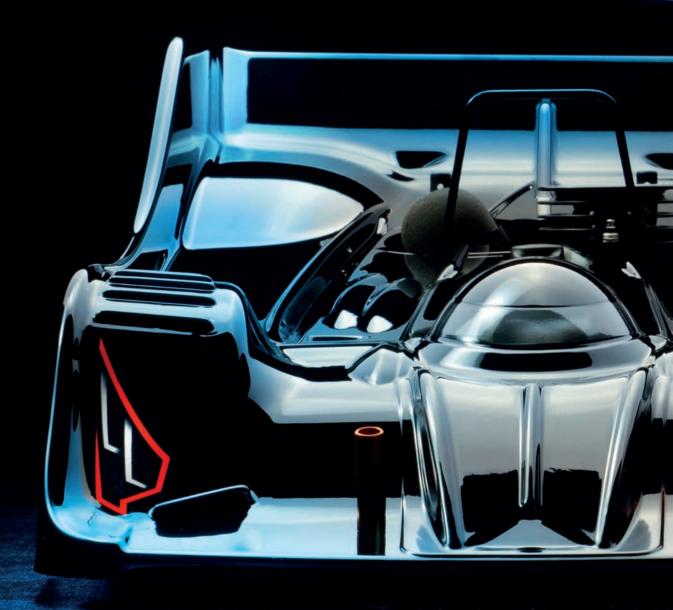
1/8 LUXURY NITRO ON-ROAD CAR

# 11:7:1



INSTRUCTION MANUAL
XRAY RX8.2 & XRAY RX8E.2

#### **BEFORE YOU START**

The RX8 is a high-competition, high-quality, 1/8-scale on-road nitro car intended for persons aged 16 years and older with previous experience building and operating RC model racing cars. This is not a toy; it is a precision racing model. This model racing car is not intended for use by beginners, inexperienced customers, or by children without direct supervision of a responsible, knowledgeable adult. If you do not fulfill these requirements, please return the kit in unused and unassembled form back to the shop where you have purchased it.

Before building and operating your RX8, YOU MUST read through all of the operating instructions and instruction manual and fully understand them to get the maximum enjoyment and prevent unnecessary damage.

Read carefully and fully understand the instructions before beginning assembly.

Make sure you review this entire Instruction Manual and examine all details carefully. If for some reason you decide the RX8 is not what you wanted or expected, do not continue any further. Your hobby dealer cannot accept your RX8 kit for return or exchange after it has been partially or fully assembled.

Contents of the box may differ from pictures. In line with our policy of continuous product development, the exact specifications of the kit may vary without prior notice.

#### **CUSTOMER SUPPORT**

We have made every effort to make these instructions as easy to understand as possible. However, if you have any difficulties, problems, or questions, please do not hesitate to contact the XRAY support team at info@teamxray.com. Also, please visit our Web site at www.teamxray.com to find the latest updates, set-up information, option parts, and many other goodies. We pride ourselves on taking excellent care of

You can join thousands of XRAY fans and enthusiasts in our online community at: www.teamxray.com

**XRAY Europe** XRAY RC America

K Výstavisku 6992 2030 Century Center Blvd #15. Suite 109 75062 Irving 91101 Trenčín

Slovakia, EUROPE Texas, USA Phone: +421-32-7401100 Phone: (214) 744-2400 Fax: +421-32-7401109 Fax: (214) 744-2401 Email: info@teamxrav.com Email: xray@rcamerica.com

#### FAILURE TO FOLLOW THESE INSTRUCTIONS WILL BE CONSIDERED AS ABUSE AND/OR NEGLECT.

#### **SAFETY PRECAUTIONS**

WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

**CAUTION: CANCER HAZARD** 

Wash thoroughly after using. DO NOT use product while eating, drinking or using tobacco products. May cause chronic effects to gastrointestinal tract, CNS, kidneys, and blood. MAY CAUSE BIRTH DEFECTS.

When building, using and/or operating this model always wear protective glasses and gloves.

Take appropriate safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation! Please read the instruction manual before building and operating this model and follow all safety precautions. Always keep the instruction manual at hand for quick reference, even after completing the assembly. Use only genuine and original authentic XRAY parts for maximum performance. Using any third party parts on this model will void guaranty immediately.

Improper operation may cause personal and/or property damage. XRAY and its distributors have no control over damage resulting from shipping, improper construction, or improper usage. XRAY assumes and accepts no responsibility for personal and/or property damages resulting from the use of improper building materials, equipment and operations. By purchasing any item produced by XRAY, the buyer expressly warrants that he/she is in compliance with all applicable federal, state and local laws and regulation regarding the purchase, ownership and use of the item. The buyer expressly agrees to indemnify and hold harmless XRAY for all claims resulting directly or indirectly from the purchase, ownership or use of the product. By the act of assembling or operating this product, the user accepts all resulting liability. If the buyer is not prepared to accept this liability, then he/she should return this kit in new, unassembled, and unused condition to the place of purchase.



#### **IMPORTANT NOTES – GENERAL**

- This product is not suitable for children under 16 years of age without the direct supervision of a responsible and knowledgeable adult.
- · Carefully read all manufacturers warnings and cautions for any parts used in the construction and use
- Assemble this kit only in places away from the reach of very small children.
- First-time builders and users should seek advice from people who have building experience in order to assemble the model correctly and to allow the model to reach its performance potential.
- Exercise care when using tools and sharp instruments.
- Take care when building, as some parts may have sharp edges.
- Keep small parts out of reach of small children. Children must not be allowed to put any parts in their mouth, or pull vinyl bag over their head.
- Read and follow instructions supplied with paints and/or cement, if used (not included in kit).
- Immediately after using your model, do NOT touch equipment on the model such as the motor and speed controller, because they generate high temperatures. You may seriously burn yourself seriously
- Follow the operating instructions for the radio equipment at all times.
- Do not put fingers or any objects inside rotating and moving parts, as this may cause damage or serious injury as your finger, hair, clothes, etc. may get caught.
- Be sure that your operating frequency is clear before turning on or running your model, and never share the same frequency with somebody else at the same time. Ensure that others are aware of the operating frequency you are using and when you are using it.
- Use a transmitter designed for ground use with RC cars. Make sure that no one else is using the same frequency as yours in your operating area. Using the same frequency at the same time, whether it is driving, flying or sailing, can cause loss of control of the RC model, resulting in a serious accident.
- · Always turn on your transmitter before you turn on the receiver in the car. Always turn off the receiver before turning your transmitter off.

- Keep the wheels of the model off the ground when checking the operation of the radio equipment.
- Disconnect the battery pack before storing your model.
- . When learning to operate your model, go to an area that has no obstacles that can damage your model if your model suffers a collision.
- Remove any sand, mud, dirt, grass or water before putting your model away.
- If the model behaves strangely, immediately stop the model, check and clear the problem.
- To prevent any serious personal injury and/or damage to property, be responsible when operating all remote controlled models
- The model car is not intended for use on public places and roads or areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- Because the model car is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary loss of control, always allow a safety margin in all directions around the model in order to prevent collisions.
- Do not use your model:
  - Near real cars, animals, or people that are unaware that an RC car is being driven.
  - In places where children and people gather
  - In residential districts and parks - In limited indoor spaces
  - In wet conditions
  - In the street
  - -In areas where loud noises can disturb others, such as hospitals and residential areas.
  - At night or anytime your line of sight to the model may be obstructed or impaired in any way.

To prevent any serious personal injury and/or damage to property, please be responsible when operating all remote controlled models.



#### 🔼 IMPORTANT NOTES – NITRO ENGINES

- Always test the brakes and the throttle before starting your engine to avoid losing control of the model.
- Make sure the air filter is clean and oiled.
- Never run your engine without an air filter. Your engine can be seriously damaged if dirt and debris get inside the engine.
- · For proper engine break-in, please refer to the manual that came with the engine.
- Do not run near open flames or smoke while running your model or while handling fuel.
- Some parts will be hot after operation. Do not touch the exhaust or the engine until they have cooled. These parts may reach 275°F during operation!



#### IMPORTANT NOTES – ELECTRICAL

- Insulate any exposed electrical wiring (using heat shrink tubing or electrical tape) to prevent dangerous short circuits. Take maximum care in wiring, connecting and insulating cables. Make sure cables are always connected securely. Check connectors for if they become loose. And if so, reconnect them securely. Never use R/C models with damaged wires. A damaged wire is extremely dangerous, and can cause short-circuits resulting in fire. Please have wires repaired at your local hobby shop.
- Low battery power will result in loss of control. Loss of control can occur due to a weak battery in either the transmitter or the receiver. Weak running battery may also result in an out of control car if your car's receiver power is supplied by the running battery. Stop operation immediately if the car starts to slow
- When not using RC model, always disconnect and remove battery.
- Do not disassemble battery or cut battery cables. If the running battery short-circuits, approximately 300W of electricity can be discharged, leading to fire or burns. Never disassemble battery or cut battery
- Use a recommended charger for the receiver and transmitter batteries and follow the instructions

- correctly. Over-charging, incorrect charging, or using inferior chargers can cause the batteries to become dangerously hot. Recharge battery when necessary. Continual recharging may damage battery and, in the worst case, could build up heat leading to fire. If battery becomes extremely hot during recharging, please ask your local hobby shop for check and/or repair and/or replacement.
- Regularly check the charger for potential hazards such as damage to the cable, plug, casing or other defects. Ensure that any damage is rectified before using the charger again. Modifying the charger may cause short-circuit or overcharging leading to a serious accident. Therefore do not modify the charger.
- Always unplug charger when recharging is finished.
- Do not recharge battery while battery is still warm. After use, battery retains heat. Wait until it cools down before charging.
- Do not allow any metal part to short circuit the receiver batteries or other electrical/electronic device on the model
- Immediately stop running if your RC model gets wet as may cause short circuit.
- Please dispose of batteries responsibly. Never put batteries into fire.



#### **IMPORTANT NOTES - NITRO FUEL**

- Handle fuel only outdoors. Never handle nitro fuel indoors, or mix nitro fuel in a place where ventilation is had
- Only use nitro fuel for R/C models. Do not use gasoline or kerosene in R/C models as it may cause a fire or explosion, and ruin your engine.
- Nitro fuel is highly inflammable, explosive, and poisonous. Never use fuel indoors or in places with open fires and sources of heat.
- · Always keep the fuel container cap tightly shut.
- Always read the warning label on the fuel container for safety information.
- · Nitro-powered model engines emit poisonous vapors and gasses. These vapors irritate eyes and can be highly dangerous to your health. We recommend wearing rubber or vinyl gloves to avoid direct contact with nitro fuel.
- Nitro fuel for RC model cars is made of the combination of the methyl alcohol, castor or synthetic oil,
- nitro methane etc. The flammability and volatility of these elements is very high, so be very careful during handling and storage of nitro fuel.
- · Keep nitro fuel away from open flame, sources of heat, direct sunlight, high temperatures, or near batteries.
- · Store fuel in a cool, dry, dark, well-ventilated place, away from heating devices, open flames, direct sunlight, or batteries. Keep nitro fuel away from children.
- Do not leave the fuel in the carburetor or fuel tank when the model is not in use. There is danger that the fuel may leak out.
- Wipe up any spilled fuel with a cloth
- Be aware of spilled or leaking fuel. Fuel leaks can cause fires or explosions.
- Do not dispose of fuel or empty fuel containers in a fire. There is danger of explosion.

#### **R/C & BUILDING TIPS**

- Make sure all fasteners are properly tightened. Check them periodically.
- Make sure that chassis screws do not protrude from the chassis.
- For the best performance, it is very important that great care is taken to ensure the free movement of all parts.
- Clean all ball-bearings so they move very easily and freely.
- Tap or pre-thread the plastic parts when threading screws.
- Self-tapping screws cut threads into the parts when being tightened. Do not use excessive force when tightening the self-tapping screws because you may strip out the thread in the plastic. We recommended

you stop tightening a screw when you feel some resistance.

Ask your local hobby shop for any advice.

Please support your local hobby shop. We at XRAY Model Racing Cars support all local hobby dealers. Therefore we ask you, if at all possible, to purchase XRAY products at your hobby dealer and give them your support like we do. If you have difficulty finding XRAY products, please check out www.teamxray.com to get advice, or contact us via email at info@teamxray.com, or contact the XRAY distributor in your country.

#### WARRANTY

XRAY guarantees this model kit to be free from defects in both material and workmanship within 30 days of purchase. The total monetary value under warranty will in no case exceed the cost of the original kit purchased. This warranty does not cover any components damaged by use or modification or as a result of wear. Part or parts missing from this kit must be reported within 30 days of purchase. No part or parts will be sent under warranty without proof of purchase. Should you find a defective or missing part, contact the local distributor. Service and customer support will be provided through local hobby store where you have purchased the kit, therefore make sure to purchase any XRAY products at your local hobby store. This model racing car is considered to be a high-performance racing vehicle. As such this vehicle will be used in an extreme range of conditions and situations, all which may cause premature wear or failure of any component. XRAY has no control over usage of vehicles once they leave the dealer, therefore XRAY can only offer warranty against all manufacturer's defects in materials, workmanship, and assembly at point of sale and before use. No warranties are expressed or implied that cover damage caused by what is considered normal use, or cover or imply how long any model cars' components or electronic components will last before requiring replacement.

Due to the high performance level of this model car you will need to periodically maintain and replace consumable components. Any and all warranty coverage will not cover replacement of any part or component damaged by neglect, abuse, or improper or unreasonable use. This includes but is not limited to damage from crashing, chemical and/or water damage, excessive moisture, improper or no maintenance, or user

modifications which compromise the integrity of components. Warranty will not cover components that are considered consumable on RC vehicles. XRAY does not pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

#### **Limitations of Liability**

XRAY makes no other warranties expressed or implied. XRAY shall not be liable for any loss, injury or damages, whether direct, indirect, special, incidental, or consequential, arising from the use, misuse, or abuse of this product and/or any product or accessory required to operate this product. In no case shall XRAY's liability excess the monetary value of this product.

Take adequate safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation.

Disregard of the any of the above cautions may lead to accidents, personal injury, or property damage. XRAY MODEL RACING CARS assumes no responsibility for any injury, damage, or misuse of this product during assembly or operation, nor any addictions that may arise from the use of this product.

All rights reserved.

