:: Instruction Manual



1/8th Scale Nitro Powered 4WD Racing Buggy



#### :: Introduction

Thank you for purchasing this Team Associated product. This manual contains instructions and tips for building and maintaining your new RC8. Please take a moment to read through it and familiarize yourself with these steps. For the Factory Team Factory Built RC8, please start on Page 34.

#### :: RC8 Features

- Nyloc Wheel Nuts
- Factory Blue titanium turnbuckles
- True-Lock kingpin System
- Heavy Duty CVA's with captured pins
- bodies with 4mm gold shock shafts and rubber boots
- Factory Team 4mm low-profile woven carbon fiber shock towers
- Woven carbon fiber steering rack
- Woven carbon fiber radio tray

- Sealed Radio Box
- Thread-through antenna mount
- Durable 10mm thick suspension arms
- Rubber CVA boots
- Factory Team threaded, hard-coated shock Fully adjustable pre-drilled, screw mounted
  - Super strong anti-wobble wheels
  - Anti-foaming fuel tank
  - Low-profile, elliptical, high-flow, two-stage air filter

### :: Additional

Your RC8 Buggy comes assembled with all the Factory Team hopups installed. However, there are some items you will need to complete your kit:

#### Items required:

- .21 Class Rear Exhaust Engine
- 2 Channel Radio Set FM/PCM recommended.
- 4.8v-6.0v Receiver Battery Pack (RC8 will accept either flat or hump pack)
- Muffler, Joining Pack or Manifold & Spring
- AA-Size Batteries for Transmitter
- Fuel
- Fuel Bottle
- Glow Starter
- Starter Box
- Lexan Specific Spray Paint

#### Tools required:

- Hex Wrenches
- Hobby Knife
- Needle Nose Pliers
- Wire Cutters
- Lexan Scissors (AE Pt#1737)

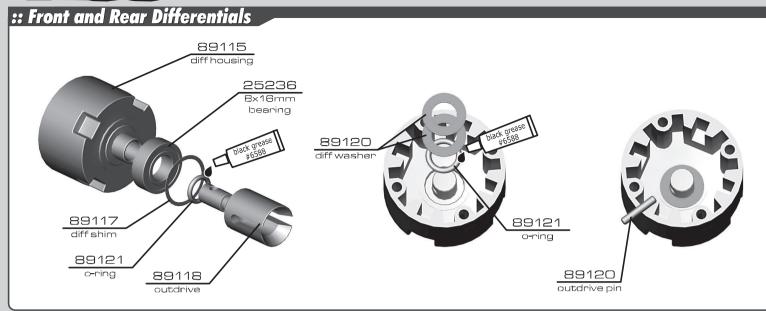
## Tools Suggested:

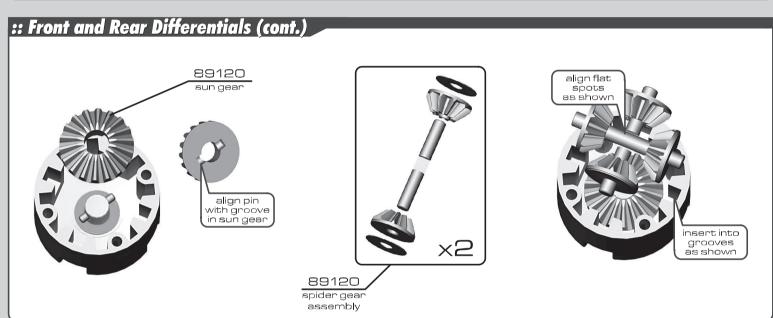
- Reamer/Hole Punch
- CA Glue (AE Pt#1597)
- Thread Locking Glue (AE Pt#1596)
- Silicone Fluid

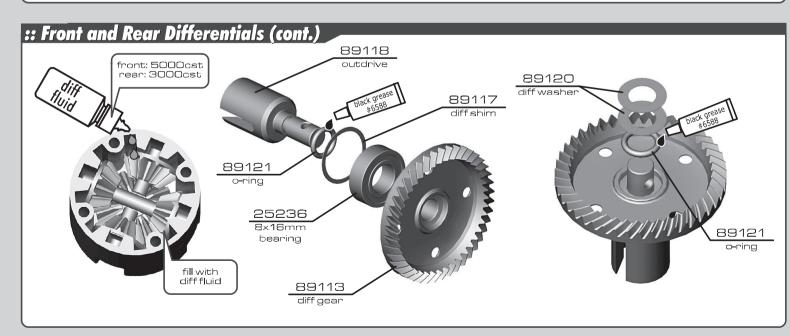


Associated Electrics, Inc. 26021 Commercentre Dr. Lake Forest, CA 92630 Tel: 949.544.7500 • Fax: 949.544.7501 http://www.TeamAssociated.com http://www.RC10.com

