



# RIVAL MT10

#20518 RIVAL MT10, Ready-To-Run

**BRUSHLESS  
POWERED  
READY-TO-RUN**

**INCLUDES  
LED  
FOUR-PIECE LIGHT SET**

**SCALE 1:10 VEHICLE**

**RTR** READY TO RUN

**4 WHEEL DRIVE**

**ELEC. POWERED**

**OFF ROAD**

**2-4GRZ**

**PRE-PAINTED**

**1:10 Scale Ready-To-Run 4WD Electric Off Road Monster Truck Manual**



**CHAMPIONS by DESIGN**

[AssociatedElectrics.com](http://AssociatedElectrics.com)

# TEAM ASSOCIATED

## :: Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new vehicle. Please take a moment to read through the manual and familiarize yourself with the steps. We are continually changing and improving our designs; therefore, actual parts may appear slightly different than 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.

## :: Rival MT10 RTR Features

- 2.4GHz 2-channel radio system
- High-Torque Digital Servo with spring-style servo saver
- Powerful Reedy 3300kV Brushless Motor
- Water-resistant high-power Reedy brushless speed control with T-plug connector and LiPo low-voltage cutoff
- Three sealed gear differentials
- 12mm hex wheels inspired by Method Race Wheels
- Threaded Oil-filled coil over shock absorbers
- 4mm heavy-duty adjustable steel turnbuckles
- Durable slider type drive shafts
- Factory-finished RIVAL monster truck-inspired style body
- High-traction all terrain tires
- Steel center drive shaft
- Rugged adjustable wheelie bar with LEDs
- Four-wheel independent suspension
- Durable, impact-absorbing front bumper with LEDs

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## :: Notes



**There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.**



**This symbol indicates a special note or instruction in the manual.**

## :: Additional

Your new Rival MT10 comes assembled. The following items are needed for completion.

- 6-cell NiMh or 2-3s LiPo battery
- Suitable battery charger
- (4) AA batteries

Tools included: • 1.5mm, 2.0mm, 2.5mm Wrenches

## :: Other Helpful Items

- Silicone Shock Fluid (Refer to catalog for complete listings)
- Silicone Diff Fluid (Refer to catalog for complete listings)
- Body Scissors (AE Part # 1737)
- Reamer / Hole Punch (#1499)
- Shock Pliers (#1675)
- Wire Cutters
- FT Hex/Nut Wrenches (AE Part # 1650)
- Needle Nose Pliers
- Hobby Knife
- Soldering Iron
- Calipers or a Precision Ruler
- Green Slime shock lube (AE Part # 1105)
- FT Turnbuckle Wrench (#1114)
- FT Universal Tire Balancer (#1498)

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Tel: 949.544.7500  
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**:: Hardware - 1:1 Scale View**

**Button Head (bhcs)**

|   |  |
|---|--|
|   | <b>2.5x5mm (31519)</b>   |
|   | <b>2.5x6mm (31520)</b>   |
|   | <b>3x4mm (91158)</b>   |
|   | <b>3x6mm (31531)</b>   |
|   | <b>3x8mm (31532)</b>   |
|   | <b>3x10mm (25211)</b><br><b>Aluminum (8554)</b><br><b>Titanium (91582)</b> |
|   | <b>3x12mm (89202)</b><br><b>Titanium (91583)</b>                           |
|   | <b>3x14mm (25187)</b><br><b>Titanium (91584)</b>                           |
|   | <b>3x16mm (89203)</b><br><b>Titanium (91585)</b>                           |
|   | <b>3x18mm (2308)</b>   |
|   | <b>3x20mm (25188)</b><br><b>Titanium (91587)</b>                           |
|   | <b>3x22mm (25189)</b><br><b>Titanium (91588)</b>                           |
|   | <b>3x38mm (25837)</b>  |
|   | <b>4x10mm (89206)</b>  |
|  | <b>4x14mm (81260)</b>  |

**Flat Head (fhcs)**

|   |  |
|---|--|
|  | <b>2.5x8mm (31448)</b>   |
|  | <b>2.5x10mm (31350)</b>  |
|  | <b>3x6mm (31541)</b>   |
|  | <b>3x12mm (25203)</b><br><b>Aluminum (8556)</b><br><b>Titanium (91594)</b> |
|  | <b>3x14mm (89208)</b><br><b>Aluminum (8567)</b><br><b>Titanium (91595)</b> |
|  | <b>3x18mm (89209)</b><br><b>Titanium (91597)</b>                           |
|  | <b>4x10mm (81262)</b>  |

**Set Screws**

|   |                       |
|---|-----------------------|
|  | <b>3x3mm (25225)</b>  |
|  | <b>3x12mm (81258)</b> |
|  | <b>4x12mm (25824)</b> |

**Shims and Washers**

|   |                             |
|---|-----------------------------|
|  | <b>5.5x0.5mm (31381)</b>    |
|  | <b>5.5x1.0mm (31382)</b>    |
|  | <b>5.5x2.0mm (31383)</b>    |
|  | <b>3x8mm Washer (89218)</b> |

**Socket Head (shcs)**

|  |                        |
|--|------------------------|
|   | <b>2x10mm (25801)</b>  |
|   | <b>2.5x6mm (41079)</b> |
|  | <b>5x75mm (25837)</b>  |

**Ball Bearings**

|   |                          |
|---|--------------------------|
|  | <b>5x8x2.5mm (8680)</b>  |
|  | <b>5x11x4mm (25618)</b>  |
|  | <b>10x15x4mm (91563)</b> |
|  | <b>8x16x5mm (91564)</b>  |
|  | <b>12x18x4mm (25843)</b> |

**Nuts (lock/plain)**

|   |  |
|---|--|
|    | <b>Plain M3 Nut (91477)</b>                            |
|   | <b>M3 Alum. Locknut, Blue (31550)</b>                  |
|  | <b>M3 Locknut, Black (25215)</b>                       |
|  | <b>M4 Locknuts:<br/>Serrated Steel (Silver)(91826)</b> |
|  | <b>FT Aluminum (Blue) (31551)</b>                      |
|  | <b>Serrated Aluminum (Black) (91738)</b>               |
|  | <b>M5 Locknut w/Flange (25837)</b>                     |

**Notes:**

## :: Quick Start Guide

### Battery Charging Steps and Safety:

Remove the battery from the vehicle before charging.  
Place battery on a fire resistant surface.  
Avoid any contact with water or other liquids.  
Be sure to select the correct charging mode for the type of battery you are charging.

**ALWAYS** use a compatible charger for charging your batteries.

**Caution: Never leave the battery unattended while charging. Always disconnect the charger from the power source when finished charging.**

**Caution: Always disconnect the battery when you are finished driving the vehicle.**

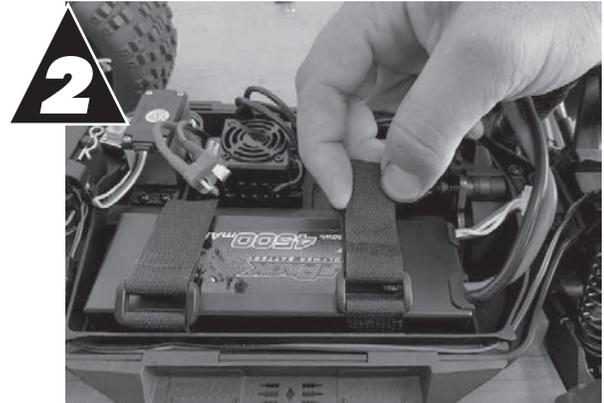
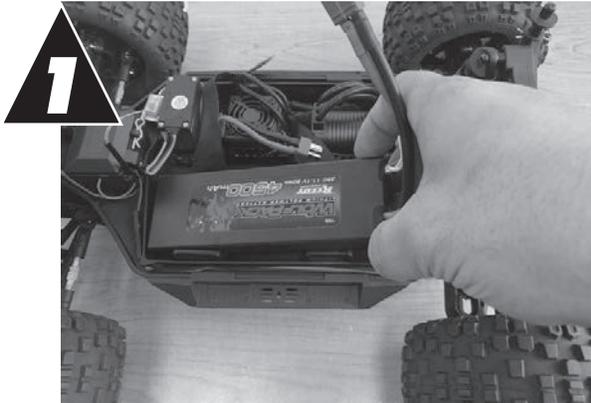


**Peak Detection  
Quick Charger**

## :: Quick Start Guide - (cont.)

### Battery Installation:

1. Install the battery with the battery wires directed towards the rear of the vehicle.
2. Secure the battery strap using two hook and loop straps.



## :: Quick Start Guide - (cont.)

### Battery Notes and Tip:

Connect the battery as shown.  
Disconnect the battery when not in use!

**LiPo:** LiPo batteries (lithium polymer) are high current rechargeable batteries. LiPo batteries offer extended run time and peak performance over NiMH batteries. They require a peak detection charger designed specifically for LiPo batteries. These batteries require special care and handling. LiPo batteries are recommended for advanced users only!  
**ALWAYS** charge a LiPo battery in LiPo mode.



## :: Quick Start Guide - (cont.)

### Radio System Tuning and Controls:

**RULE:** Transmitter on First/Vehicle on Second,  
Vehicle off First/ Transmitter off Last!

- 1) Slide the battery cover to remove cover.
- 2) Install alkaline or rechargeable AA size batteries into the battery holder.
- 3) Slide the battery cover back into place making sure it is completely closed and secure.
- 4) Turn the power ON. If the power indicator LED fails to light, check the batteries for insufficient contact or incorrect polarity.



## :: Quick Start Guide - (cont.)

### Radio System Tuning and Controls:

**DO NOT** hold the trigger when turning on the radio.

Refer to Radio owners manual for more in-depth instructions on radio operation and functions.