#### **OUALITY CERTIFICATE**

XRAY MODEL RACING CARS uses only the highest quality materials, the best compounds for molded parts and the most sophisticated manufacturing processes of TQM (Total Quality Management). We guarantee that all parts of a newly-purchased kit are manufactured with the highest regard to quality. However, due to the many factors inherent in model racecar competition, we cannot guarantee any parts once you start racing the car. Products which have been worn out, abused, neglected or improperly operated will not be covered under warranty. We wish you enjoyment of this high-quality and high-performance RC car and wish you best success on the track!

Please note that raw materials such as aluminum, steel, brass, fibreglass, or carbon fibre may have small scratches on the surface which is a standard characteristic of any raw material. Scratches on the surface of any materials are NOT considered to be material defects.

Products may potentially have small amounts of corrosion on them. This may be caused by variances in weather during different times of the year, humidity in the shop or during shipping, and other contributing factors. Even though we have taken all precautions and protection methods to prevent corrosion, these small amounts of corrosion (if present) are unavoidable and considered to be acceptable.

In line with our policy of continuous product development, the exact specifications of the kit may vary. In the unlikely event of any problems with your new kit, you should contact the model shop where you purchased it, quoting the part number. We do reserve all rights to change any specification without prior notice. All rights reserved.



#### SYMBOLS USED





Apply oil (may indicate specific type)



Apply cyanoacrylate (CA) glue



Apply grease



Assemble left and right sides the same way



Ensure smooth non-binding movement



Cut off remaining material



Assemble as many times as specified (here twice)



Number of teeth



Detail



Pay attention here



TIP Follow tip here



Part bags used



123 Assemble in the specified order



Assembly view



Optional parts

## **TOOLS REQUIRED**































## **EQUIPMENT REQUIRED**

















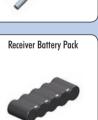
Tire Truer

(HUDY #102003)





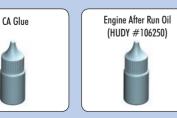


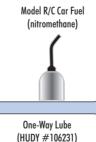


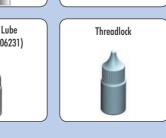
Air Filter Oil

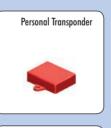
(HUDY #106240)











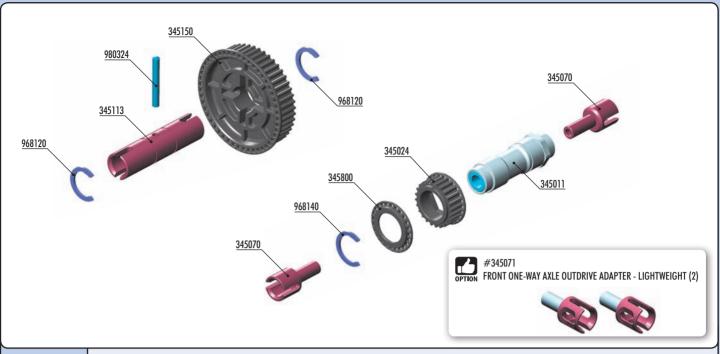








#### 1. FRONT ONE-WAY & REAR SOLID AXLE



BAG



 345001
 FRONT ONE-WAY - HARDCOATED + LIGHTWEIGHT ADAPTERS
 968120
 C-CLIP 12 (10)

 345011
 FRONT ONE-WAY AXLE - BLACK COATED
 968140
 C-CLIP 14 (10)

 345024
 COMPOSITE FRONT ONE-WAY AXLE PULLEY 24T
 980324
 PIN 3x24 (10)

 345070
 FRONT ONE-WAY AXLE OUTDRIVE ADAPTER - HUDY SPRING STEEL™ (2)

345113 REAR SOLID AXLE SHAFT - HUDY SPRING STEEL™
345150 COMPOSITE REAR SOLID AXLE PULLEY 48T
345800 COMPOSITE BELT PULLEY COVER SET