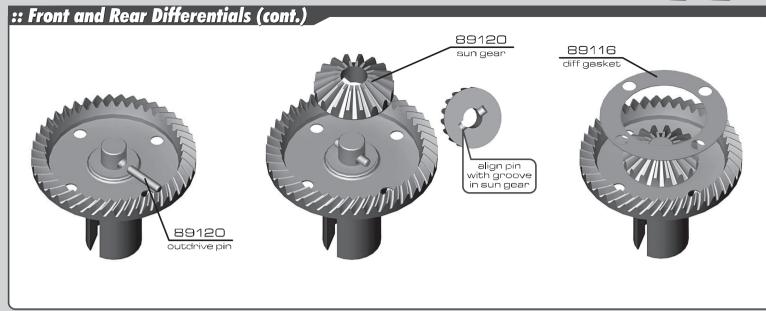


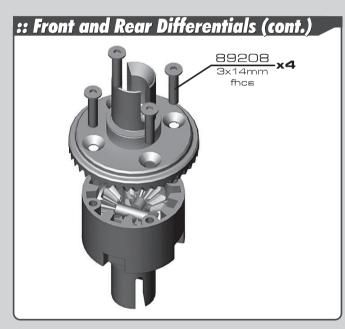


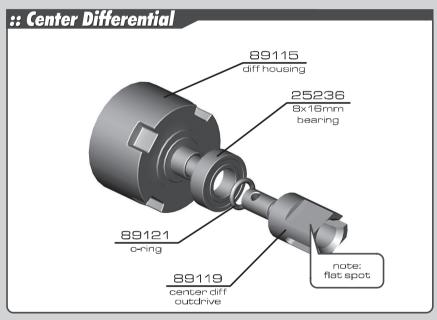


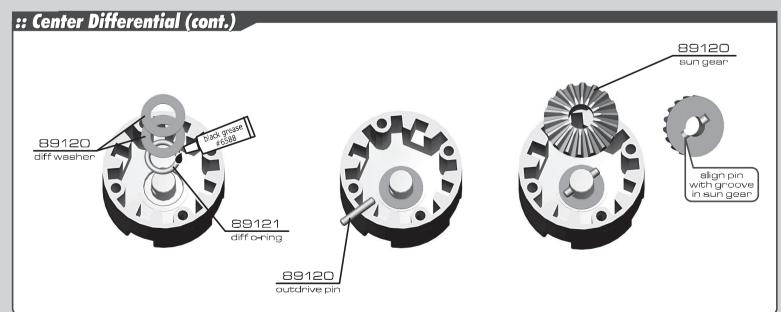




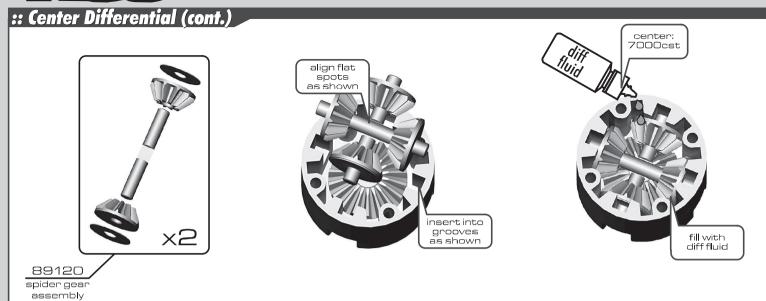


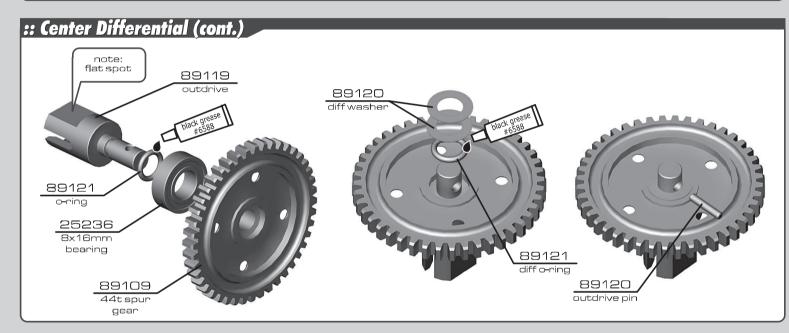


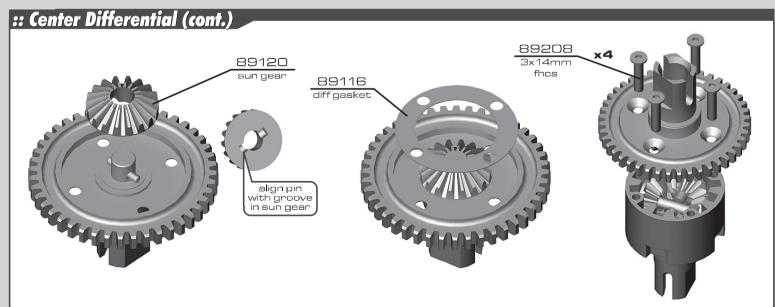




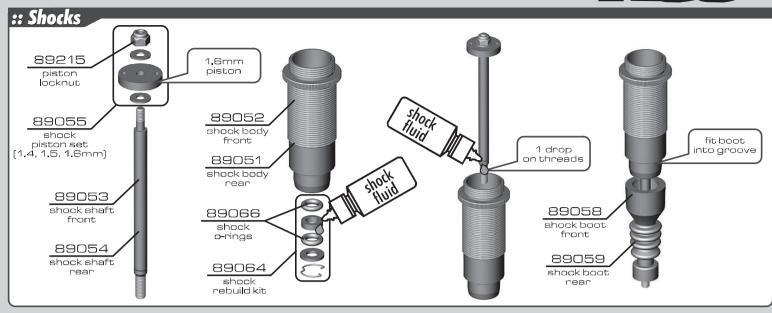


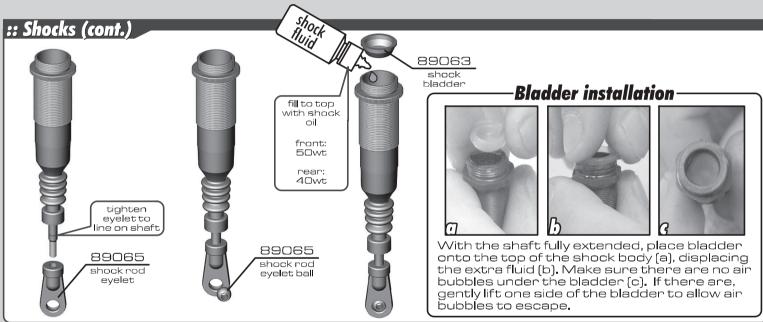


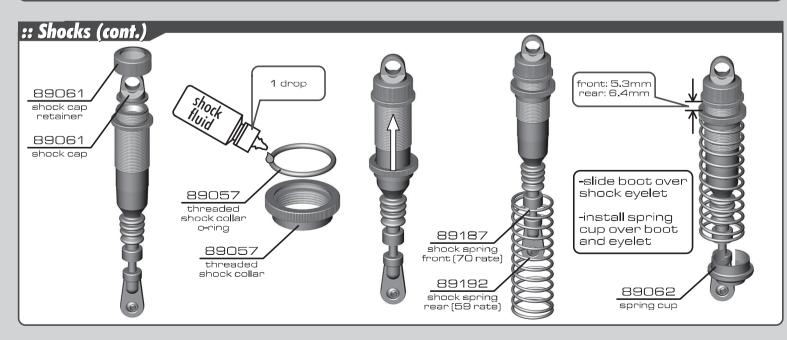




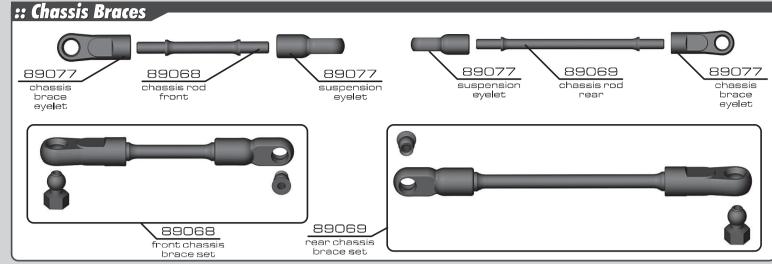


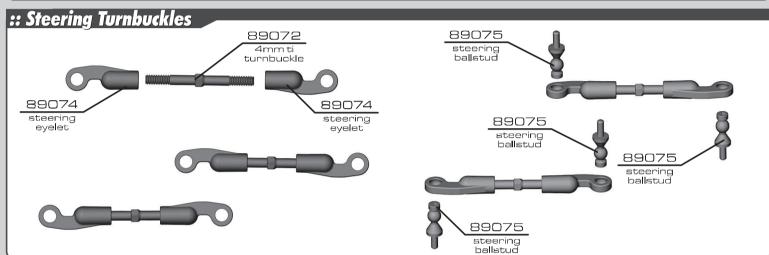


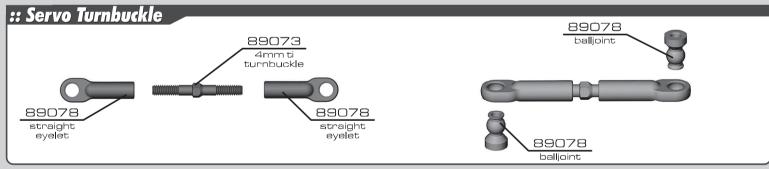


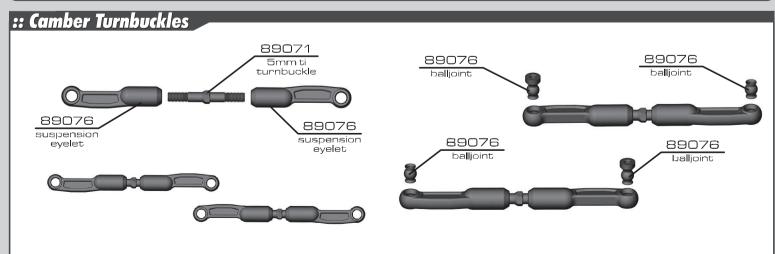




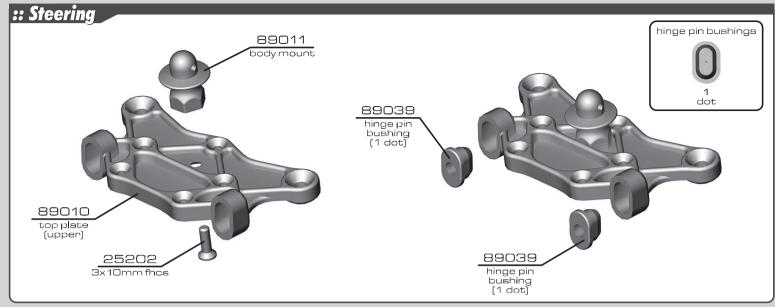


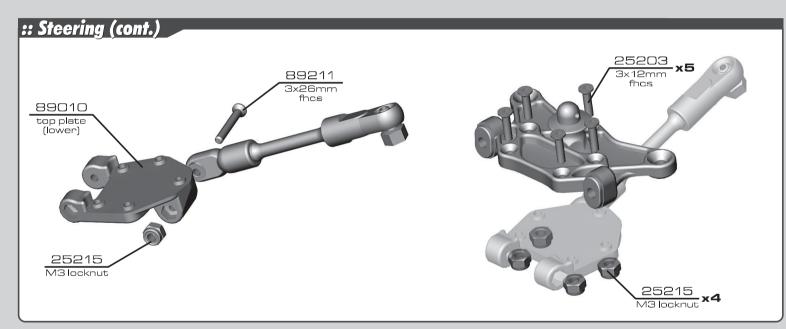


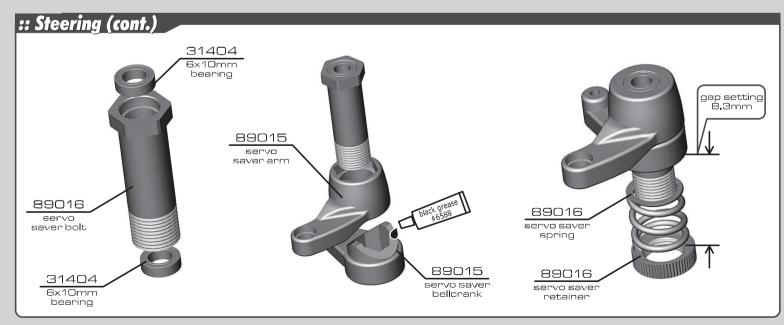




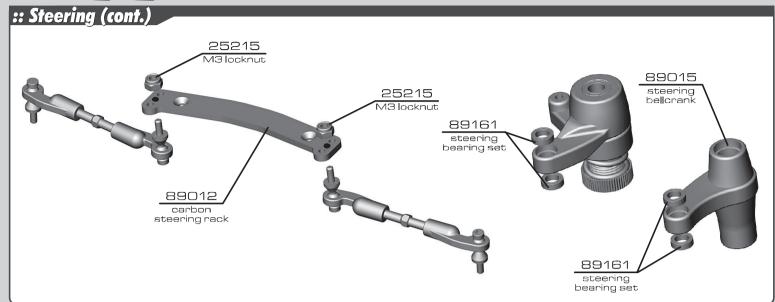


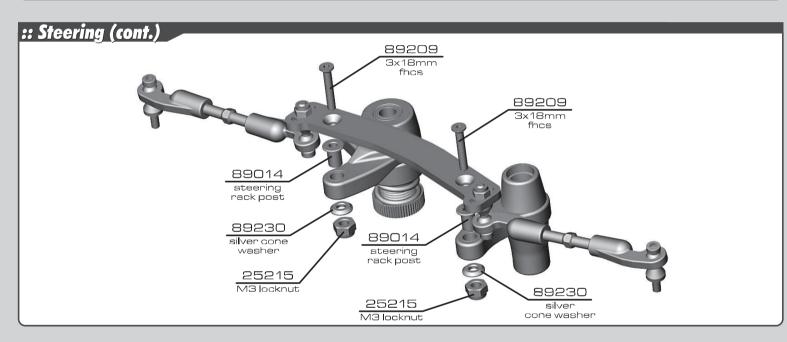


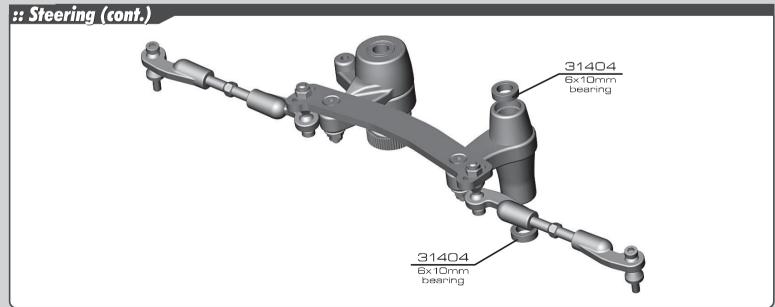




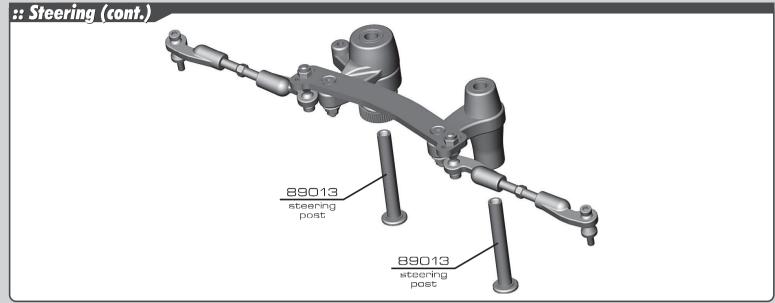


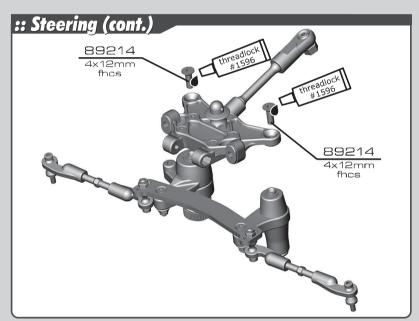


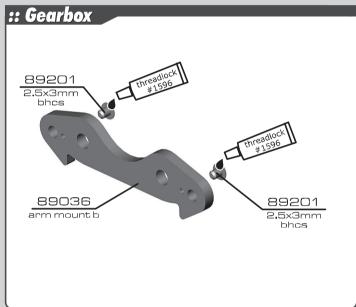