**Throttle set to Neutral!**



**Adjust steering trim so front wheels point straight.**

**Install body and body clips.  
Ready to go!**

**:: Step 1**

**25810 Sun Gear Shim**

**25810 Diff O-Ring**

**25810 Diff Output Shaft**

**25807 Diff Case (Front/Rear)**

**25810 Sun Gear Shim**

**25810 Diff O-Ring**

**25810 Diff Output Shaft**

**25810 Sun Gear**

**25810 Input Pin**

**25810 Sun Gear**

**25810 Input Pin**

**25808 Ring Gear, 37T**

**Build 2 (1 front, 1 rear)**

**:: Step 2**

**25810  $\Sigma 4$  Planetary Gear**

**25810  $\Sigma 2$  Diff Cross Pin**

**25810  $\Sigma 4$  Planetary Gear Shim**

**25808 Diff Gasket**

**91563  $\Sigma 2$  10x15x4mm Bearing**

**31350  $\Sigma 4$  2.5x10mm FHCS**

**diff fluid**

**Front Diff Fluid: 60k cst #5458**

**Rear Diff Fluid: 3k cst #5452**

**:: Step 3**

**25812 Sun Gear Shim**

**25807 Diff Case (Center)**

**25812 Diff O-Ring**

**25812 Center Diff Shaft**

**25812 Sun Gear