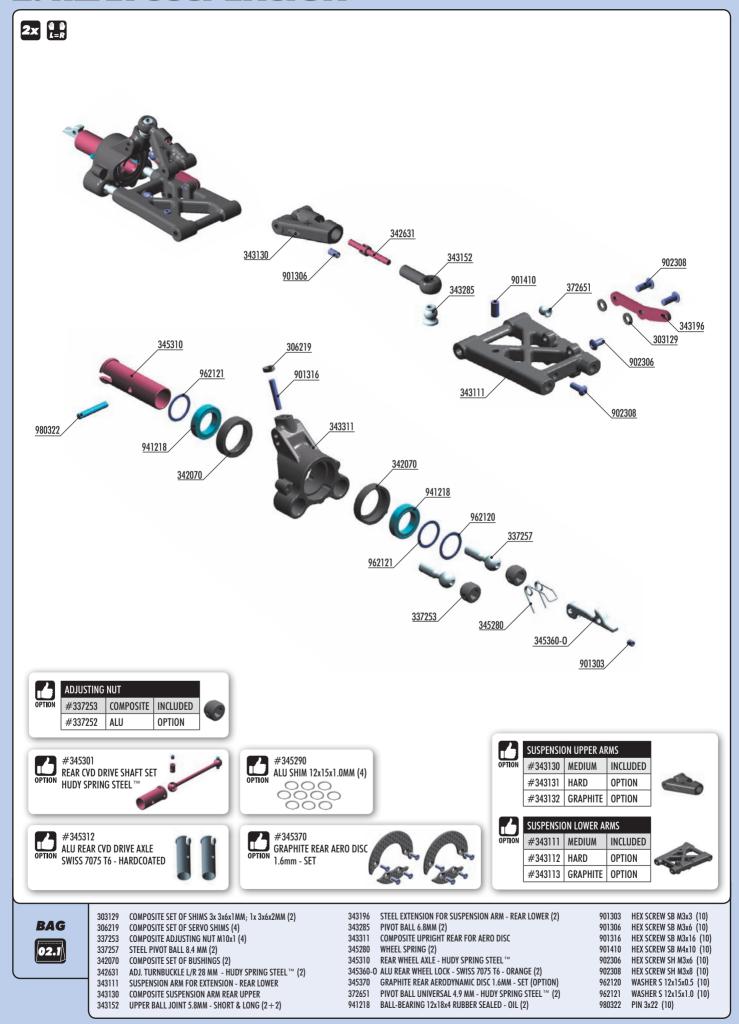




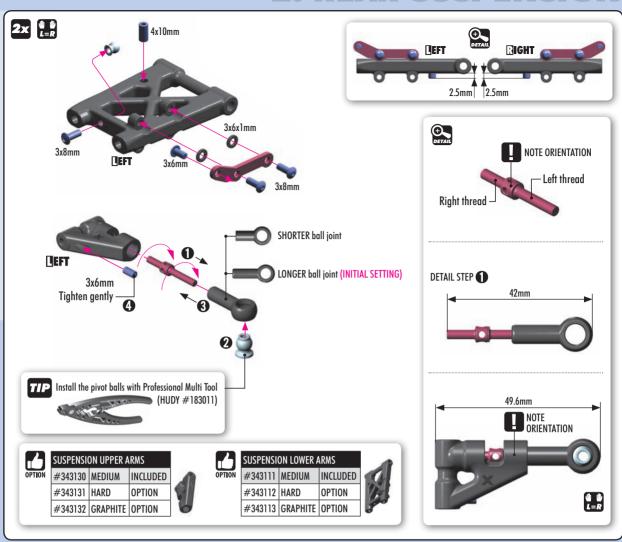


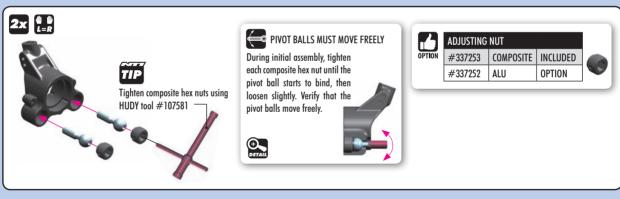






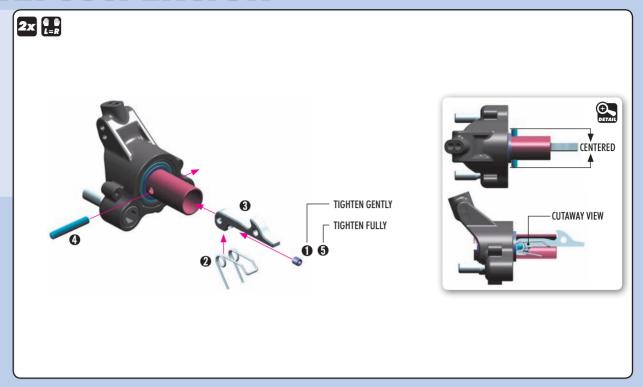






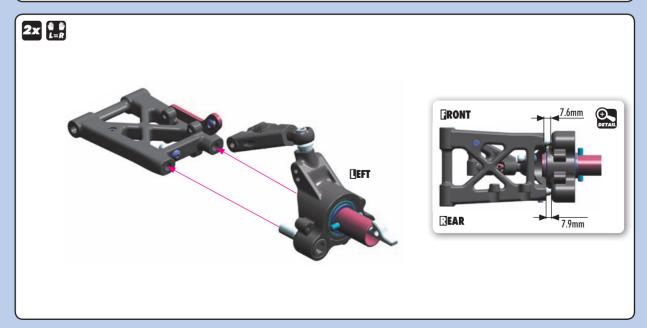


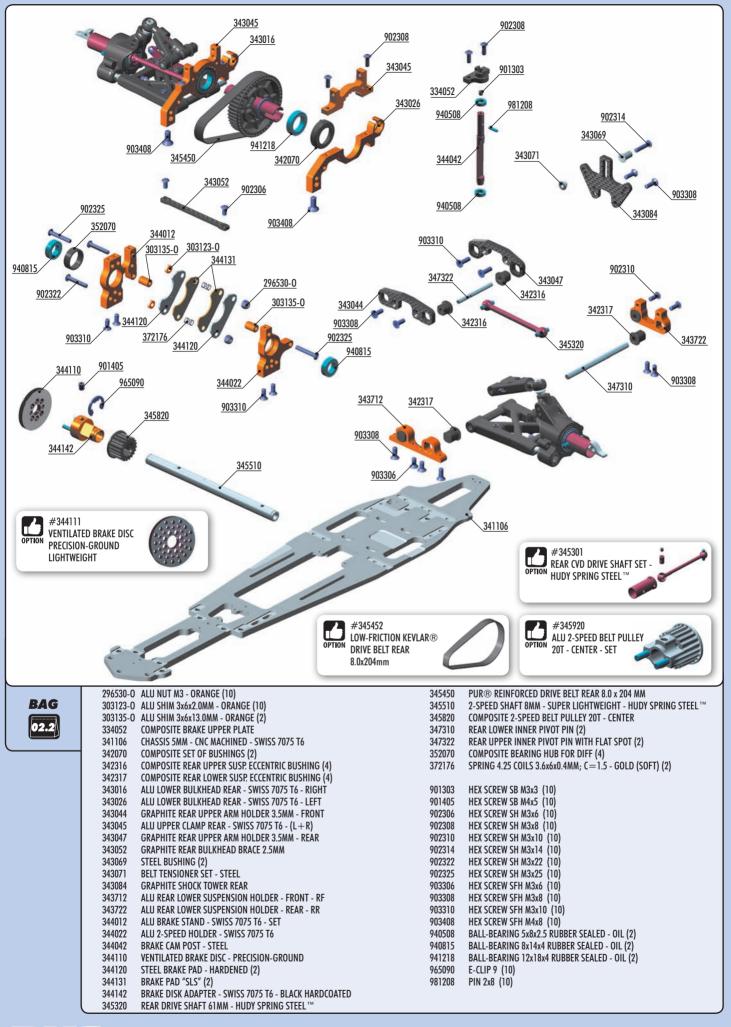




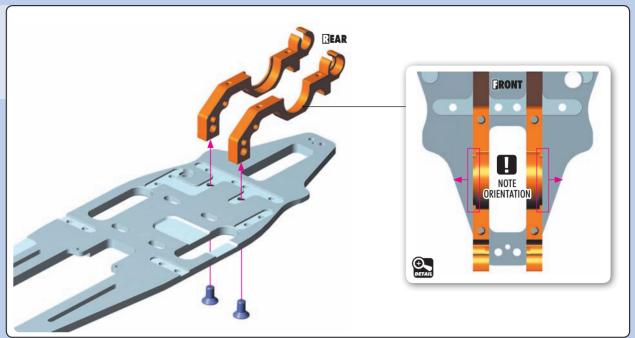




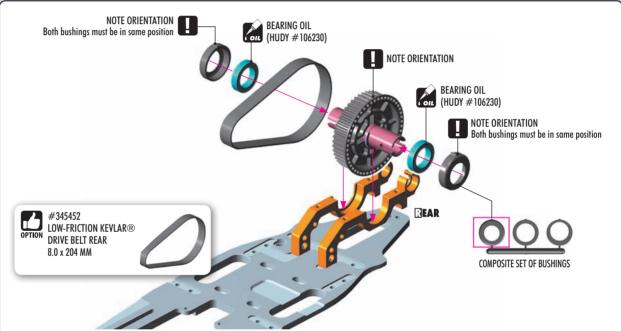




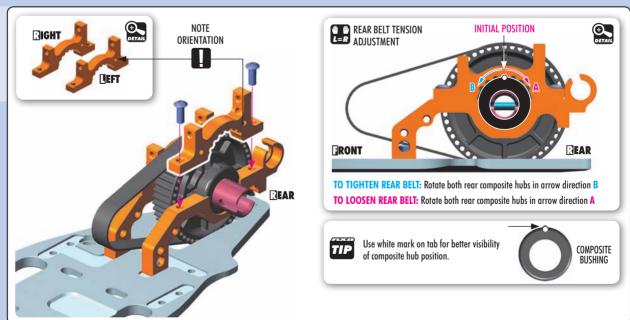




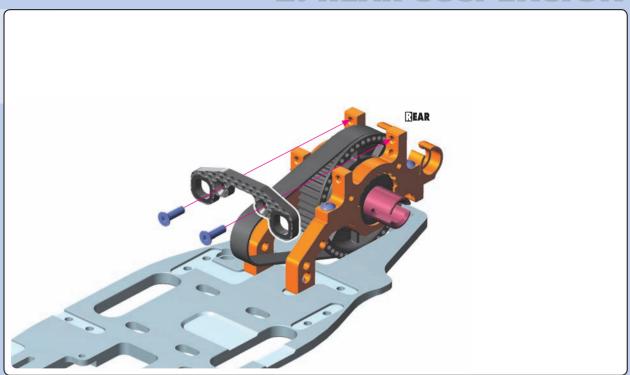




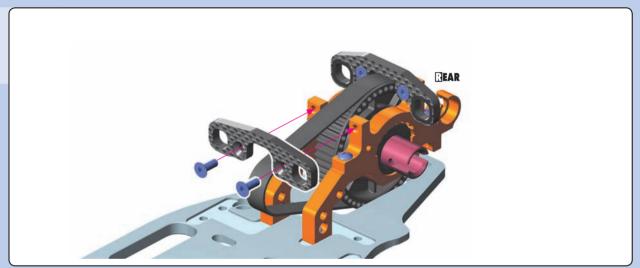




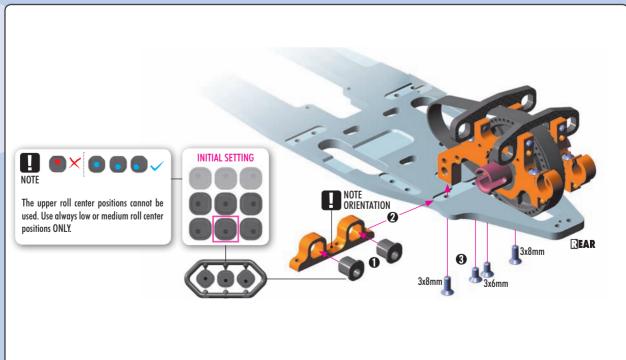






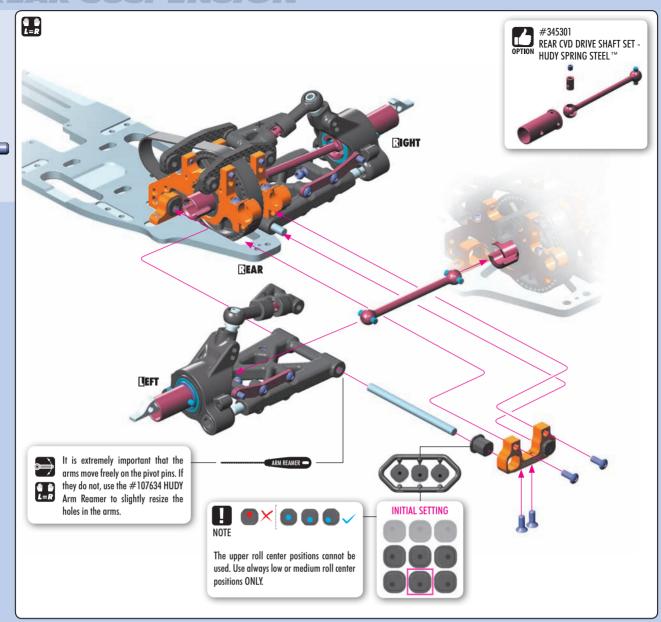


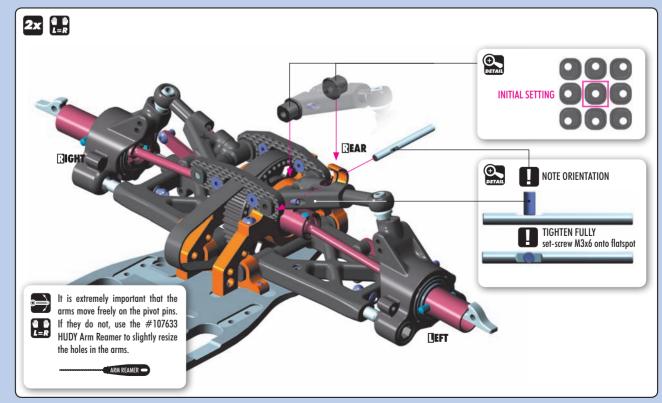




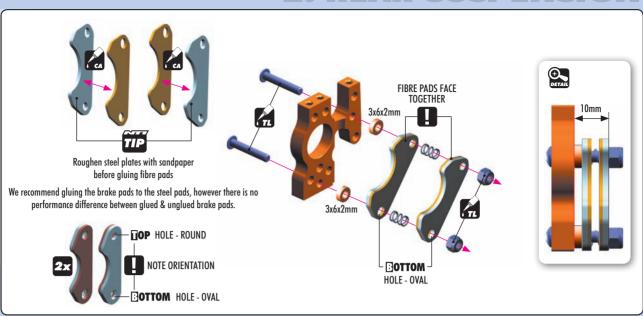
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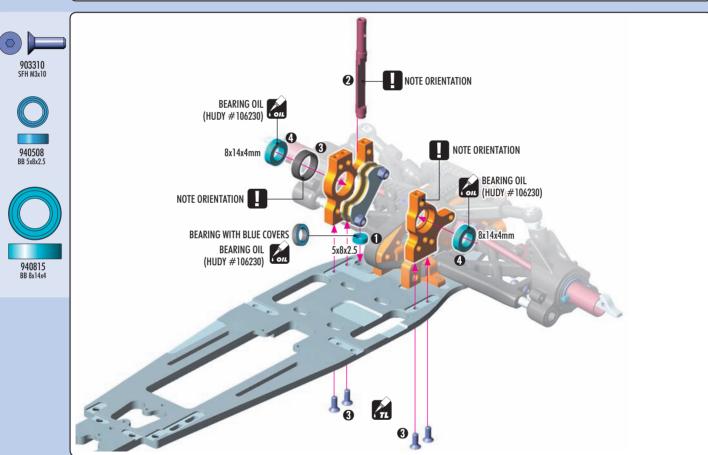
903308 SFH M3x8





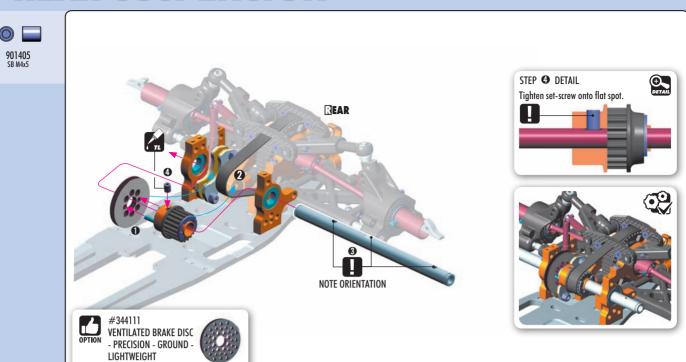


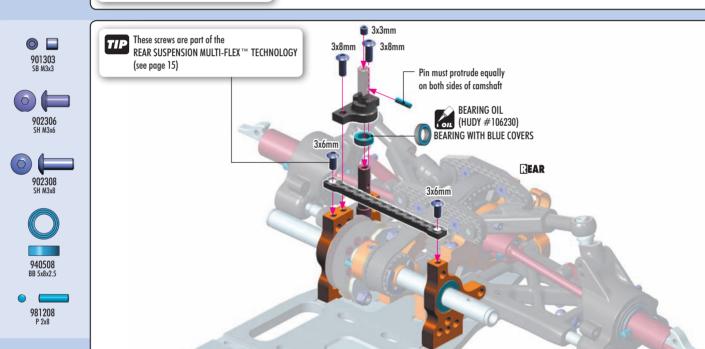


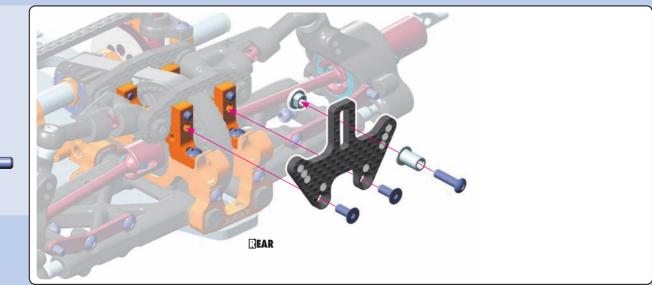














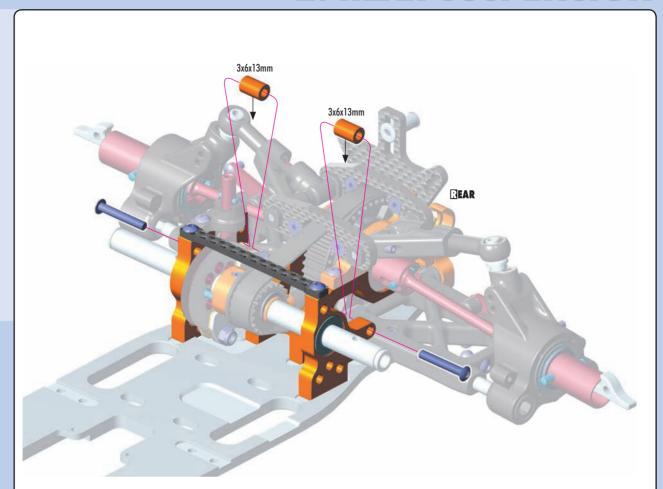








902325 SH M3x25



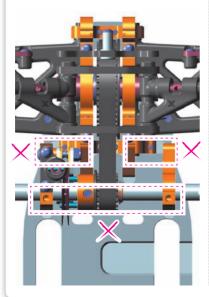
#### REAR SUSPENSION MULTI-FLEX™ TECHNOLOGY

The all-new rear suspension design features Multi-Flex  $^{\scriptscriptstyle\mathsf{TM}}$  quick adjustment to easily adapt the handling of the car to particular track conditions and tires used. There are 3 different flex characteristics to choose from.

## **ALTERNATIVE 1**

#### **SOFT**

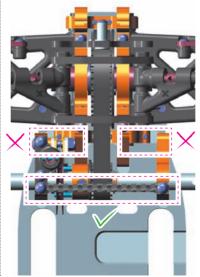
Graphite brace and posts are not used. This allows maximum flex of the rear suspension and generates maximum rear traction. Recommended for low-traction tracks.



## **ALTERNATIVE 2**

#### **MEDIUM**

Graphite brace connected to 2-speed bulkheads without posts. This slightly reduces the flex of the rear suspension and improves out-of-corner steering and rotation of the car, but also slightly decreases rear traction. Recommended for medium-traction tracks.

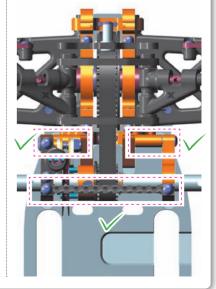


#### **ALTERNATIVE 3**

#### **STIFF**

#### (INITIAL SETTING)

Graphite brace connected to 2-speed bulkheads with posts. This connects the entire rear suspension together, creating a stiff frame which allows the car to rotate more and improves out-of-corner steering. Recommended for high-traction tracks.



COMPOSITE REAR BODY CENTERING PLATE

ALU CUTTED ANTI-ROLL BAR COLLAR - BLACK (2)

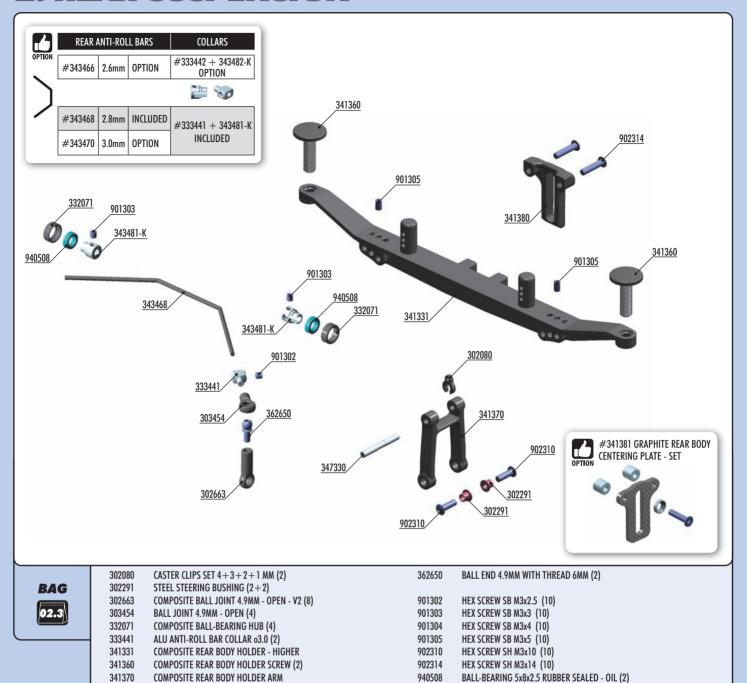
ANTI-ROLL BAR REAR 2.8 MM

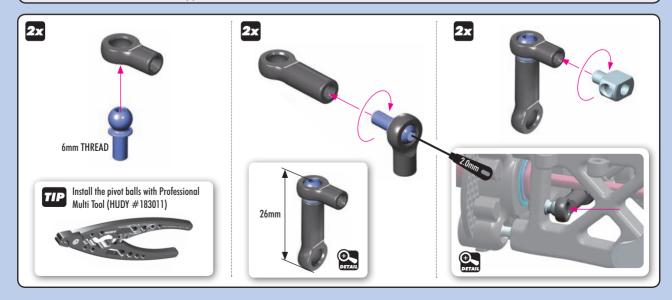
REAR BODY HOLDER ARM PIN (2)