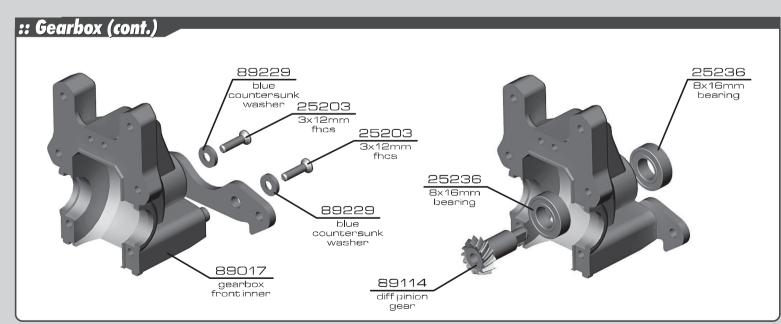




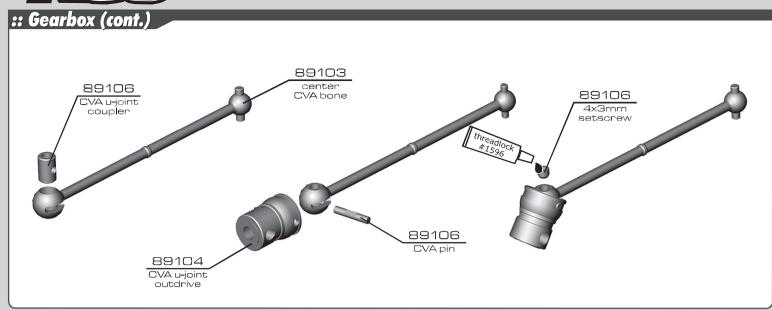


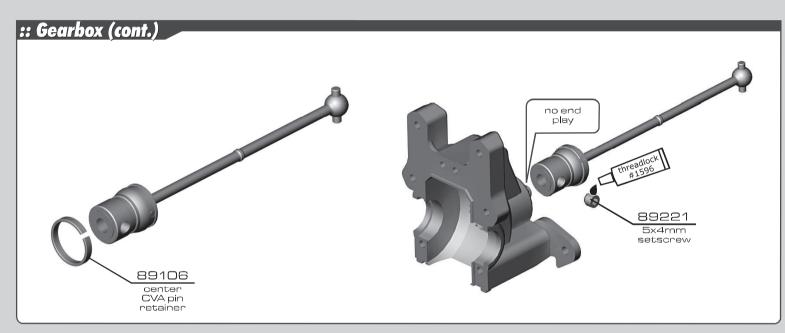


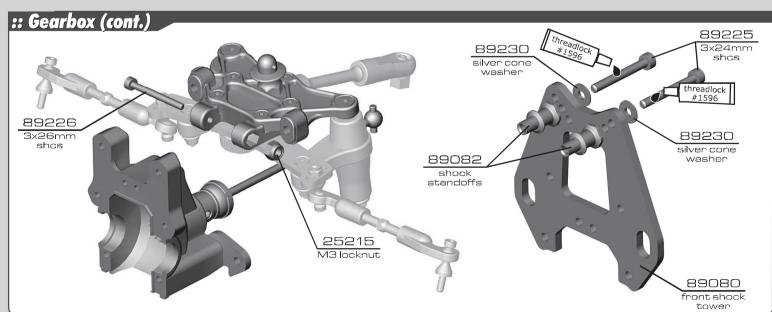




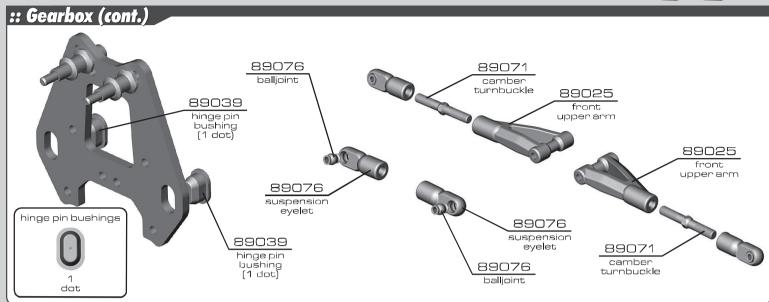


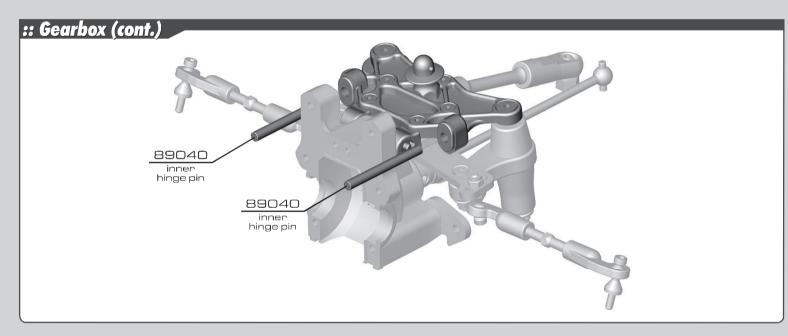


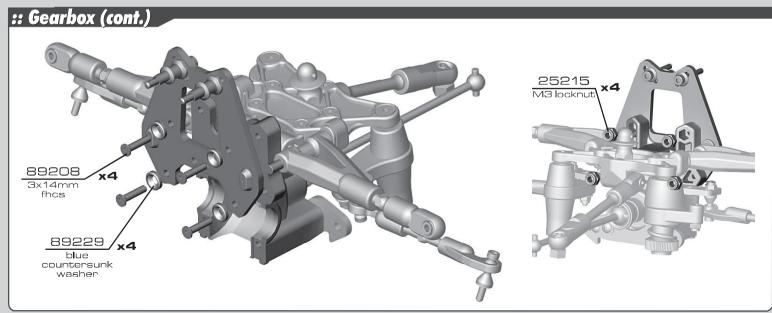




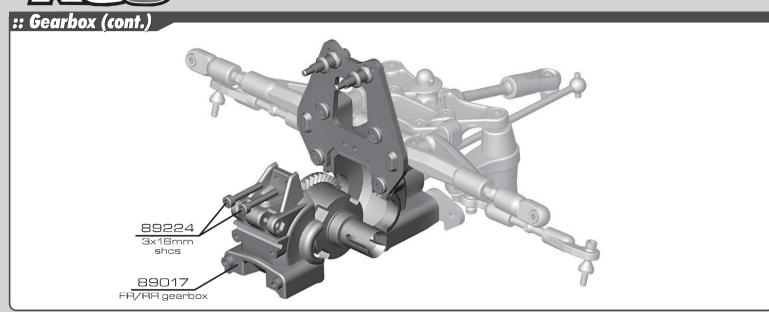


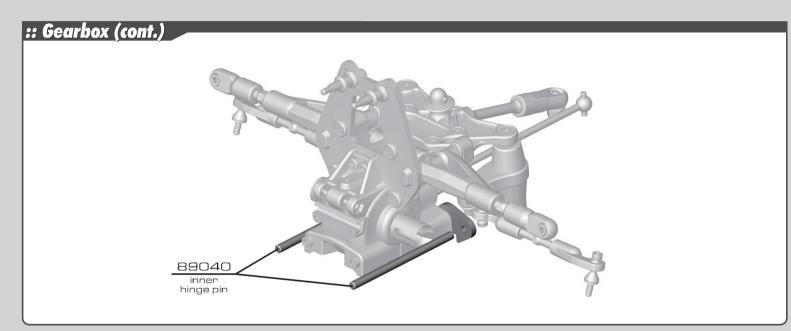


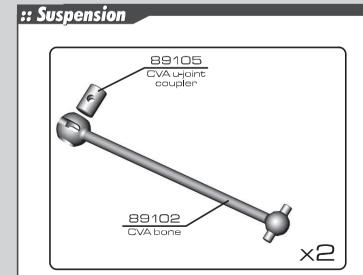


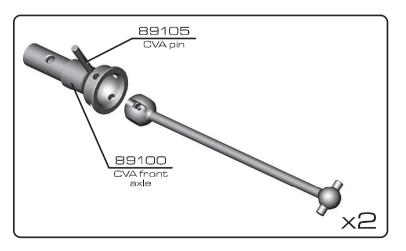




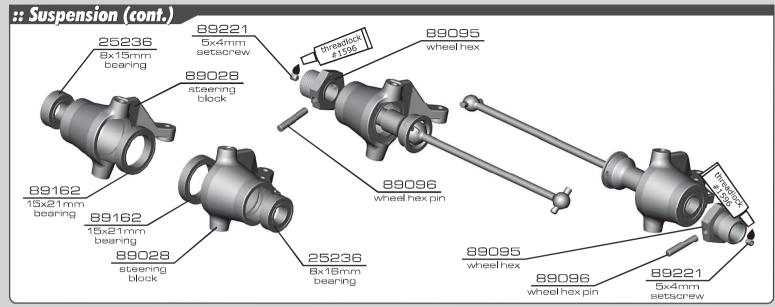


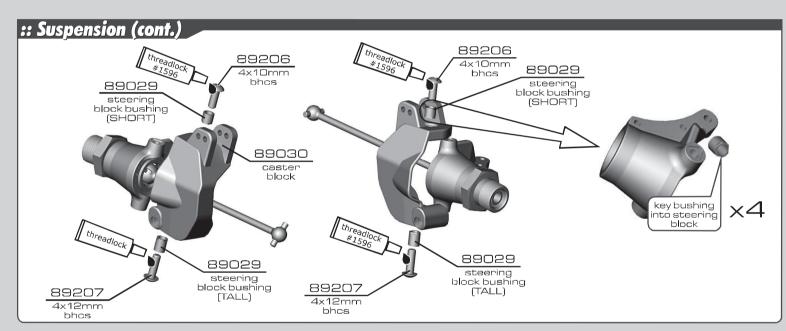


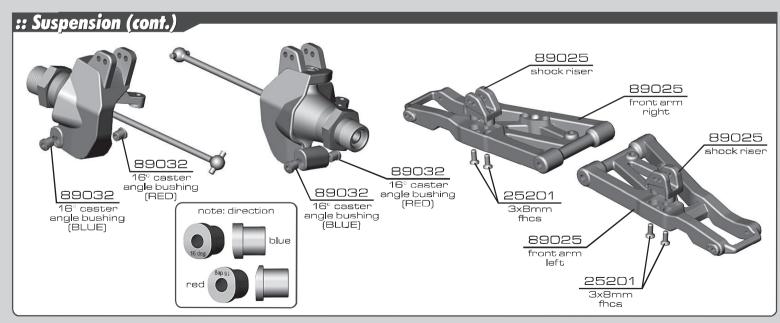




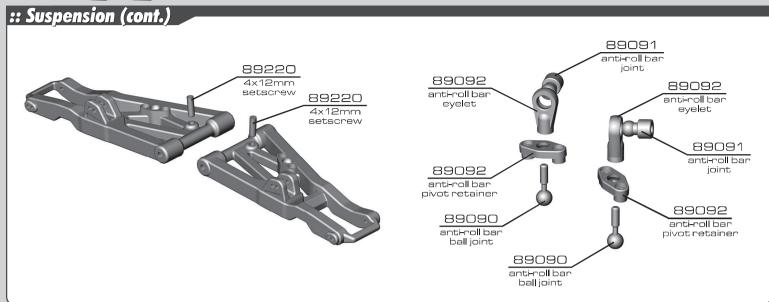


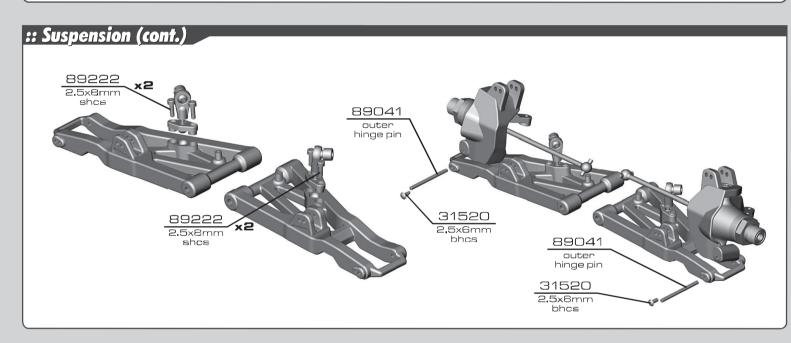


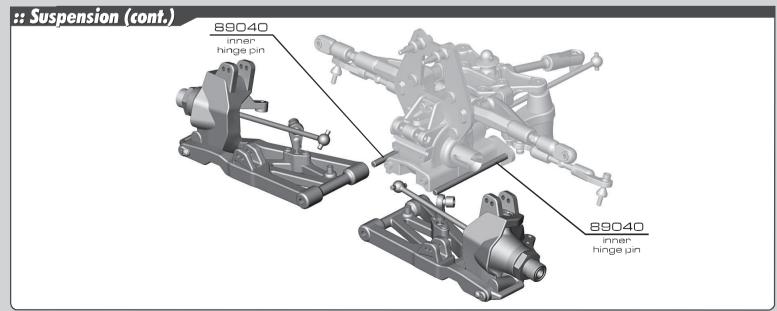




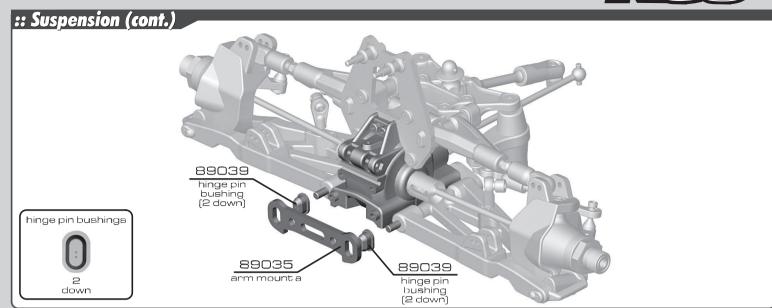


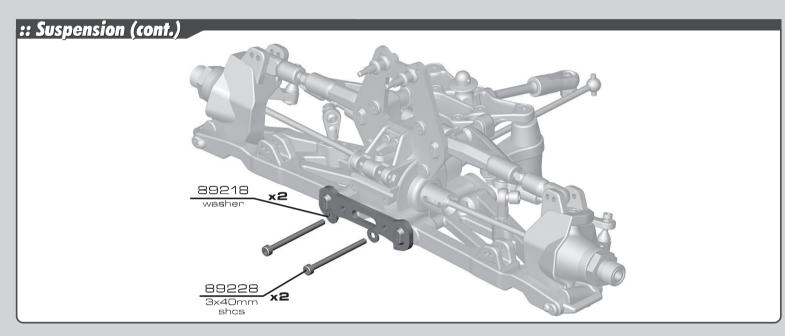


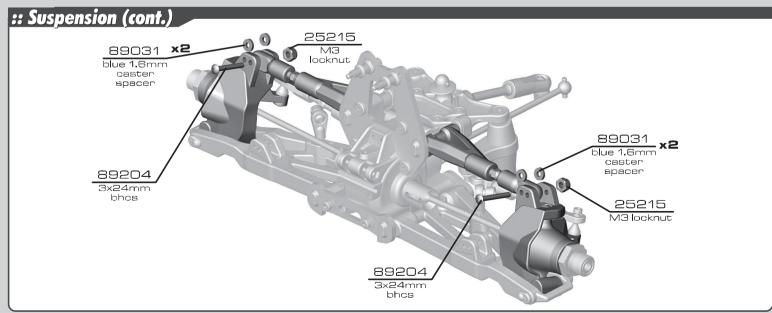




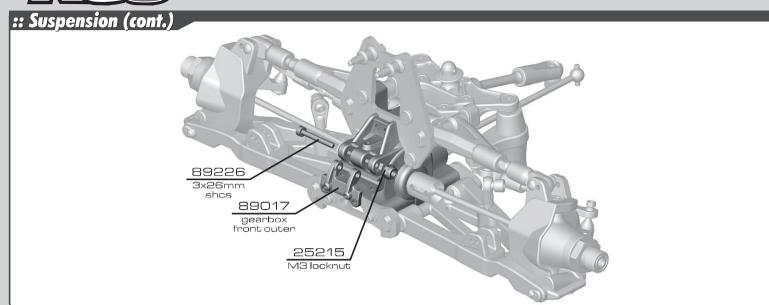


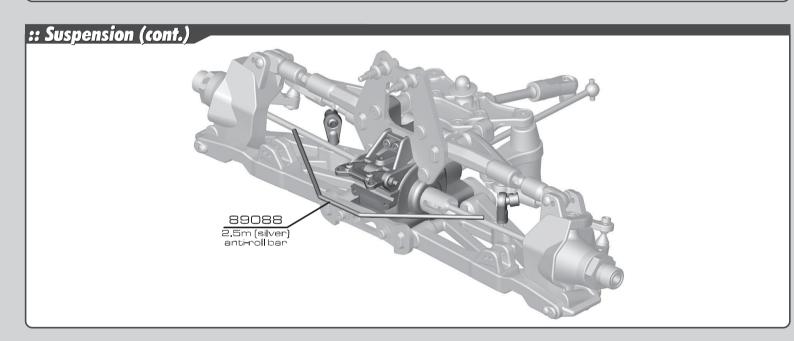


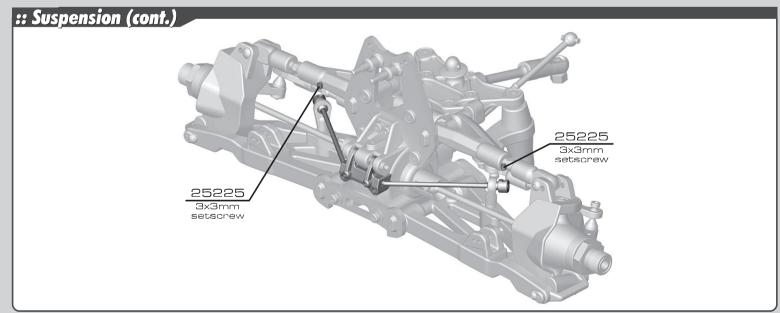




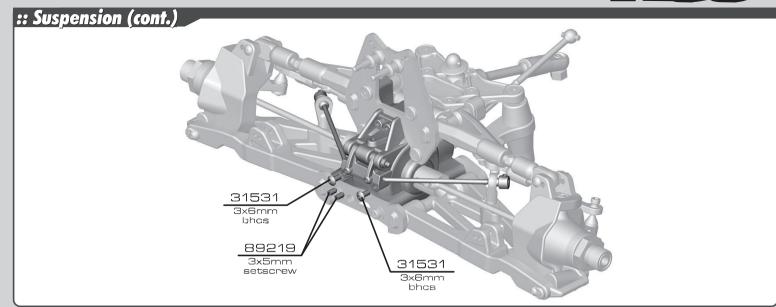


