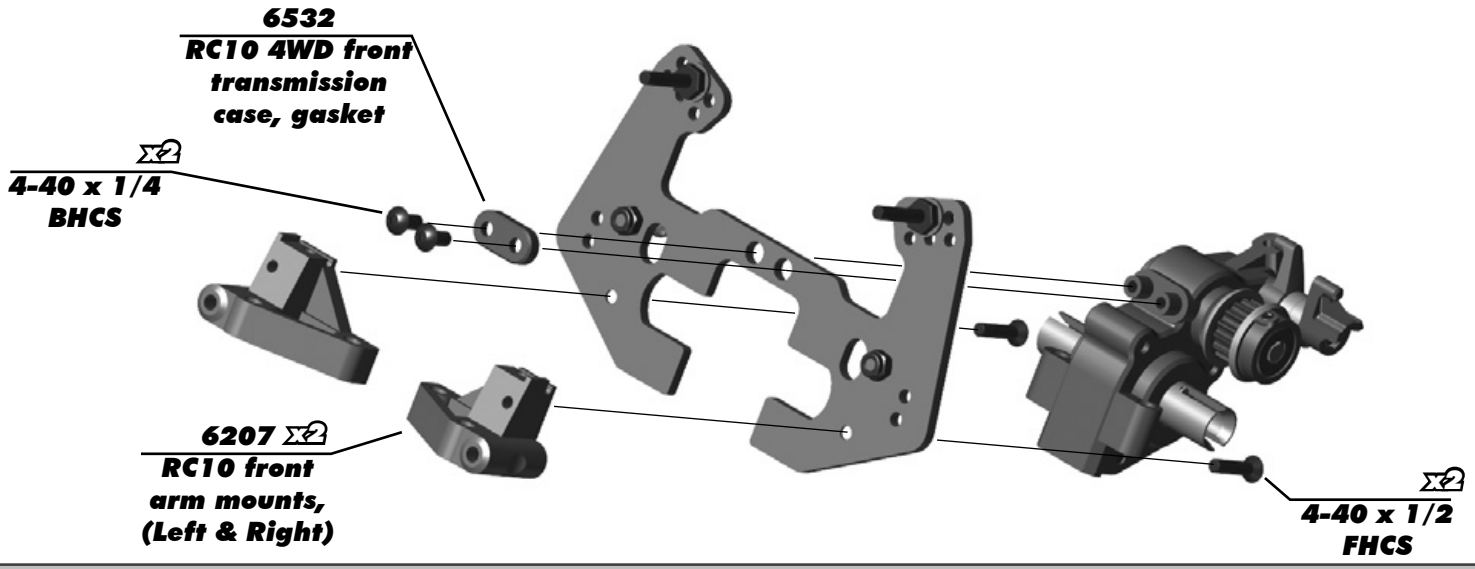


:: Front Suspension Build - Bag C - Step 1

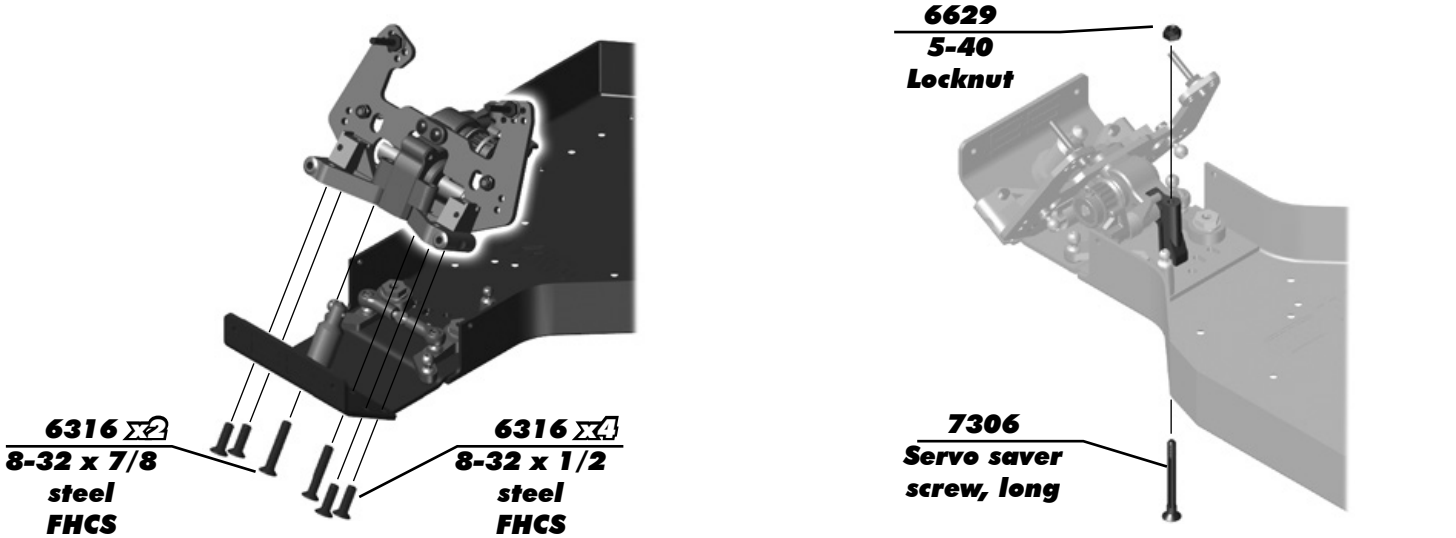




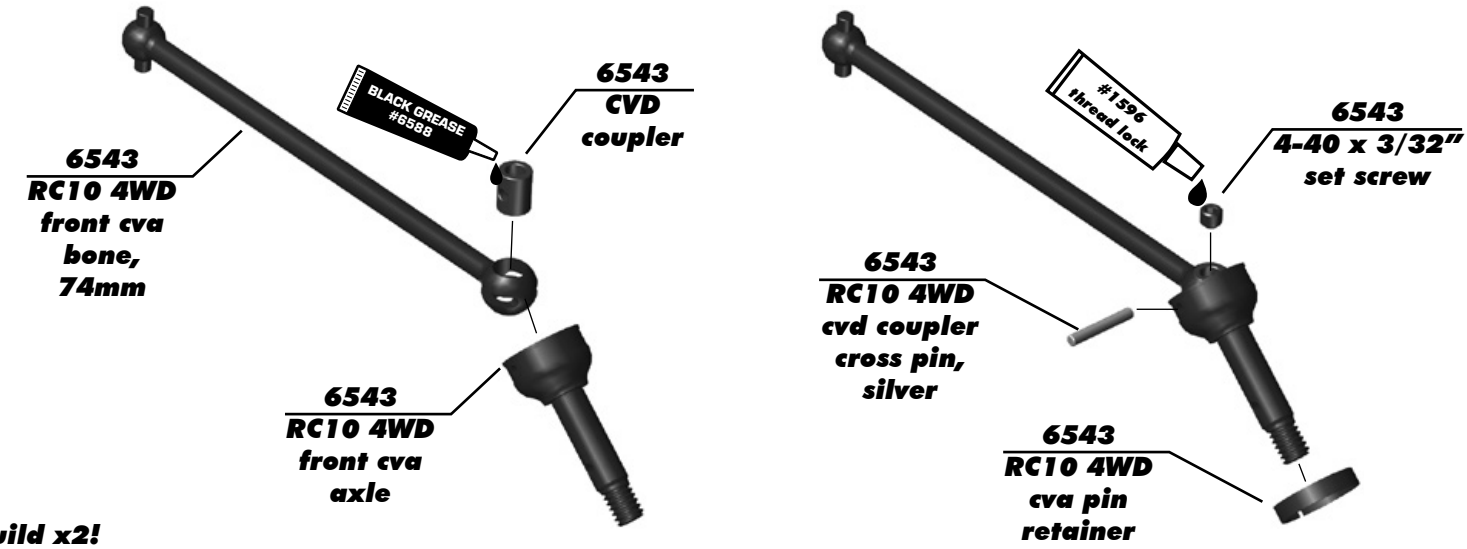
:: Front Suspension Build - Bag C - Step 2



:: Front Suspension Build - Bag C - Step 3

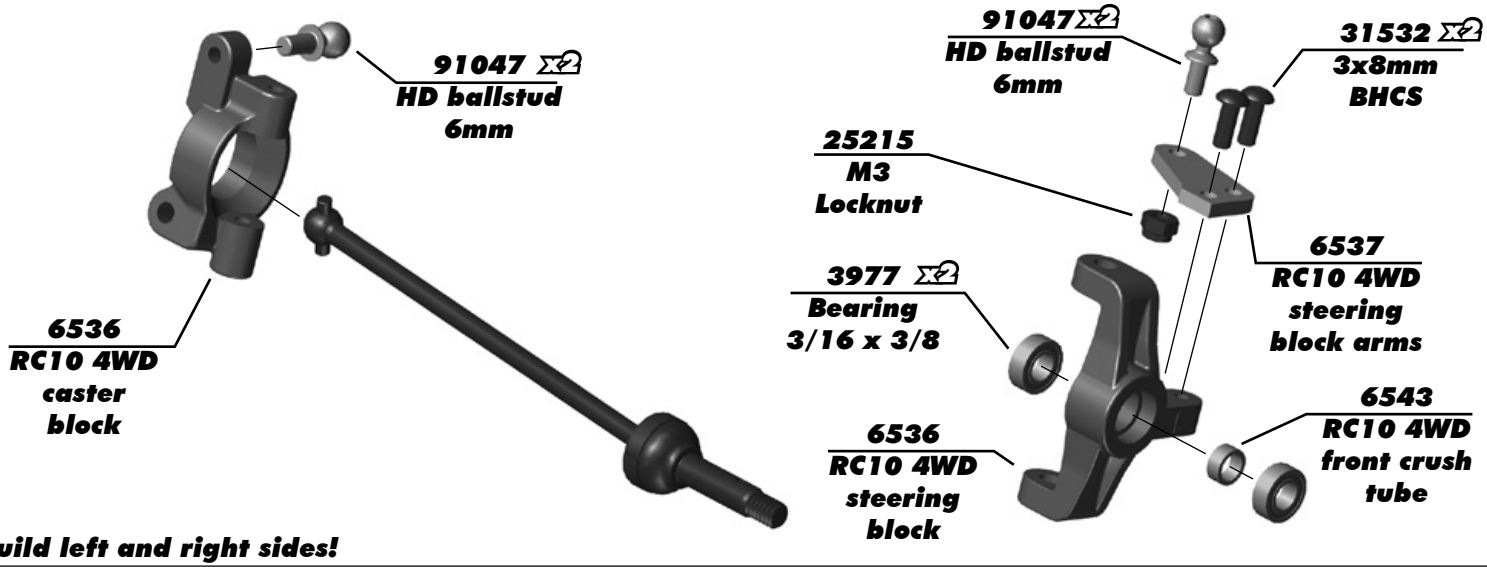


:: Front Suspension Build - Bag C - Step 4



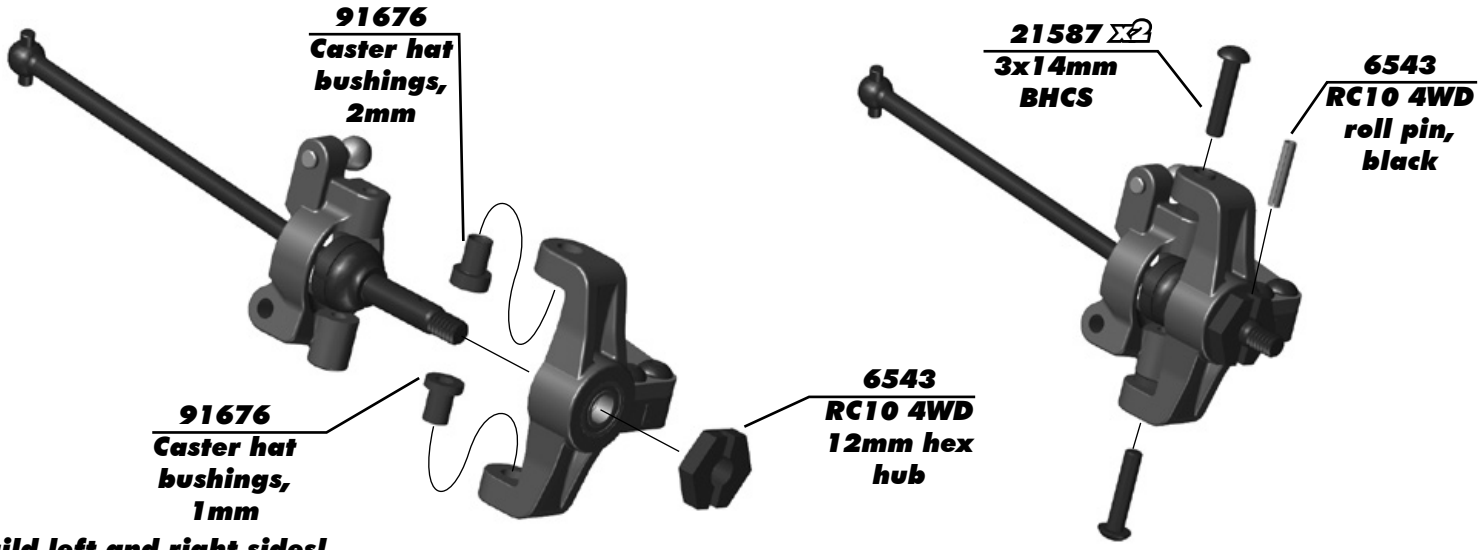
Build x2!