341380 343468

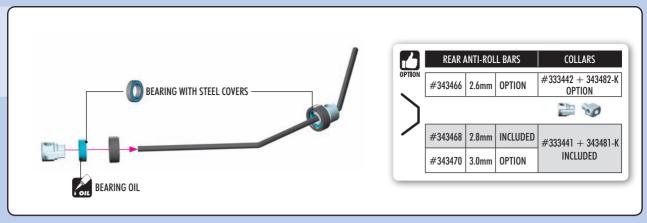
343481-K

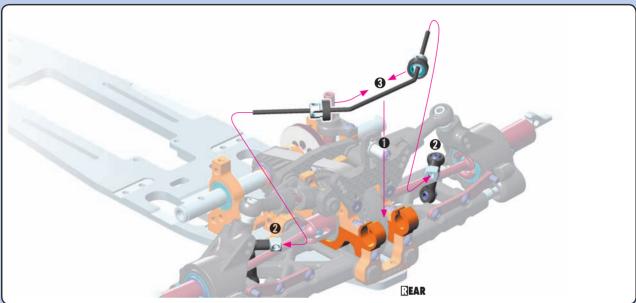
347330



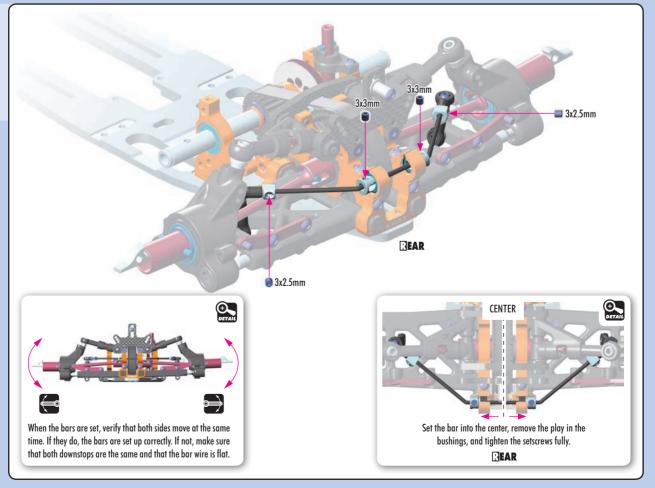








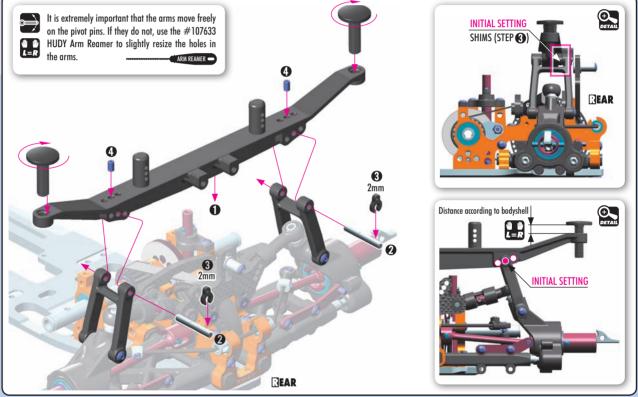




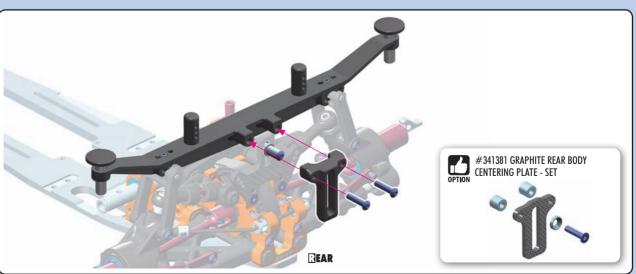






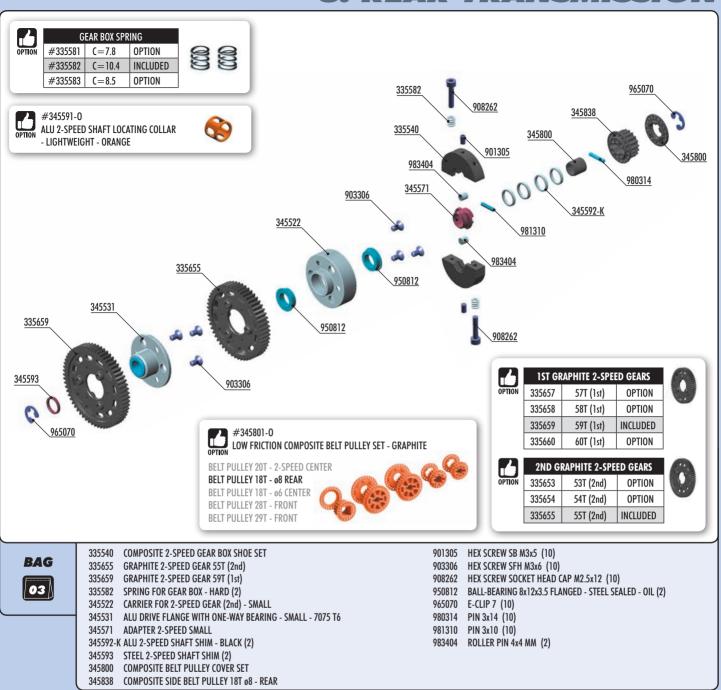


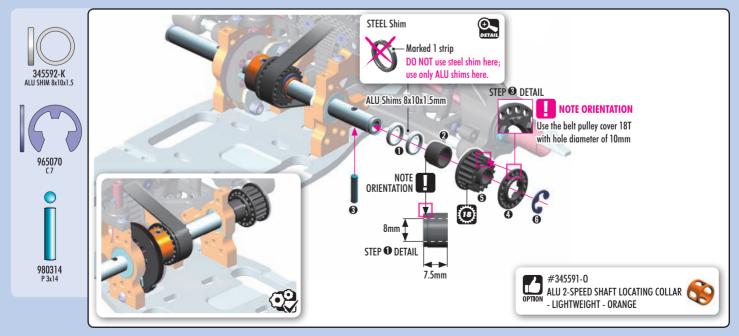




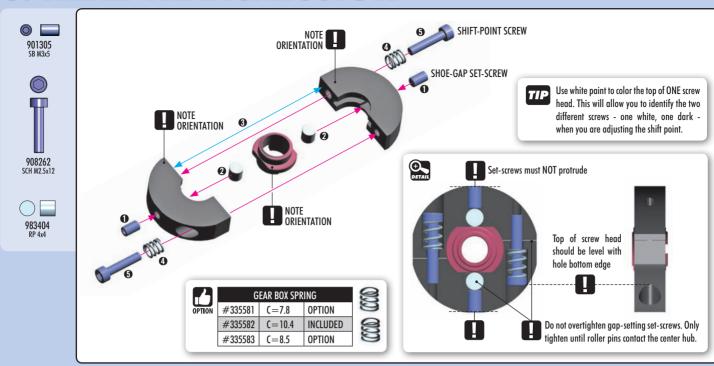


#### 3. REAR TRANSMISSION

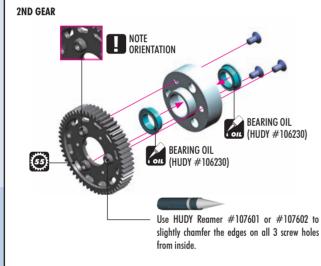


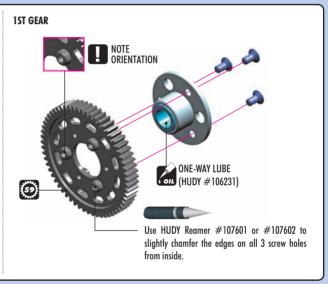


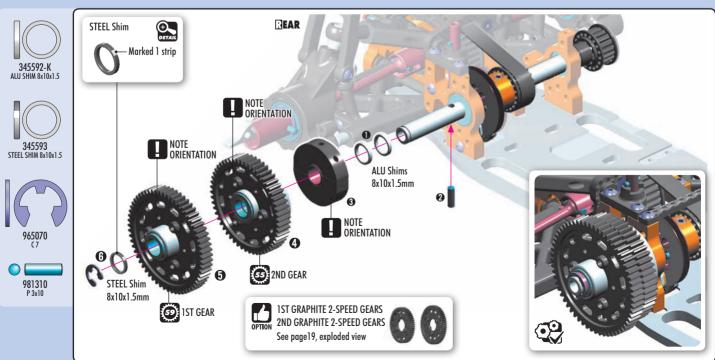
### 3. REAR TRANSMISSION



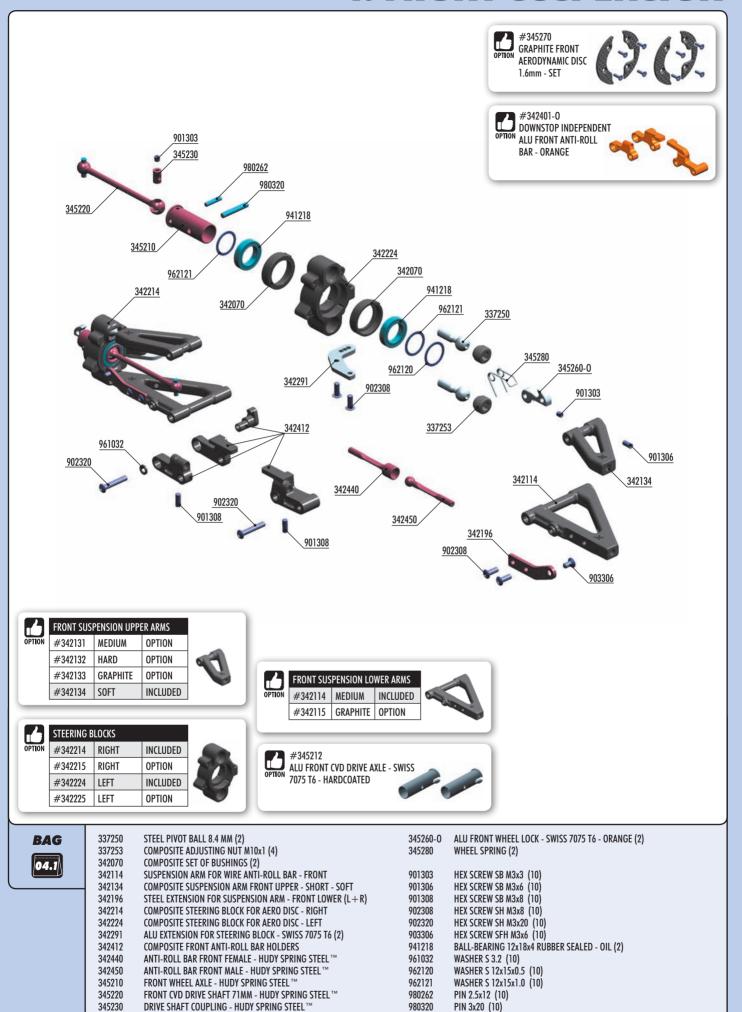


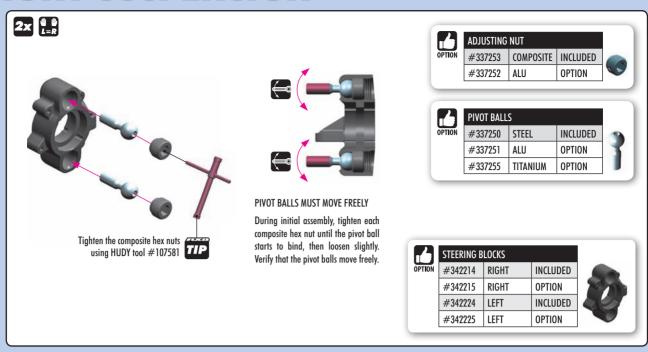


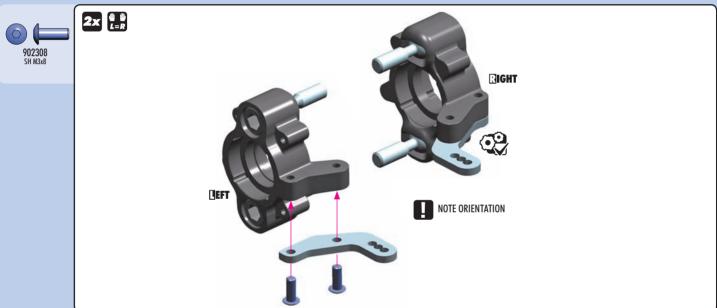


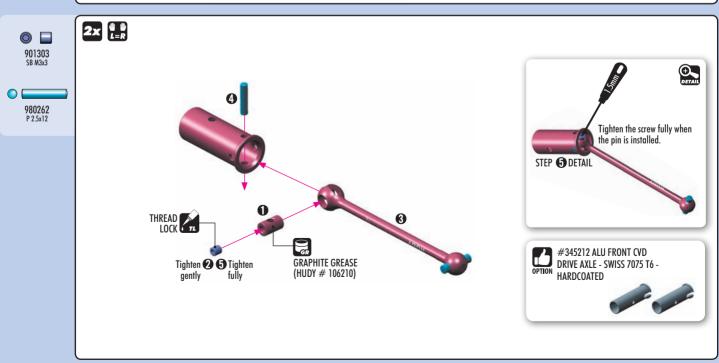


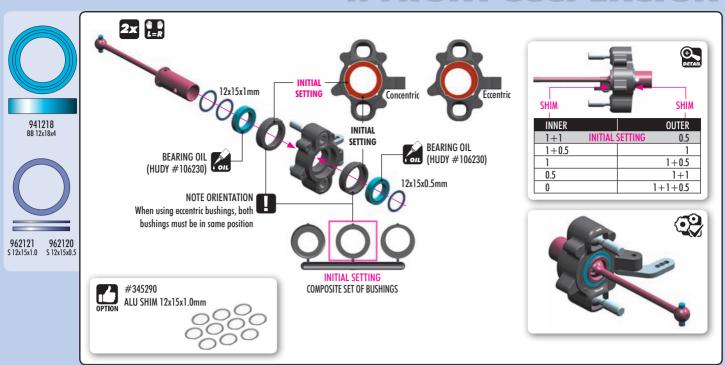


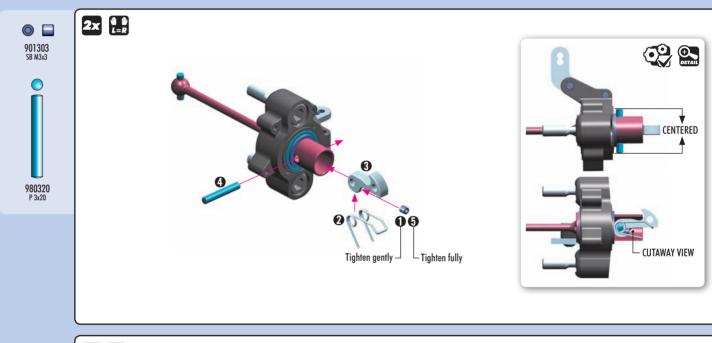


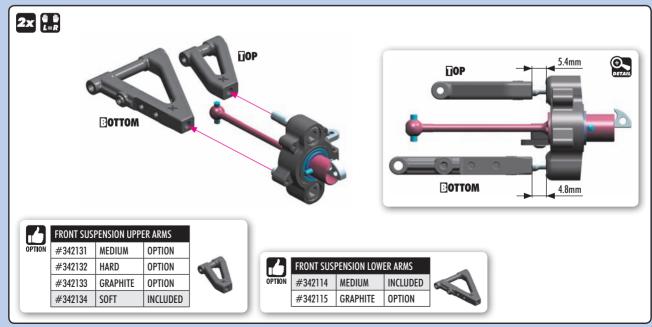


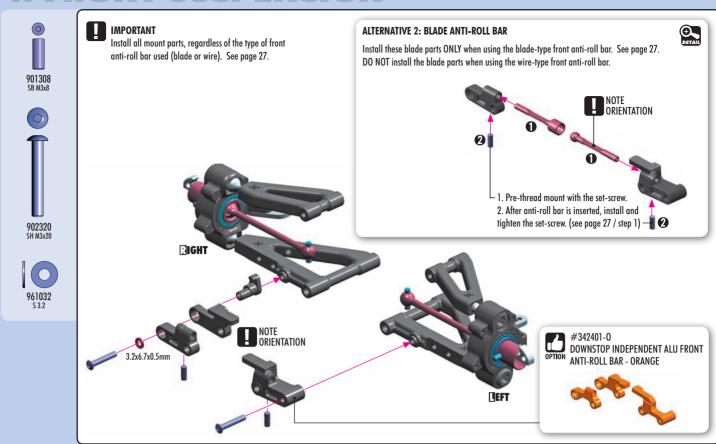


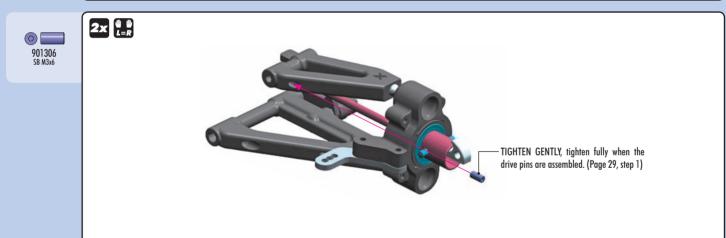


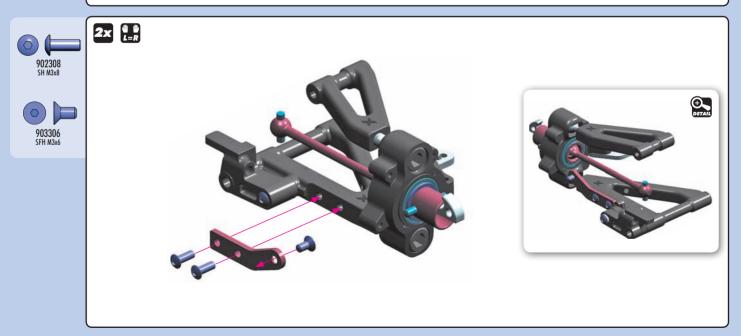


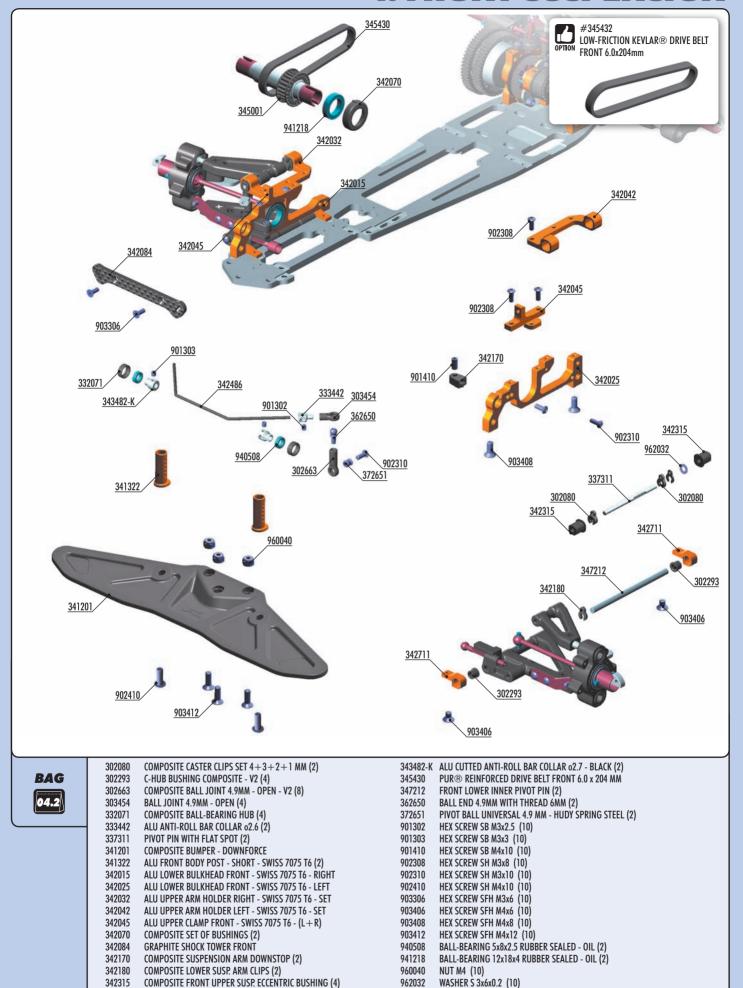












345001

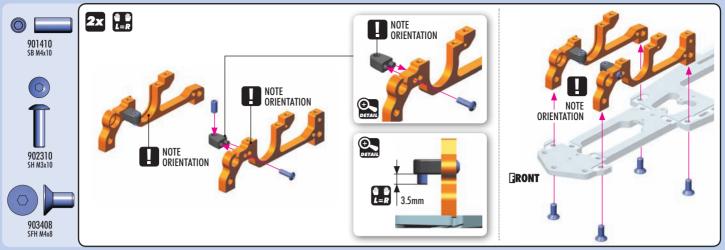
FRONT ONE-WAY - HARDCOATED + LIGHTWEIGHT ADAPTERS

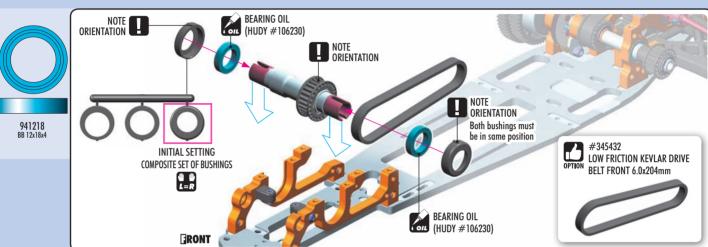
342486

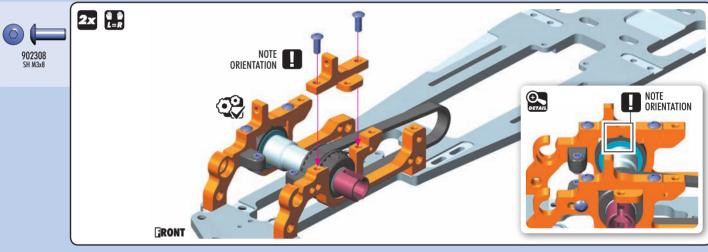
342711

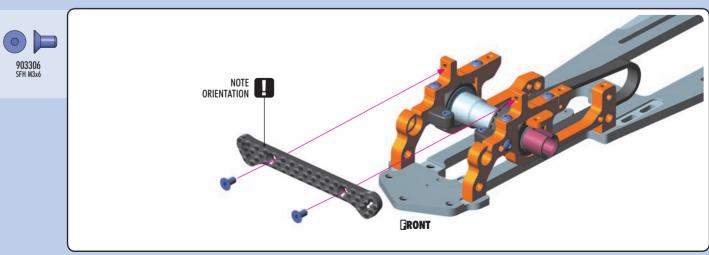
ANTI-ROLL BAR FRONT 2.6 MM