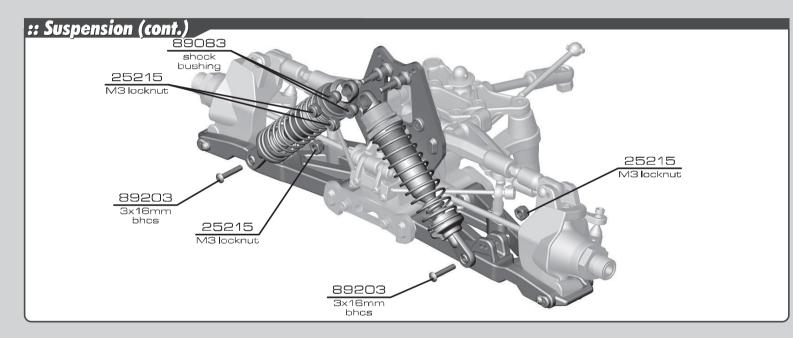


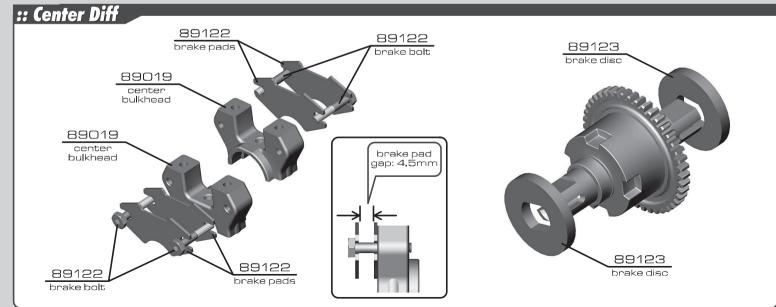




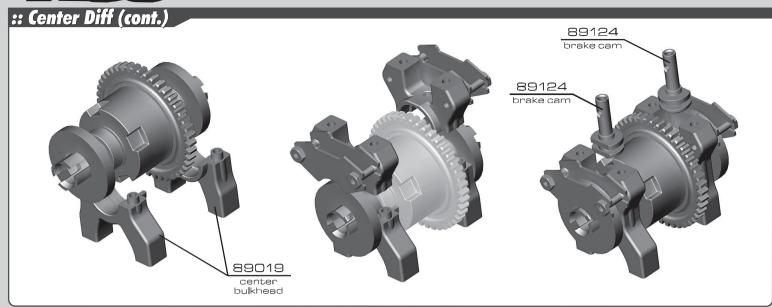


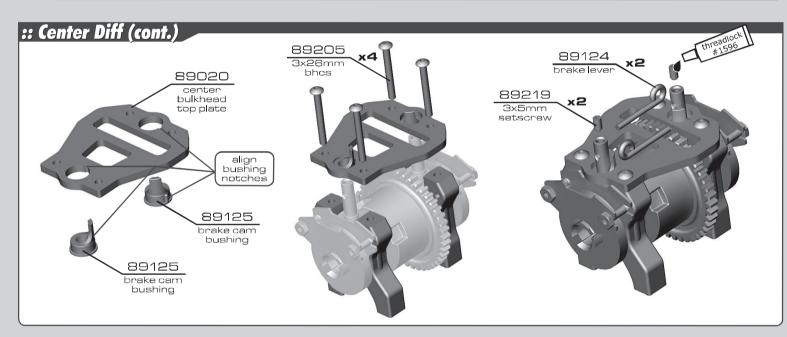


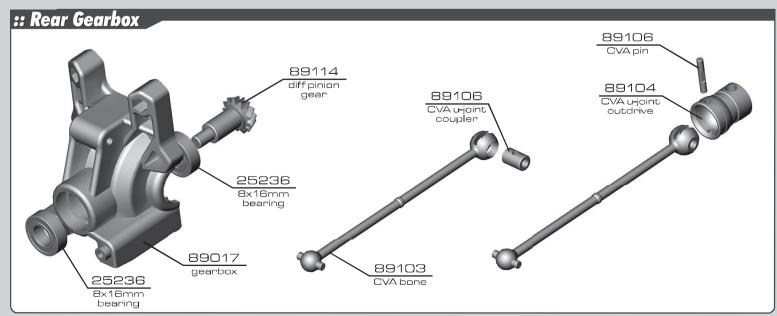




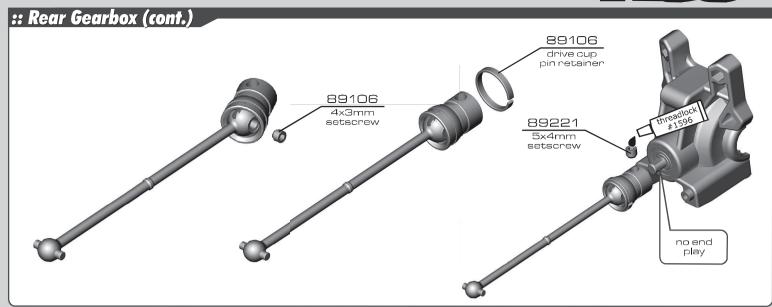


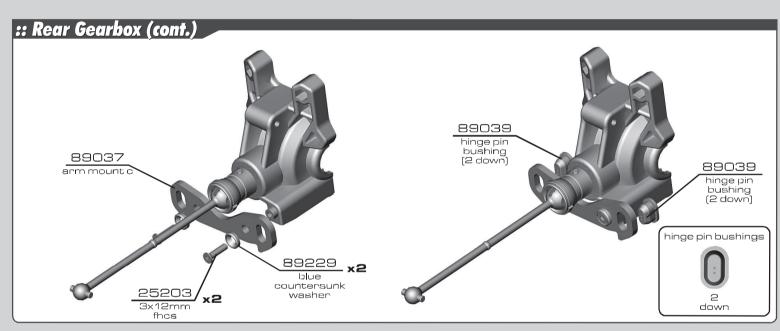


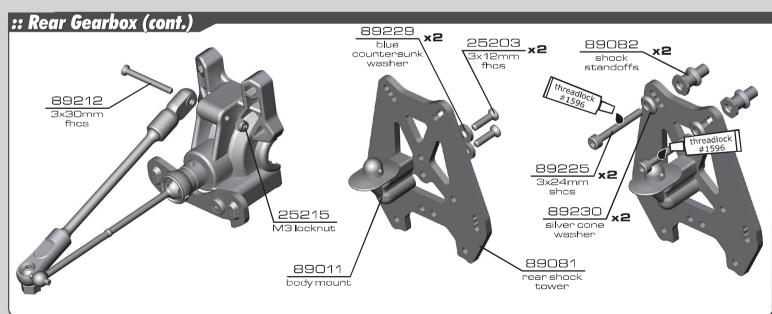




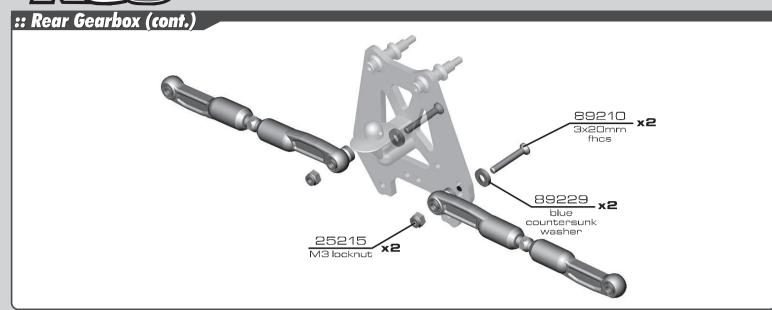


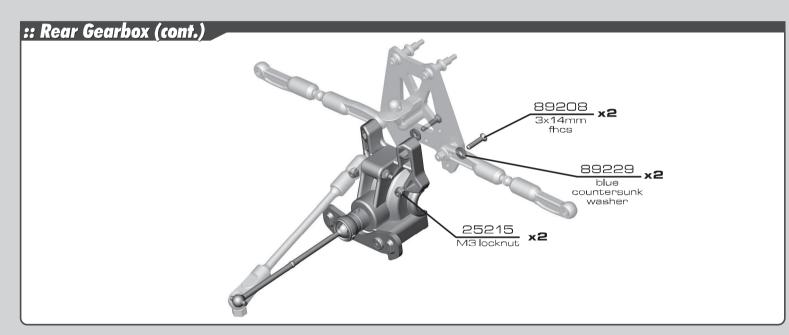


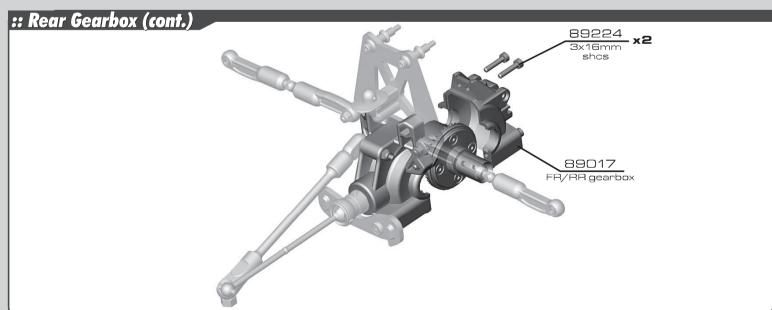




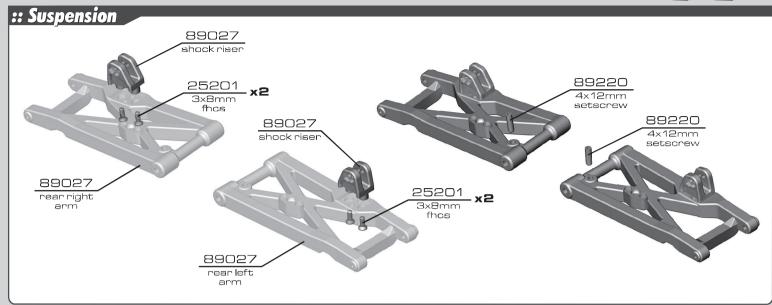


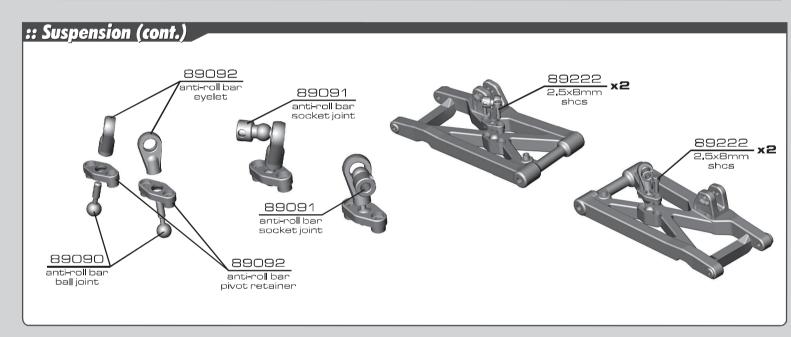


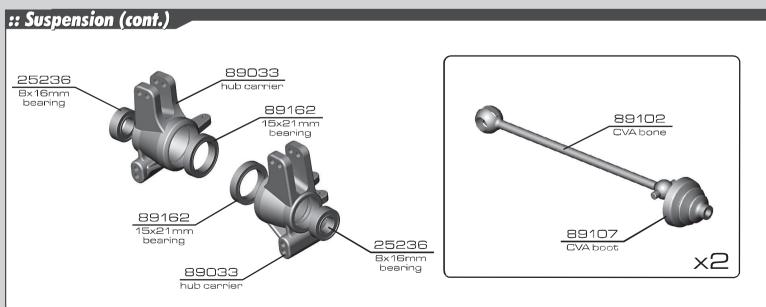






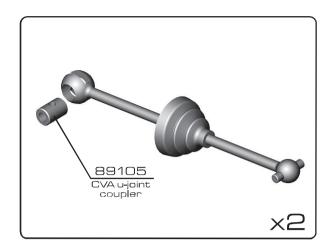


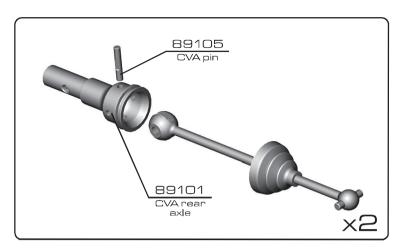




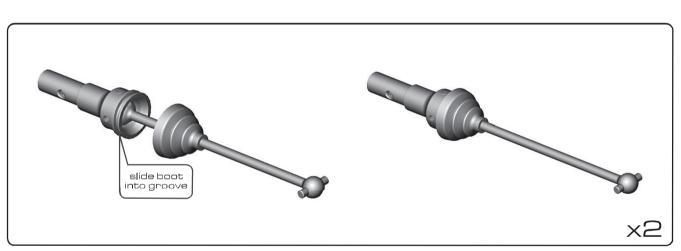


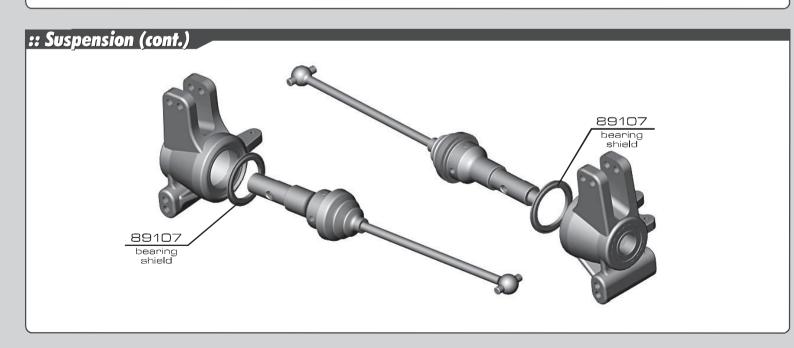
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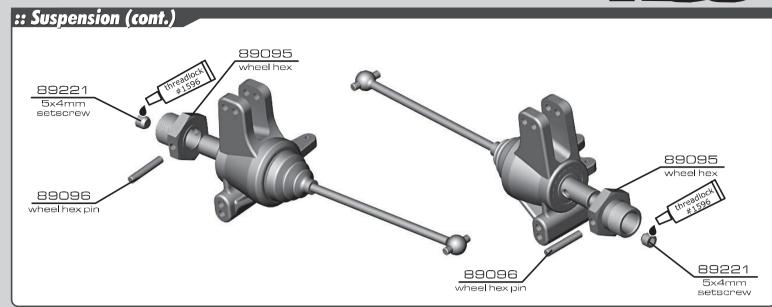


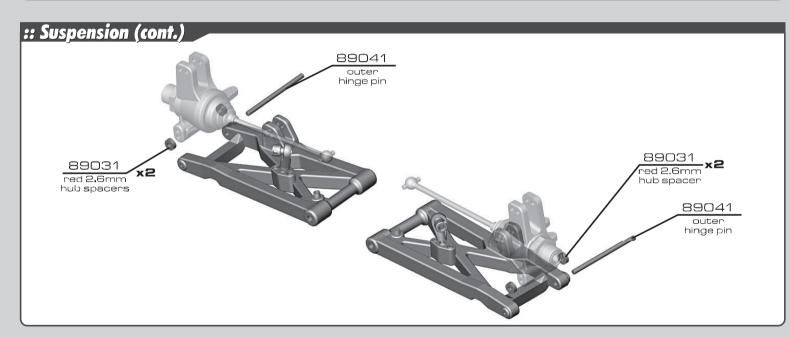
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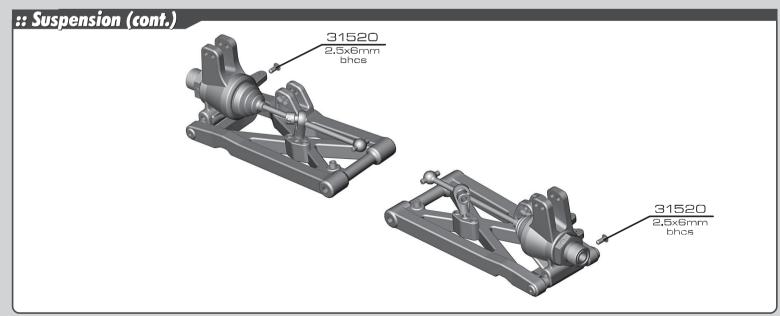