:: Front Suspension Build - Bag C - Step 5



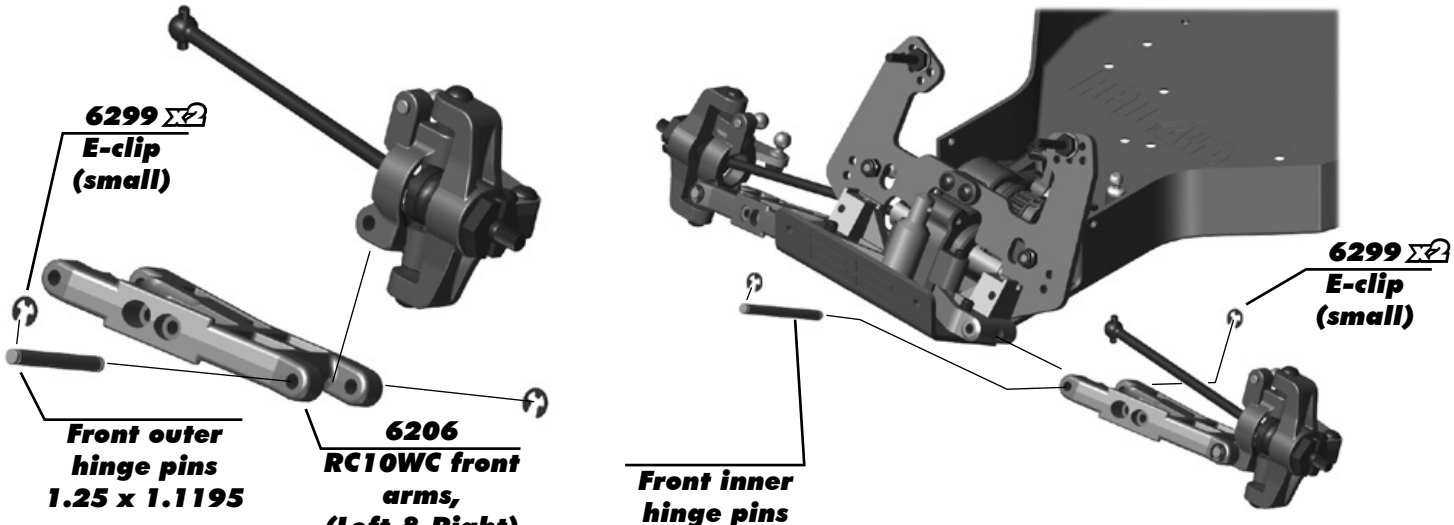
Build left and right sides!

:: Front Suspension Build - Bag C - Step 6



Build left and right sides!

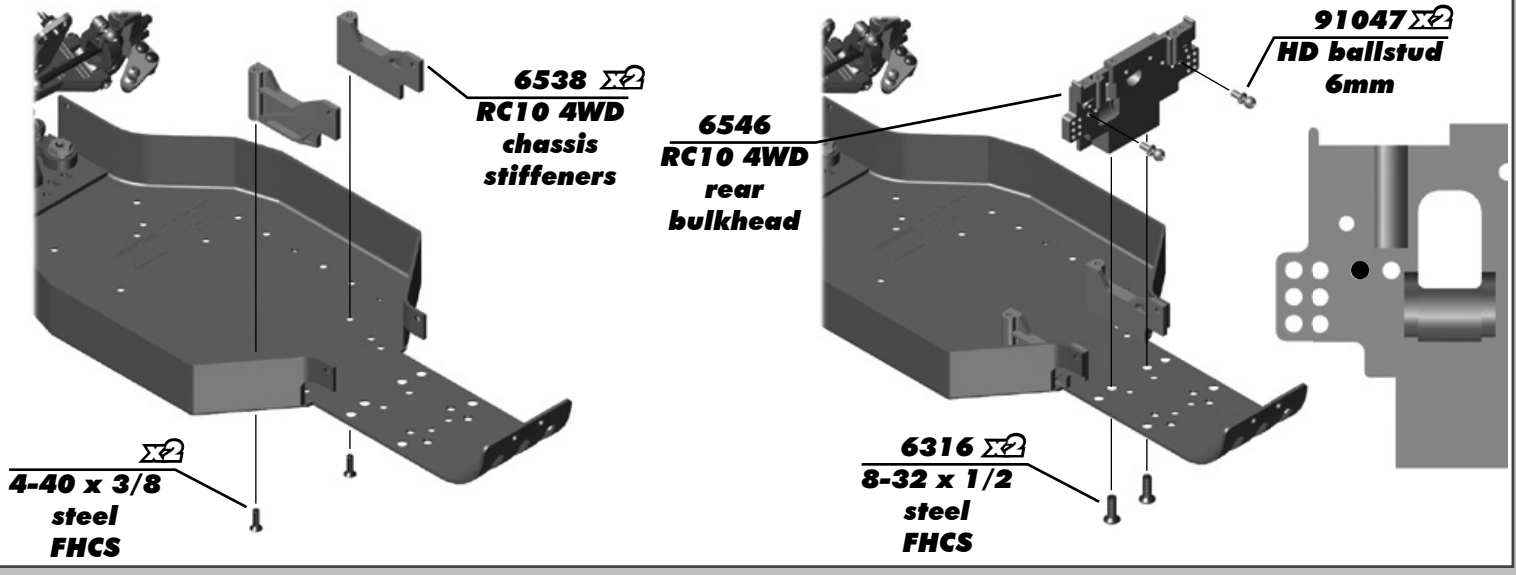
:: Front Suspension Build - Bag C - Step 7



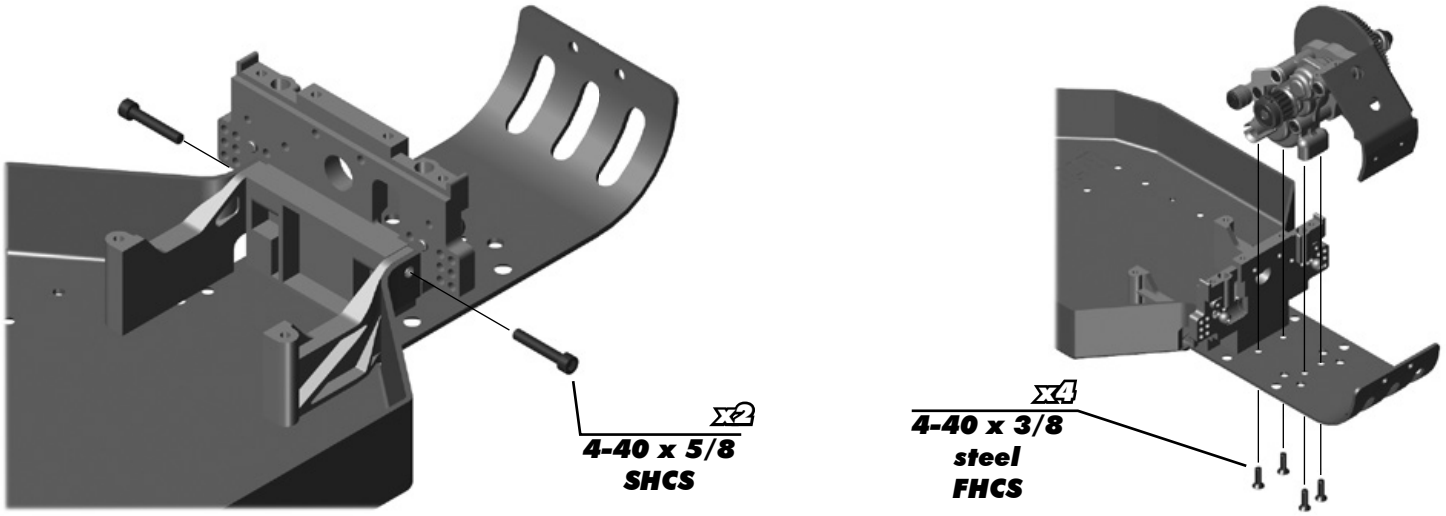
Build left and right sides!

Build left and right sides!

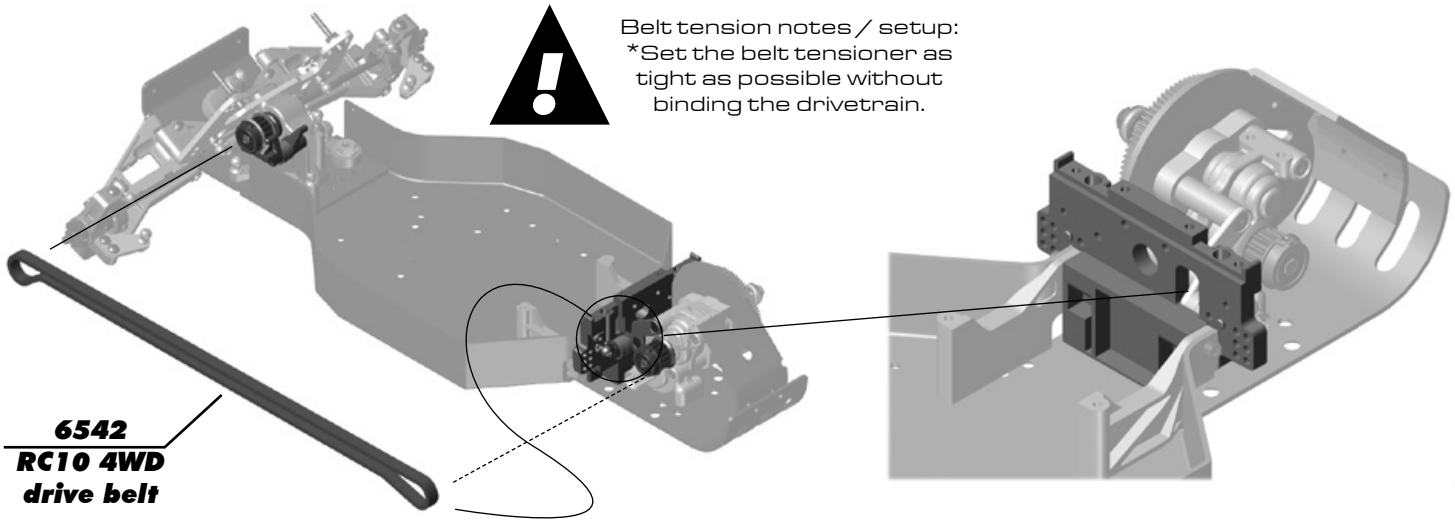
:: Rear Bulkhead Build - Bag D - Step 1



:: Rear Bulkhead Build - Bag D - Step 2



:: Rear Bulkhead Build - Bag D - Step 3



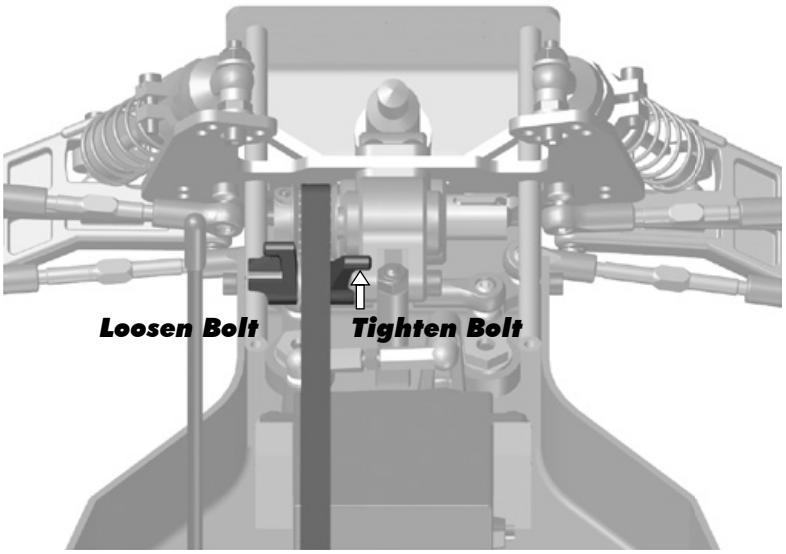
:: Rear Bulkhead Build - Bag D - Step 4

Belt Tensioner:

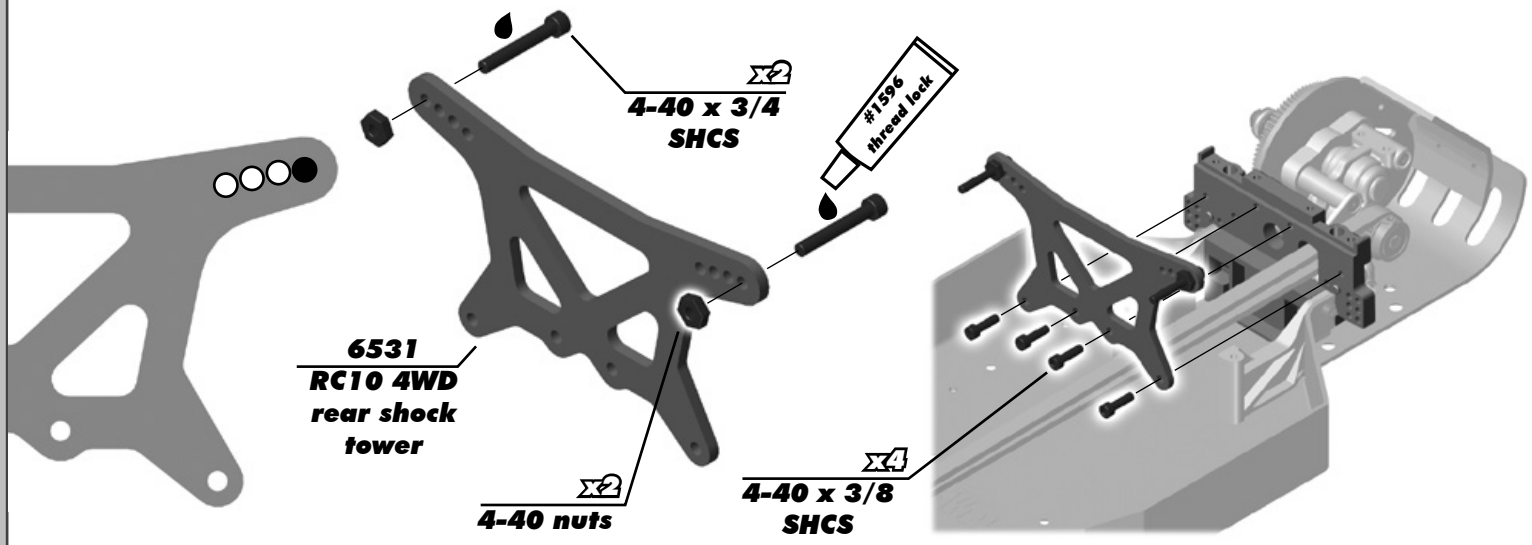
The belt tension is adjustable. The "inner" lever is the adjustment Lever. To tighten the belt, loosen the main bolt on the tension system and rotate the adjustment lever towards the front of the vehicle.

To loosen the belt, adjust the lever the opposite way towards the back of the vehicle.
The inner lever keys into notches so one click at a time is recommended for adjustments.

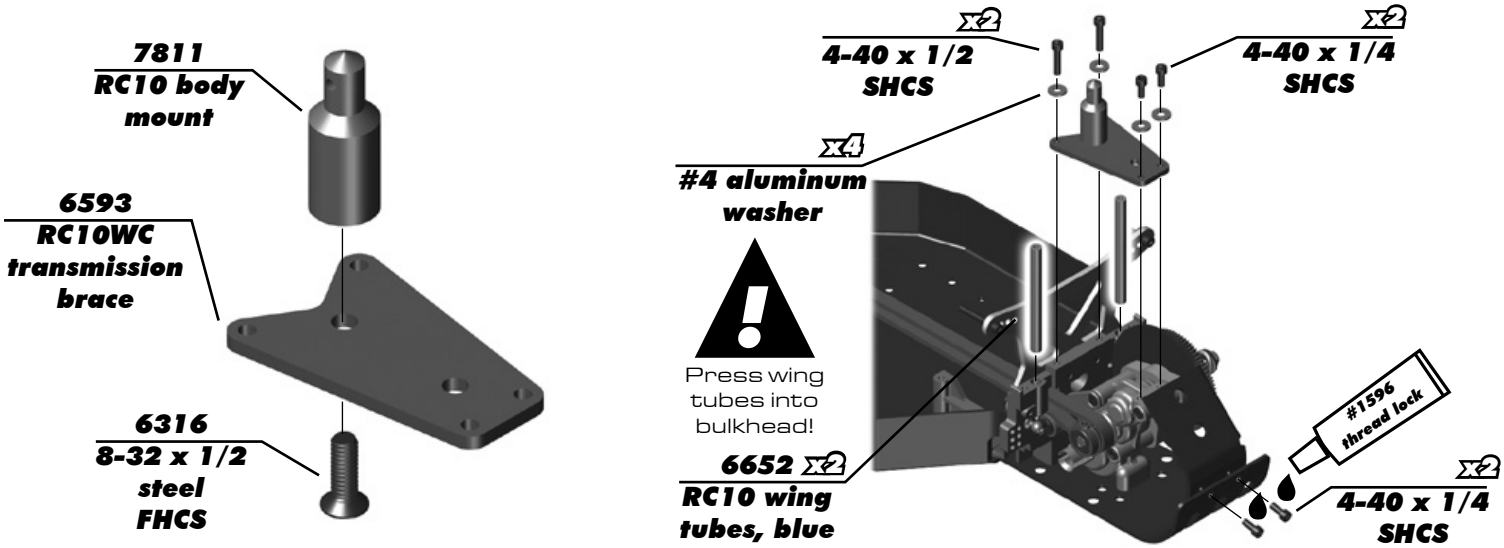
The outer lever is a guide for the belt.
For a new car / belt, it is recommended to start around 12 O Clock on the adjustment lever.
(Straight up and Down)



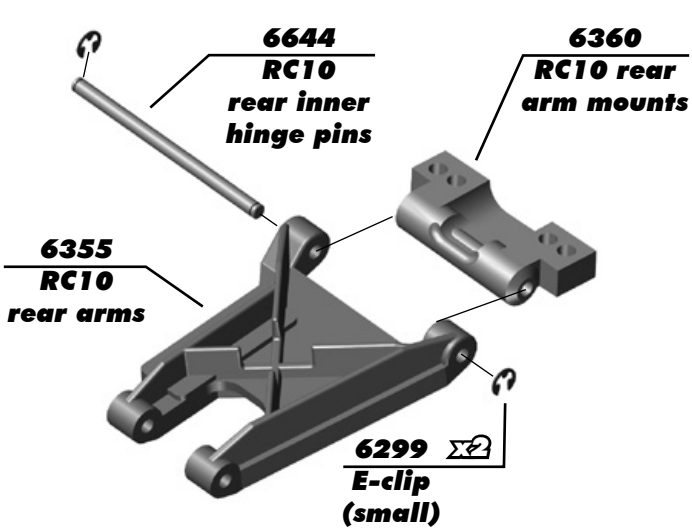
:: Rear Bulkhead Build - Bag D - Step 5



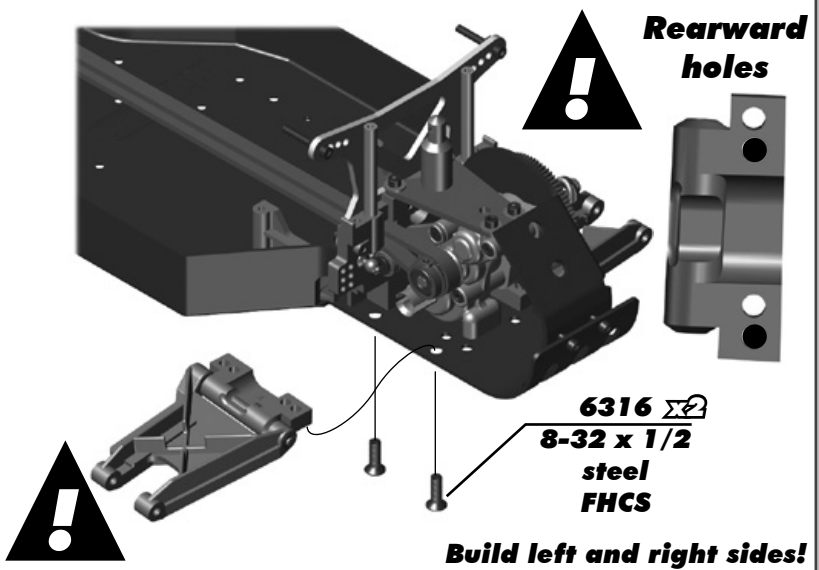
:: Rear Bulkhead Build - Bag D - Step 6



:: Rear Suspension Build - Bag E - Step 1

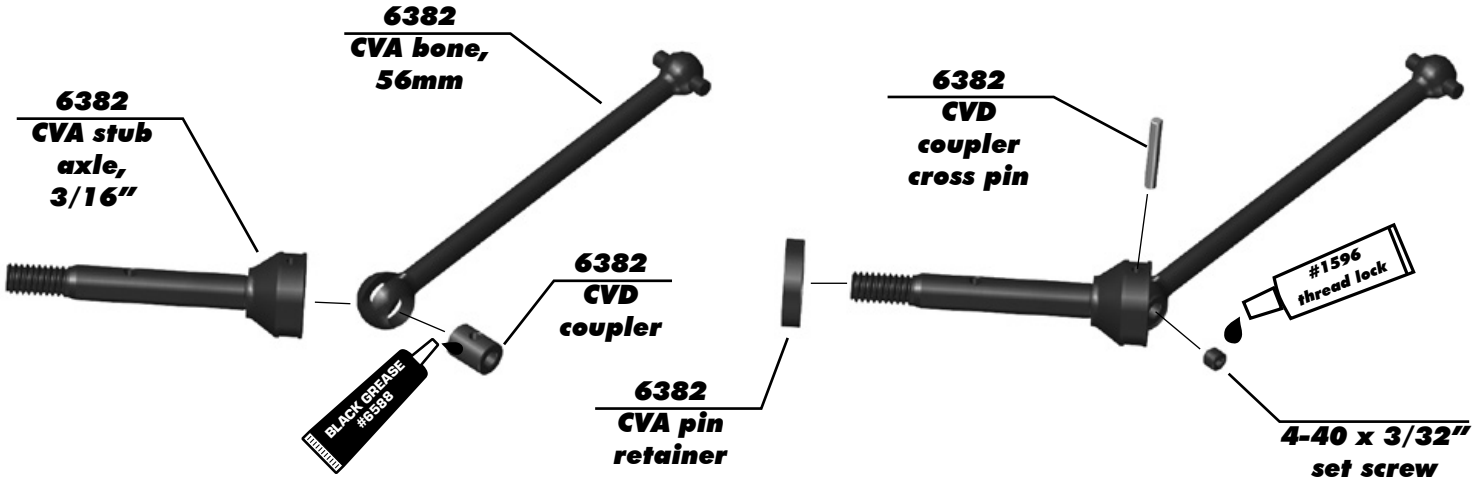


Build left and right sides!



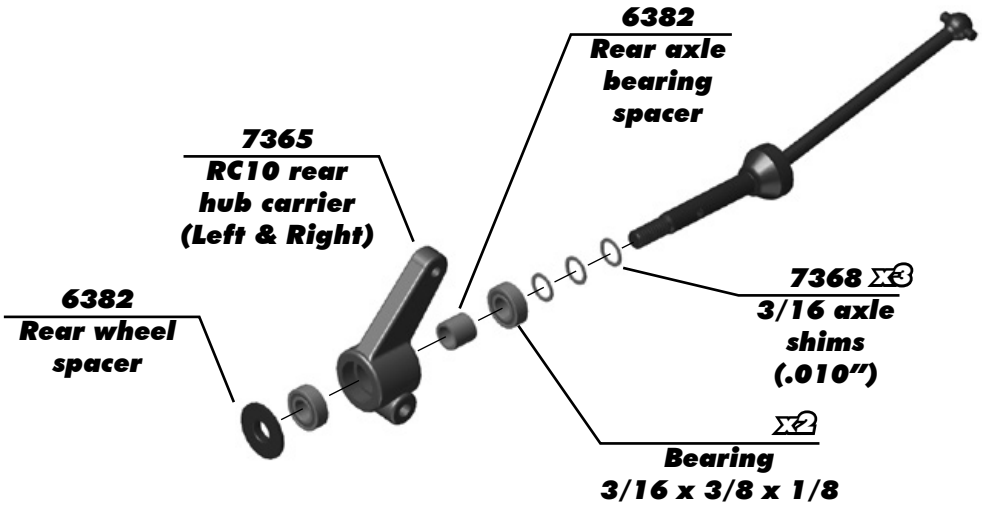
Build left and right sides!