ALU LOWER FRONT SUSPENSION HOLDER (1) - SWISS 7075 T6









The RX8 kit comes with both types of front anti-roll bars; blade-style or wire. Decide which anti-roll bar to use.

Blade anti-roll bar (Alternative 1) page 27

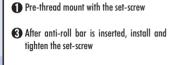
is recommended for long, fast tracks when maximum cornering speed is needed. With the blade anti-roll bar, the car will not dive in the corners and will maintain maximum speed. Follow the "Alternative 1" assembly steps (immediately below).

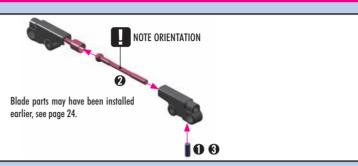
Wire anti-roll bar (Alternative 2) go to page 28

is recommended for smaller, technical tracks when fast direction changes and side weight changes are needed. Follow the "Alternative 2" assembly steps starting on page 28; DO NOT assemble the blade bars as described immediately below.

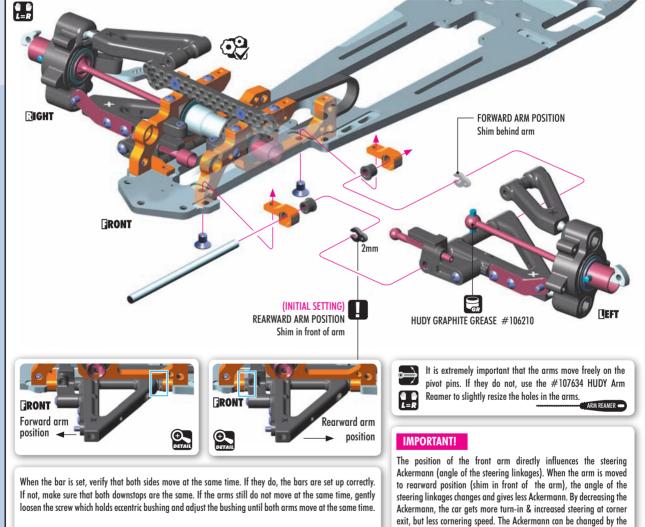
## **ALTERNATIVE 1** (BLADE ANTI-ROLL BAR)

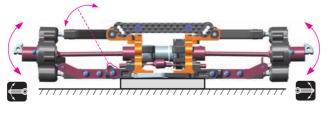






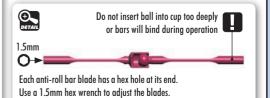




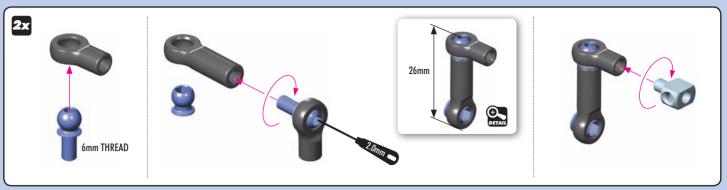


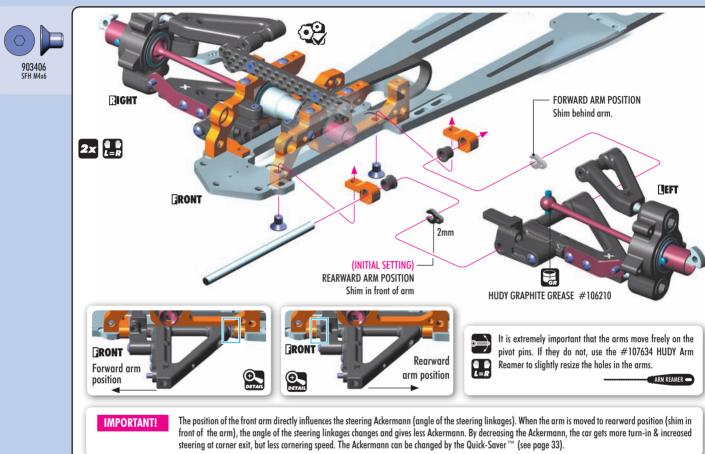
Ensure that the suspension arms move freely. Ensure that the eccentric holders move freely.

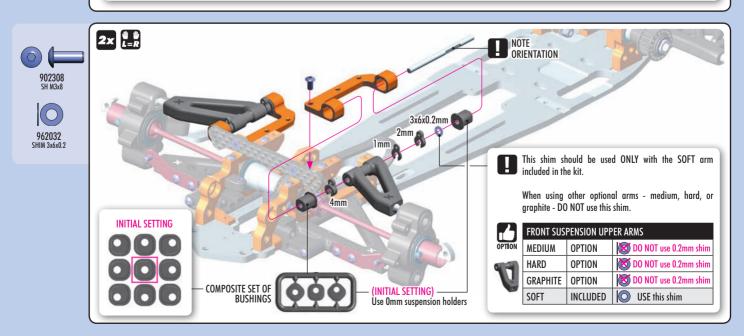
exit, but less cornering speed. The Ackermann can be changed by the Quick-Saver™ (see page 33).