Shim**

**25811 Spur Gear (54T, 32P)**

**91564 8x16x5mm Bearing**

**25812 Center Diff Outdrive**

**25812 Center Diff Sun Gear**

**25812 Input Pin**

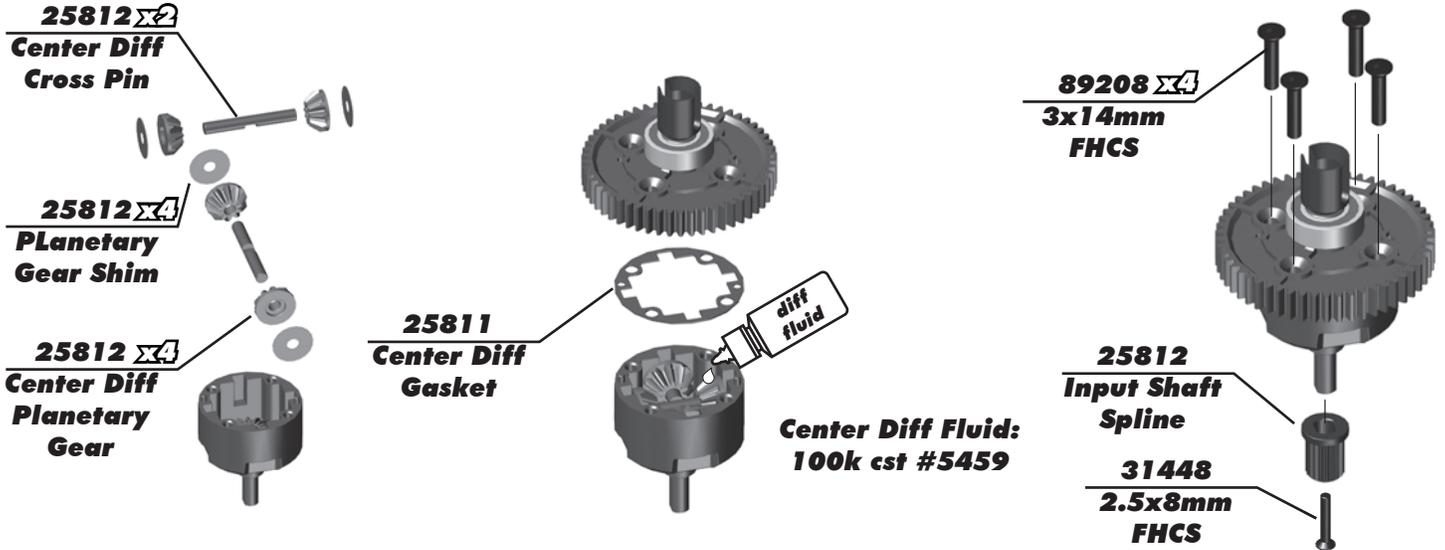
**25812 Center Diff Sun Gear**

**25812 Input Pin**

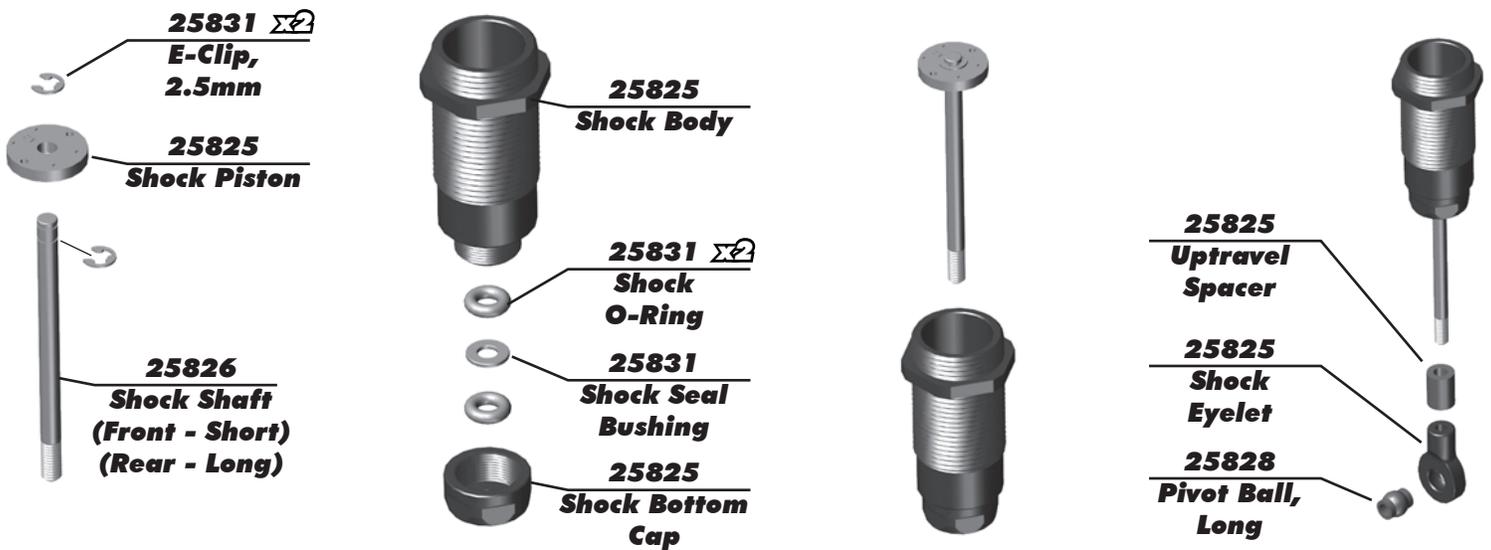
**25812 Diff O-Ring**

**Build 1 (1 center)**

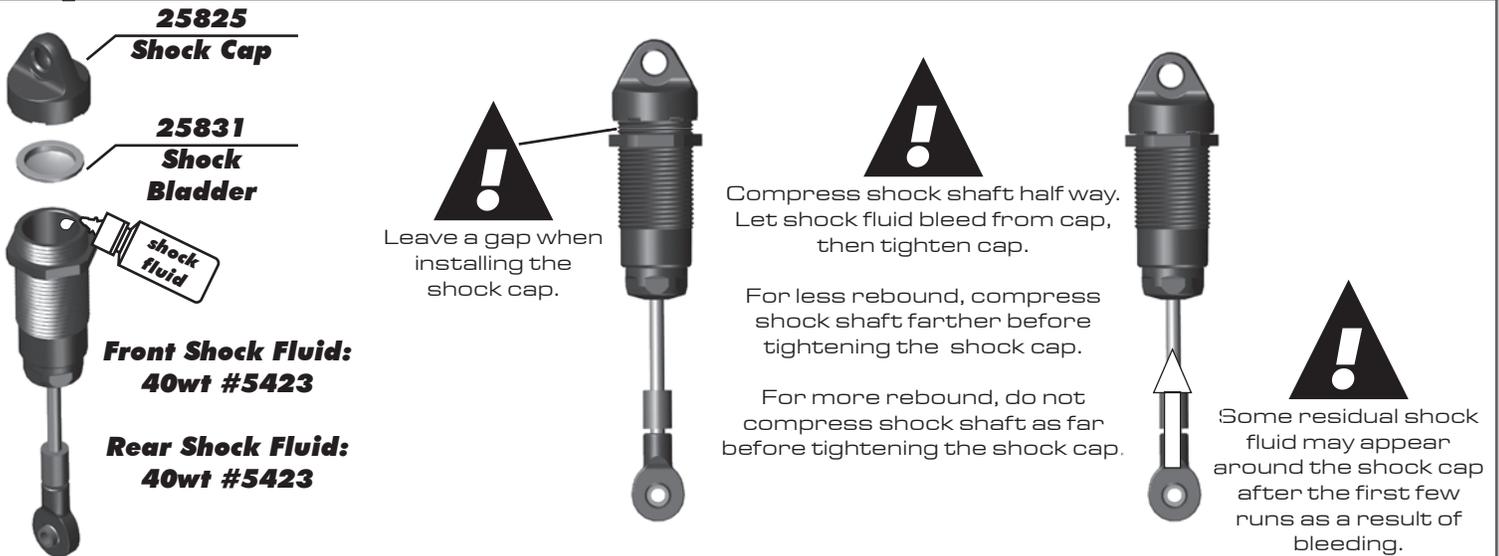
**:: Step 4**



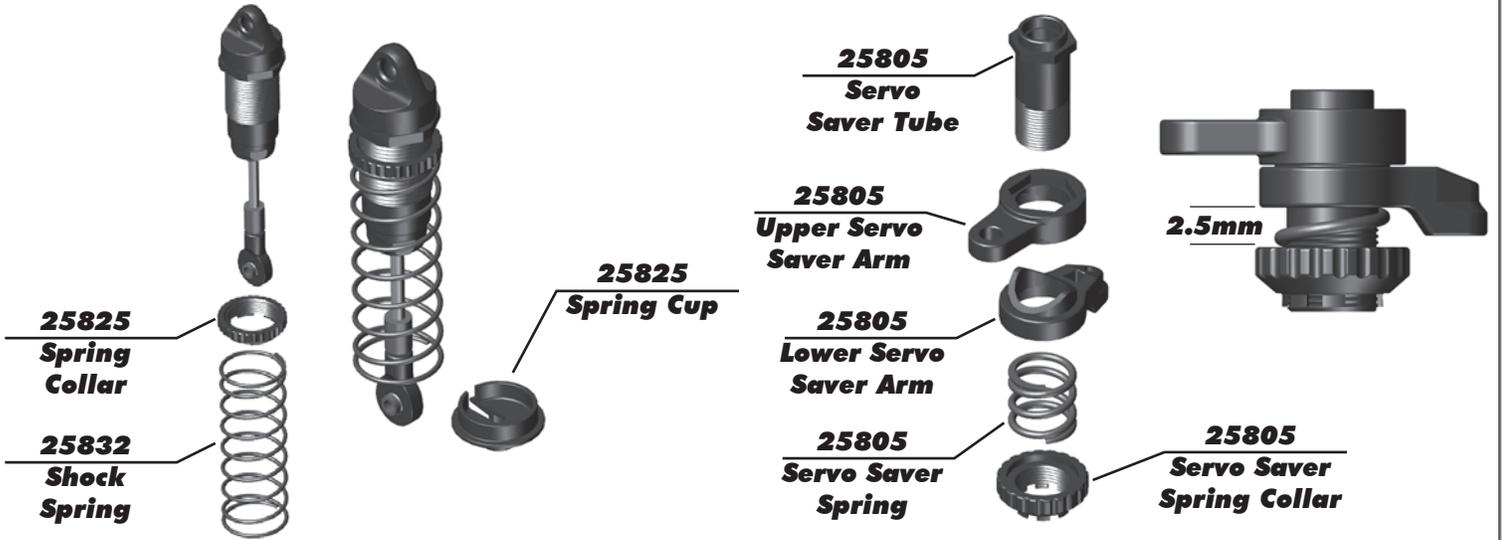
**:: Step 5**



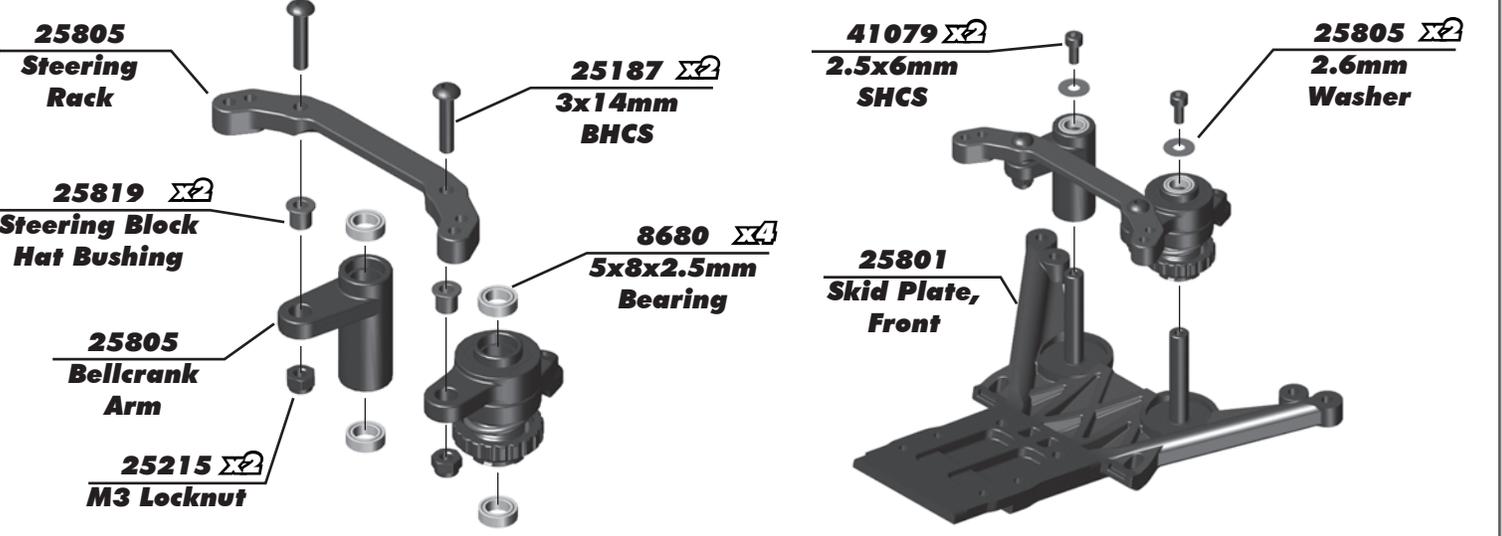
**:: Step 6**



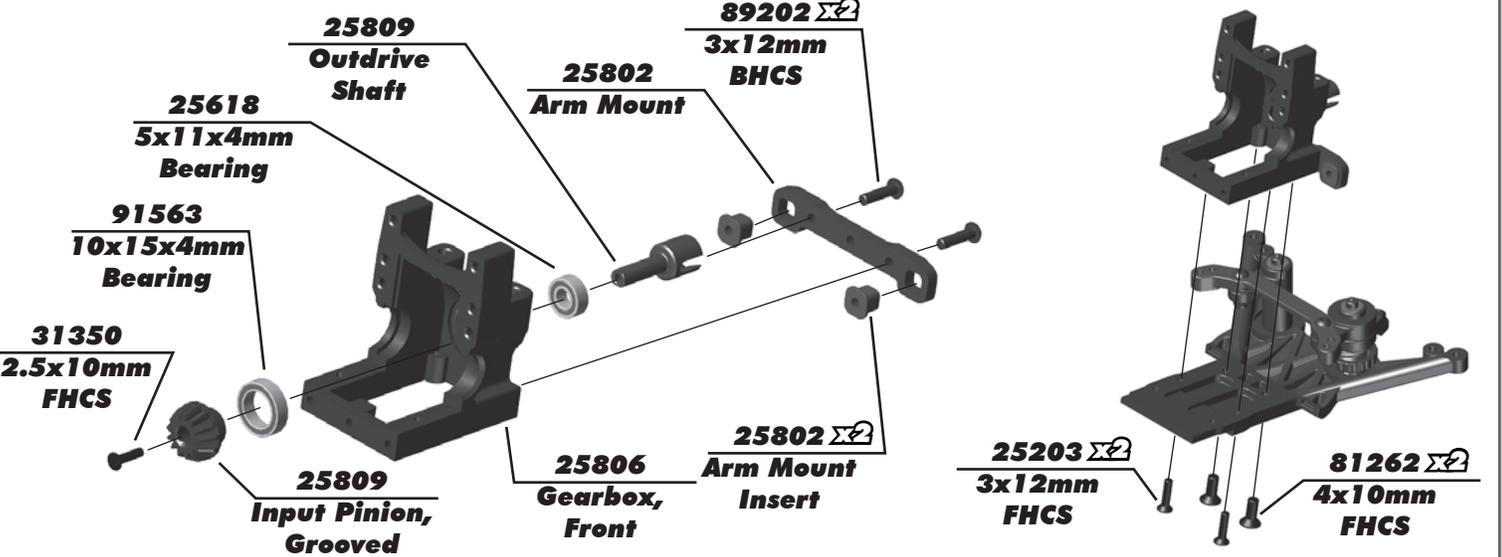
**:: Step 7**



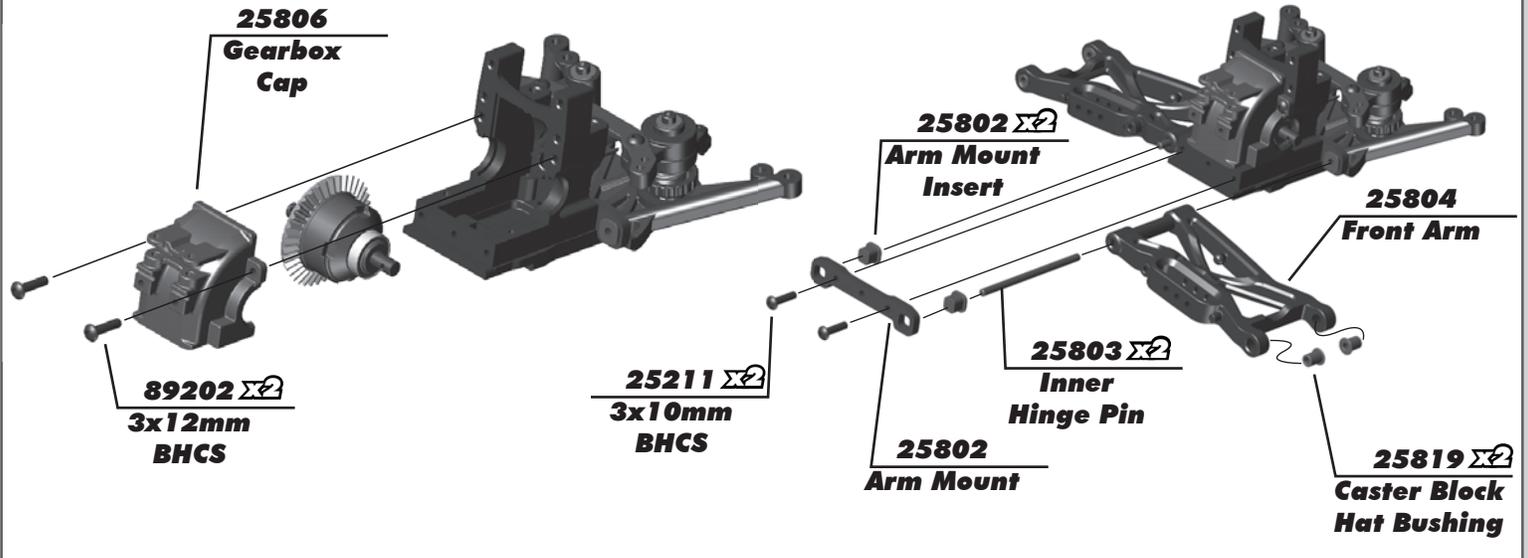
**:: Step 8**



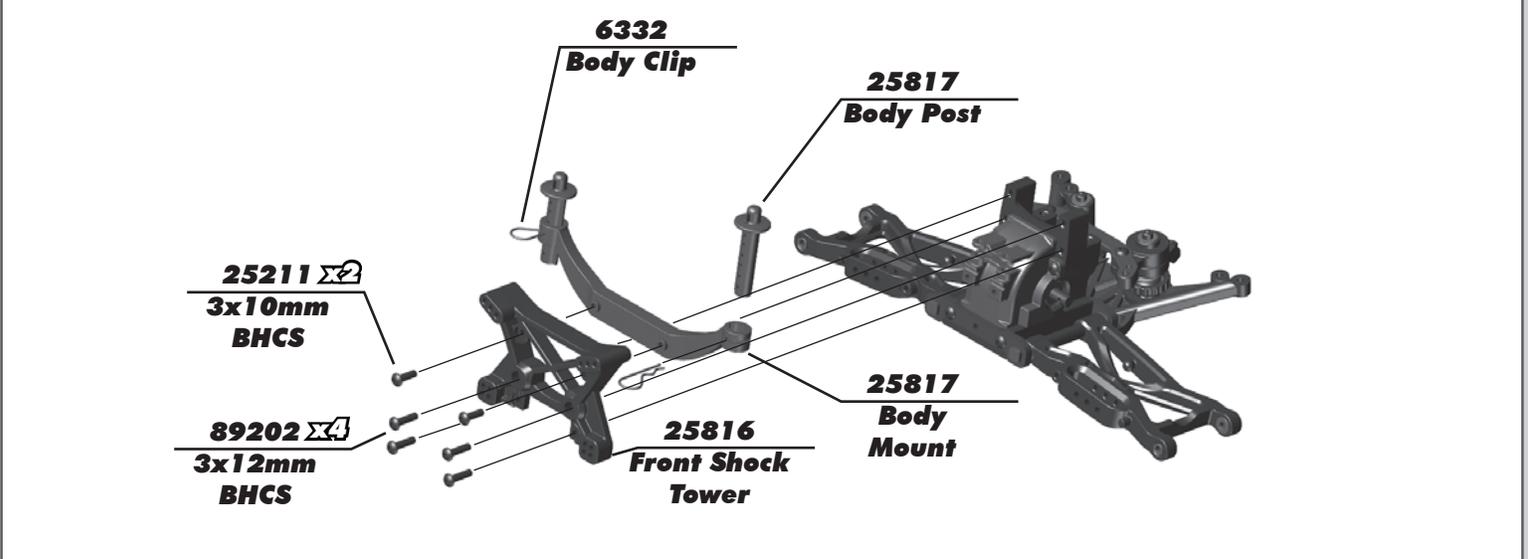
**:: Step 9**



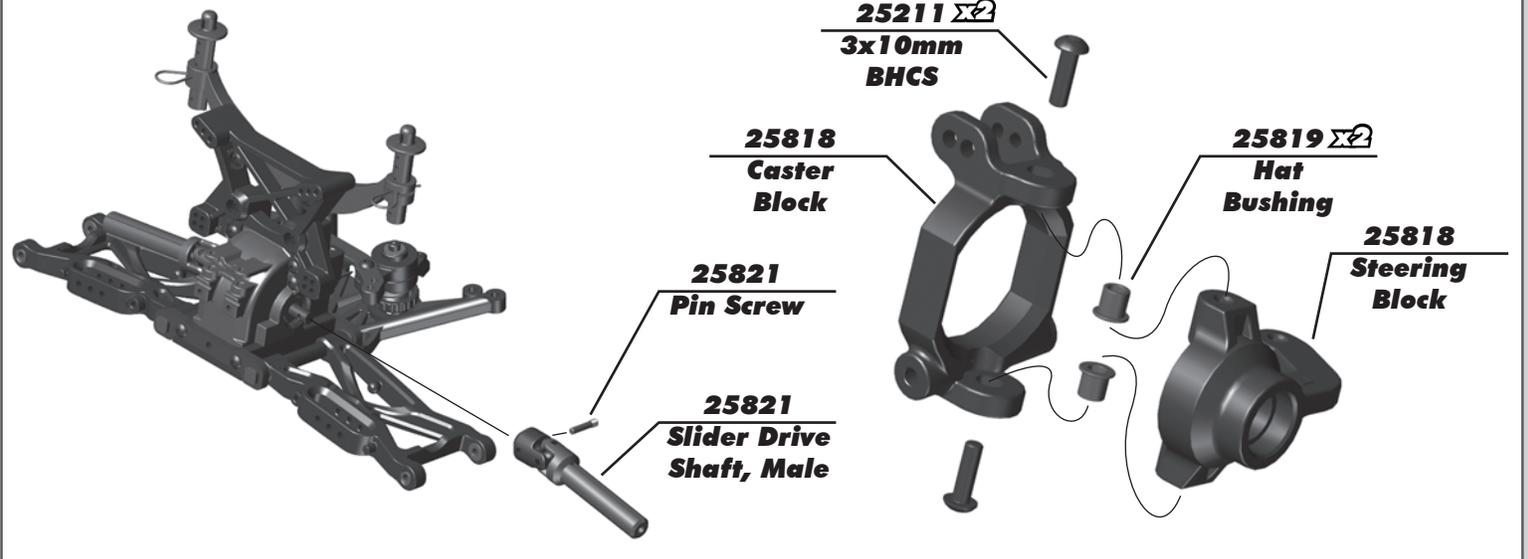
**:: Step 10**



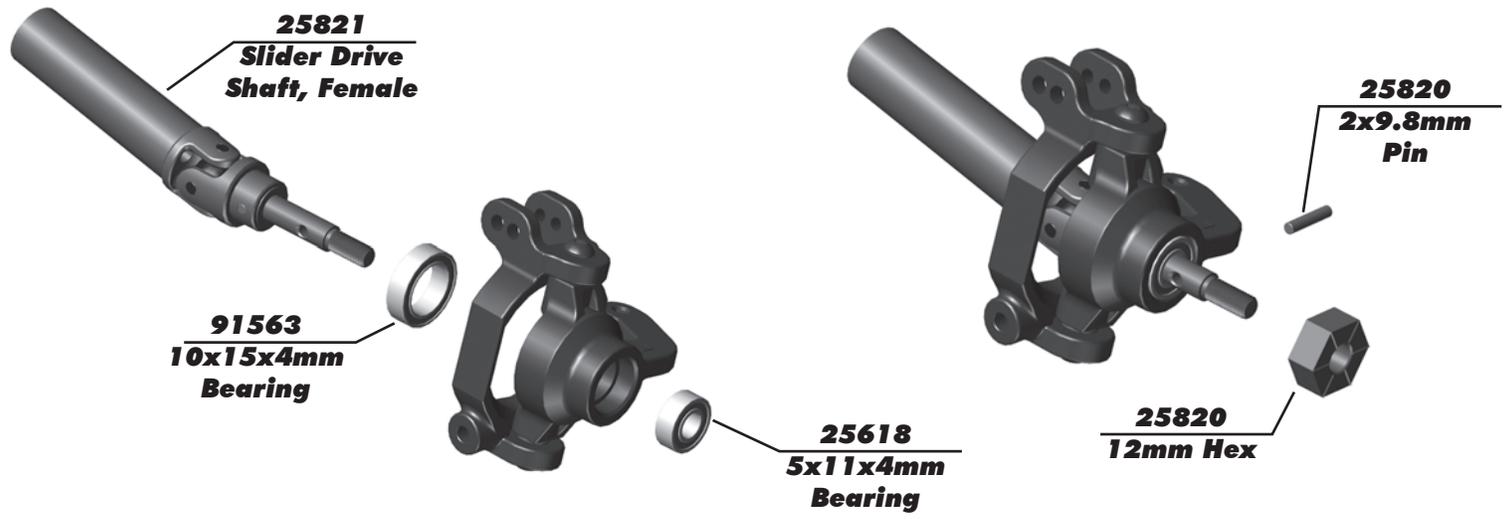
**:: Step 11**



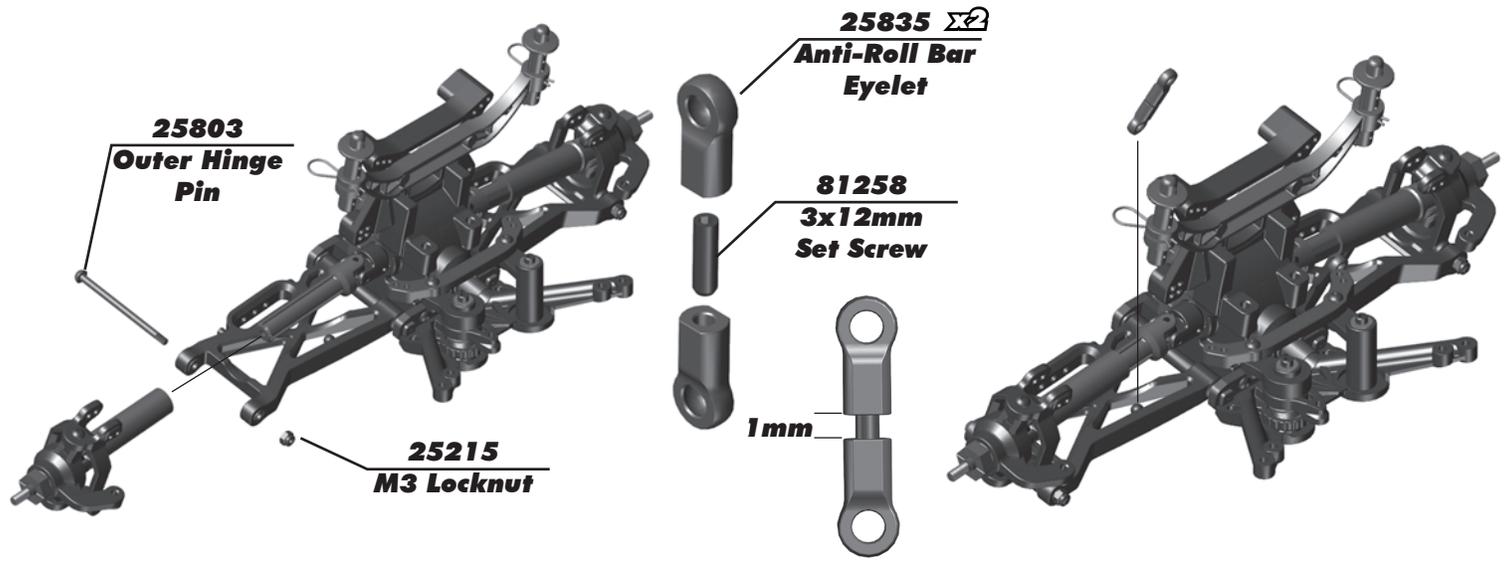
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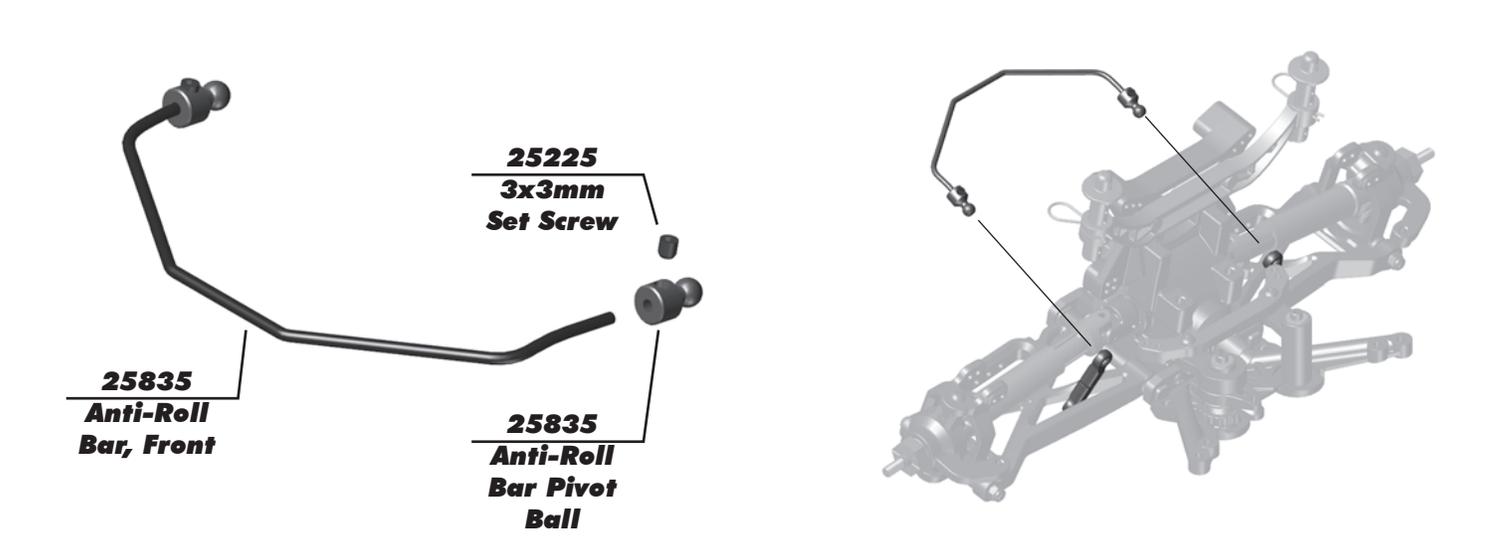
**:: Step 13**