:: Rear Suspension Build - Bag E - Step 2



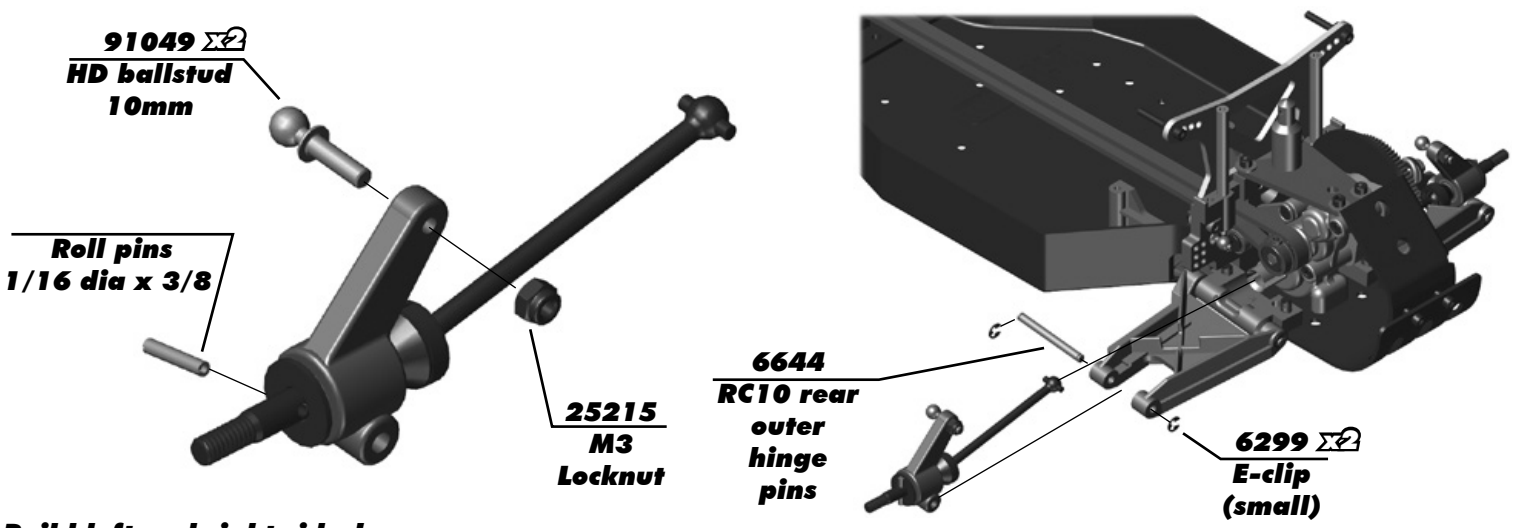
Build x2!

:: Rear Suspension Build - Bag E - Step 3



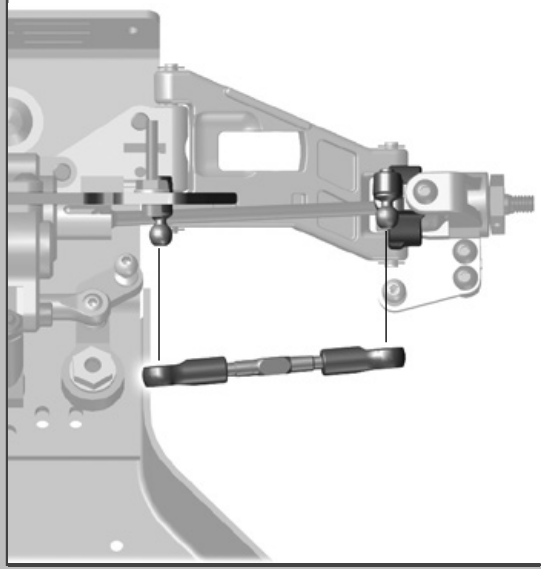
Build left and right sides!

:: Rear Suspension Build - Bag E - Step 4



Build left and right sides!

:: Turnbuckle Build - Bag F - Step 1



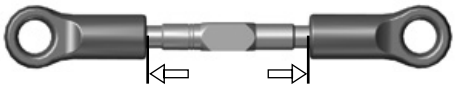
Note the direction of the ball cups!

6547
RC10 4WD turnbuckle, 3.5mm x 38mm

6535 x2
RC10 4WD ball cups, 3.5mm

Orient the notch to the left throughout the car. It indicates which end has the left hand threads!

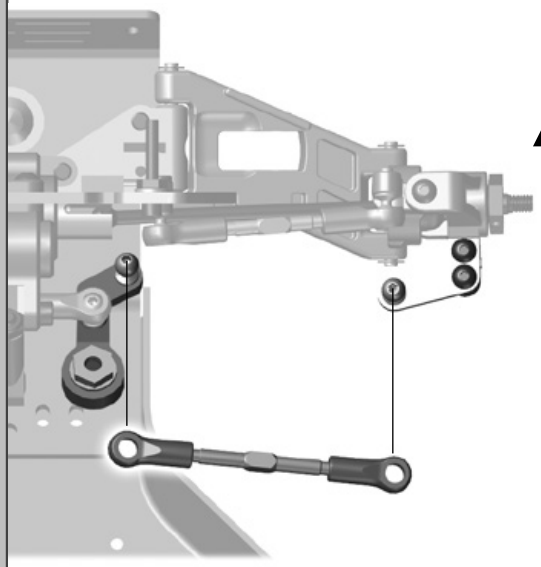
Front Camber Turnbuckle 0.85" (21.50mm)



Recommended turnbuckle lengths are approximate. Final recommended settings = 0 degree Front Toe in and -2 Degree Camber Front and Rear.

Build left and right sides!

:: Turnbuckle Build - Bag F - Step 2



Note the direction of the ball cups!

6547
RC10 4WD turnbuckle, 3.5mm x 48mm

6535 x2
RC10 4WD ball cups, 3.5mm

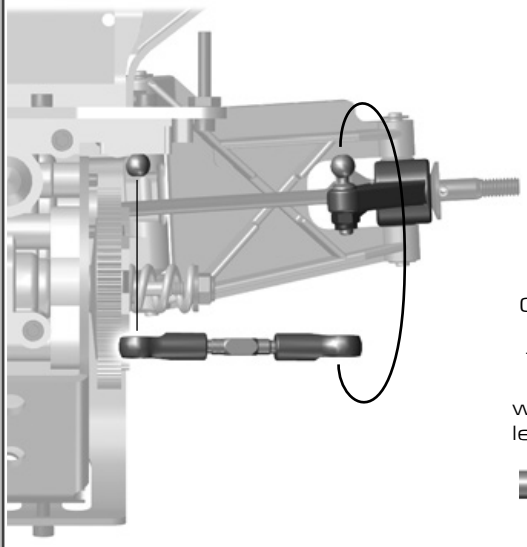
Orient the notch to the left throughout the car. It indicates which end has the left hand threads!

Steering Turnbuckle 1.18" (30.00mm)

Recommended turnbuckle lengths are approximate. Final recommended settings = 0 degree Front Toe in and -2 Degree Camber Front and Rear.

Build left and right sides!

:: Turnbuckle Build - Bag F - Step 3



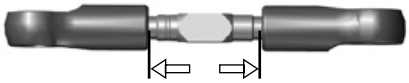
Note the direction of the ball cups!

6547
RC10 4WD turnbuckle, 3.5mm x 33mm

6535 x2
RC10 4WD ball cups, 3.5mm

Orient the notch to the left throughout the car. It indicates which end has the left hand threads!

Rear Camber Turnbuckle 0.59" (15mm)



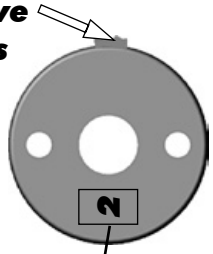
Recommended turnbuckle lengths are approximate. Final recommended settings = 0 degree Front Toe in and -2 Degree Camber Front and Rear.

Build left and right sides!

:: Shocks Build - Bag G - Step 1

Remove spurs

Piston



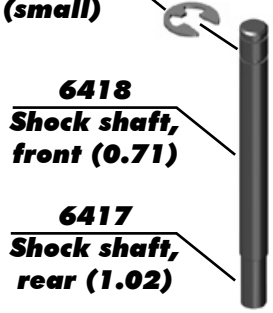
Piston number here
Use #1 = front shocks
Use #1 = rear shocks

TIP: Use marker to mark the piston numbers for easy identification!

6299
E-clip (small)

6418
Shock shaft, front (0.71)

6417
Shock shaft, rear (1.02)



Shock pistons (1, 2, 3)

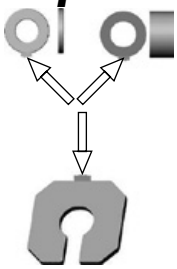
6299
E-clip (small)

Build two front and two rear!

:: Shocks Build - Bag G - Step 2

5407 x2
Red o-ring

Remove spurs



6440
RC10 shock rebuild kit

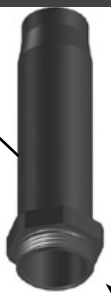
6440
Shock assembly tool

Front Shock

6437
FT Hard Anodized shock body, front (0.71)

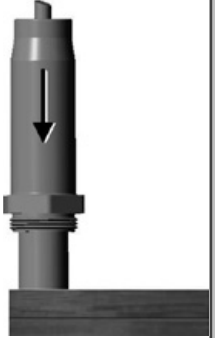
Rear Shock

6435
FT Hard Anodized shock body, rear (1.32)



Front shock fluid: 50wt
Rear shock fluid: 30wt

Place on table and push down hard until clamp snaps into place

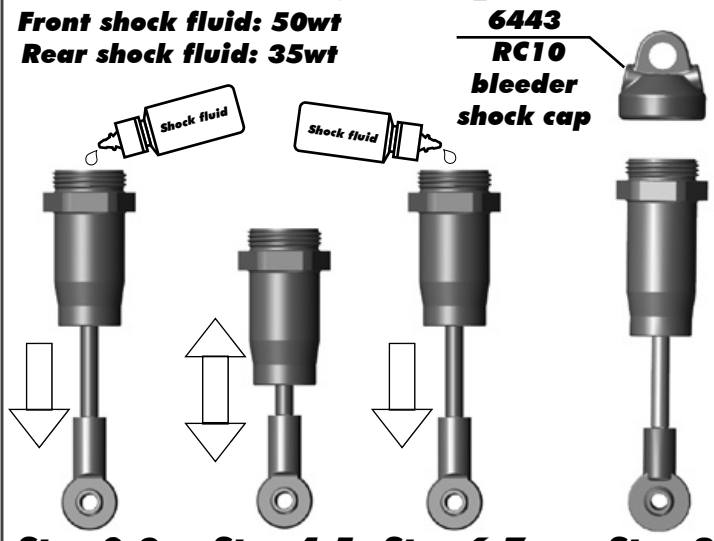


:: Shocks Build - Bag G - Step 3

Build two front and two rear!