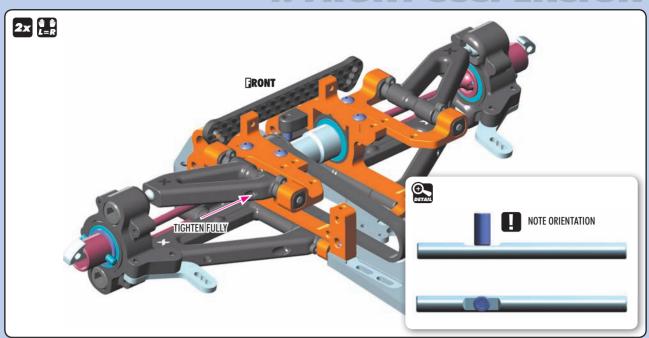


# ALTERNATIVE 2 (WIRE ANTI-ROLL BAR)

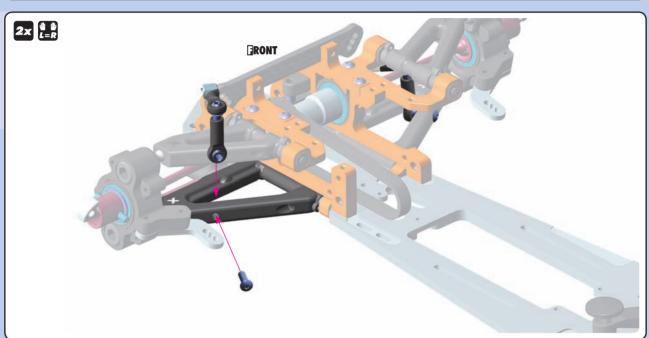


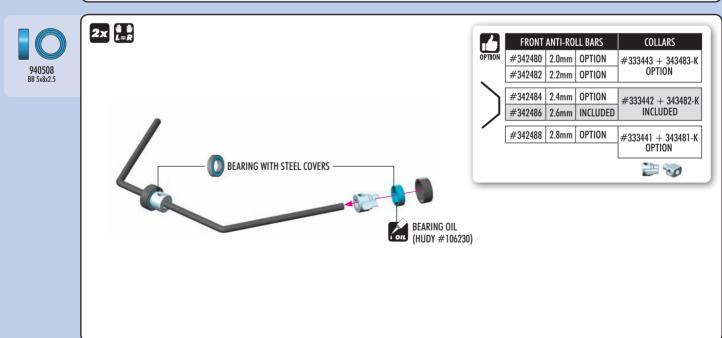


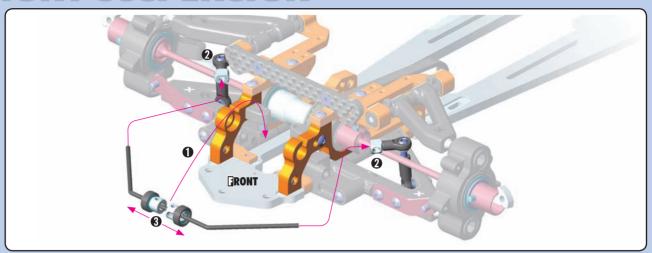








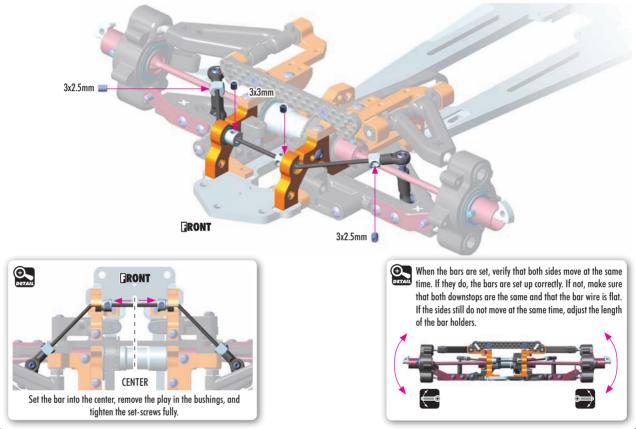




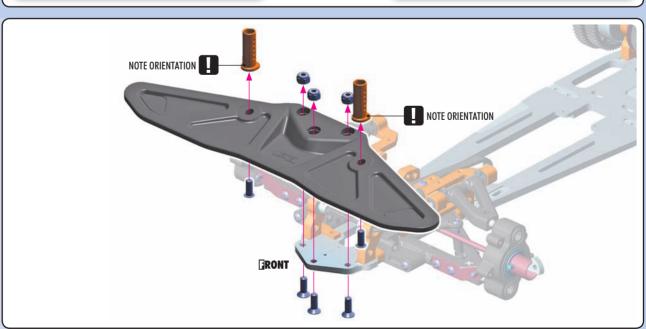






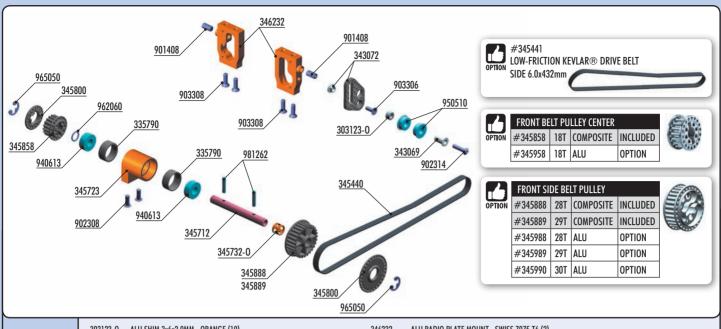








#### 5. FRONT TRANSMISSION



BAG

05

ALU SHIM 3x6x2.0MM - ORANGE (10) 303123-0 ALU RADIO PLATE MOUNT - SWISS 7075 T6 (2) 346232 COMPOSITE BALL-BEARING BUSHING FOR MIDDLE SHAFT (2) 335790 STEEL BUSHING (2) 901408 HEX SCREW SB M4x8 (10) 343069 BELT TENSIONER SET - STEEL HEX SCREW SH M3x8 (10) HEX SCREW SH M3x14 (10) 343072 902308 PUR® REINFORCED DRIVE BELT SIDE 6.0 x 432 MM 345440 902314 HEX SCREW SFH M3x6 (10) 345712 FRONT MIDDLE SHAFT - LIGHTWEIGHT - HUDY SPRING STEEL™ 903306 ALU FRONT MIDDLE SHAFT HOLDER HEX SCREW SFH M3x8 (10) 345723 903308 ALU MIDDLE SHAFT LOCATING COLLAR - SHORT - LIGHTWEIGHT - ORANGE BALL-BEARING 6x13x5 RUBBER SEALED - OIL (2) 345732-0 940613 345800 COMPOSITE BELT PULLEY COVER SET 950510 BALL-BEARING 5x10x4 FLANGED - STEEL SEALED - OIL (2) COMPOSITE FRONT BELT PULLEY 18T ø6 - CENTER WASHER S 6x8x0.5 (10) 345858 962060 345888 **COMPOSITE SIDE BELT PULLEY 28T - FRONT** 965050 E-CLIP 5 (10) 345889 **COMPOSITE SIDE BELT PULLEY 29T - FRONT** 981262 PIN 2.5x12 (10)



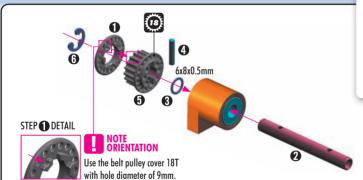










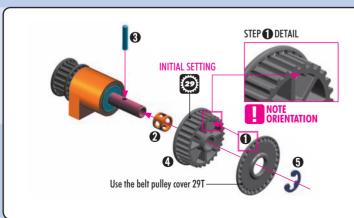


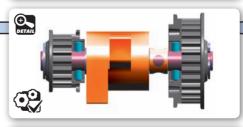






981262 P 2.5x12



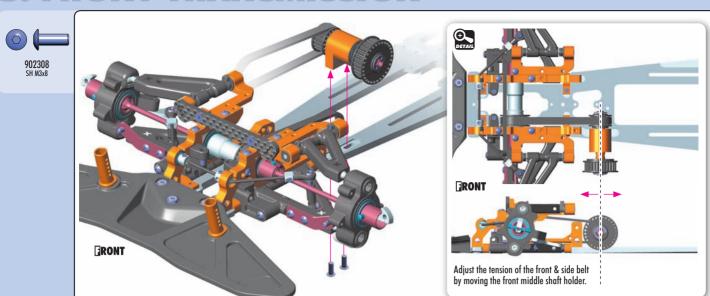


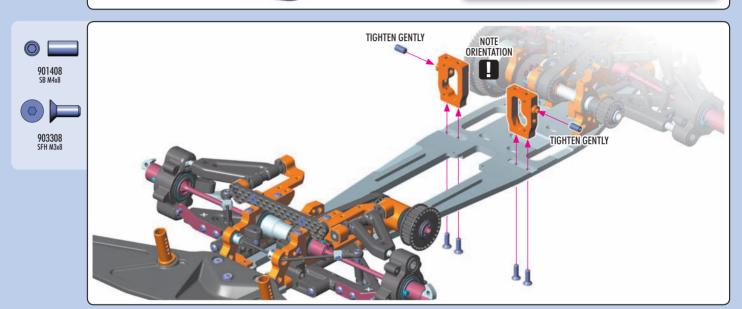
<b>7</b> 3	FRONT SIDE BELT PULLEY			
OPTION	#345888	28T	COMPOSITE	INCLUDED
	#345889	29T	COMPOSITE	INCLUDED
	#345988	28T	ALU	OPTION
	#345989	29T	ALU	OPTION
	#345990	30T	ALU	OPTION

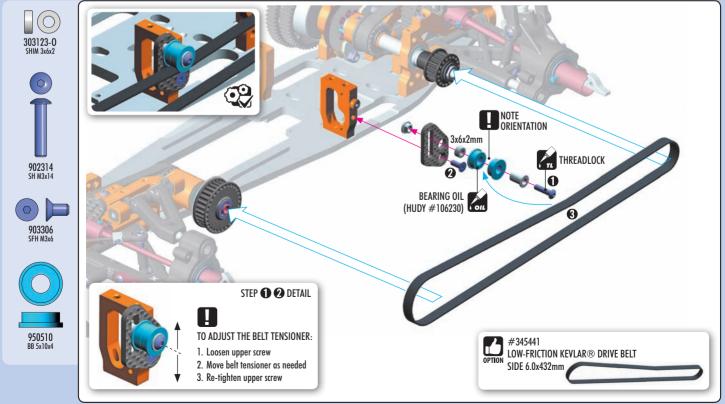




## 5. FRONT TRANSMISSION

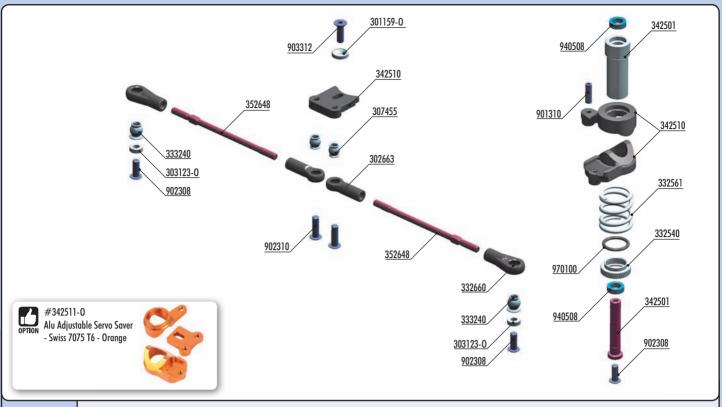








#### 6. STEERING



BAG 06

301159-0 ALU COUNTERSUNK SHIM - ORANGE (4) 302663 COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8) 303123-0 ALU SHIM 3x6x2.0MM - ORANGE (10)

PIVOT BALL 4.9 MM DOUBLE BEVEL SHOULDERS (10) 307455

332540 ALU SERVO SAVER ADJUSTABLE NUT SERVO SAVER SPRING C=14 332561

COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2) 332660

333240 BALL UNIVERSAL 5.8 MM HEX (4) SERVO SAVER COMPLETE SET 342501

HEX SCREW SFH M3x12 (10) 903312 BALL-BEARING 5x8x2.5 RUBBER SEALED - OIL (2) 940508 970100 O-RING 10 x 1.5 (10)

342510

352648

901310

902308

902310

COMPOSITE SERVO SAVER

HEX SCREW SB M3x10 (10)

HEX SCREW SH M3x8 (10)

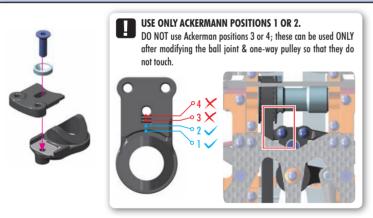
HEX SCREW SH M3x10 (10)

ADJ. TURNBUCKLE M3 L/R 62 MM - HUDY SPRING STEEL (2)









THERE ARE 4 DIFFERENT ACKERMANN SETTINGS POSSIBLE WITH THE QUICK-SAVER™ For initial Ackermann setting, use Step 1 (2nd shortest length).



STEP 1 gives the most Ackermann and makes the car understeer more into & out of corners. It offers good cornering speed and creates very good traction mainly in chicanes, because the car will be more stable. Recommended for tracks with long sweepers where a lot of cornering speed is needed.

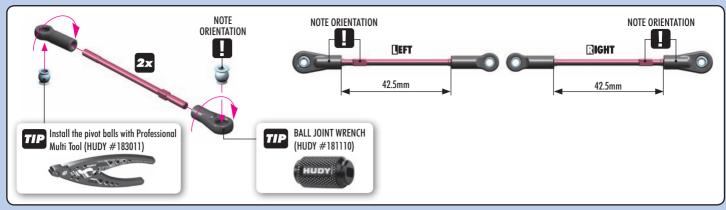


STEP 4 gives the least Ackermann and creates a lot of steering into & out of corners. However, the car is more difficult to drive in chicanes because there is less traction and stability.

Recommended for tracks where a lot of in-corner steering is needed.