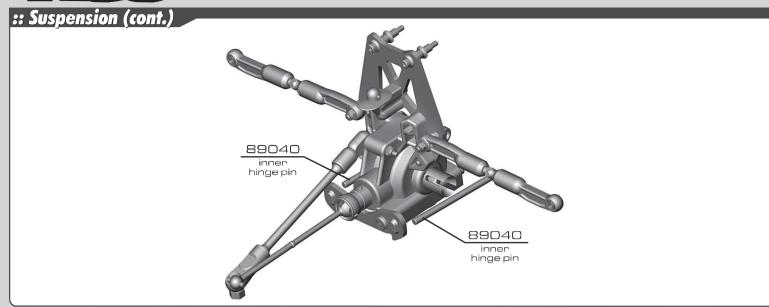


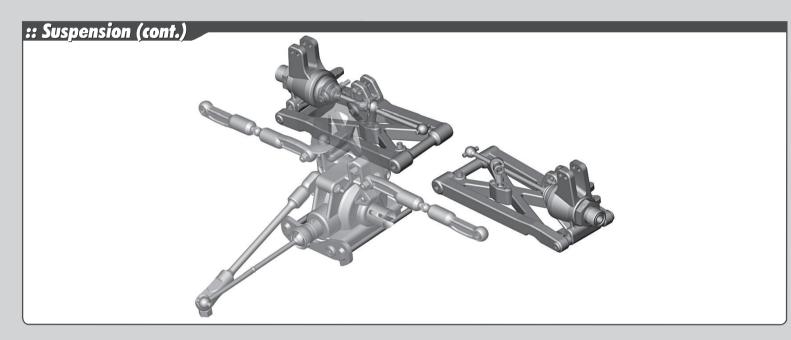


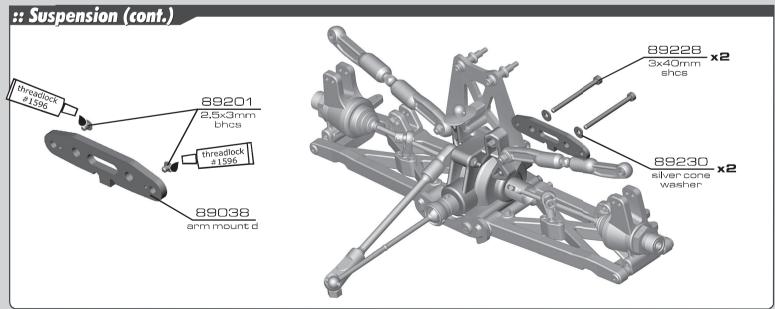




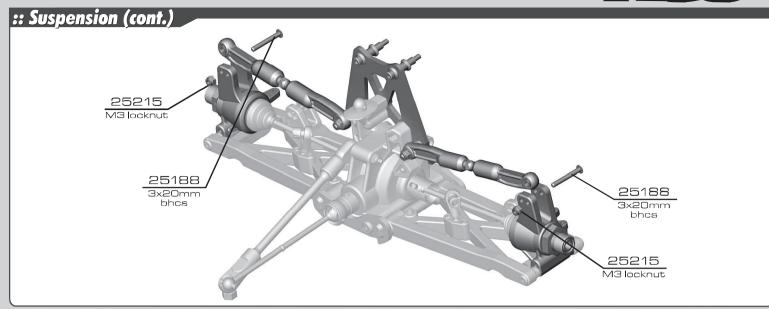


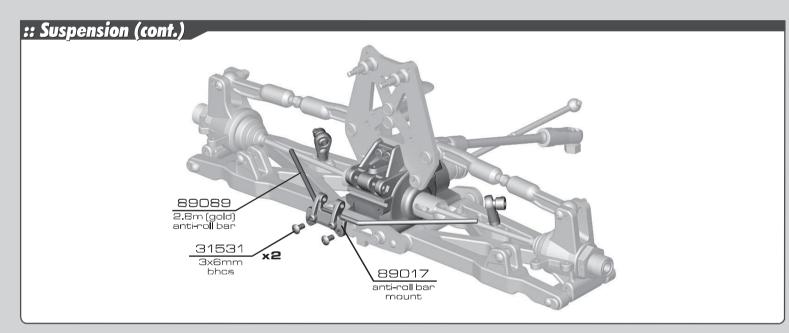


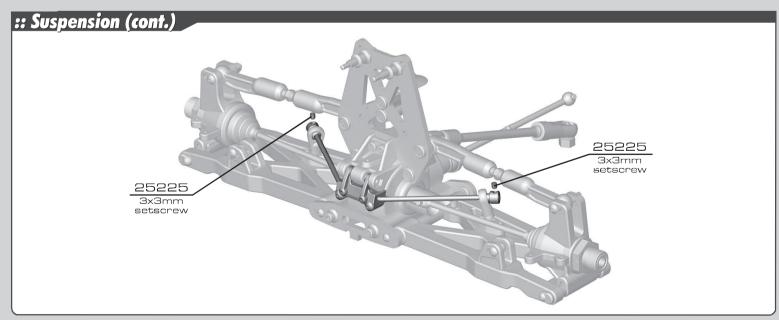




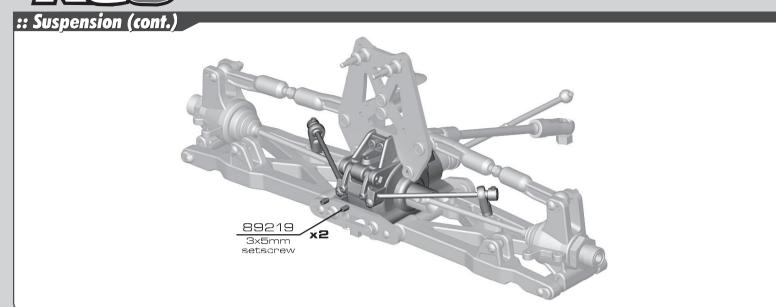


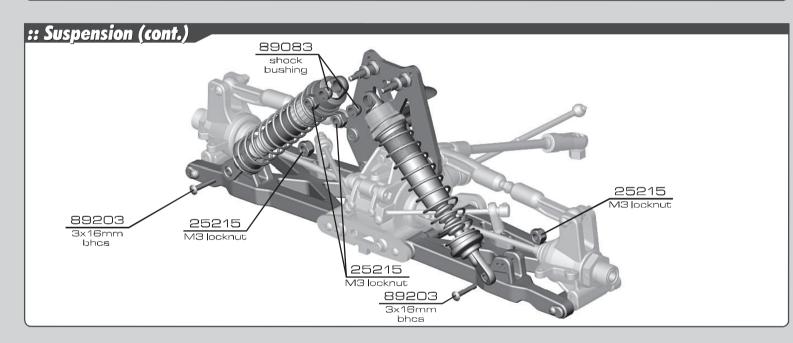


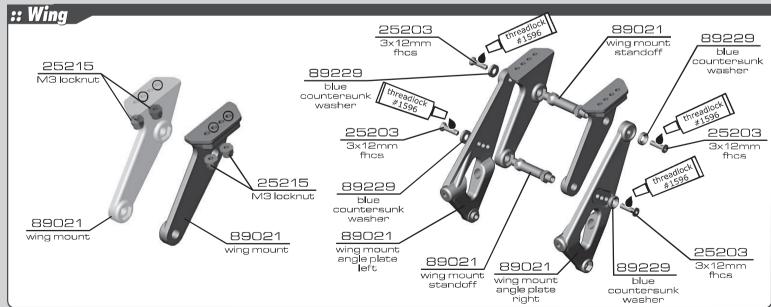




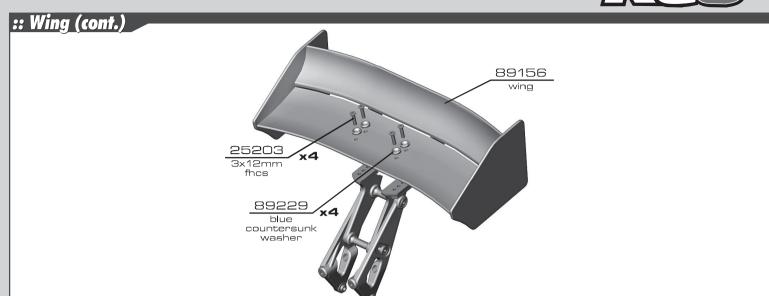


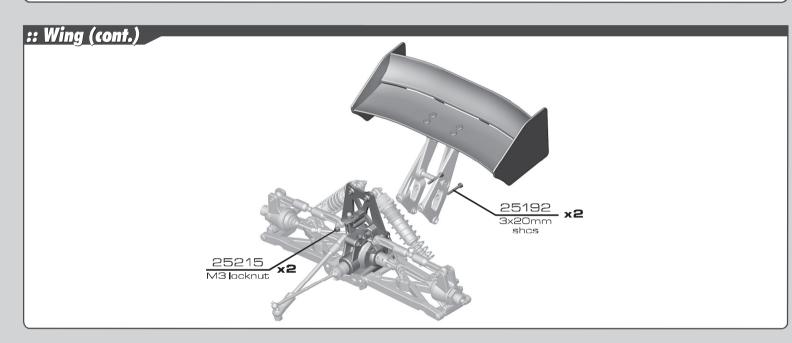


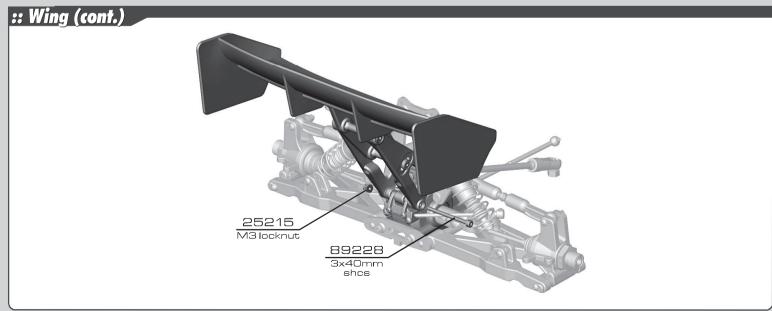




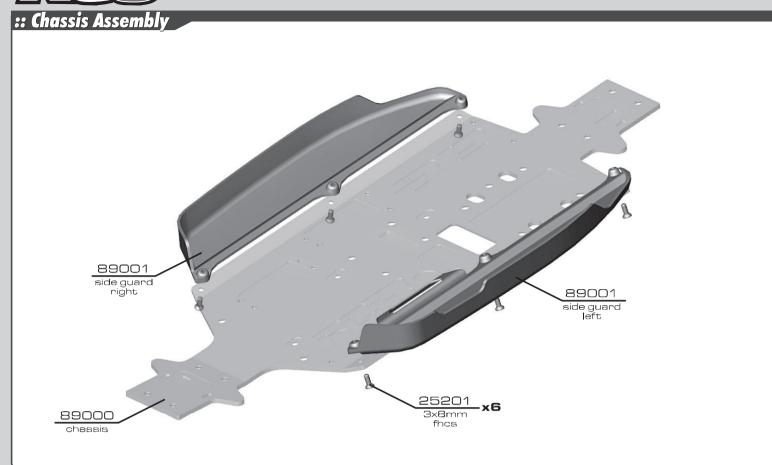


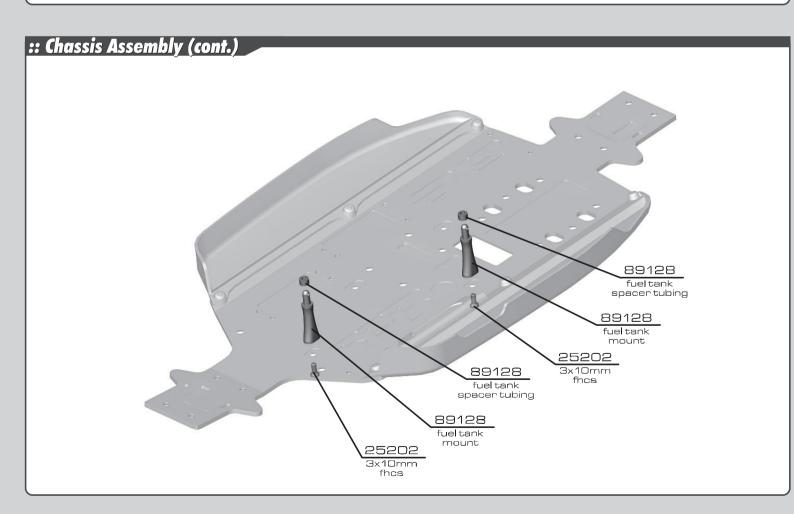




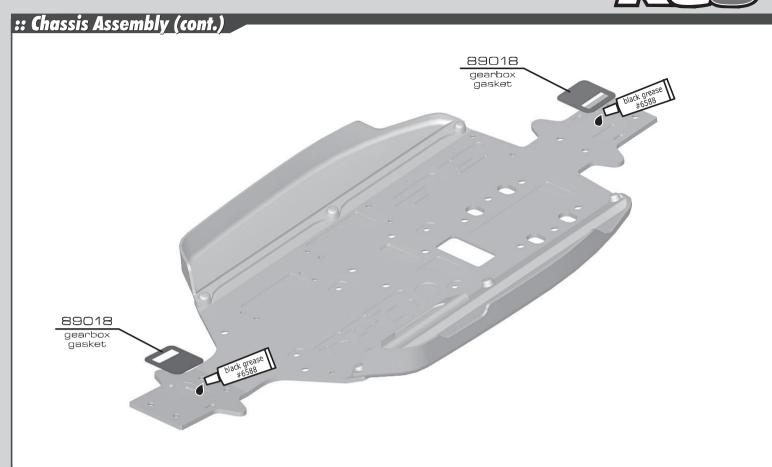


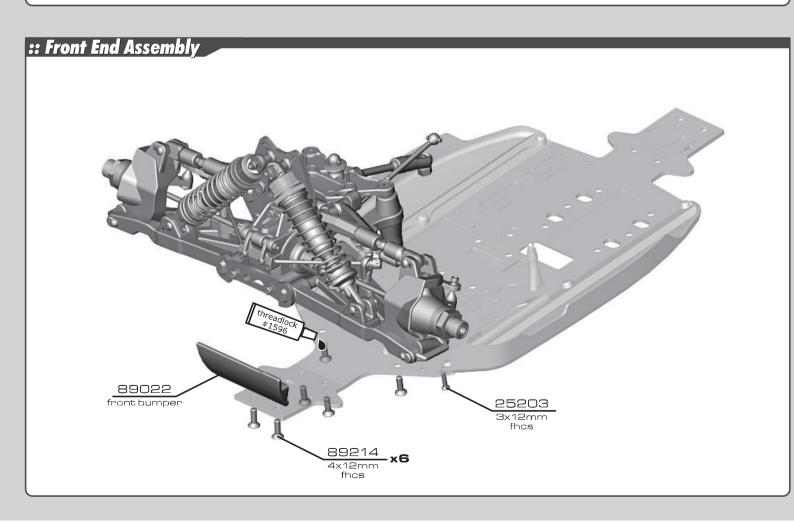




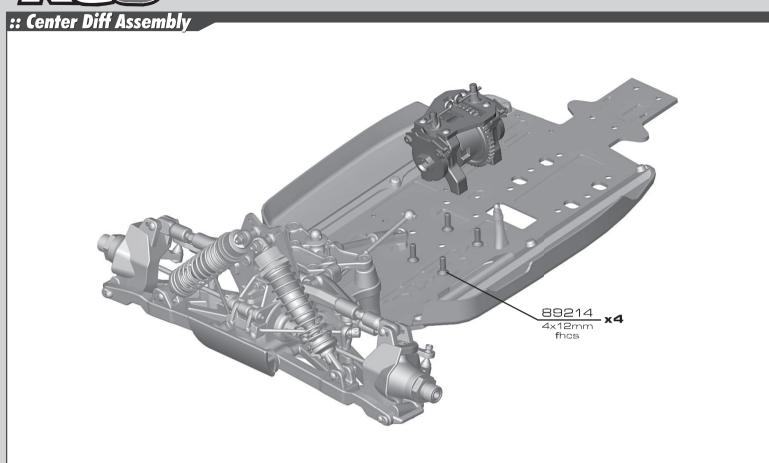


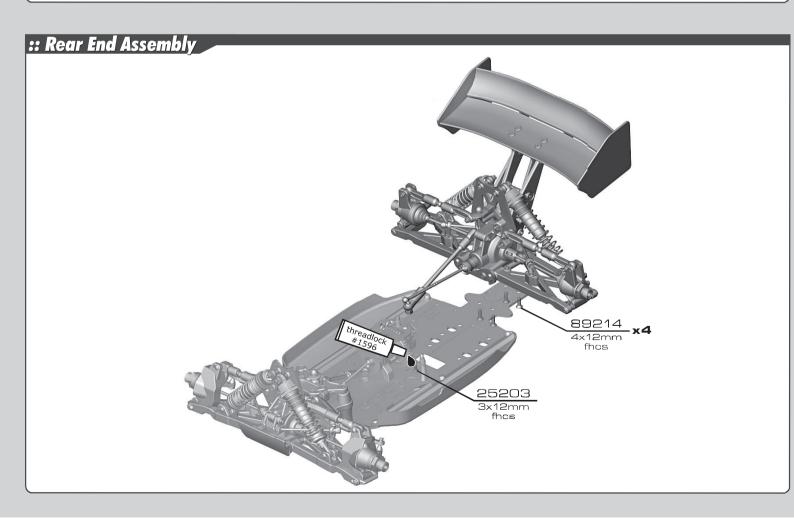