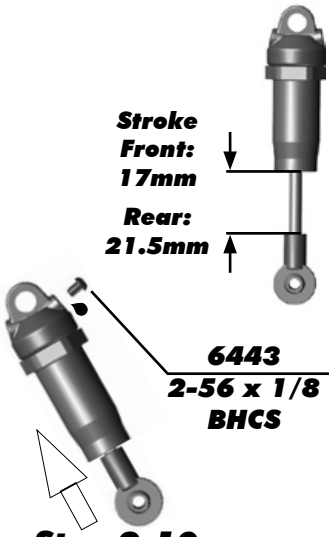
:: Shocks Build - Bag G - Step 4

Front shock fluid: 50wt
Rear shock fluid: 35wt

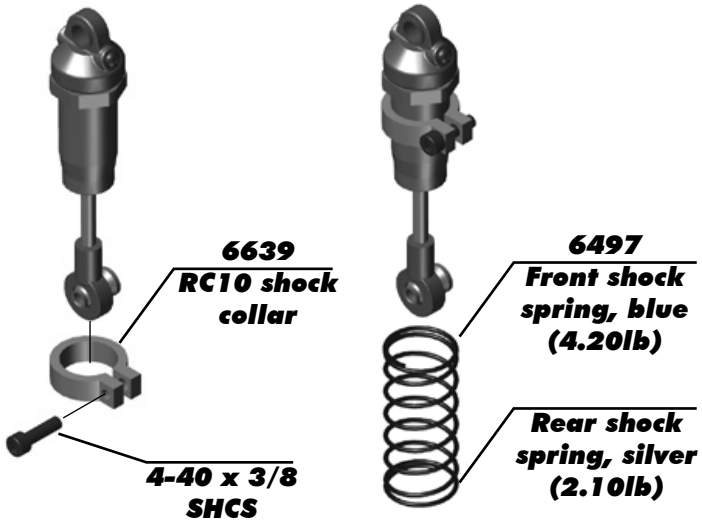


Shock Bleeding Steps:

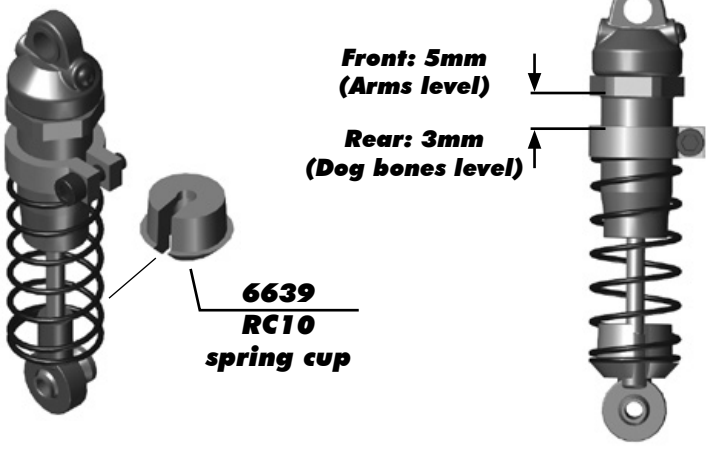
1. Before assembly, get each bleed screw and thread it 1-2 turns into the shock cap, then remove the screw. This will make it easier when you are bleeding your shocks.
2. Pull shock shaft down.
3. Fill shock body 3/4 full with silicone shock fluid.
4. Slowly move the shock shaft up and down to remove air from under the piston.
5. Wait for bubbles to come to surface.
6. Fill shock body to top with silicone shock fluid.
7. Place a drop of oil in the cap and on cap threads.
8. Install cap (without bleed screw) and tighten completely.
9. Slowly compress shaft all the way to bleed excess silicone shock fluid out the hole in the cap (use rag around shock to catch excess fluid).
10. Install button head screw until snug while shaft is fully compressed.



:: Shocks Build - Bag G - Step 5

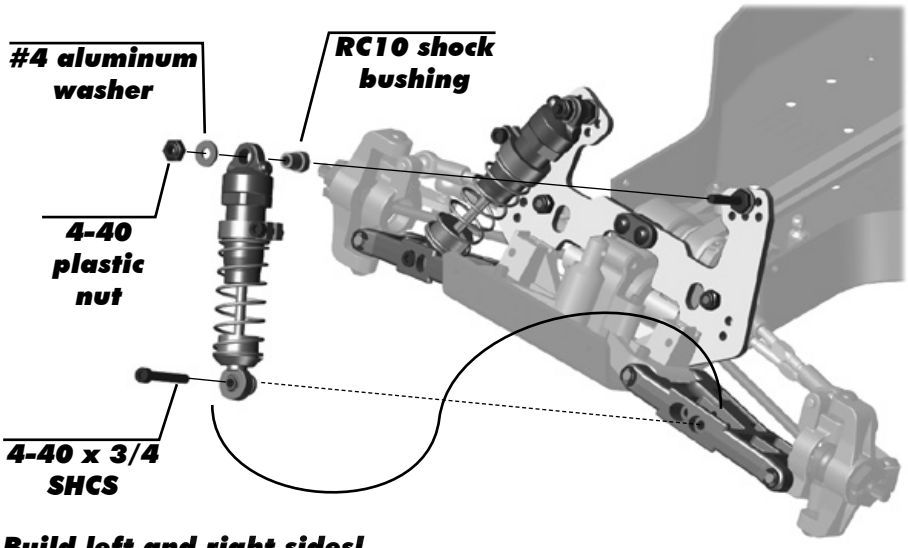


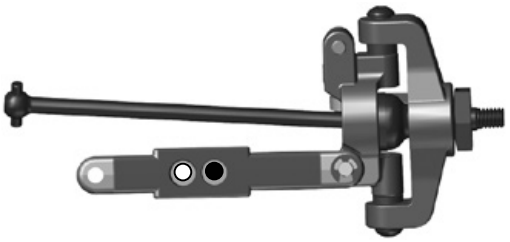
Due to various weights of electronics, these settings may change



Build two front and two rear!

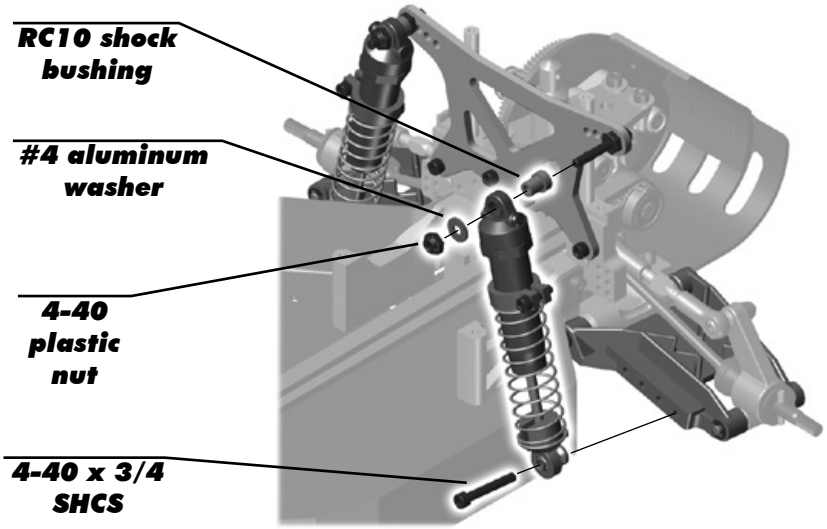
:: Shocks Build - Bag G - Step 6

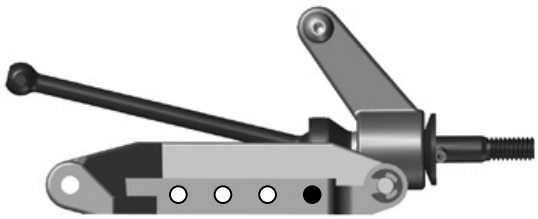




Build left and right sides!

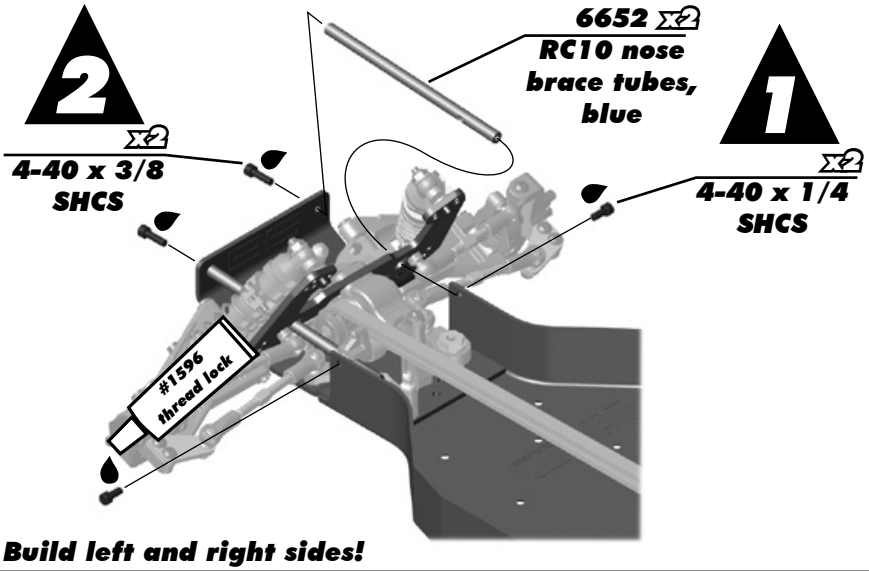
:: Shocks Build - Bag G - Step 7

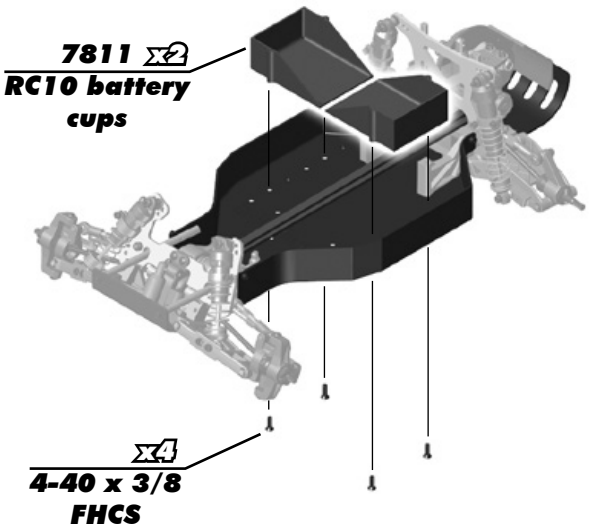




Build left and right sides!

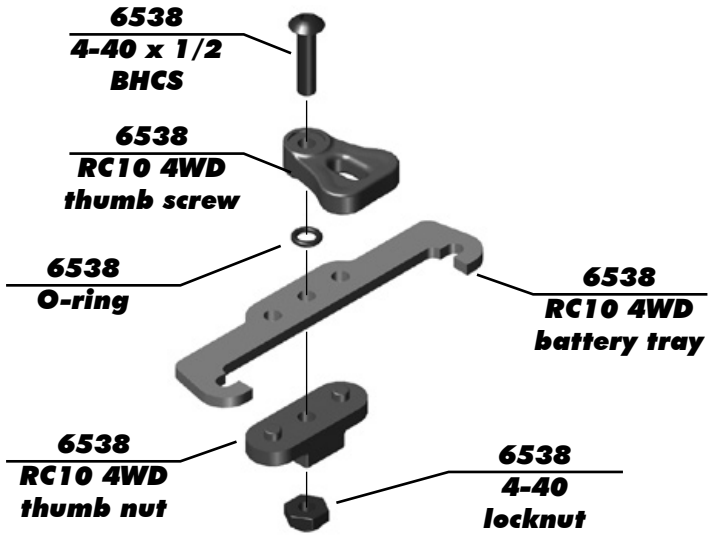
:: Chassis Build - Bag H - Step 1



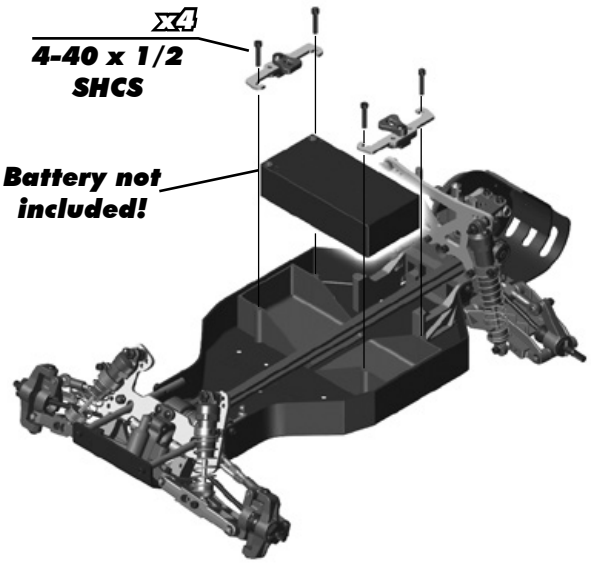


Build left and right sides!

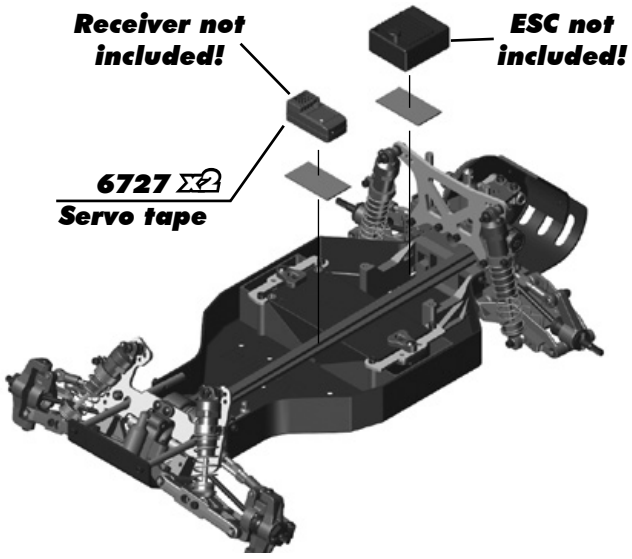
:: Chassis Build - Bag H - Step 2

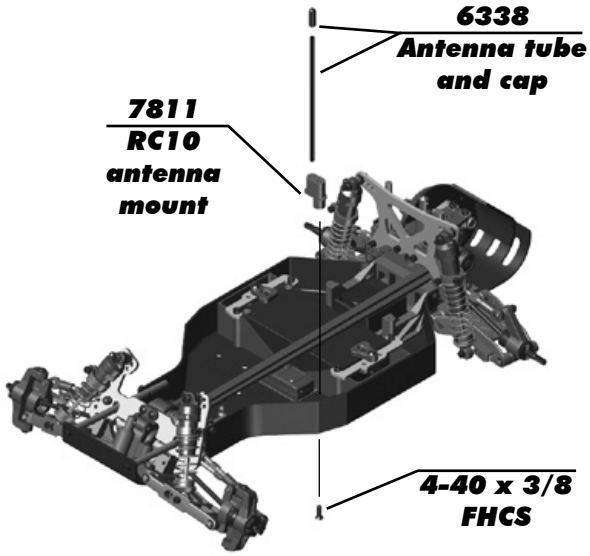


Build x2!