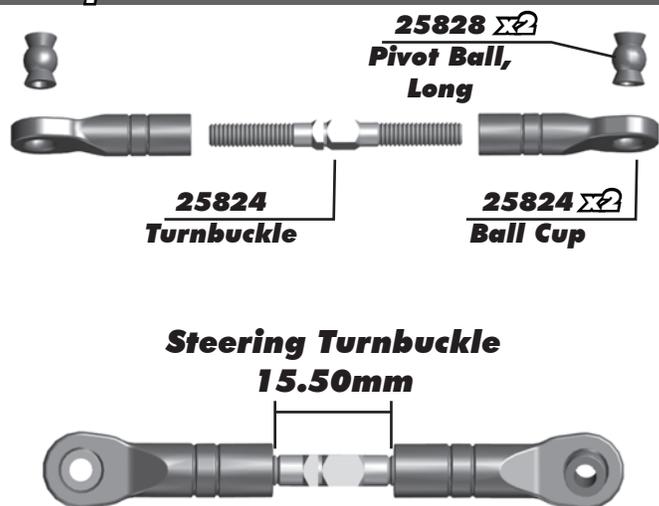
**:: Step 14**



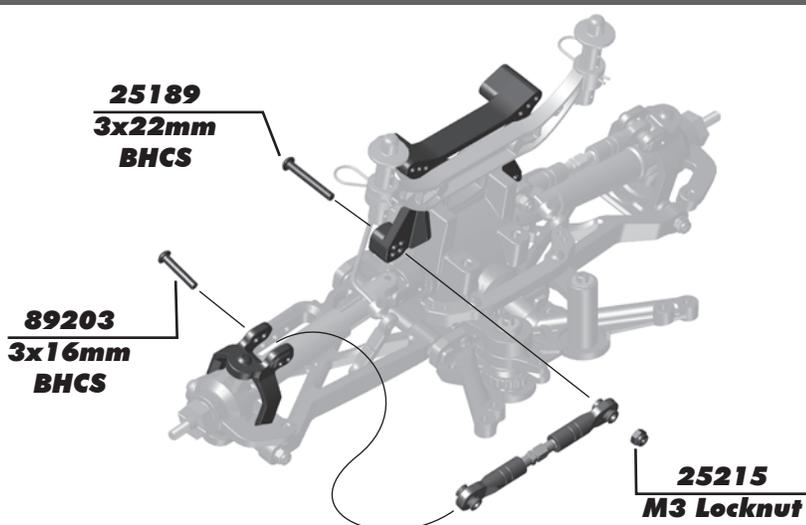
**:: Step 15**



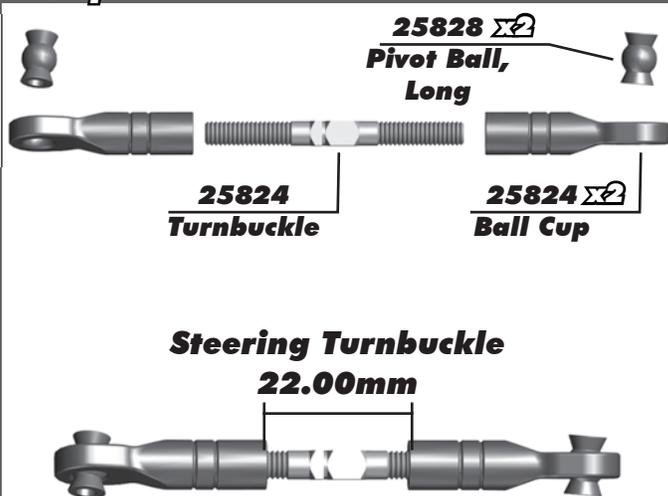
**:: Step 16**



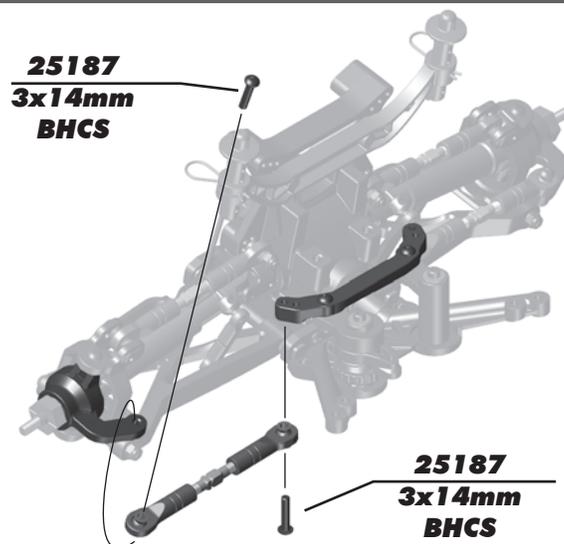
Build x2 (right and left side)



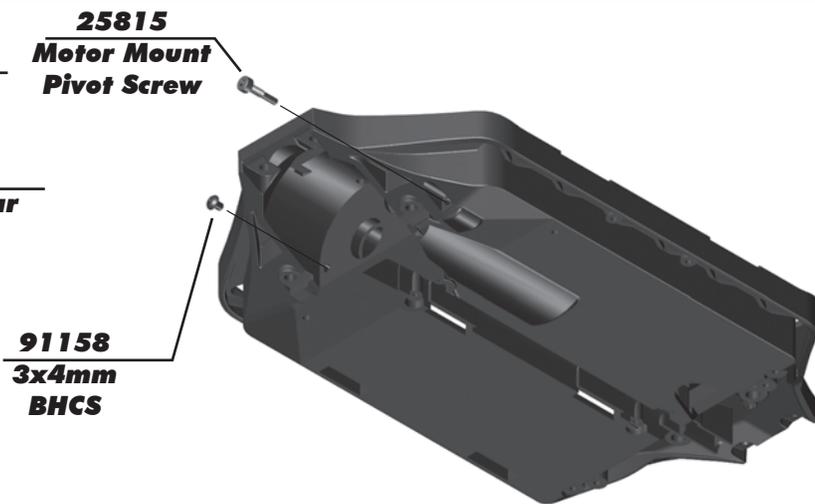
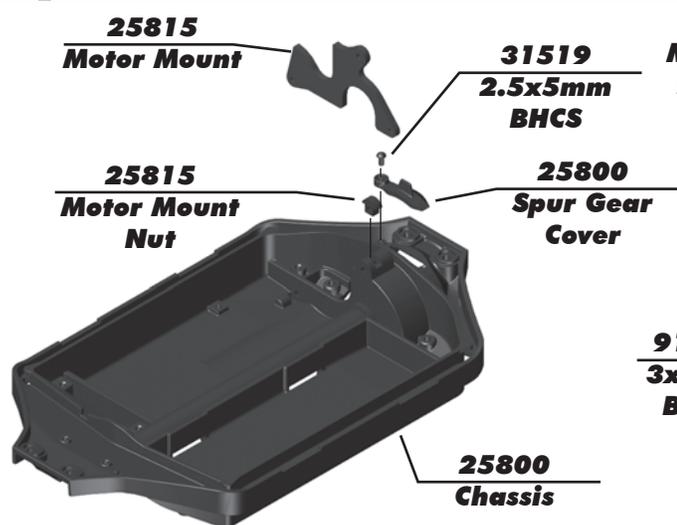
**:: Step 17**



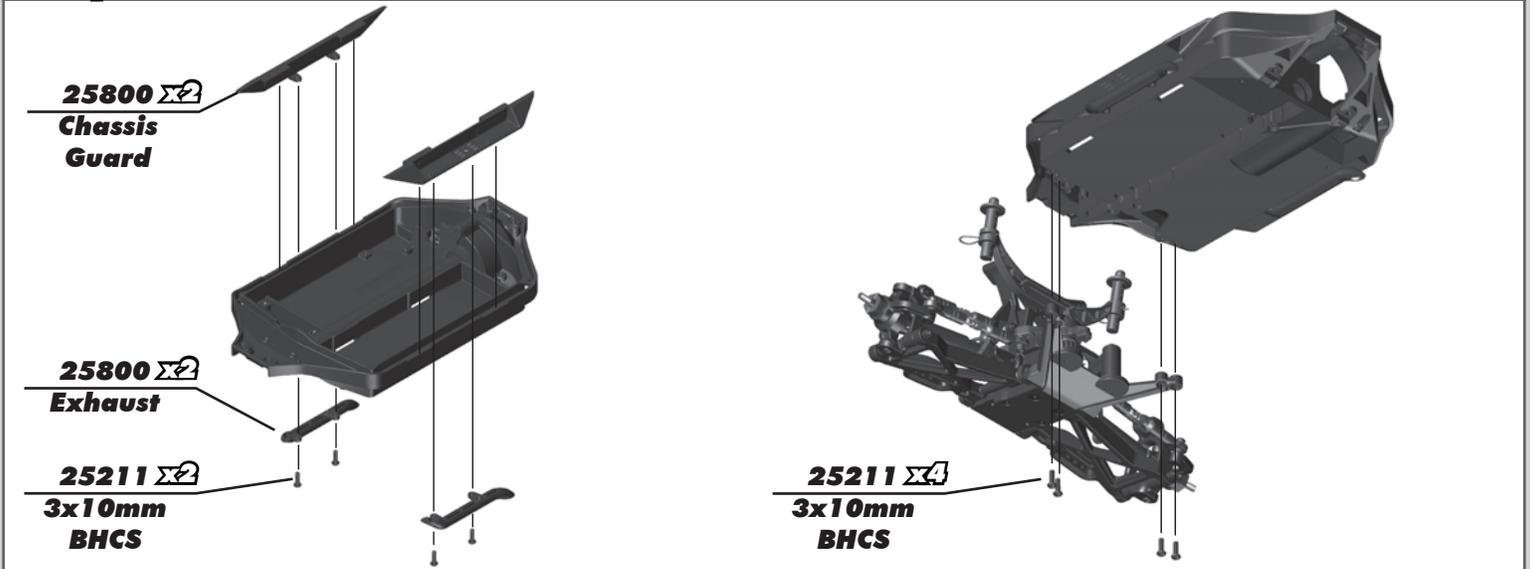
Build x2 (right and left side)