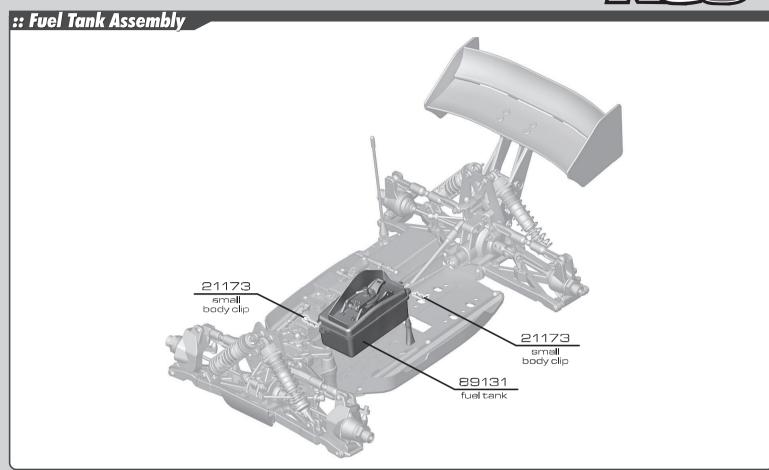


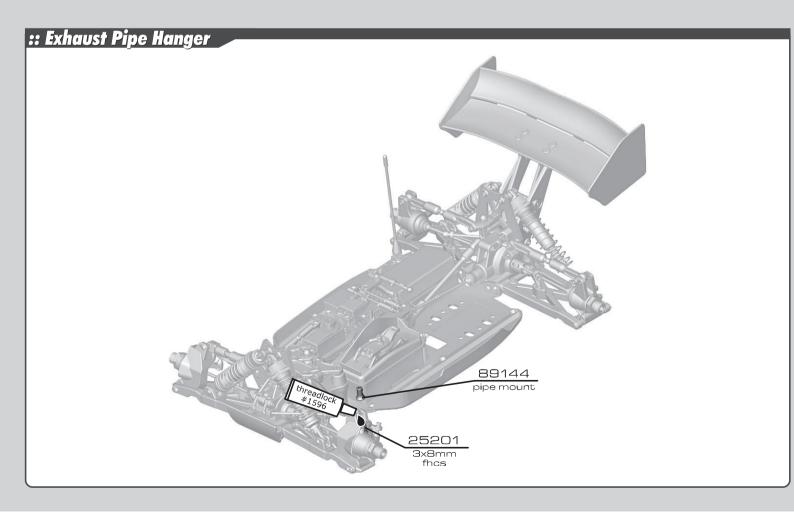




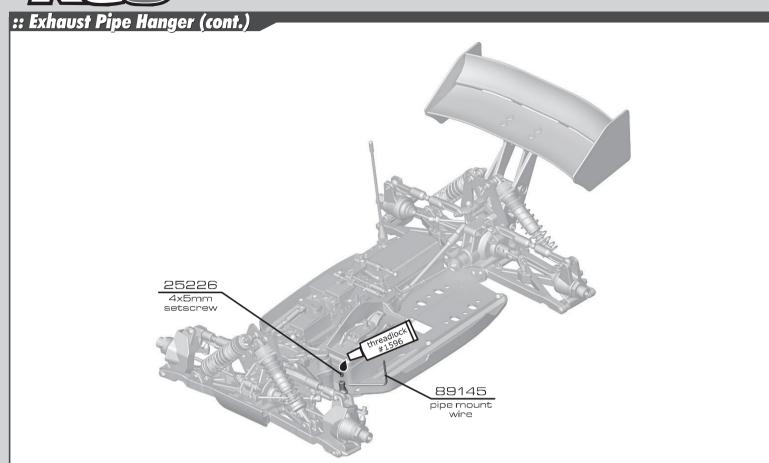


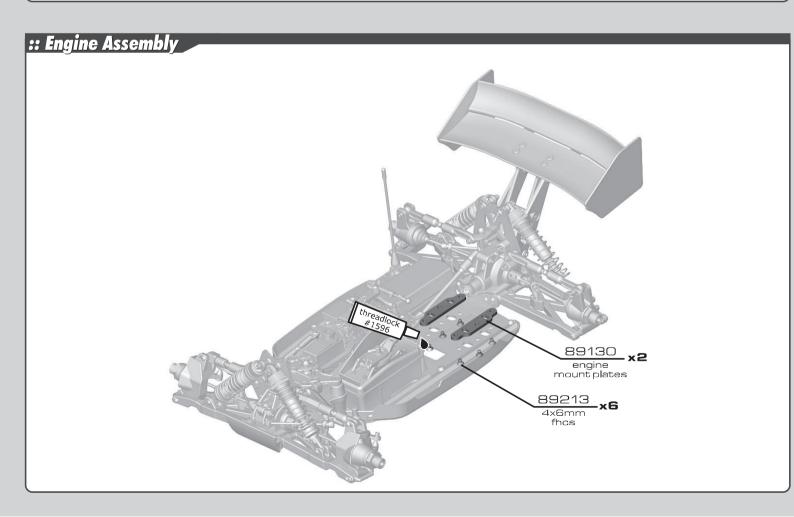




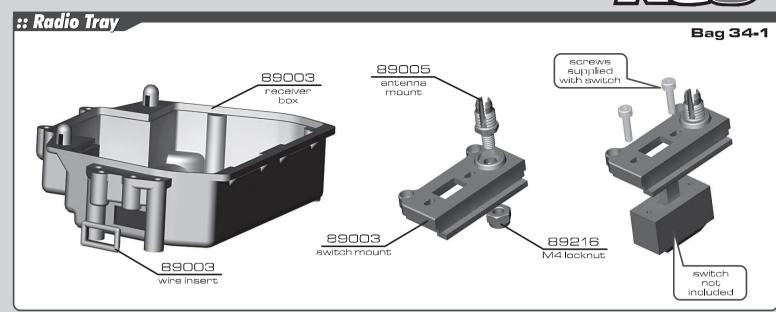


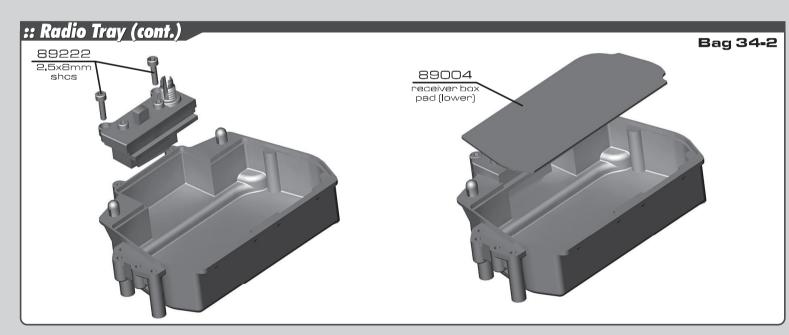


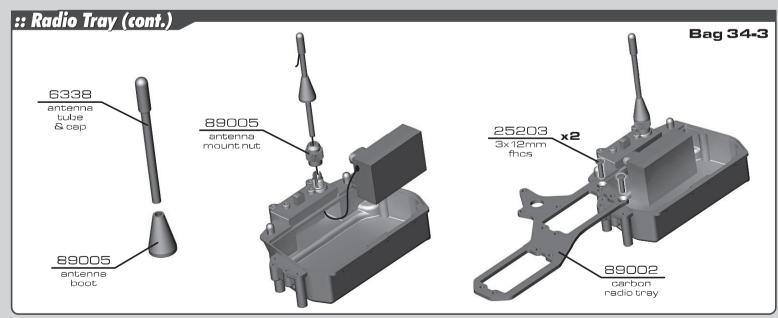




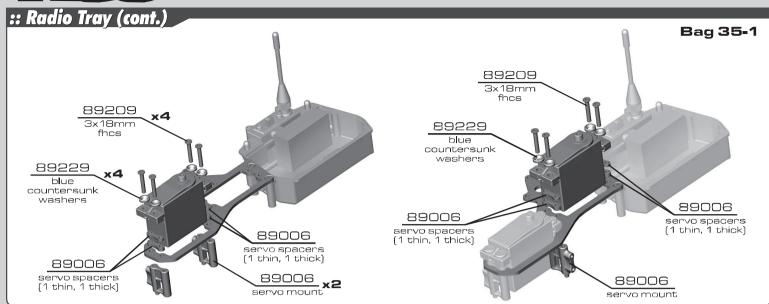


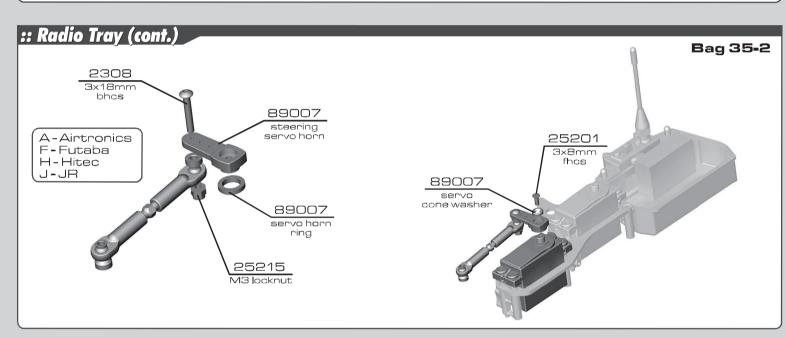


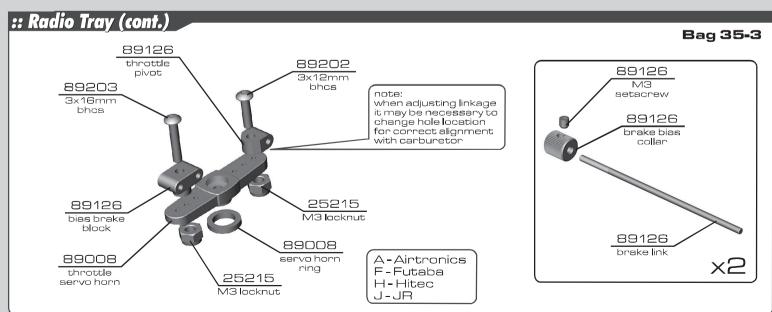




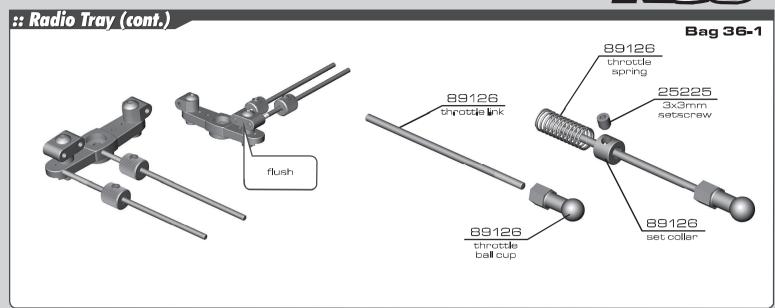


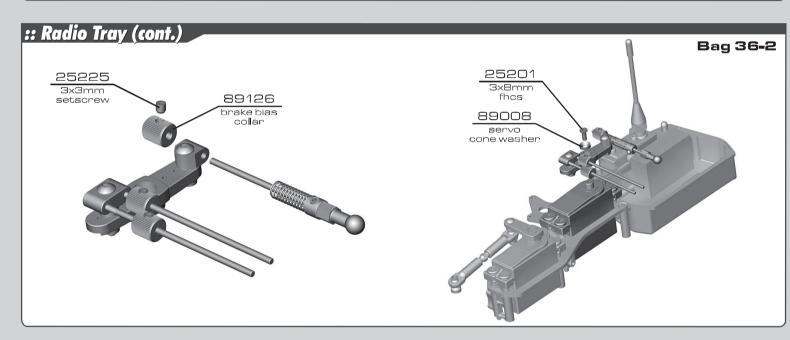


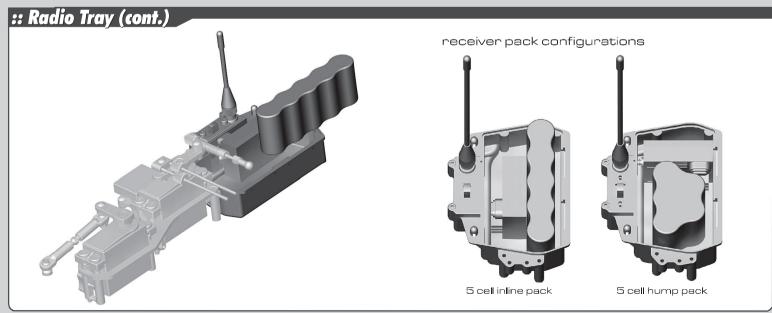




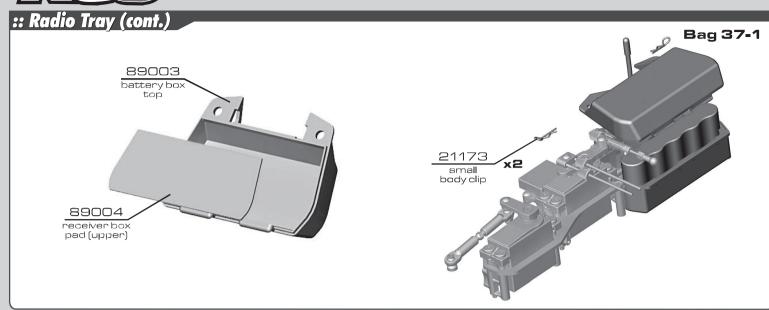


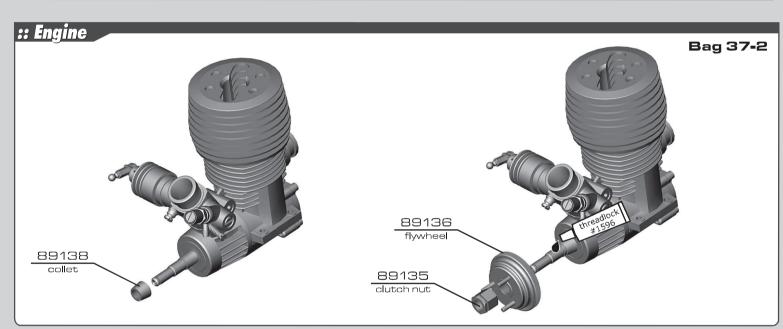


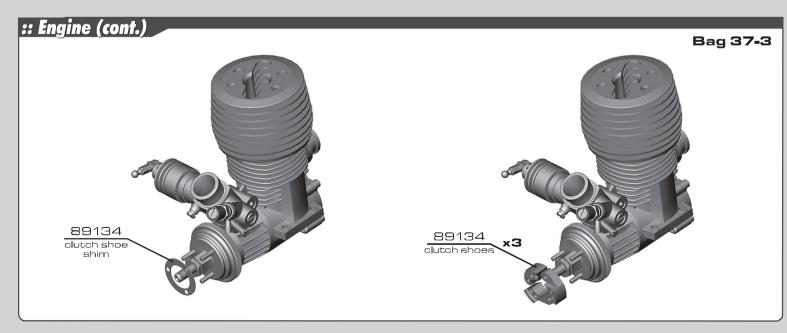




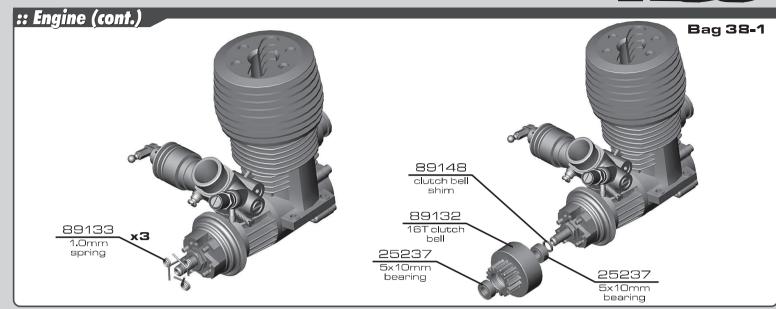


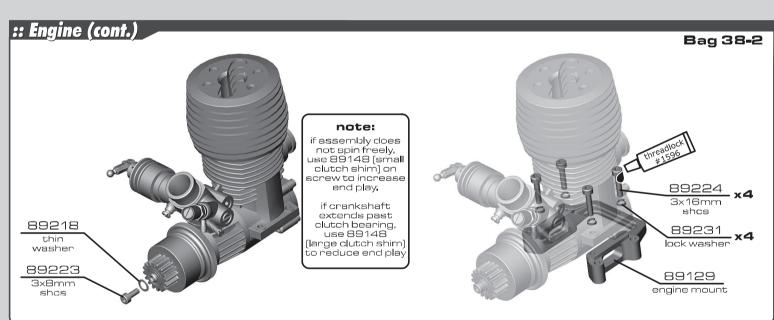


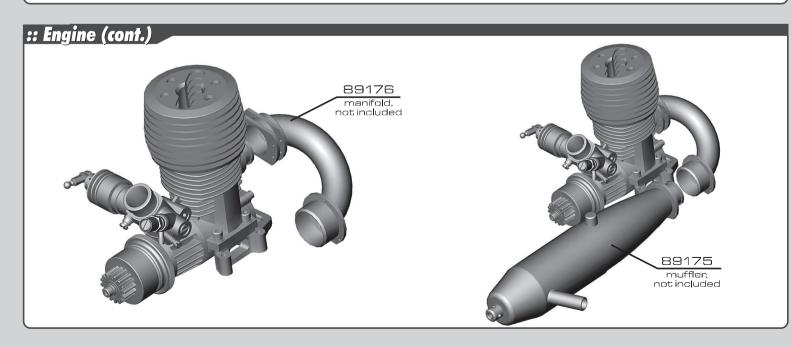