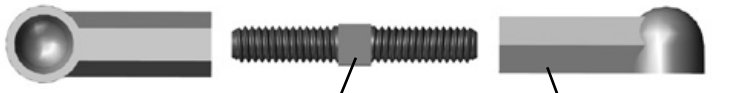


:: Chassis Build - Bag H - Step 3





:: Servo / Chassis Stiffeners Build - Bag I - Step 1

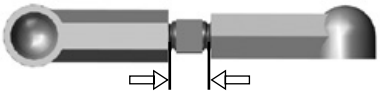


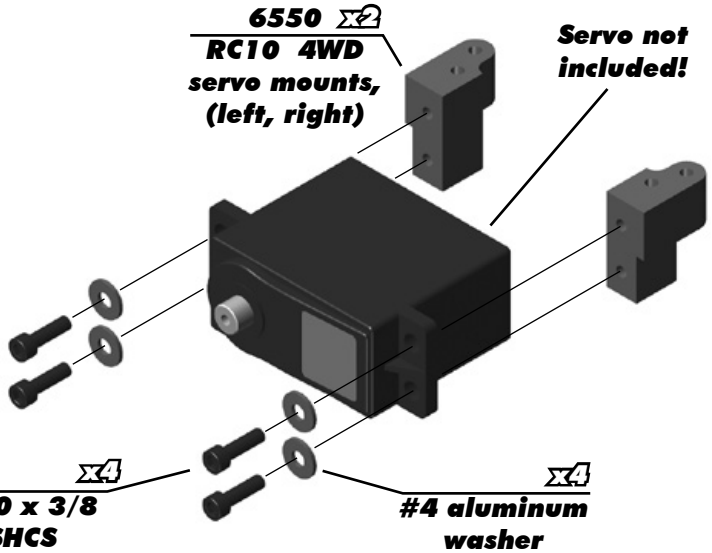
6547
RC10 4WD
turnbuckle,
4-40mm x 19mm

x2
Ball cups,
black

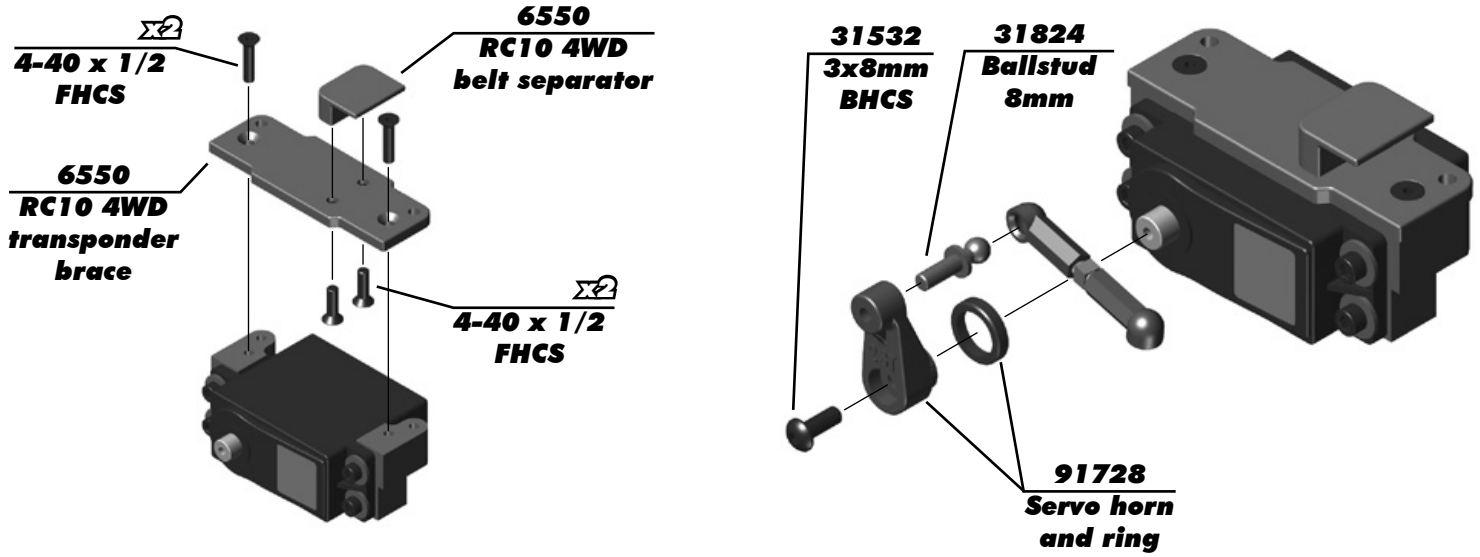
Note the direction of the ball cups!

Servo Turnbuckle
0.19" (5.00mm)

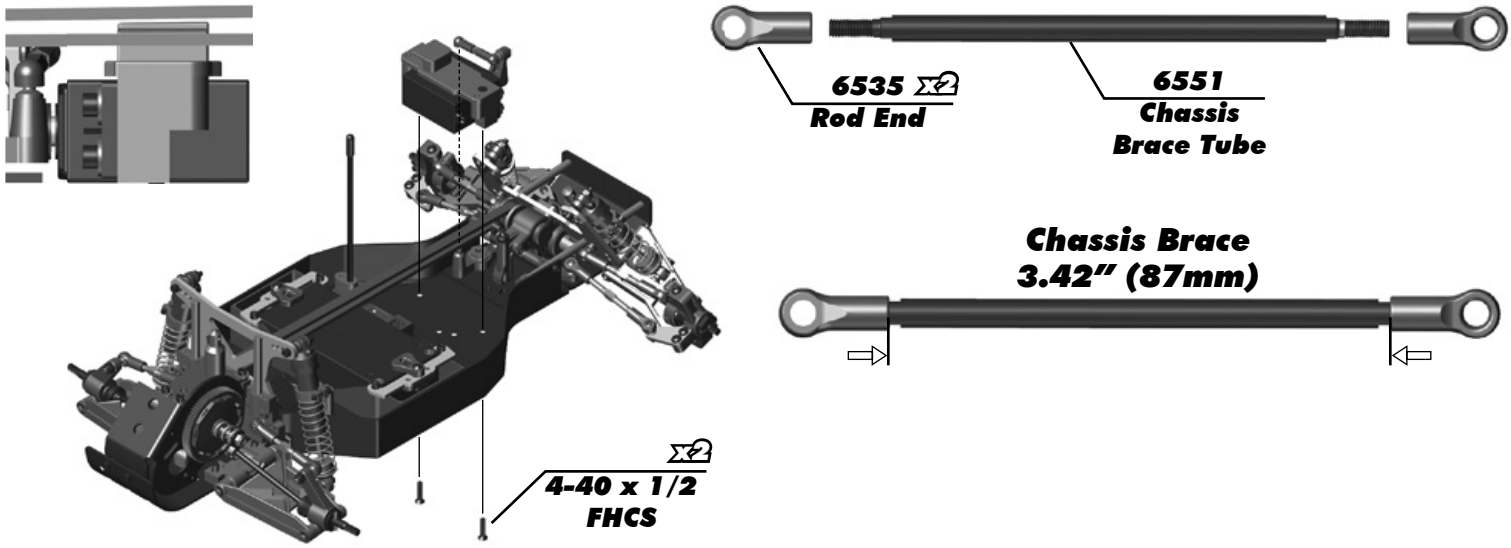




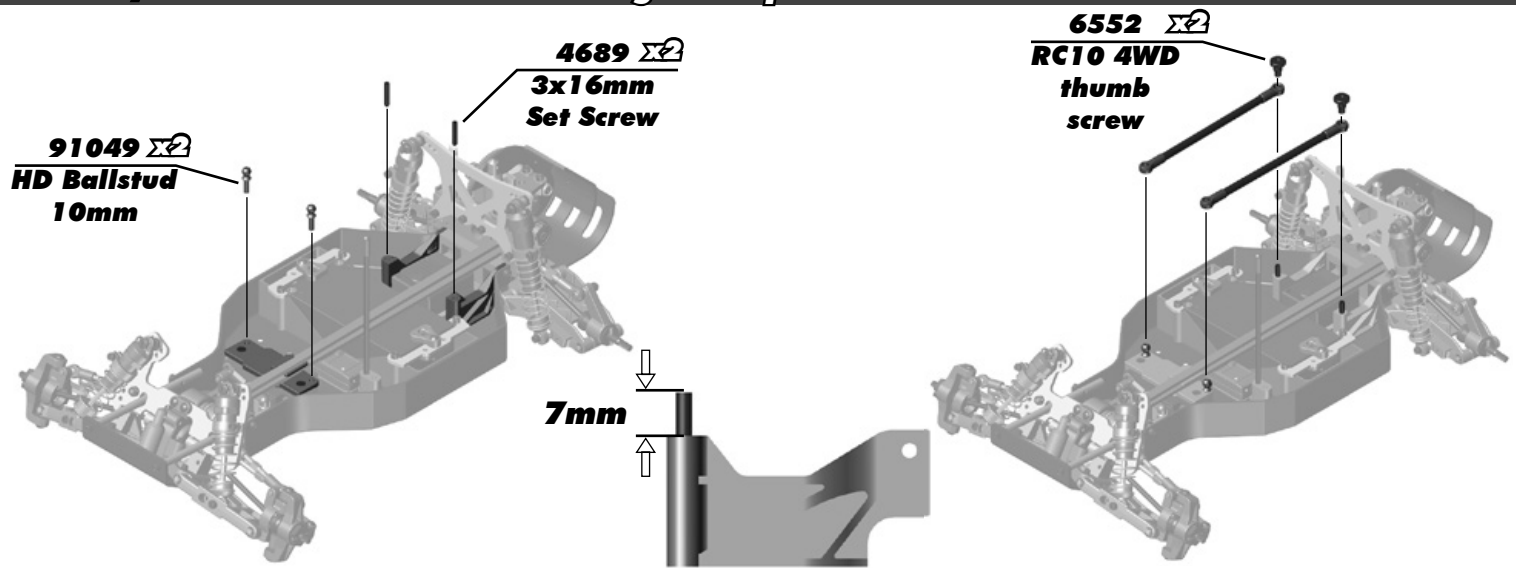
:: Servo / Chassis Stiffeners Build - Bag I - Step 2



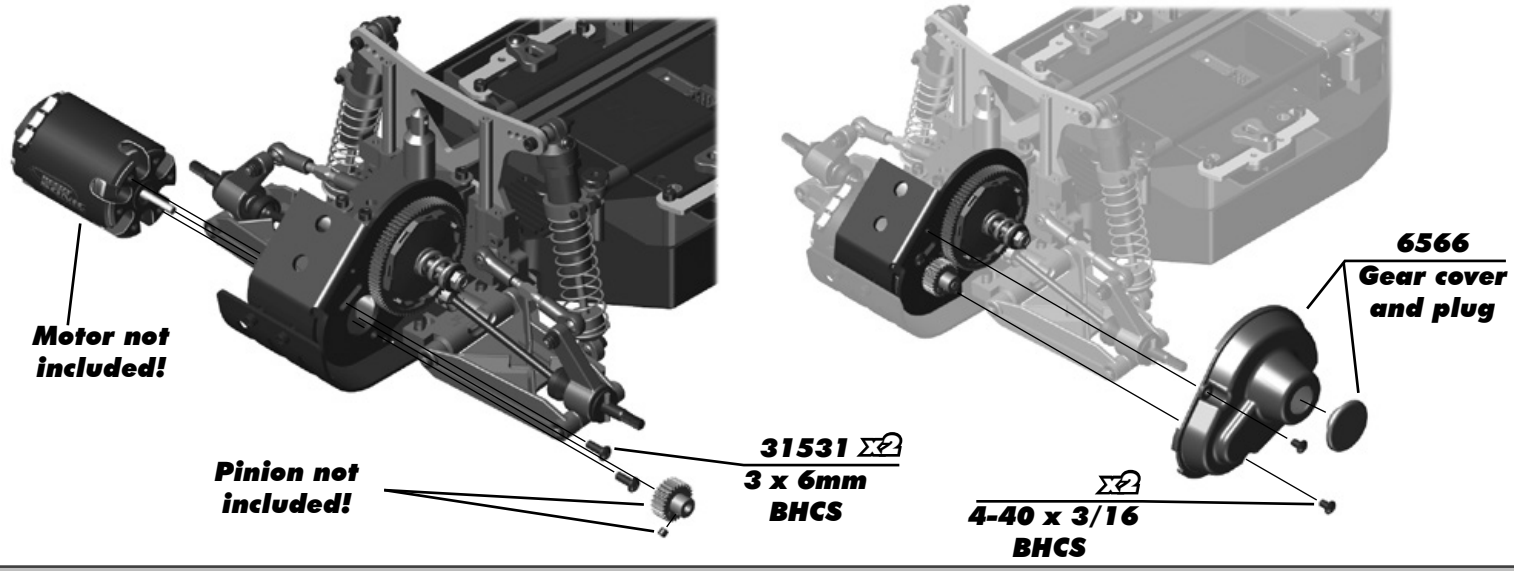
:: Servo / Chassis Stiffeners Build - Bag I / F - Step 3