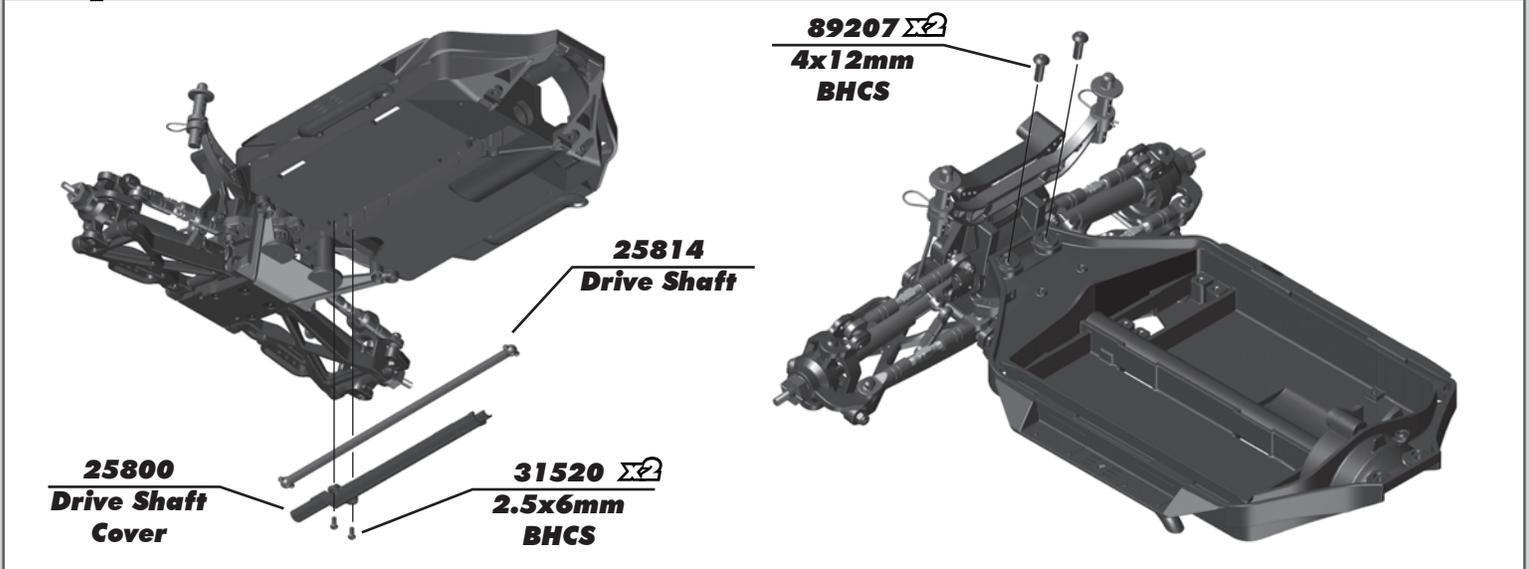
**:: Step 18**



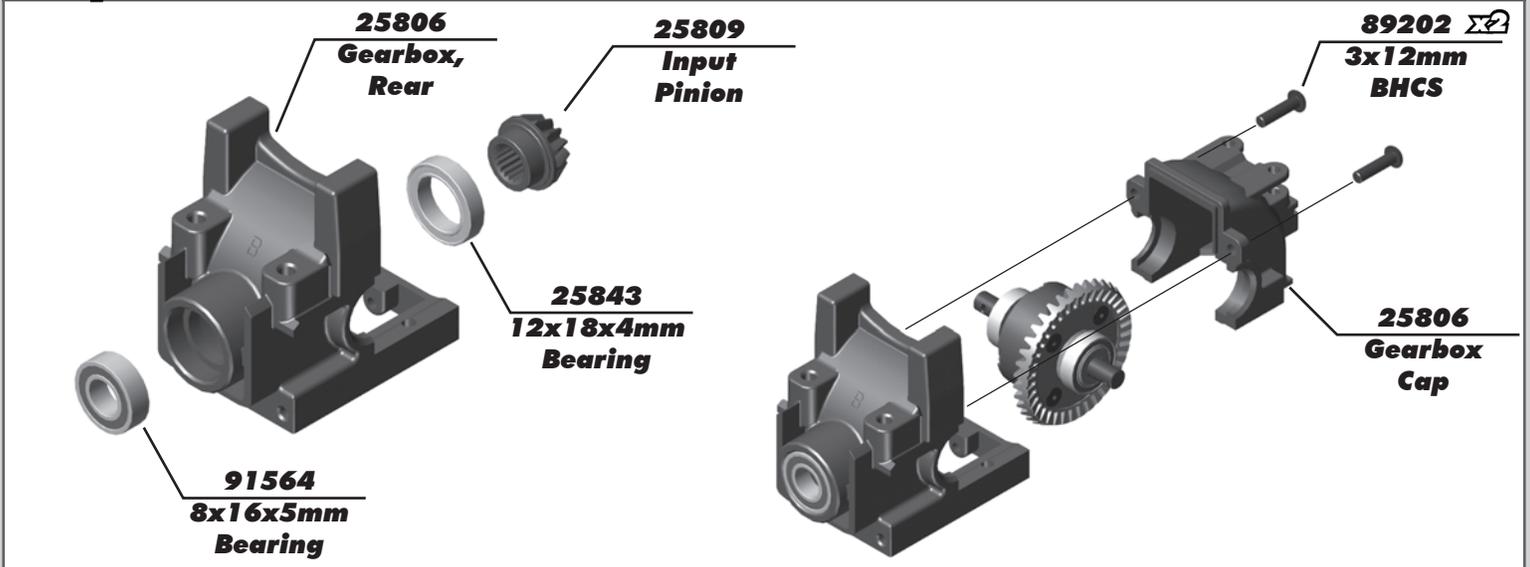
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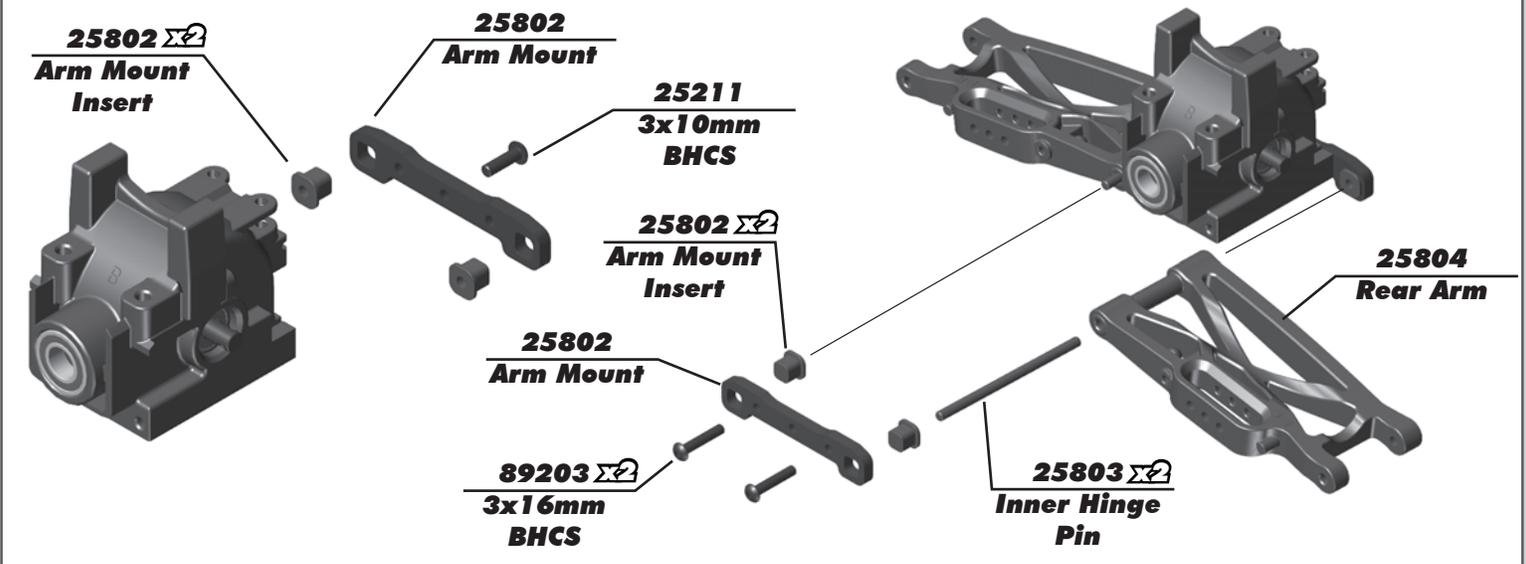
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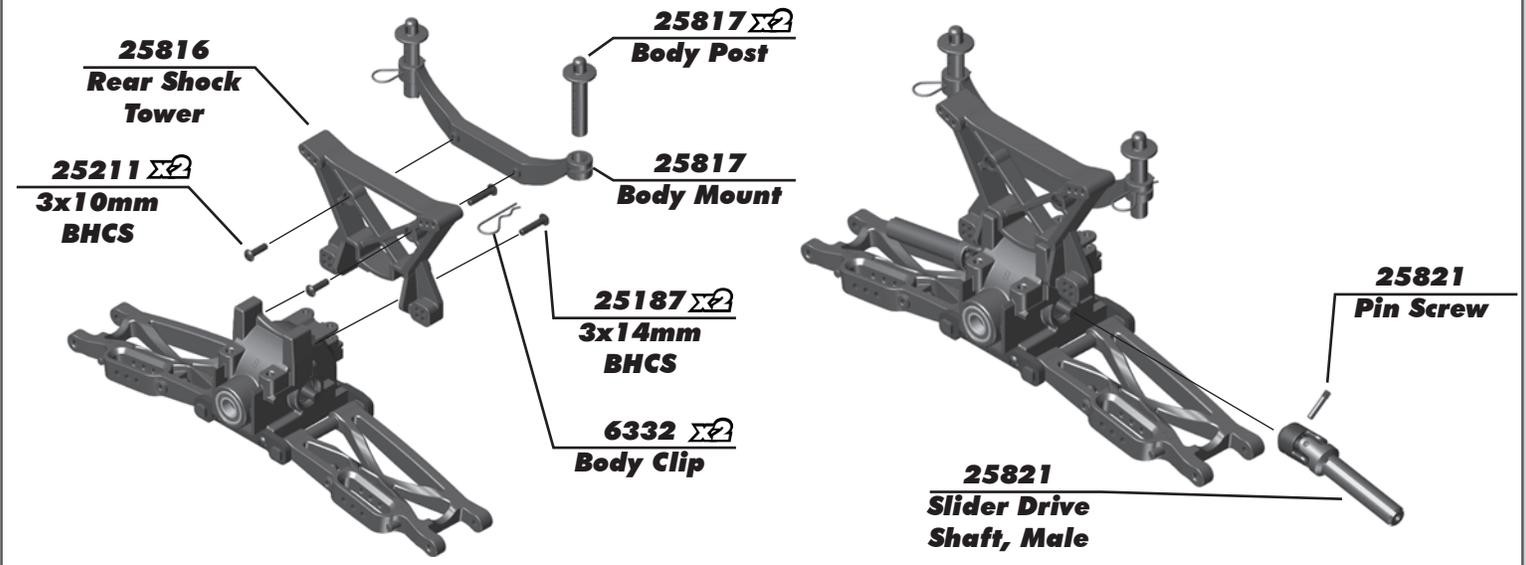
**:: Step 21**