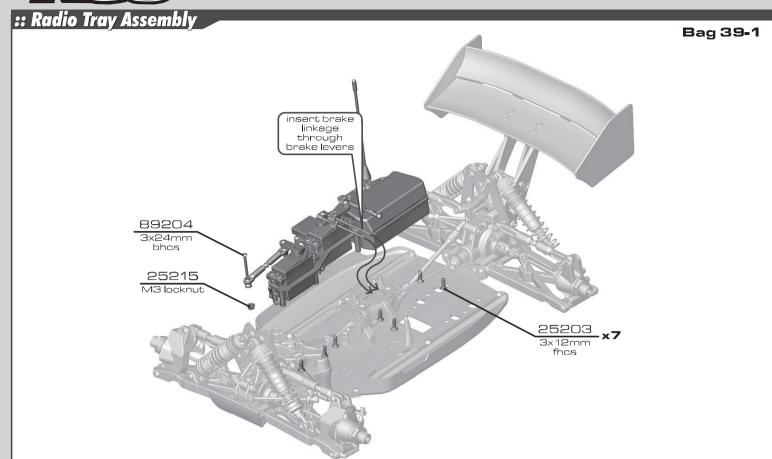


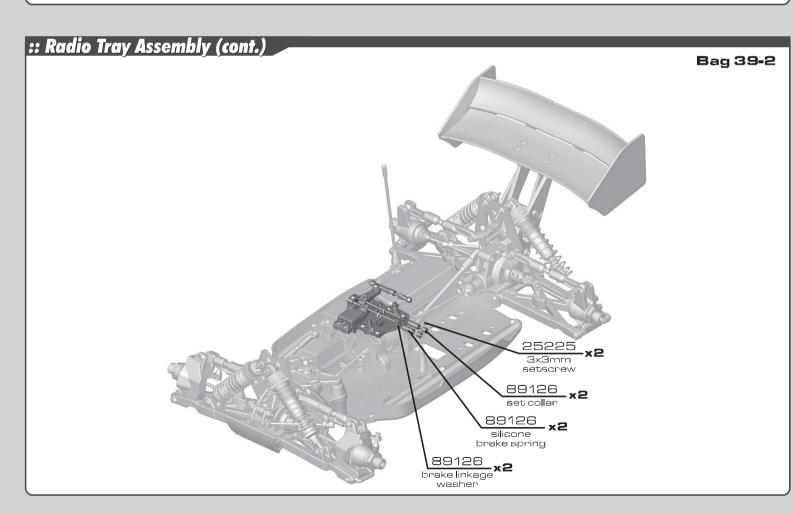








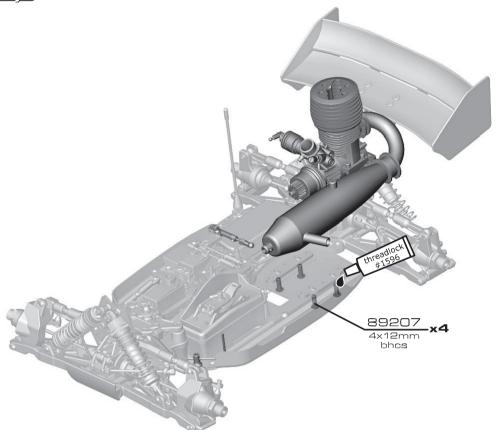




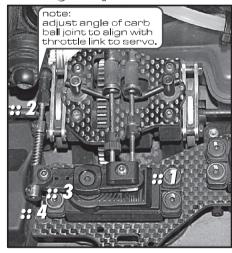


:: Engine Assembly

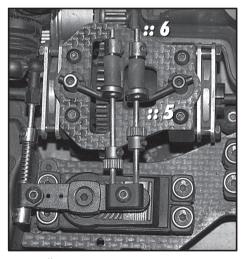
Bag 4**0-1** 



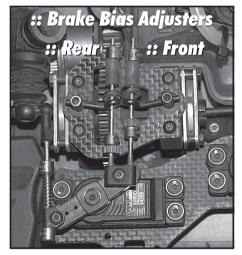
# :: Linkage Adjustment



- 1: turn on transmitter and car, adjust servo horn until position is parallel with centerline at neutral.
- 2: set pre-load on spring so that throttle will close.
- 3: set .05mm gap on throttle collar.
- 4: trim off excess rod.



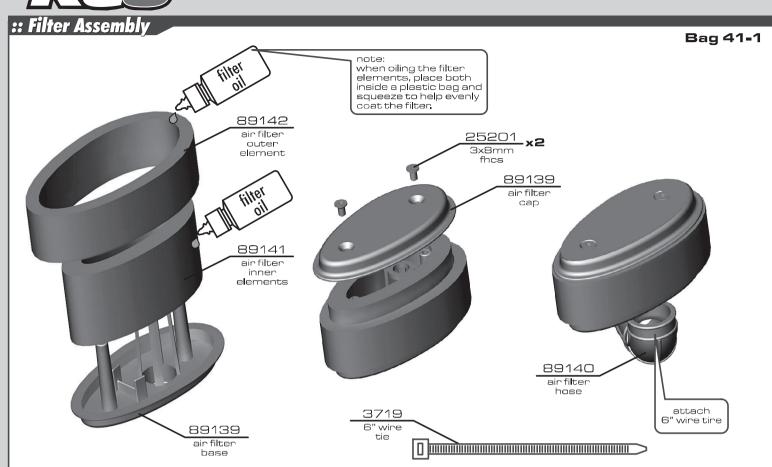
- 5: pull cams to engage brakes, set collar (with brakes engaged) to have 1 mm gap between tubing and collar. remember: transmitter is still on during this step.
- 6: trim off excess brake link wire.