:: Servo / Chassis Stiffeners Build - Bag I - Step 4

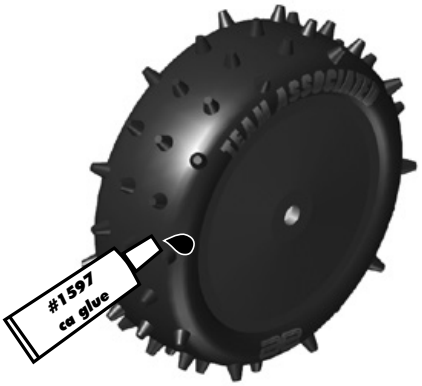


:: Wheels / Tires and Body - Bag J - Step 1



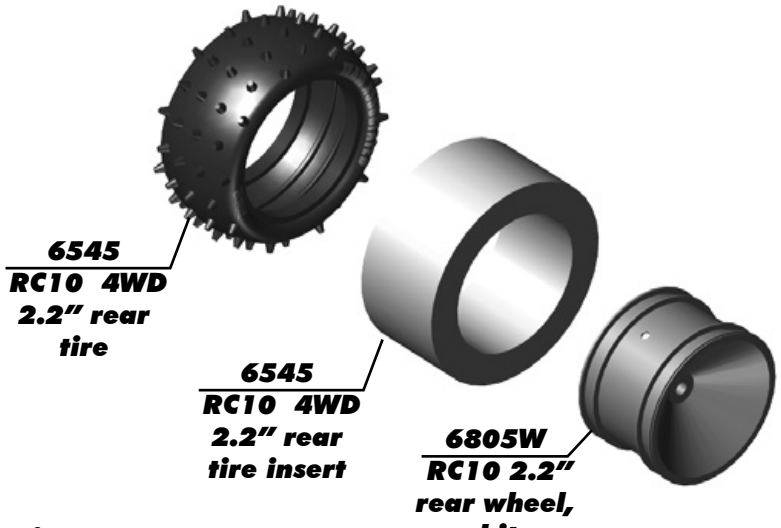
:: Wheels / Tires and Body - Bag J - Step 2

Clean the tire and wheel bead.
Carefully apply CA glue (tire adhesive) to the tire bead on both sides.
Do one side at a time, allow it to dry before gluing the other side!
CA glue not included!

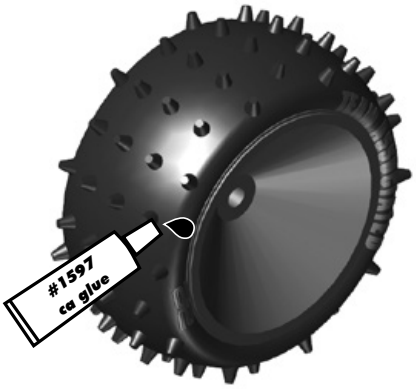


Build 2

:: Wheels / Tires and Body - Bag J - Step 3

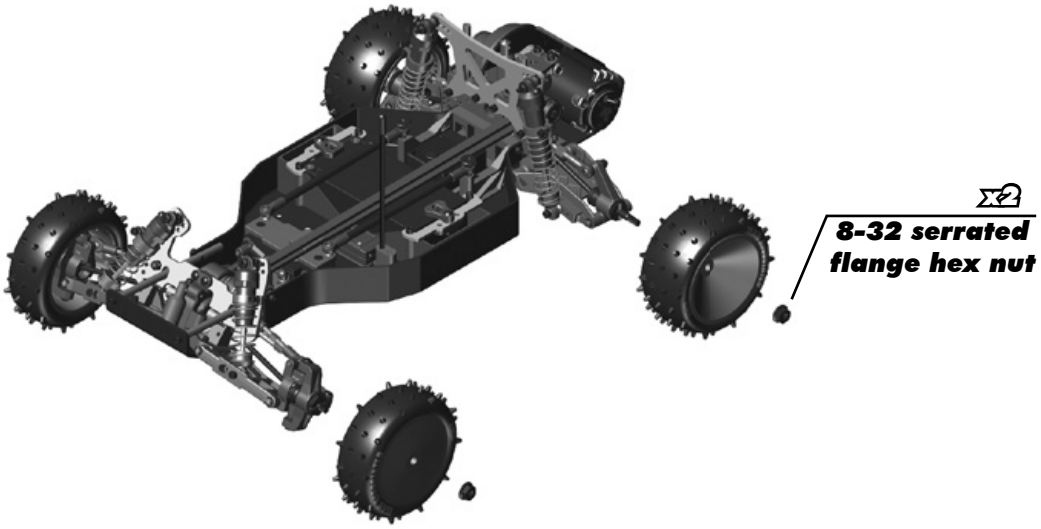


Clean the tire and wheel bead.
Carefully apply CA glue (tire adhesive) to the tire bead on both sides.
Do one side at a time, allow it to dry before gluing the other side!
CA glue not included!



Build 2

:: Wheels / Tires and Body - Bag J - Step 4



:: Wheels / Tires and Body - Bag J - Step 5

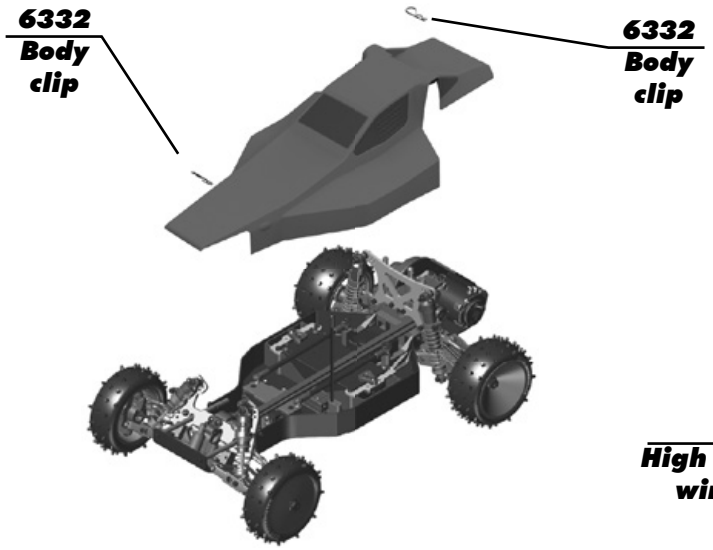
Painting Tips:

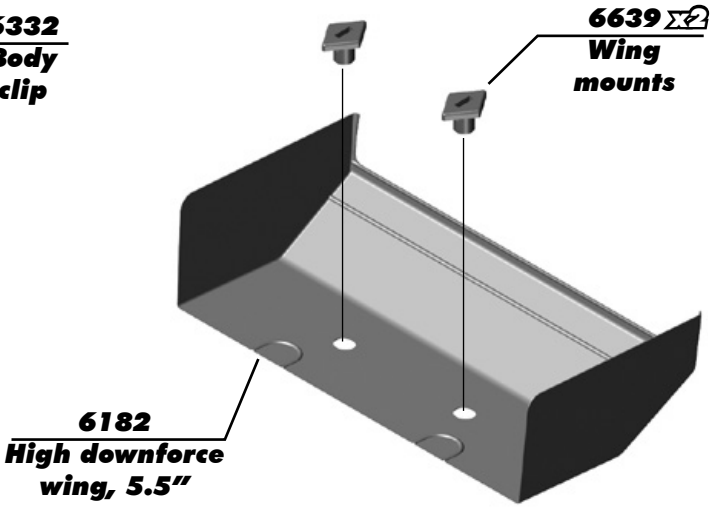
Your RC10 Kit comes with a clear polycarbonate body and wing. You will need to prep the body and wing before you can paint them. Wash the inside thoroughly with warm water and liquid detergent. Dry the body and wing using a clean, soft, lint-free cloth. Use high quality masking tape to make masks for the windows and install them on the inside of the body (RC cars get painted from the inside).
Using high quality masking tape, apply tape to the inside of the body to create a design. Spray (either rattle can or airbrush R/C specific paint) the paint to the inside of the body (prefferably dark colors first, lighter colors last).

NOTE: use ONLY paint that is recommended for use with (polycarbonate) plastics. If you do not, you can destroy the plastic body and wing!!!!).
It is recommended to wear a mask while painting.

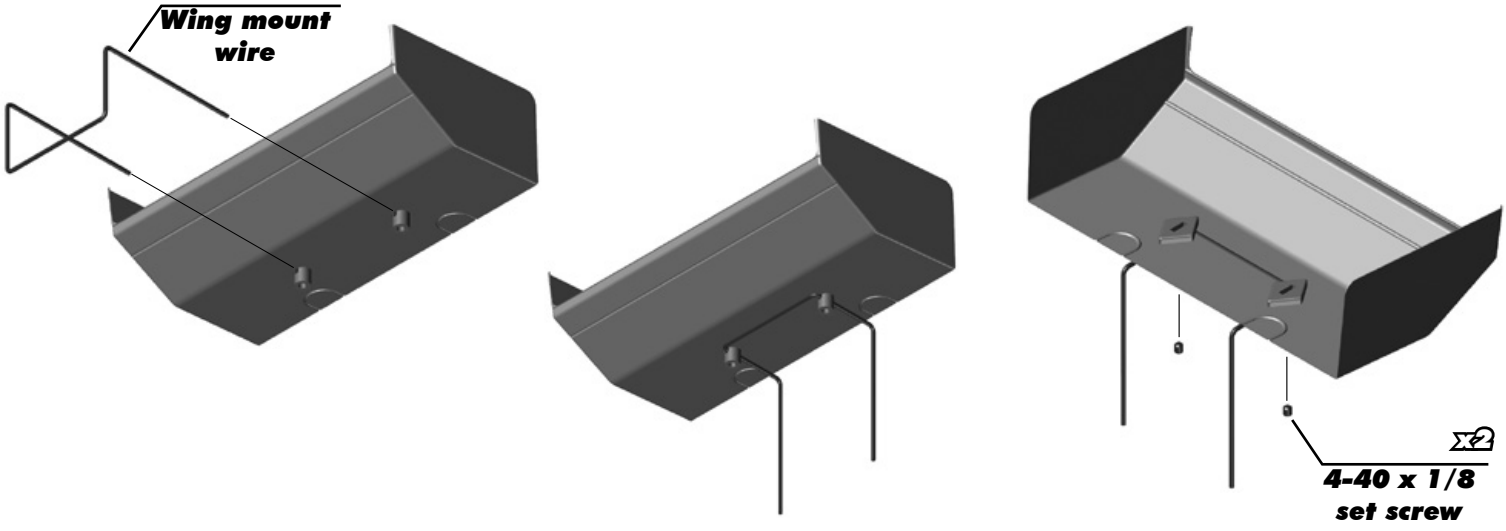
After the paint has dried, cut the body and wing along the trim lines. Make sure to drill or use a body reamer to make the holes for the body mounts, wing mounts, and antenna!