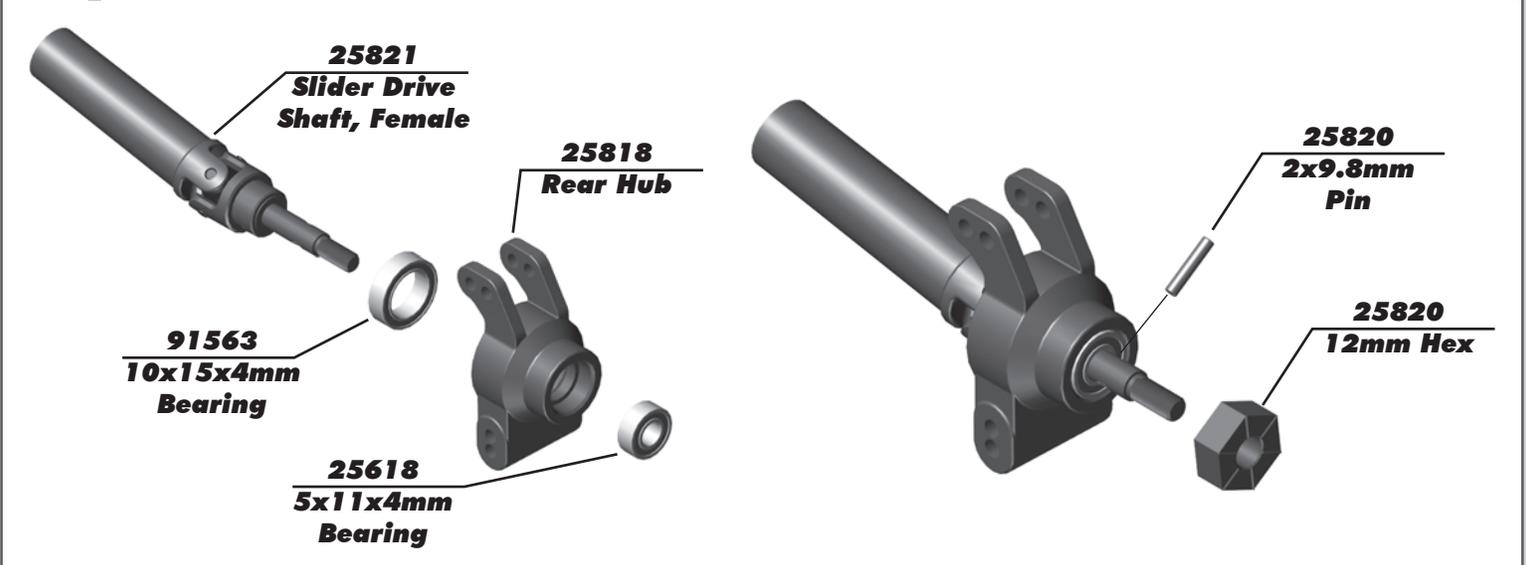
**:: Step 22**



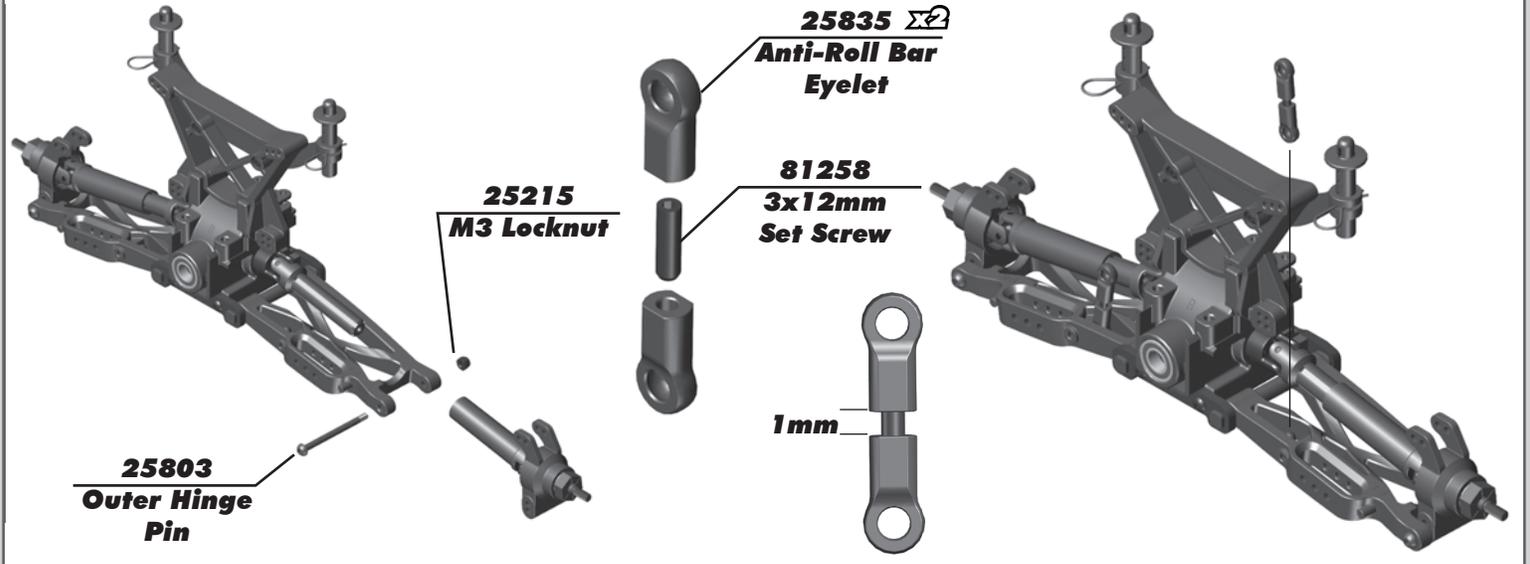
**:: Step 23**



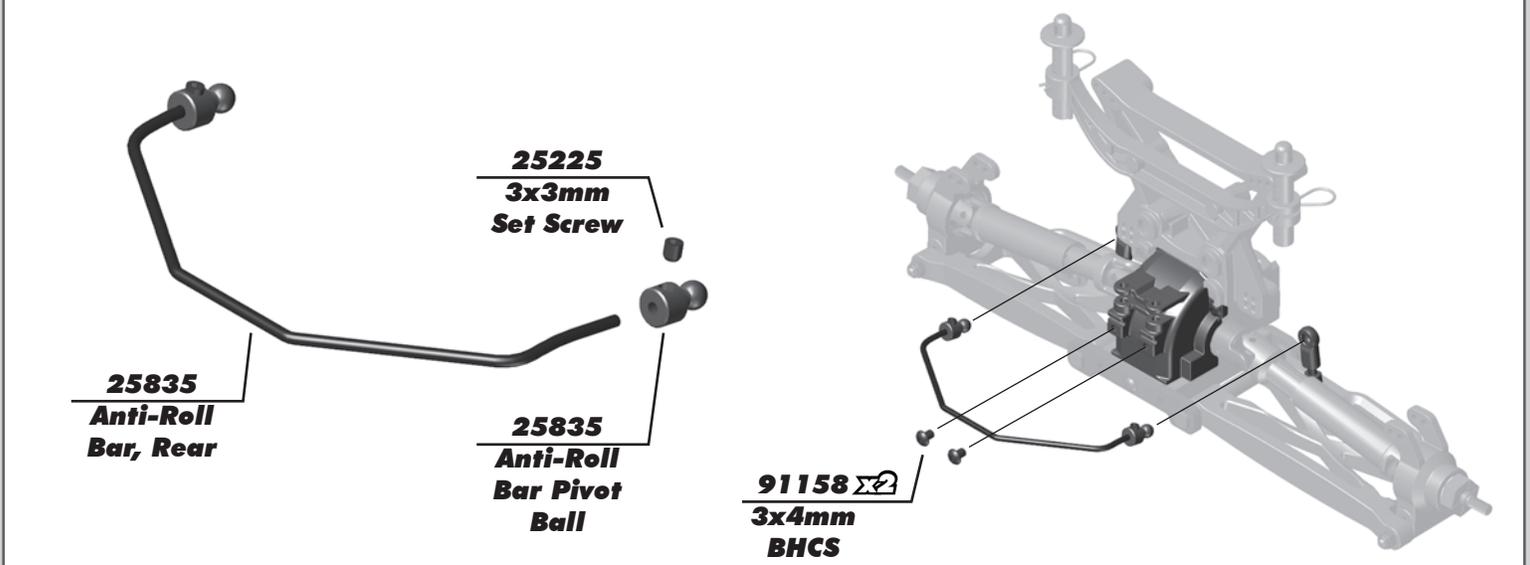
**:: Step 24**



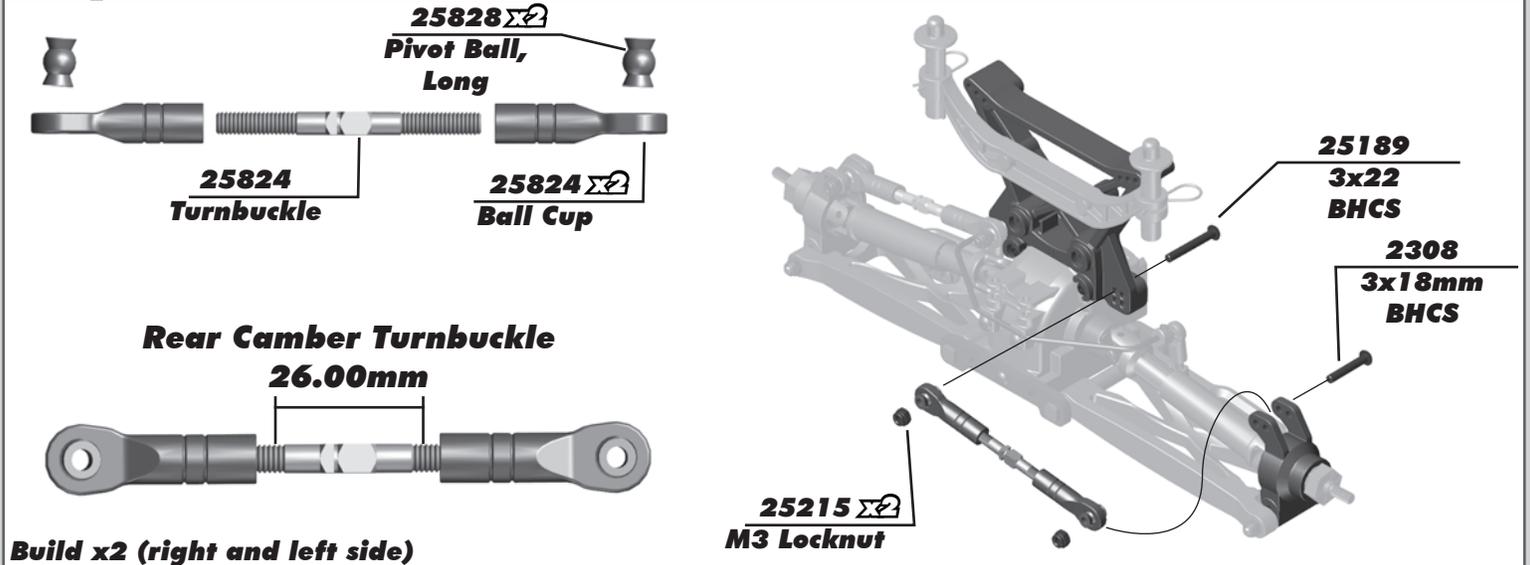
**:: Step 25**



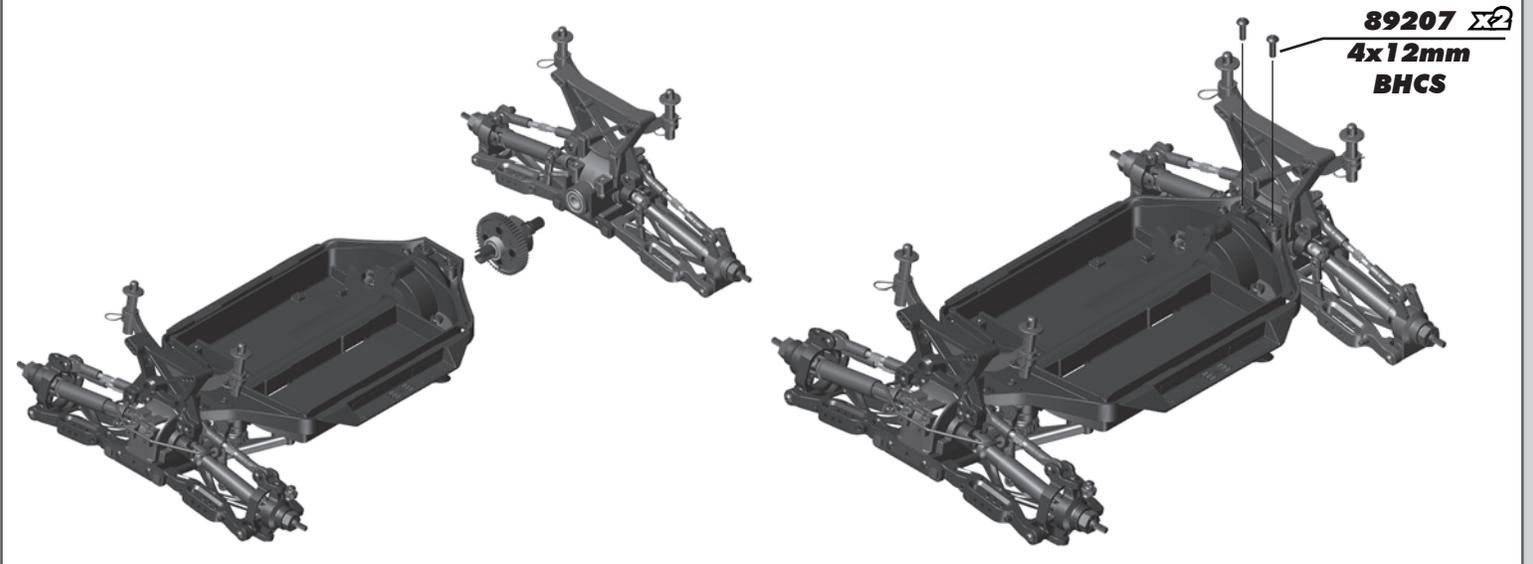
**:: Step 26**



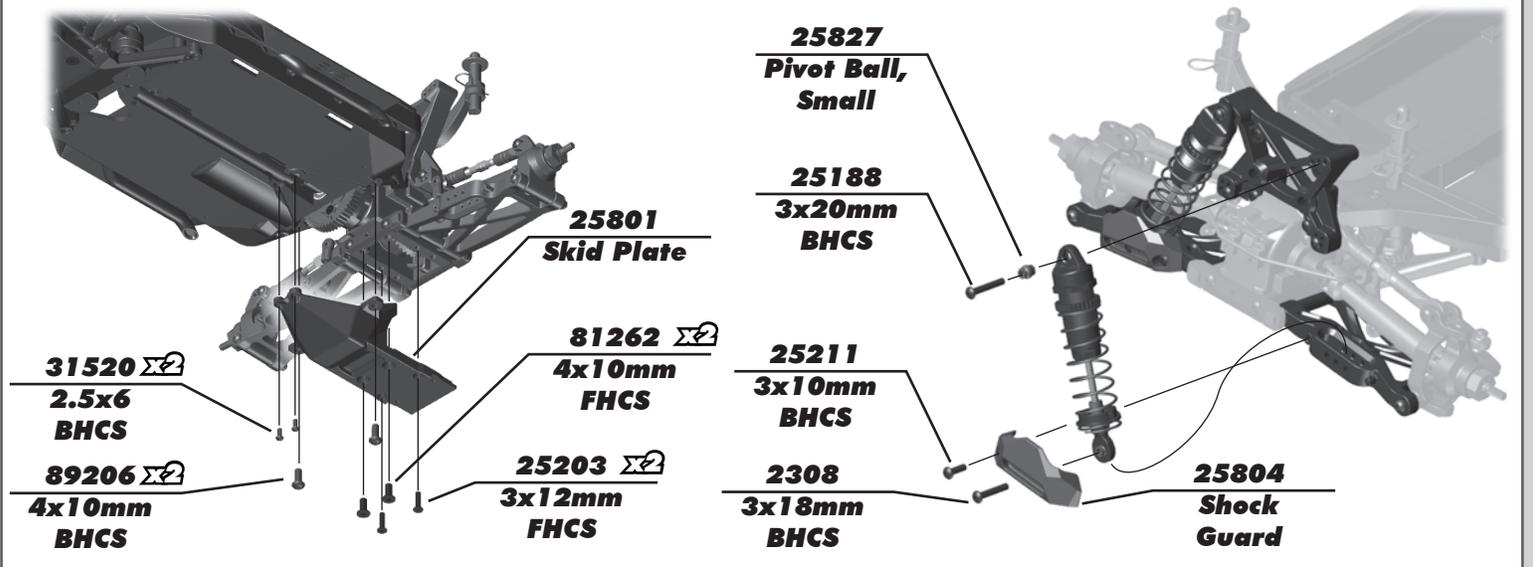
**:: Step 27**



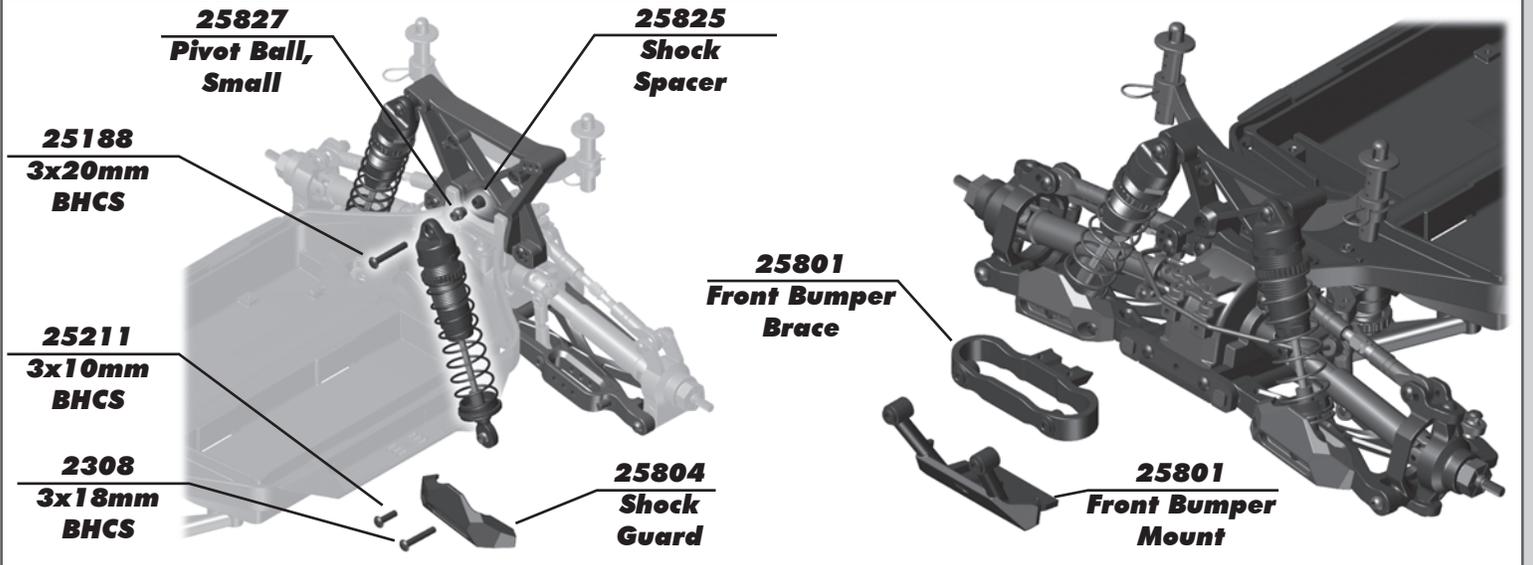
**:: Step 28**



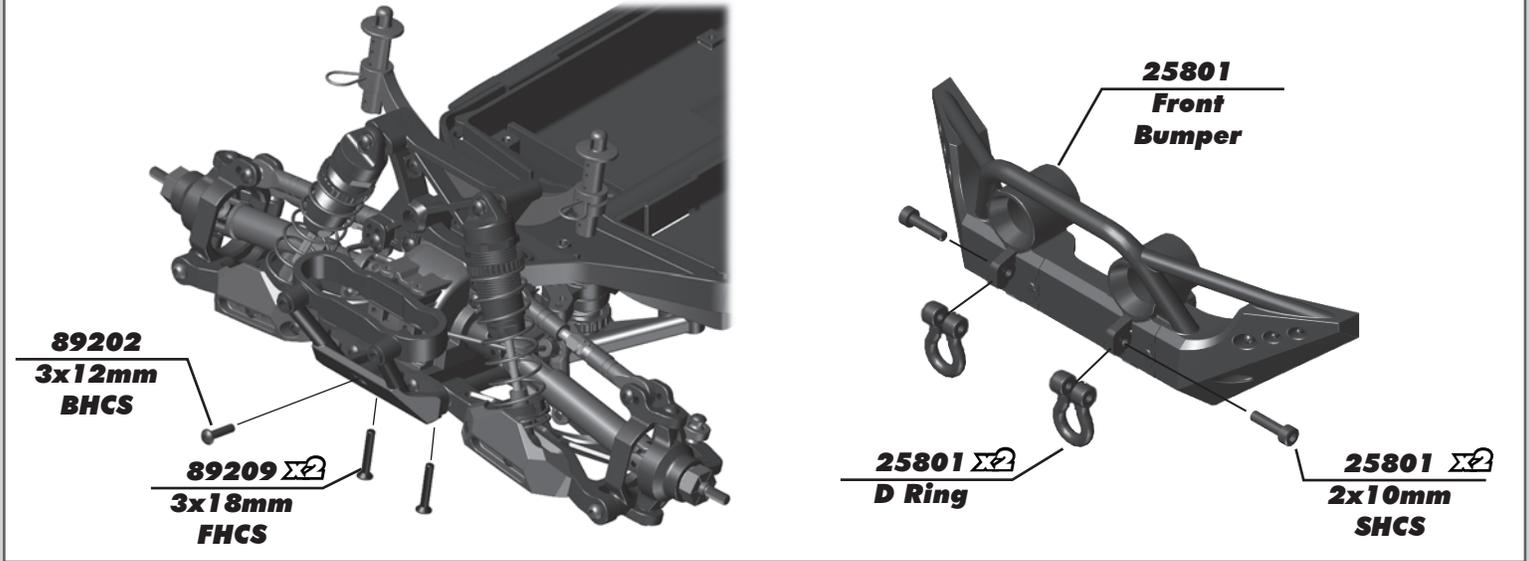
**:: Step 29**



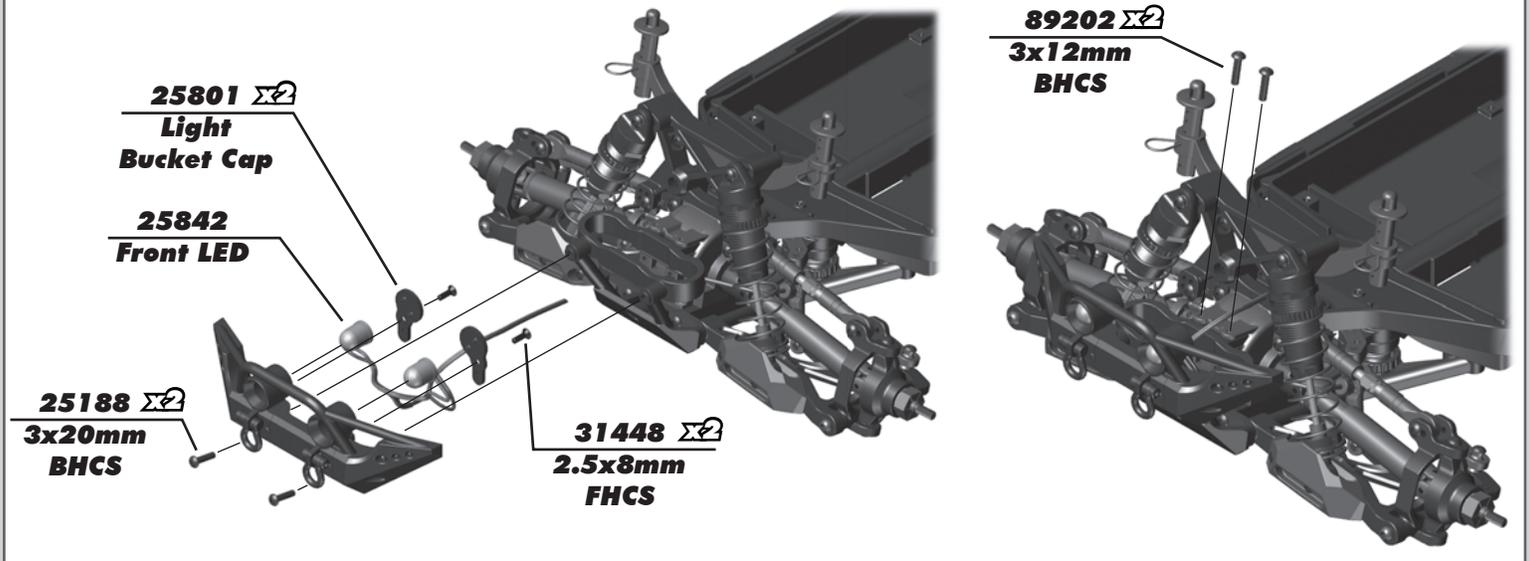
**:: Step 30**



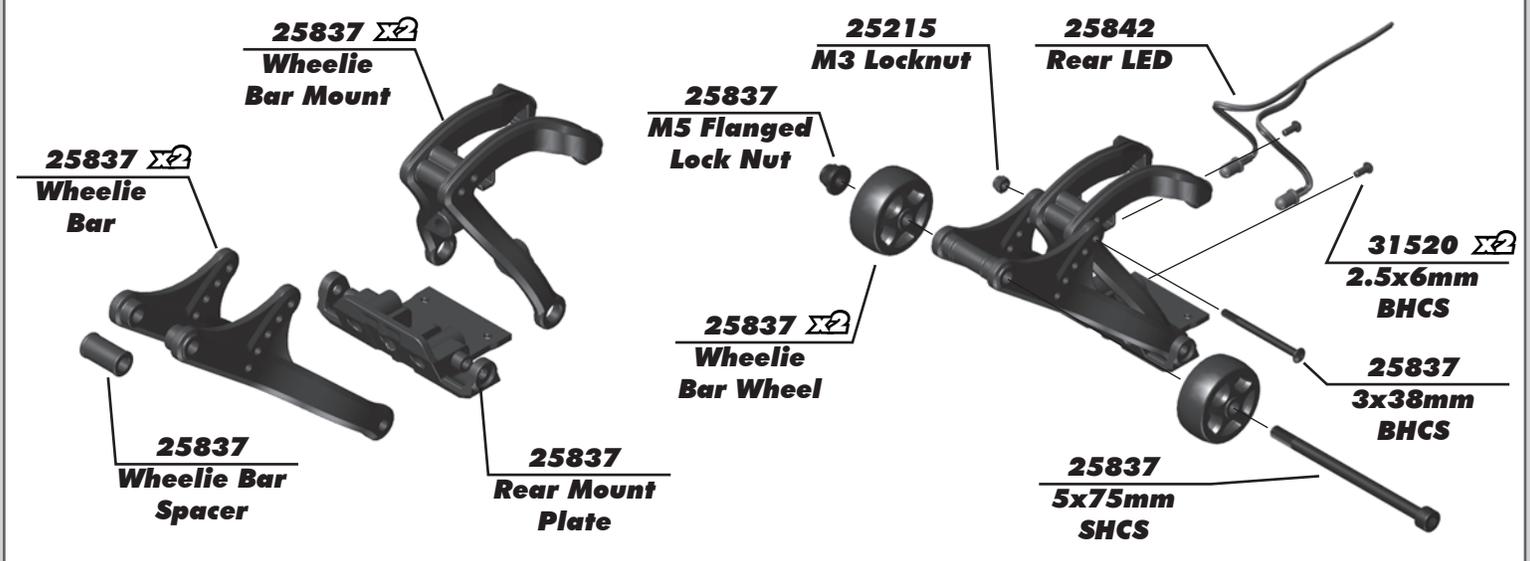
**:: Step 31**



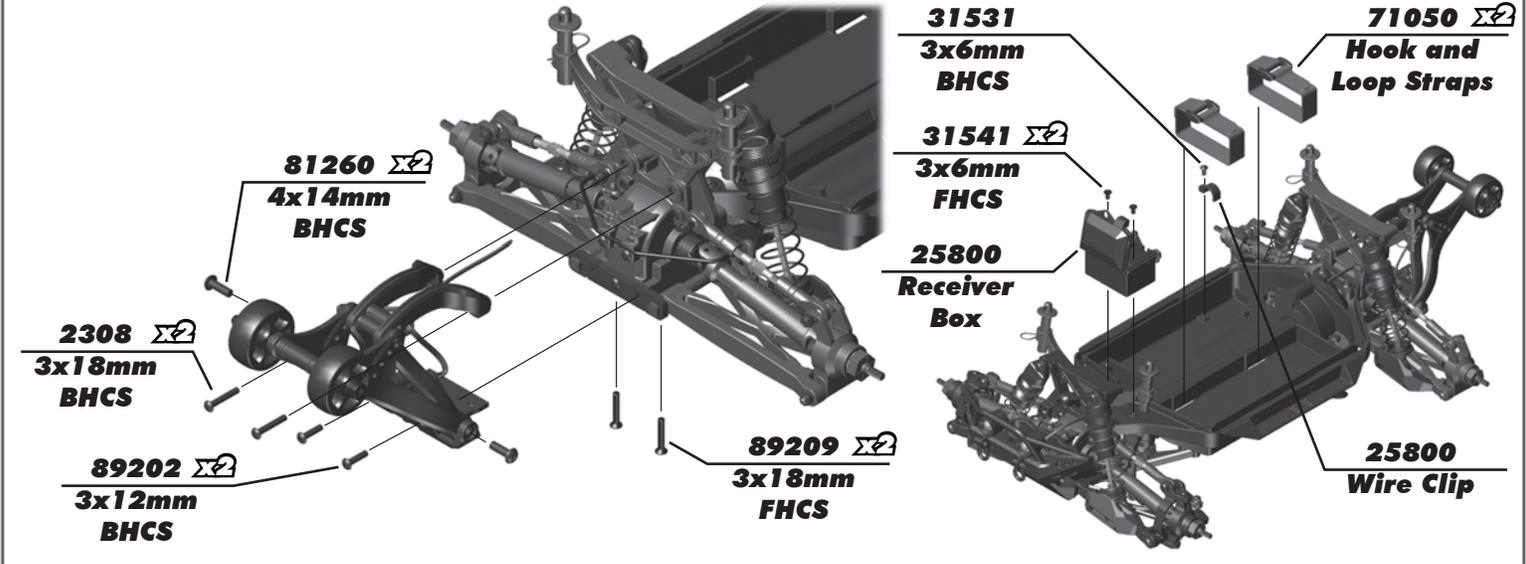
**:: Step 32**



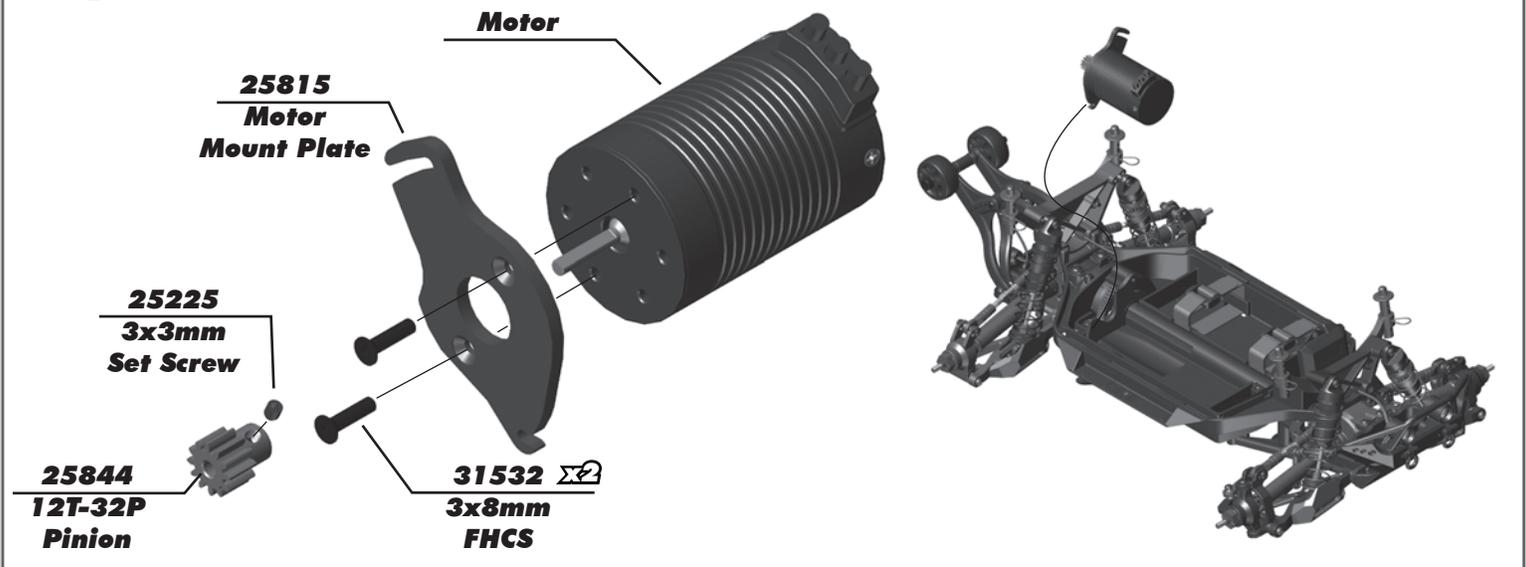
**:: Step 33**



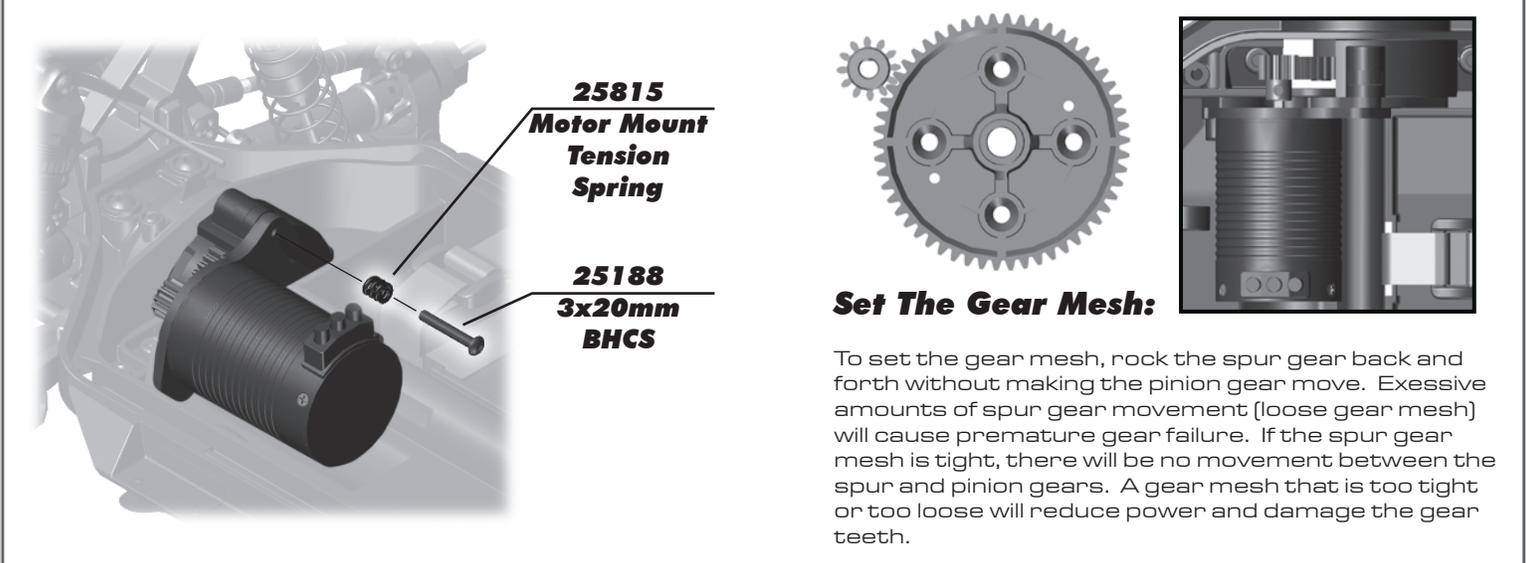
**:: Step 34**



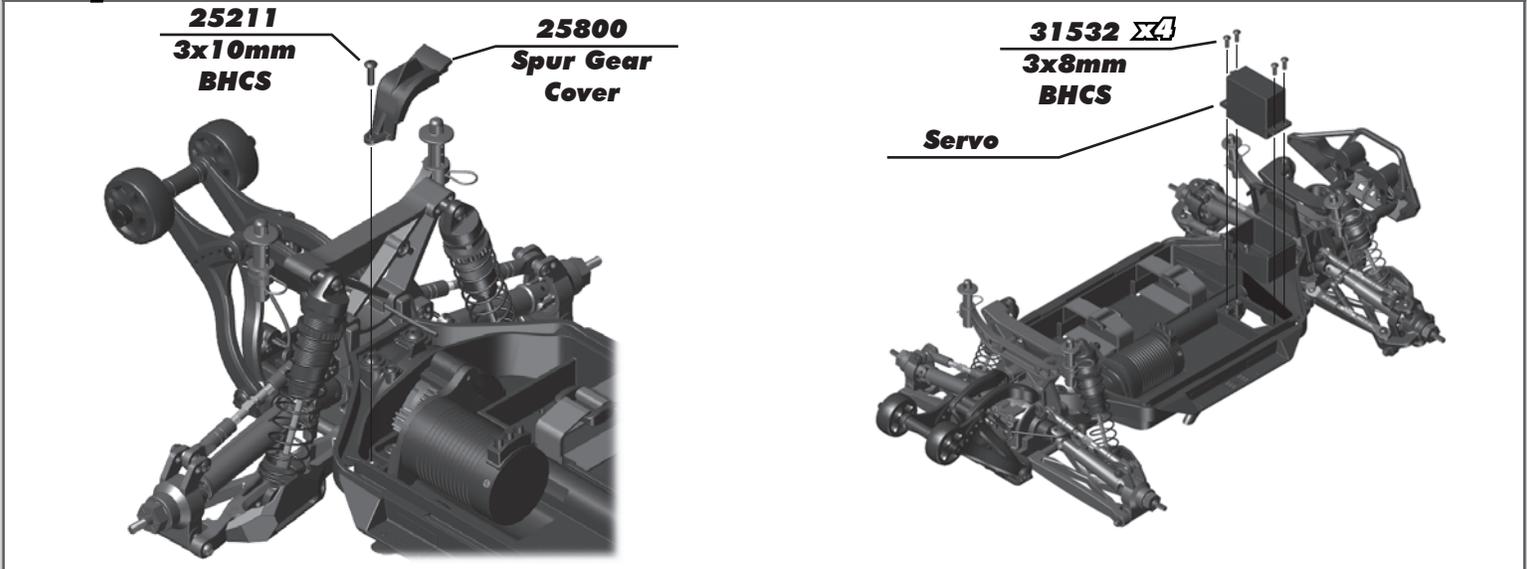
**:: Step 35**



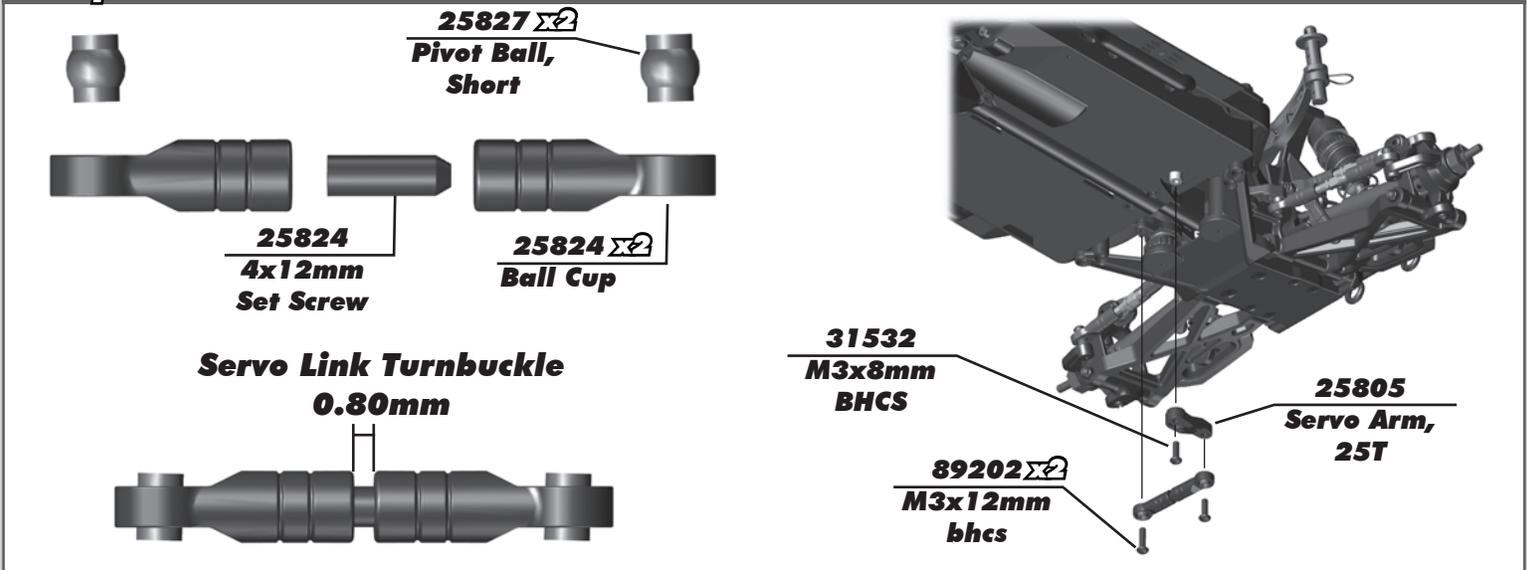
**:: Step 36**



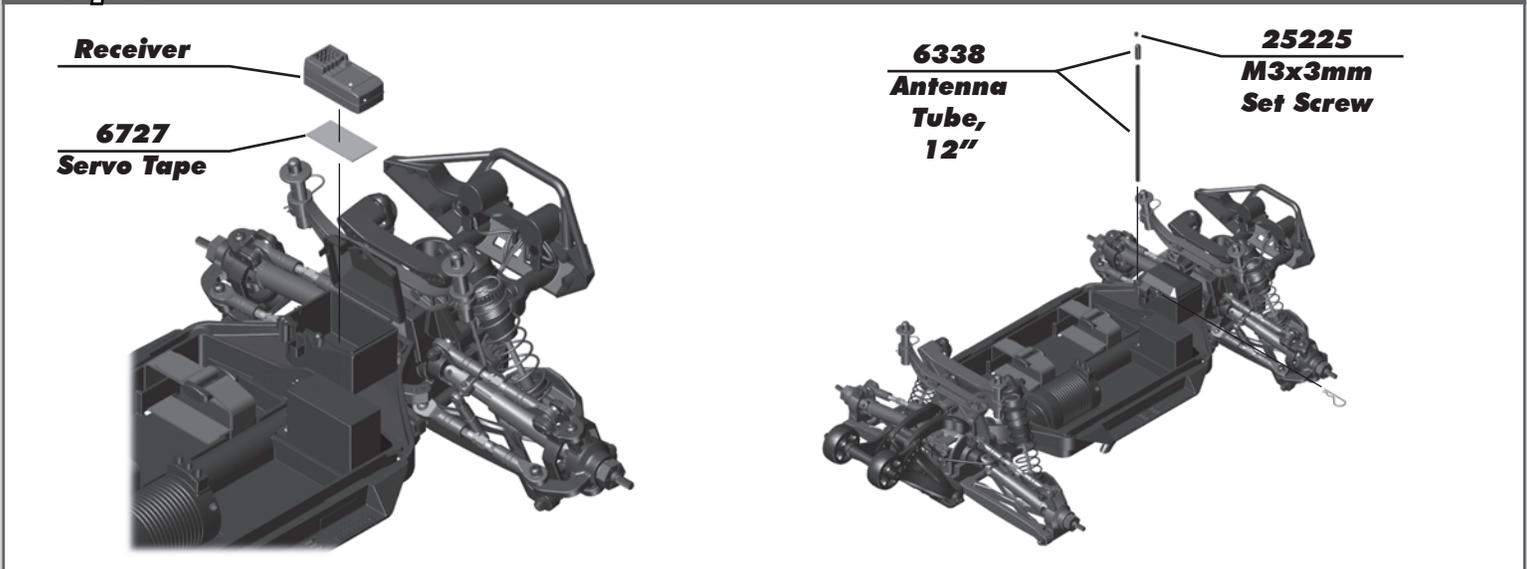
**:: Step 37**



**:: Step 38**



**:: Step 39**



**:: Step 40**

**ESC**

**Battery**

**6727 Servo Tape**

**25841 MT10 Tire**

**#1597 ca glue**

**25841 MT10 Insert**

**25841 Method Race Wheel**

**Build 4**

Carefully apply ca glue (tire adhesive) to the tire bead on the side. Do one side at a time, allowing it to dry before gluing the other side!  
**CA glue not included!**

**:: Step 41**

**91738  $\times 2$  M4 Black Nut Serrated Aluminum**

**6332  $\times 4$  Body Clip**

**25841  $\times 2$  Method Race Wheel Cap**

**25829 Rival MT10 Body, V2 Clear**

**25830 Rival MT10 Body, V2 Painted, Yellow/Red**

**Install 4**

**:: Tuning Tips****Tips for Beginners:**

Before making any changes to the standard setup, make sure you can get around the track without crashing. Changes to your vehicle will not be beneficial if you can't stay on the track. Your goal is consistent laps. Once you can get around the track consistently, start tuning your vehicle. Make only ONE adjustment at a time, testing it before making another change. If the result of your adjustment is a faster lap, mark the change on the included setup sheet (make additional copies of the sheet before writing on it). If your adjustment results in a slower lap, revert back to the previous setup and try another change. When you are satisfied with your vehicle, fill in the setup sheet thoroughly and file it away. Use this as a guide for future track days or conditions. Periodically check all moving suspension parts. Suspension components must be kept clean and move freely without binding to prevent poor and/or inconsistent handling.

**Set The Gear Mesh:**

You should be able to rock the spur gear back and forth in the teeth of the pinion gear without making the pinion gear move. If the spur gear mesh is tight, then loosen the #25188 screw and move the motor away, then try again. A gear mesh that is too tight or too loose will reduce power and damage the gear teeth.