## 6. STEERING

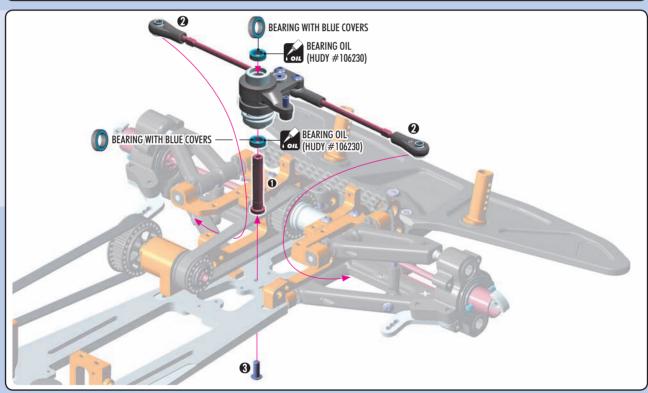




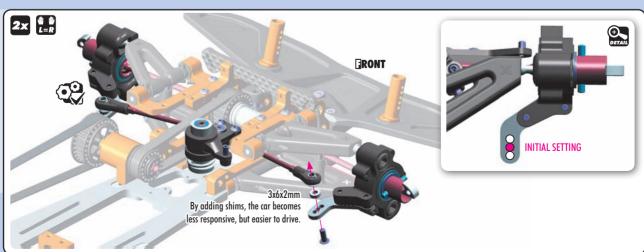






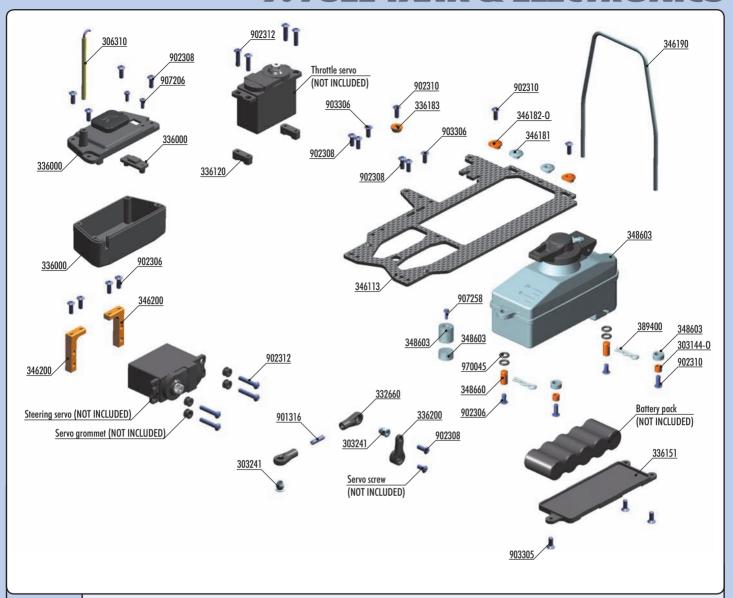








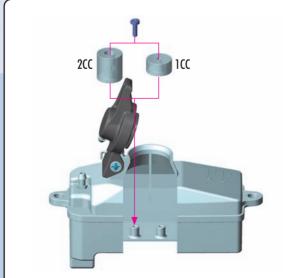
#### 7. FUEL TANK & ELECTRONICS





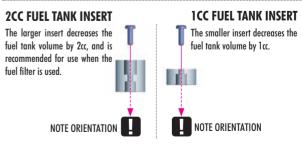
303144-0 ALU SHIM 3x5x4.0MM - ORANGE (10) 346113 **GRAPHITE RADIO PLATE** 902306 HEX SCREW SH M3x6 (10) HEX SCREW SH M3x8 (10) BALL UNIVERSAL 5.8 MM HEX (4) ALU RADIO PLATE TWEAK BUSHING HARDCOATED (2) 902308 303241 346181 HEX SCREW SH M3x10 (10) 306310 ANTENNA TUBE (2) 346182-0 ALU RADIO PLATE BUSHING FIXED - ORANGE (2) 902310 332660 COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2) **ROLL-OVER BAR** 902312 HEX SCREW SH M3x12 (10) 346190 COMPOSITE RECEIVER CASE ALU SERVO MOUNT - SWISS 7075 T6 (2) HEX SCREW SFH M3x5 (10) 903305 336000 346200 COMPOSITE STEERING SERVO HOLDER - SET - V2 HEX SCREW SFH M3x6 (10) 336120 348603 FUEL TANK 125CC - SET 903306 ALU FUEL TANK MOUNT (2) 907206 SCREW PHILLIPS M2x6 (10) 336151 COMPOSITE BATTERY PLATE 348660 COMPOSITE STEERING SERVO ARMS - SET SCREW PHILLIPS M2.5x8 (10) 336200 389400 MICRO BODY CLIP (10) 907258 336183 ALU RADIO PLATE MULTI-FLEX™ BUSHING 901316 HEX SCREW SB M3x16 (10) 970045 0-RING 4.5x1.5 (10)



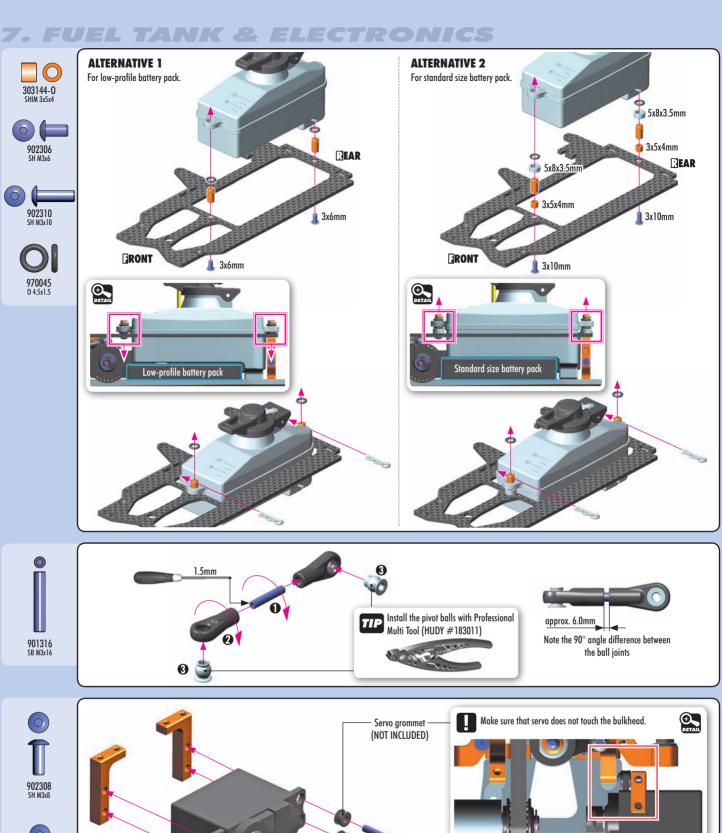


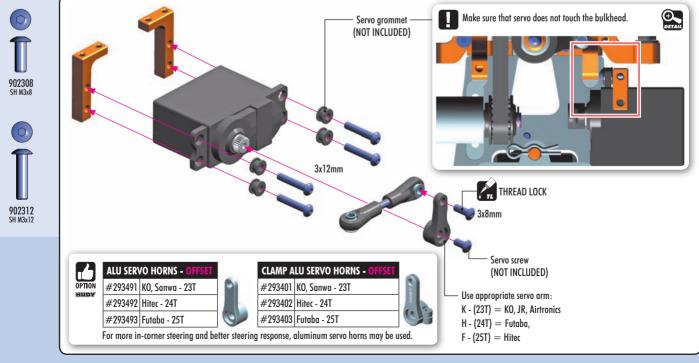
The fuel tank has a larger fuel volume and includes OPTIONAL tank inserts for decreasing the volume of the tank. Using the inserts allows you to adjust the volume of fuel inside the tank; this works in conjunction with variables such as fuel filter capacity and/or length of fuel line to ensure you have the legal fuel volume limit for racing.

Tube holders are easily connected to the fuel tank by screws. Using screws is much more secure than using glue to attach the holders to the fuel tank.



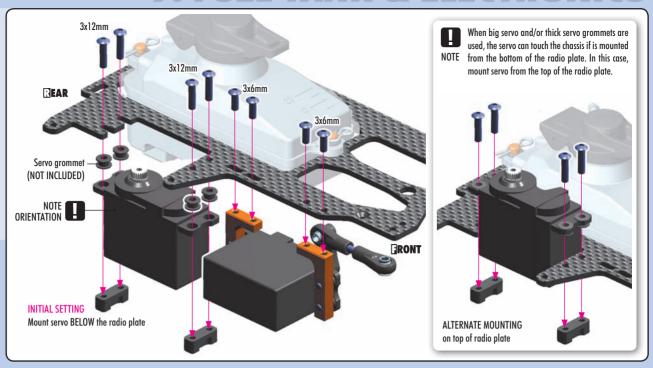
NOTE: The fuel tank insert can be easily mounted to the bottom of the fuel tank using the provided screw, when the fuel tank cap is opened fully.





#### 7. FUEL TANK & ELECTRONICS

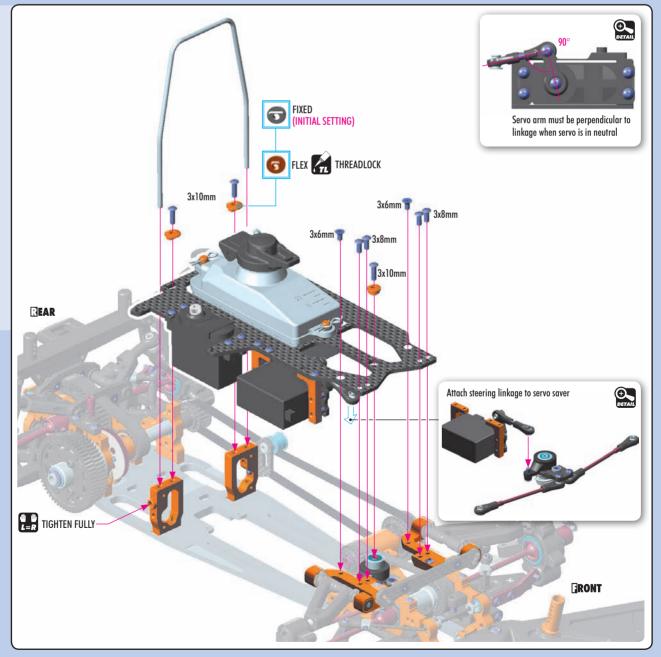






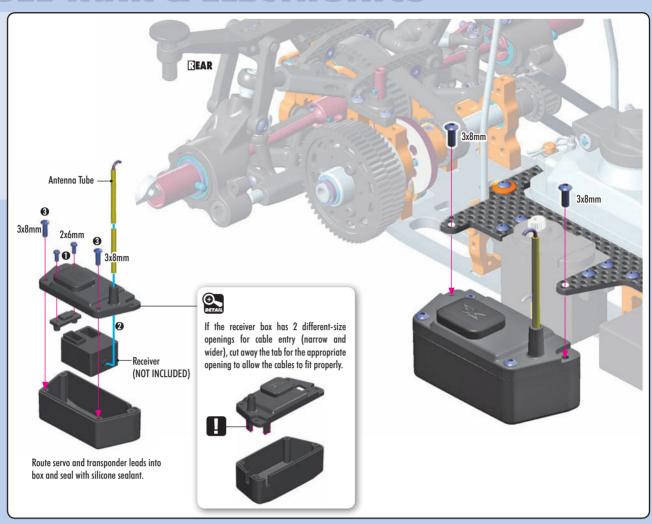






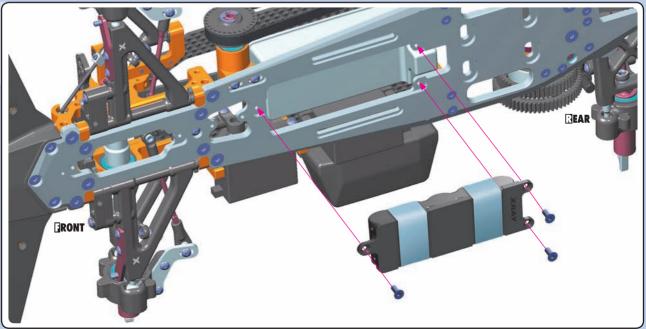
# 7. FUEL TANK & ELECTRONICS



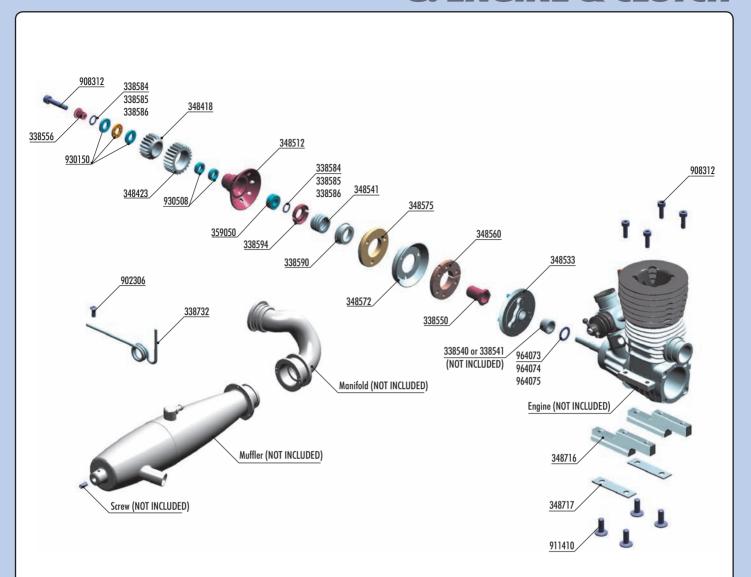




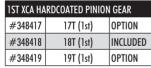




#### 8. ENGINE & CLUTCH









251 XCA HAKDCUATED PINION GEAK						
	#348422	22T (2nd)	OPTION			
	#348423	23T (2nd)	INCLUDED			
	#348424	24T (2nd)	OPTION			
	#348425	25T (2nd)	OPTION			





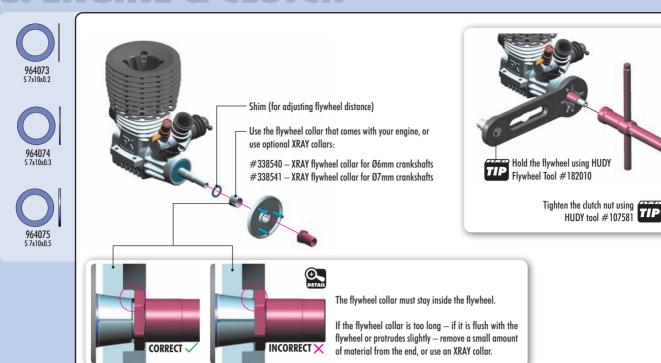


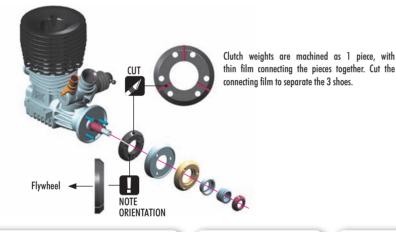


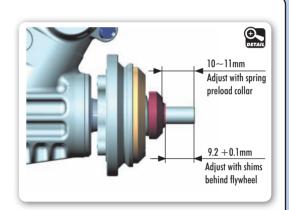
338540	FLYWHEEL COLLAR 7MM - NOVAROSSI (OPTION)	348560	CLUTCH FLYWEIGHT SET
338541	FLYWHEEL COLLAR 6MM - PICCO (OPTION)	348572	ALU CLUTCH DISK - CONICAL - SWISS 7075 T6
338550	FLYWHEEL NUT - HUDY SPRING STEEL™	348575	CLUTCH SHOE - YELLOW
338556	THRUSTBEARING COLLAR - HUDY SPRING STEEL™	348716	ALU ENGINE MOUNT (2)
338584	SHIM 5x7x0.2 (10)	348717	STAINLESS STEEL ENGINE MOUNT SHIM (2)
338585	SHIM 5x7x0.3 (10)	359050	CLUTCH BELL BALL-BEARING 5x10x4 (2)
338586	SHIM 5x7x0.5 (10)		
338590	CLUTCH SPRING CUP - ALU 7075 T6	902306	HEX SCREW SH M3x6 (10)
338594	CLUTCH PRELOAD ADJ. NUT - HUDY SPRING STEEL™	908312	HEX SCREW SOCKET HEAD CAP M3x12 (10)
338732	EXHAUST MOUNTING WIRE - EXTRA-LONG	911410	HEX SCREW FLANGED SH M4x10 (10)
348418	XCA ALU PINION GEAR 18T (1ST) - 7075 T6 - HARDCOATED - LARGE	930150	CARBIDE AXIAL THRUSTBEARING F5-10 5x10x4
348423	XCA ALU PINION GEAR 23T (2ND) - 7075 T6 - HARDCOATED - LARGE	930508	BALL-BEARING 5x8x2.5 STEEL SEALED - OIL (2)
348502	XCA (XRAY CENTRIFUGAL-AXIAL) CLUTCH SET - REVERSE - SMALL	964073	WASHER S 7x10x0.2 (10)
348512	XCA CLUTCHBELL FOR SMALLER PINION GEARS - HUDY STEEL	964074	WASHER S 7x10x0.3 (10)
348533	FLYWHEEL - FLAT - HARDCOATED	964075	WASHER S 7x10x0.5 (10)
348541	CLUTCH SPRING - ULTRA-STABLE		

1 2 3 2

#### 8. ENGINE & CLUTCH











#### **TECH TIP FOR RX8 CLUTCH SHOE**

To ensure that the RX8 clutch shoe works properly and for a long time, it is very important to run in the clutch shoe.