:: Wheels / Tires and Body - Bag J - Step 6

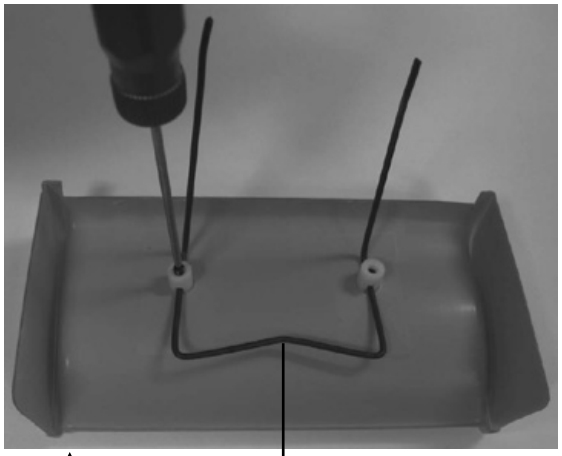




:: Wheels / Tires and Body - Bag J - Step 7

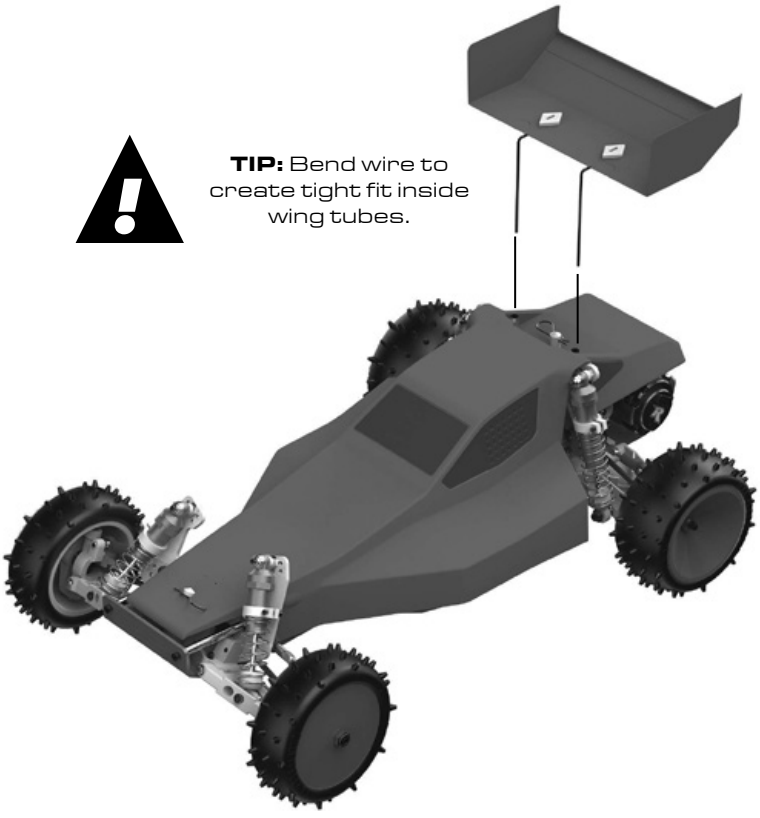


:: Wheels / Tires and Body - Bag J - Step 8



TIP: Bending the wire as shown can help ensure the wing buttons are parallel.

TIP: Bend wire to create tight fit inside wing tubes.



TEAM ASSOCIATED

RC10 4WD SETUP SHEET

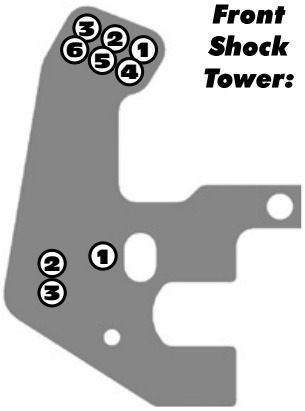
Driver: _____ **Date:** _____

Track: _____ **Event:** _____

Conditions: **Indoor** ☐ **Outdoor** ☐ **Temp.** _____ **Rev.1**

Shock Towers

Front Shock Tower:

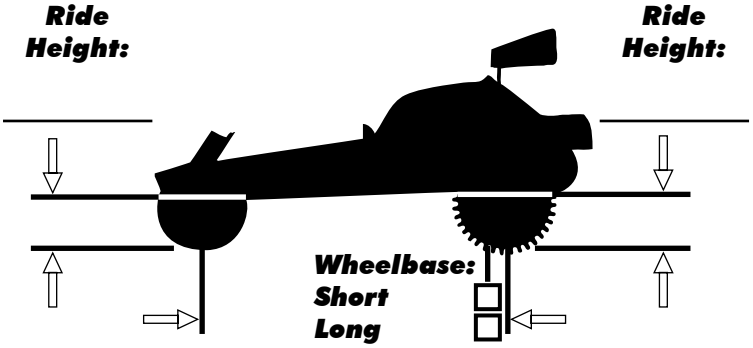


Rear Shock Tower:

Ride Height / Wheelbase

Front Ride Height:

Rear Ride Height:



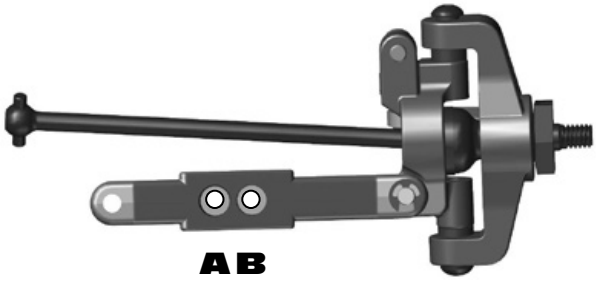
Wheelbase:
Short ☐
Long ☐

Front Suspension

Camber: _____

Caster:
15° ☐
30° ☐

Toe: _____

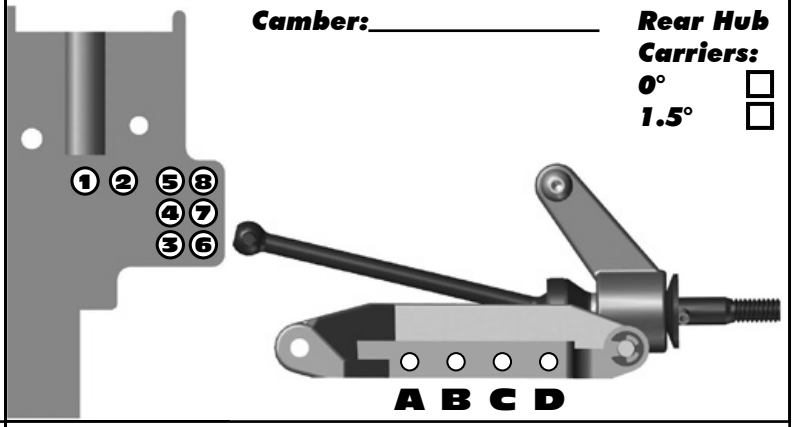


A B

Rear Suspension

Camber: _____

Rear Hub Carriers:
0° ☐
1.5° ☐



A B C D

Front Shocks

Spring: _____ **Piston:** _____

Shock Oil: _____ **Limiter:** _____

Rear Shocks

Spring: _____ **Piston:** _____

Shock Oil: _____ **Limiter:** _____

Motor / Battery

Motor & Wind: _____

Pinion: _____ **Spur Gear:** _____

Battery: _____

Notes: _____

Radio / ESC Settings

Radio: _____

Throttle / Brake e.p.a: _____

Throttle / Brake expo: _____

Servo: _____ **Steering Expo:** _____

ESC: _____

ESC Settings: _____

Weight

Battery Placement: _____

Ballast Weight: _____

Notes: _____

Other

Body Type: _____

Wing Type: _____

Front Tires

Tire: _____

Compound: _____

Insert: _____ **Wheel:** _____

Rear Tires

Tire: _____

Compound: _____

Insert: _____ **Wheel:** _____

Race and Vehicle Comments

Qualify: _____ **Main:** _____ **Finish:** _____ **TQ:** _____

Comments: _____

Track Info

Surface:		Traction:		Conditions:		Moisture:	
Dirt	☐	Low	☐	Grooved	☐	Wet	☐
Carpet	☐	Med	☐	Dusty	☐	Damp	☐
Astro	☐	High	☐	Smooth	☐	Dry	☐
Multi	☐			Bumpy	☐		
				Hard Pack	☐		
				Loamy	☐		

:: For more setups, visit RC10.com and click on "Setup Sheets"

TEAM ASSOCIATED
RC10 4WD SETUP SHEET

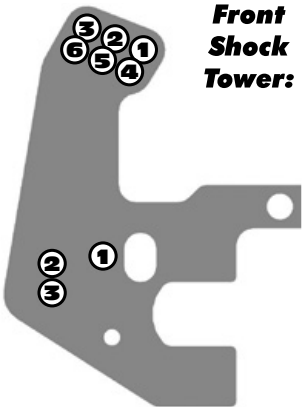
Driver: _____ **Date:** _____

Track: _____ **Event:** _____

Conditions: **Indoor** ☐ **Outdoor** ☐ **Temp.** _____ **Rev.1**

Shock Towers

Front Shock Tower:

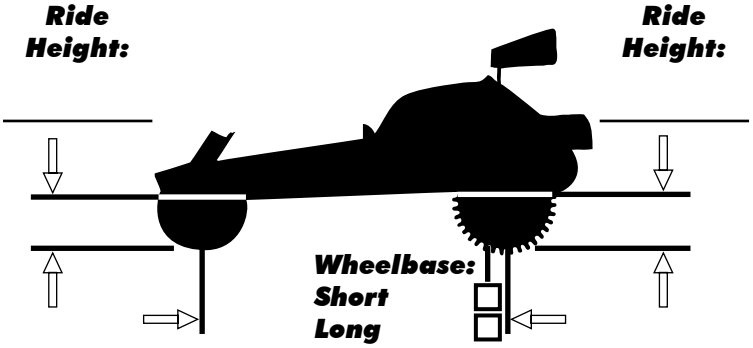


Rear Shock Tower:

Ride Height / Wheelbase

Front Ride Height:

Rear Ride Height:



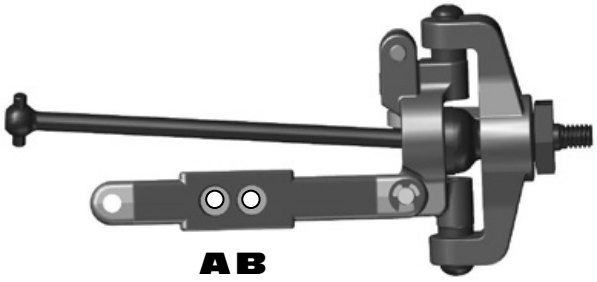
Wheelbase:
Short ☐
Long ☐

Front Suspension

Camber: _____

Caster:
15° ☐
30° ☐

Toe: _____

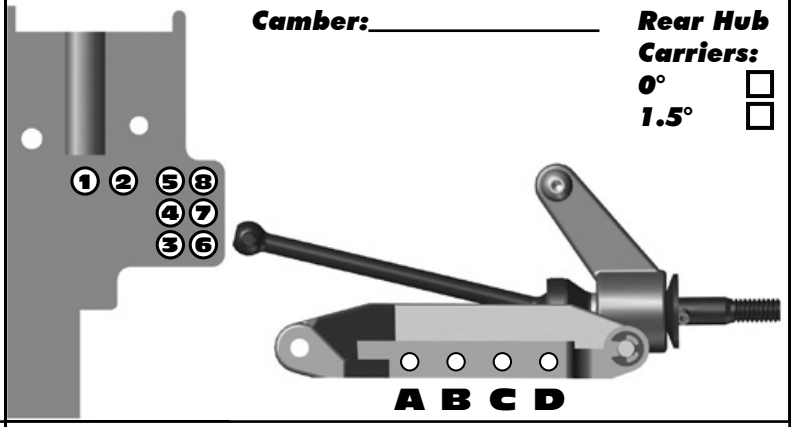


A B

Rear Suspension

Camber: _____

Rear Hub Carriers:
0° ☐
1.5° ☐



A B C D

Front Shocks

Spring: _____ **Piston:** _____

Shock Oil: _____ **Limiter:** _____

Rear Shocks

Spring: _____ **Piston:** _____

Shock Oil: _____ **Limiter:** _____

Motor / Battery

Motor & Wind: _____

Pinion: _____ **Spur Gear:** _____

Battery: _____

Notes: _____

Radio / ESC Settings

Radio: _____

Throttle / Brake e.p.a: _____

Throttle / Brake expo: _____

Servo: _____ **Steering Expo:** _____

ESC: _____

ESC Settings: _____

Weight

Battery Placement: _____

Ballast Weight: _____

Notes: _____

Other

Body Type: _____

Wing Type: _____

Front Tires

Tire: _____

Compound: _____

Insert: _____ **Wheel:** _____

Rear Tires

Tire: _____

Compound: _____

Insert: _____ **Wheel:** _____

Race and Vehicle Comments

Qualify: _____ **Main:** _____ **Finish:** _____ **TQ:** _____

Comments: _____

Track Info

Surface:		Traction:		Conditions:		Moisture:	
Dirt	☐	Low	☐	Grooved	☐	Wet	☐
Carpet	☐	Med	☐	Dusty	☐	Damp	☐
Astro	☐	High	☐	Smooth	☐	Dry	☐
Multi	☐			Bumpy	☐		
				Hard Pack	☐		
				Loamy	☐		

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