**Front Camber:**

Camber describes the angle at which the tire and wheel rides when looked at from the front. Negative camber means that the tire leans inward at the top. A good starting camber setting is  $-1^\circ$ . Positive camber, where the top of the tire is leaning out, is not recommended. Optional #1719 camber gauge can be used to more accurately set camber.

**Rear Camber:**

Camber describes the angle at which the tire and wheel rides when looked at from the back. Negative camber means that the tire leans inward at the top. A good starting camber setting is  $-1^\circ$ . Adding a small amount of positive camber, where the top of the tire is leaning out, will tend to improve straight-line acceleration on loose tracks. Optional #1719 camber gauge can be used to more accurately set camber.

**Front Camber Links:**

Changing the length of the camber link is considered a bigger step than adjusting the ball end height on the tower. Shortening the camber link (or lowering the ball end) will give the front end less roll and quicken steering response. Lengthening the camber link (or raising the ball end) will give the front more roll and slower steering response. Longer camber links are typically used on high grip tracks and shorter links tend to work better on medium-grip loose tracks.

**Rear Camber Link:**

Changing the length of the camber link is considered a bigger step than adjusting the ball end height on the rear chassis brace. Shortening the camber link (or lowering the ball end) will give the rear end less roll and the car will tend to accelerate or "square up" better. Lengthening the camber link (or raising the ball end) will give the rear more roll and more cornering grip. Longer camber links are typically used on high grip tracks, while shorter links tend to work better on medium grip loose tracks. The kit setting is the best compromise of cornering grip and acceleration.

**Ackermann:**

Ackermann is the angle difference between the front wheels when they are turned to steer the car. For minimal tire slip, it is standard for the inside wheel to steer to a greater angle than the outside wheel. If corner entry steering is too aggressive, try increasing the Ackermann by moving the ball studs to the rearward holes. Increasing the Ackermann will increase the angle difference of the front wheels when steered, resulting in a more stable car on corner entry.

**:: Optional Gear**

|       |                                    |   |
|-------|------------------------------------|---|
| 25842 | Rival MT10 LED Light Kit           | 1 |
| 25845 | MT10 FT Shock Kit, front, aluminum | 1 |