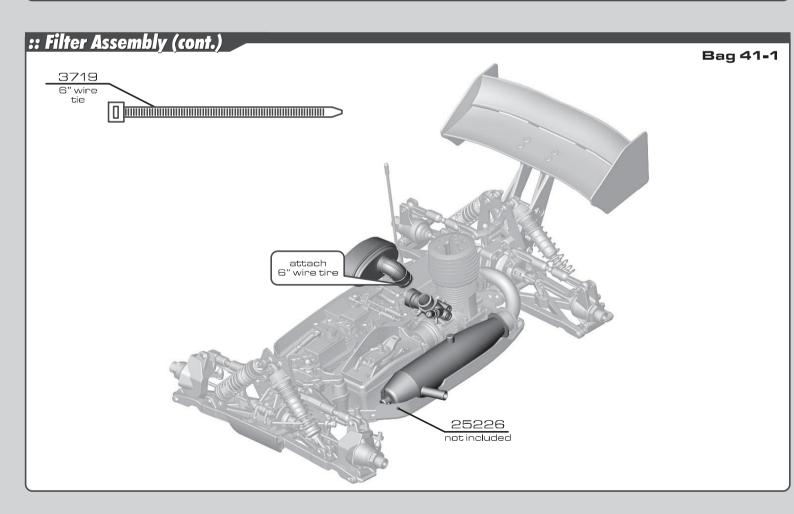


- 7: set throttle EPA max. apply full throttle on transmitter and set EPA so that the carb is full open. be careful not to over-extend the carb.
- 8: set max brake EPA at 30% as a starting point.

brake bias adjusters: thread the adjuster into the mount to achieve stronger brakes on that end of the can





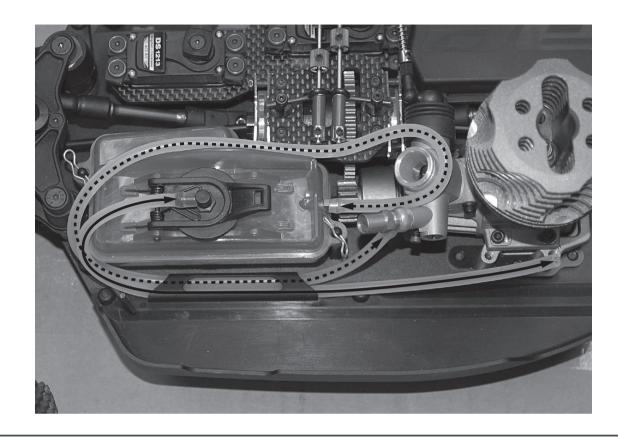


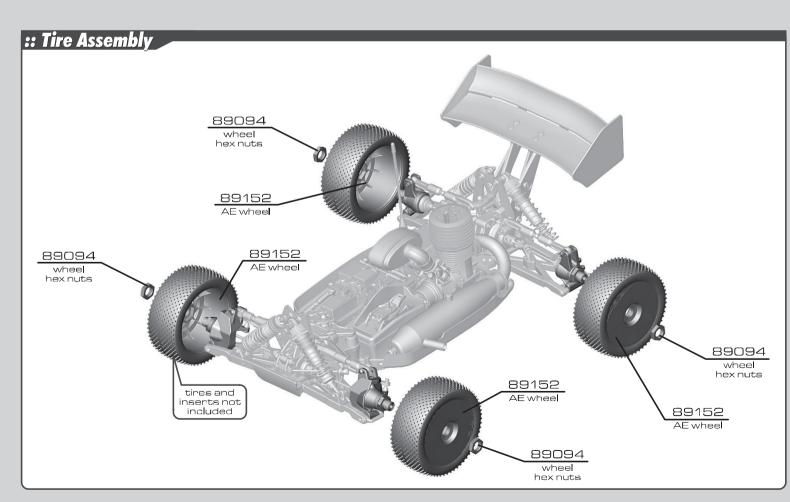


# :: Fuel Line

pressure line from fuel tank lid to exhaust pipe nipple

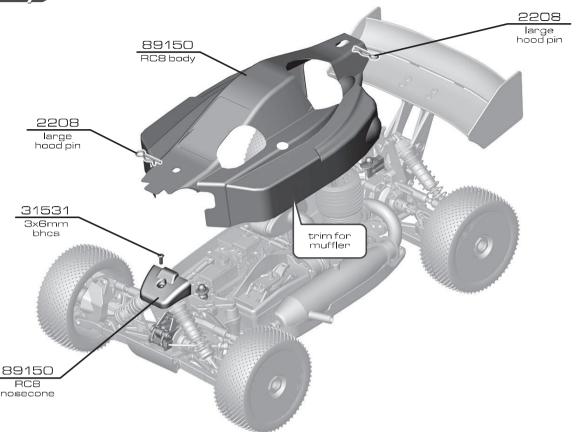
fuel line from fuel tank to carburetor







# :: Body Assembly



# :: Building Tips

#### Tires:

The tires need to be glued to the wheels using any fast-curing cyanoacrylate glue (CA) (AE Pt# 1597). This is available at your local hobby shop.

#### Gear Mesh:

To correctly set your gear mesh, follow the steps below:

- 1. Loosen engine mount screws so you can slide your engine and mount.
- 2. Slide engine and mount until the clutchbell gear comes in contact with the spur gear. Tighten engine mount screws. Hold the spur gear in place and 'rock' the clutchbell gear. There should be a little 'free-play' between the gears.
- 3. If you have a small amount of 'free-play', continue building your RC8. If not, go back to Step 1.

### Receiver Pack:

Your RC8 does not come with a receiver pack, It is recommended that you use a 5-cell 1000mah pack (minimum) in either stick (AE Pt #614) or hump (AE Pt#615) pack configuration (your RC8 will accept either). Charge your pack per the battery manufacturer's instructions. This will need to be done before you can setup up your RC8.

### **Engine Tuning:**

Follow the manufacturers instructions to correctly tune your engine. You will need to adjust the fuel mixture according to altitude, weather, etc.

#### **Body:**

Your RC8 comes with a clear lexan body. You will need to prep the body before you can paint it. Wash the inside thoroughly with warm water and liquid detergent. Dry using a clean, soft, lint-free cloth. Use the supplied window masks to cover the windows from the **INSIDE** (RC cars get painted from the inside). Using high quality tape, apply to create a design to the inside of the body. Spray (either can or airbrush) the paint to the inside of the body (NOTE: use ONLY paint that is recommended for use with lexan (polycarbonate) plastics. If you don't, you will destroy the plastic body!!!!).

After painting, cut the body along the trim lines. Make sure to cut holes for the engine head, body mounts, antenna, fuel tank lid, top end adjustment needle and muffler outlet



## :: Tuning

### Gearing:

Recommended Gearing: 16-44

For larger outdoor tracks the Team will typically go up to a 17 tooth clutchbell.

#### Differential Fluid:

Standard differential fluid setup: Front= 5.000 CST; Center= 7,000 CST; Rear= 3,000 CST.

### Front Differential:

Use the standard setup for most cases, but for higher grip tracks try 7,000 or 10,000 CST for less low speed steering and better acceleration out of turns.

### Center Differential:

Use the standard setup for most cases, but for higher grip tracks try thicker oil (7,000 or 10,000 CST) for harder acceleration out of turns. For bumpy or low grip tracks, try lighter oil (5,000 or 3,000 CST)

#### Caster:

The supplied caster block inserts are 16 degrees. Standard kickup is 7 degrees for a total caster of 23 degrees. You can reduce caster to 14 degrees for smoother steering (also adjust upper caster spacing with both shims behind the ball joint) and up to 18 degrees for more steering (also adjust upper caster spacing with both shims in front of the ball joint).

### Front Upper Pivot Insert:

The standard insert is the middle location (1 dot). Going up (2 UP, 3UP - 1 mm each) will give more middle and exit steering. Going down (2 DOWN, 3 DOWN) will reduce steering.

#### Front Caster Block Location:

The standard inner location will work the best for most tracks. Going to the longer link will give more mid to exit steering, but can make the car less stable in bumps and exiting turns.

### Steering Rack Location:

The standard middle location will work the best for most tracks. Going to the back hole will give the car more aggressive steering, especially off-power at low speed. Going to the front hole will give more steering, especially noticeable on power through faster sweeping turns.

### Front Camber:

A good starting camber setting is -2 degrees. Positive camber, where the top of the tire is leaning out, is typically not recommended.

### Front Toe-In:

Zero degree toe-in (tires pointing straight forward) is a good starting setting. You can increase turn in by adding a little toe-out (front of tires point slightly out). Front toe in is not a typical tuning adjustment used by The Team.

### Front Ride Height:

The front ride height setting you should use most often is with 5.3 mm pre-load on the threaded collars (or about 27-29 mm of gap between the chassis bottom and ground). The front arms should look above level and the driveshafts level from the front view. As a starting point, set the front end so that the chassis is level from the side view. Check the ride height by lifting up the entire car about 8-12 inches off the bench and drop it. After the suspension "settles" into place, then raise or lower the adjustment collars as necessary.



## :: Tuning (cont.)

### Anti-squat:

Anti-squat denotes the angle of the rear arms relative to the ground. The kit setting is 2 degrees, and you can also run 1 degree by changing to 3 DOWN insert in front of the rear gearbox. Run the 1 dot insert to get 3 degrees of anti-squat.

### Rear Camber Link Length & Vertical Adjustment:

On the RC8 you can change the length of the camber link on the hub, or adjust the inboard location on the tower.

The kit setting is the best compromise of cornering grip and acceleration. From the kit setting, lowering the tower location will square up more and slide more predictably.

Lengthening the camber link on the hub will give the feeling of more rear traction but may be less predictable when it breaks loose.

### Rear Hub Spacing:

You have 3 options for rear hub spacing, FWD, MIDDLE, & BACK. The kit setting provides a good balance of rear traction and steering, and will be used most often. Moving the hubs FWD will give more rear traction for low grip tracks. You can use the hubs BACK on high grip tracks. Also, you can replace the included shims to get intermediate settings.

### Rear Camber:

A good starting camber setting is -2 degrees. Use the included #1719 camber gauge to set your camber as seen below. 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.

### Rear Arm Hole:

The kit setting (outer hole) in the arm tends to work the best in most cases. Changing to the inner hole in the rear arm may help the car in bumpy conditions.

#### **Rear Tower Hole:**

The kit setting of the middle hole will be optimal on most tracks. Moving the shock in on the tower will typically yield more grip in corners, but is less predictable when it breaks traction. Moving out will feel more predictable but not yield the most grip.

### Rear Ride Height:

The rear ride height setting you should use most often is with 6.4 mm pre-load on the threaded collars (or about 27-29 mm of gap between the chassis bottom and ground). The rear arms should look level or slightly above from the rear view. As a starting point, set the front end so that the chassis is level from the side view. Check the ride height by lifting up the entire car about 8-12 inches off the bench and drop it. After the suspension "settles" into place, then raise of lower the adjustment collars as necessary.

### Setup Sheets:

Most often, the best way to get your car handling right is to go to our web site www.rc10.com and click on the links to Setup Sheets, then RC8 setups. Our team of professional drivers help develop these setups at National events. Also, most drivers have a "base" setup that they use as a starting point for every event. Try running some of our base setups OR look for track conditions and tires that are similar to your local track and mimic that setup. Remember, each adjustment has a purpose, so copy everything from the setup sheet and then make adjustments based on the recommendations in here and in our online tuning guide at http://www.rc10.com/rc8online\_tuning\_guide.

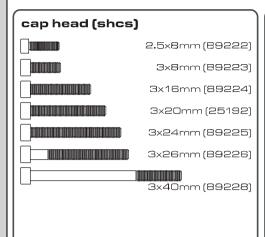


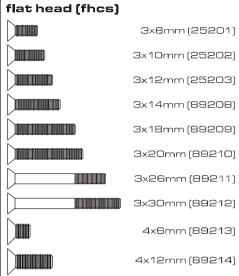
:: Notes	
W HOICS	

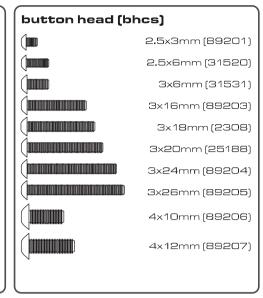
	Team Associated :: Date:
:: Track: _	Standard RC8 Setup
Setup Sheet for Team Associated's RC8	Rev. 2
:: Front Suspension	:: Rear Suspension
anti-roll bar:  2.2-black 2.5-silver 2.8-gold    Alticology	anti-roll bar:  2.2 - black 2.5 - silver 2.8 - gold  anti-squat bushing #_2  up down
steering rack:  back mid front  hinge pin bushing  #_1  up \[ down \]	wheelbase:  long medium short
camber: caster: 16 ° caster: 16 ° caster: caster: 16 ° caster: 17 ° caster:	camber:2 ° toe:3 °
ride height: 27 mm	ride height: 27 mm
:: Front Shocks	:: Rear Shocks
spring: <u>70 rate</u> piston: <u>1.6</u> shock fluid: <u>50 wt.</u> length: <u>full 108mm</u>	spring: 59 rate piston: 1.6 shock fluid: 40 wt. length: full 125mm
:: Differentials :: Wing	:: Notes
Foodsch	■back
:: Engine	:: Gearing/Clutch
engine: restrictor: muffler: temp: glow plug: fuel: 30% recommended	gearing: 16/44 clutch shoes: Standard clutch spring: 9mm 1.0mm 1.1mm other:
:: Front Tires	:: Rear Tires
tire:	tire:
compound:	compound:
insert:wheel:	insert: wheel:
:: Race and Vehicle Comments	:: Track Info
qualify: main: finish: tq comments:	smooth:   bumpy:   blue groove:   traction:   high   med.   low   soft dirt:   grass:   clay:   wet:
	dusty: dusty: other:
For more setups visit unun PC	10.com and click on 'Setup Sheets'



## :: Hardware - 1:1

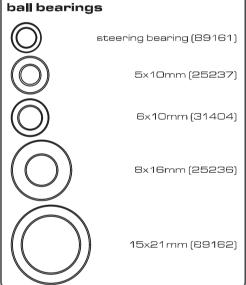






nuts (lock/plain)







m3 locknut (25215)

notes

	:: Date:
Setup Sheet for Team Associated's RC8	Rev. 2
#	#
back mid # down  camber: toe: ride height: mm	long medium short  camber:  toe: ride height:mm
### ### ##############################	shock fluid: length:
front fluid: location:forward angle:lowmed. type:  ### Indeed of the image of the imag	back high spring/Clutch  gearing: clutch shoes: clutch spring: 9mm 1.0mm 1.1mm other:
:: Front Tires  tire: compound: insert: wheel:	:: Rear Tires  tire: compound: insert: wheel:
:: Race and Vehicle Comments  qualify: main: finish: tq: comments:	### Track Info    smooth:   bumpy:   blue groove:     traction:   high   med.   low   soft dirt:   grass:   clay:   wet:     dusty:   other:     0.com and click on 'Setup Sheets'



Associated Electrics, Inc. 26021 Commercentre Dr. Lake Forest, CA 92630 USA