| 25846 | MT10 FT Shock Kit, rear, aluminum  | 1 |
| 25847 | MT10 FT Steel CVA Kit, front       | 1 |
| 25848 | MT10 FT Steel CVA Kit, rear        | 1 |

**:: Lubes & Adhesives / Misc.**

|      |                           |   |
|------|---------------------------|---|
| 1105 | FT Green Slime Shock Lube | 1 |
| 1596 | FT Locking Adhesive       | 1 |
| 1597 | FT Tire Adhesive, medium  | 1 |
| 6588 | Black Grease - 4cc        | 1 |
| 6591 | S.Diff Lube - 4cc         | 1 |
| 6636 | Silicone Grease - 4cc     | 1 |
| 6727 | Servo Tape                | 2 |

**:: Shock Fluid**

|      |                                  |      |
|------|----------------------------------|------|
| 5420 | 10 Weight Silicone Shock Fluid   | 2oz. |
| 5427 | 15 Weight Silicone Shock Fluid   | 2oz. |
| 5421 | 20 Weight Silicone Shock Fluid   | 2oz. |
| 5424 | 22.5 Weight Silicone Shock Fluid | 2oz. |
| 5428 | 25 Weight Silicone Shock Fluid   | 2oz. |
| 5426 | 27.5 Weight Silicone Shock Fluid | 2oz. |
| 5422 | 30 Weight Silicone Shock Fluid   | 2oz. |
| 5432 | 32.5 Weight Silicone Shock Fluid | 2oz. |
| 5429 | 35 Weight Silicone Shock Fluid   | 2oz. |
| 5433 | 37.5 Weight Silicone Shock Fluid | 2oz. |
| 5423 | 40 Weight Silicone Shock Fluid   | 2oz. |
| 5434 | 42.5 Weight Silicone Shock Fluid | 2oz. |
| 5430 | 45 Weight Silicone Shock Fluid   | 2oz. |
| 5438 | 47.5 Weight Silicone Shock Fluid | 2oz. |
| 5435 | 50 Weight Silicone Shock Fluid   | 2oz. |
| 5431 | 55 Weight Silicone Shock Fluid   | 2oz. |
| 5436 | 60 Weight Silicone Shock Fluid   | 2oz. |
| 5437 | 70 Weight Silicone Shock Fluid   | 2oz. |
| 5425 | 80 Weight Silicone Shock Fluid   | 2oz. |



**:: Diff Fluid**

|      |                                  |   |
|------|----------------------------------|---|
| 5451 | Silicone Diff Fluid 2,000CST     | 1 |
| 5452 | Silicone Diff Fluid 3,000CST     | 1 |
| 5444 | Silicone Diff Fluid 4,000CST     | 1 |
| 5453 | Silicone Diff Fluid 5,000CST     | 1 |
| 5446 | Silicone Diff Fluid 6,000CST     | 1 |
| 5454 | Silicone Diff Fluid 7,000CST     | 1 |
| 5455 | Silicone Diff Fluid 10,000CST    | 1 |
| 5456 | Silicone Diff Fluid 20,000CST    | 1 |
| 5457 | Silicone Diff Fluid 30,000CST    | 1 |
| 5458 | Silicone Diff Fluid 60,000CST    | 1 |
| 5448 | Silicone Diff Fluid 80,000CST    | 1 |
| 5459 | Silicone Diff Fluid 100,000CST   | 1 |
| 5461 | Silicone Diff Fluid 200,000CST   | 1 |
| 5463 | Silicone Diff Fluid 500,000CST   | 1 |
| 5465 | Silicone Diff Fluid 1,000,000CST | 1 |



**:: Optional Electronics Gear**

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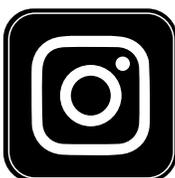
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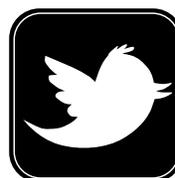
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