⊕. DETAU

Please follow these run-in steps to help ensure proper clutch operation:

Install clutch according to manual.



- 3 When you start the engine, the clutch should start engage under low RPM. If the clutch engages only under high RPM, stop the engine and loosen the spring preload collar. Repeat until the clutch engages under low RPM.
- 4 Run in the clutch shoe on the track, or on the starter box if you have only limited time. (We recommend running it in on the track.)
- 3 Run in the clutch shoe for 1 tank of fuel using a soft preload setting, and then after that slightly tighten the spring preload. DO NOT run in the clutch shoe under high RPM.
- 6 Continue this process until the clutch shoe is properly run in; this will be indicated by a dark and glossy surface colour on the top of the clutch shoe.

#### **TECH TIP FOR EXTRA BOTTOM-END POWER**

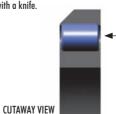
For extra bottom-end power, thread a M3x4 set-screw (#901304) into each clutch flyweight as shown. The set-screw will add more weight to the end of the flyweight which will cause the flyweight to open harder, giving more bottom-end power. This is recommended for high-traction tracks where bottom-end power is required.

#### IMPORTANT!

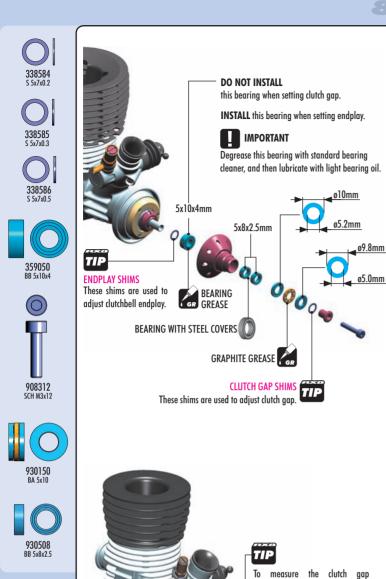
Install set-screw into free (non-pivot) end of flyweight.

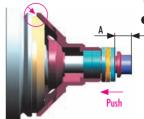


After inserting the set-screw, some excess material may come out of the hole. REMOVE this excess material with a knife.





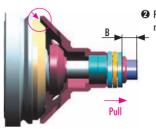




#### (1) ADJUSTING THE CLUTCH GAP

• Install the clutchbell, outer ball-bearing (small), and thrustbearing assembly on the engine crankshaft. DO NOT install the inner ball-bearing or internal shims.

Push the clutchbell onto the clutch shoe and measure distance A as indicated.



2 Pull the clutchbell away from the clutch shoe and measure distance B as indicated.



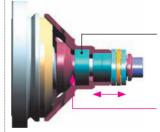
The clutch gap is A - B; the correct gap is 0.6-0.7mm

> If the clutch gap is greater than this, you can easily calculate the thickness of shims required to set correct gap:
> Thickness of shims required (in mm) = A-B-0.7

For example, using the values A=5.5 mm, B=4.5mm

Shim thickness = 5.5-4.5-0.7=0.3mm

Place shims on the small collar, outside the thrustbearing assembly.



 $(0.6 \sim 0.7 \text{mm})$  you can also use HUDY Flywheel Tool #182010

NOTE ORIENTATION

#### (2) ADJUSTING THE ENDPLAY

Measure endplay with this bearing installed

Apply shims on crankshaft to set endplay to 0.05-0.15mm

Insert ENDPLAY SHIMS here (approximately 0.7~1.0mm)

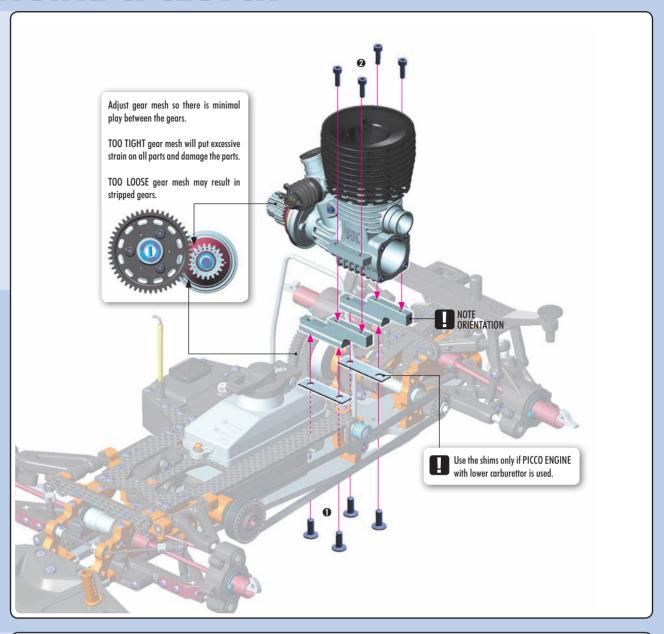




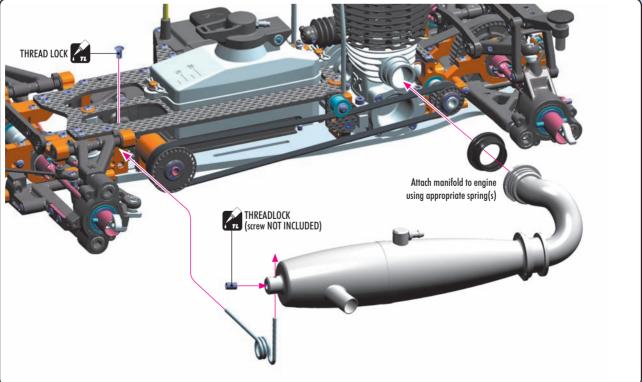


#### 8. ENGINE & CLUTCH

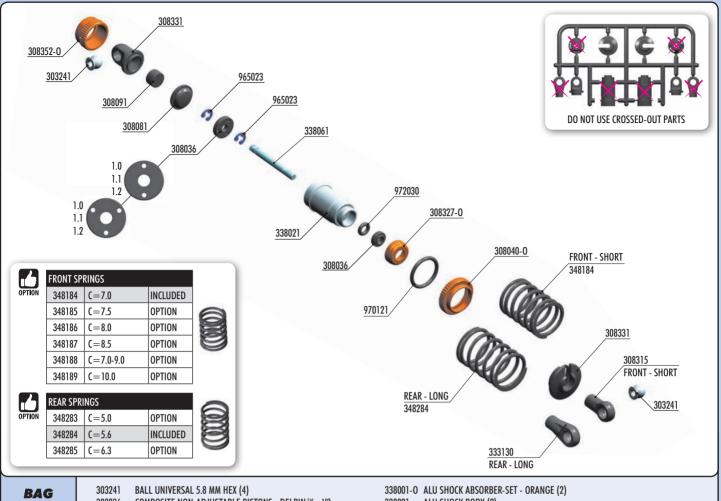








#### 9. SHOCK ABSORBERS



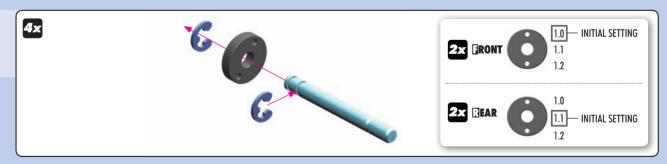
**BAG 09** 

303241 BALL UNIVERSAL 5.8 MM HEX (4)
308036 COMPOSITE NON-ADJUSTABLE PISTONS - DELRIN™ - V3
308040-0 SHOCK ADJ. NUT ALU + 0-RING - ORANGE (4)
308081 SHOCK ABSORBER MEMBRANE - LOW (4)
308091 SHOCK FOAM INSERTS - LOW (4)
308315 COMPOSITE SHOCK BALL JOINT - LONG (4)
308327-0 ALU CAP FOR XRAY SHOCK BODY - ORANGE (2)
308331 COMPOSITE FRAME SHOCK PARTS 4-STEP - SHORT
308352-0 ALU SHOCK CAP-NUT WITH HOLE - ORANGE (2)
333130 COMPOSITE REAR UPPER CAMBER LINK BALL JOINT 5.8 MM (4)

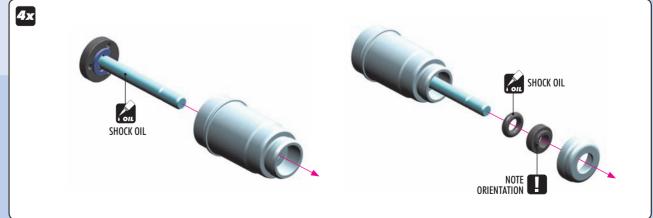
338021 ALU SHOCK BODY (2)
338061 HARDENED SHOCK SHAFT (2)
348184 XRAY SPRING-SET C=7.0 - FRONT (2)
348284 XRAY SPRING-SET C=5.6 - REAR (2)

965023 E-CLIP 2.3 (10) 970121 O-RING 12.1x1.6 (10) 972030 SILICONE O-RING 3x2 (10)

965023 C 2.3

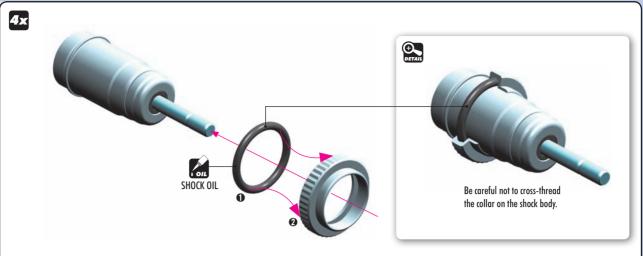


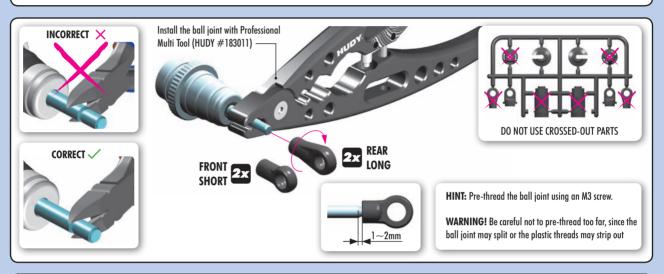




#### 9. SHOCK ABSORBERS









#### **SHOCK FILLING**

- Fully extend the piston rod so the piston is at the bottom of the shock body.
- Hold the shock upright and slightly overfill the shock body with shock oil.
- Let the oil settle and allow air bubbles to rise to the top. Slowly move the piston up and down until no more air bubbles appear. Add shock oil as necessary.
- Pull the piston rod most of the way out of the shock body. Let the shock rest for 5 minutes to allow the air bubbles to escape.





After you insert the membrane ensure that it sits properly all around the alu cup properly.





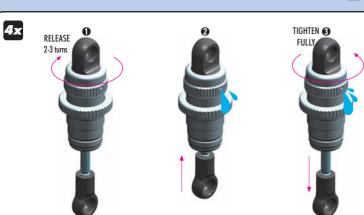
When installing the shock cap assembly on the shock body, some oil will leak out... this is normal.

Fully tighten the cap and clean off any excess oil.

After the shock is assembled, the shock rod will push itself out of the shock body fairly quickly.

Follow the next procedure to adjust the rebound.

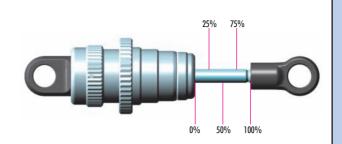




#### **REBOUND ADJUSTMENT**

AFTER THE SHOCK IS ASSEMBLED YOU HAVE TO SET THE SHOCK REBOUND.

- Release the shock cap by 2-3 turns.
- 2 Push the shock shaft fully up. For the first time the extra oil will release through the hole in the alu cap-nut.
- Tighten the shock cup. When tightening the shock cap, extra oil will again release through the hole in the alu cap nut. When tightening, the shock shaft will push out from the shock body.



#### REBOUND CHECK

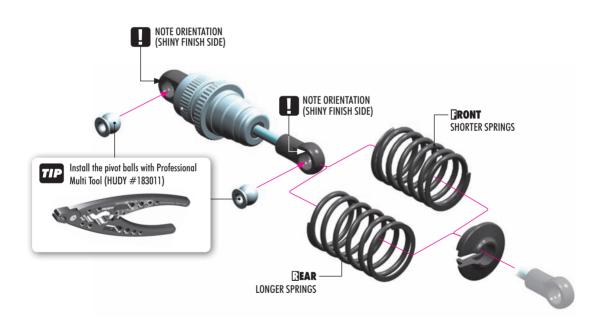
It is very important to push the shock shaft into the shock body slowly otherwise air can come into the shock body which would create bubles.

100% rebound - repeat step 2 and 3 two - three times

75% rebound - repeat step 2 and 3 until the shock shaft will push out 75% of its length
50% rebound - repeat step 2 and 3 until the shock shaft will push out 50% of its length
25% rebound - repeat step 2 and 3 until the shock shaft will push out 25% of its length
0% rebound - repeat step 2 and 3 until the shock shaft will push out 0% of its length

If the shock shaft does not rebound enough, you will have to refill the shock with shock oil, and then repeat the bleeding and rebound adjustment procedure.







SHOCK SPRING RETAINING COLLAR						
ALU - SILVER	OPTION					
ALU - ORANGE	OPTION					
ALU - BLACK	OPTION					
COMPOSITE	INCLUDED					
	ALU - SILVER ALU - ORANGE ALU - BLACK					





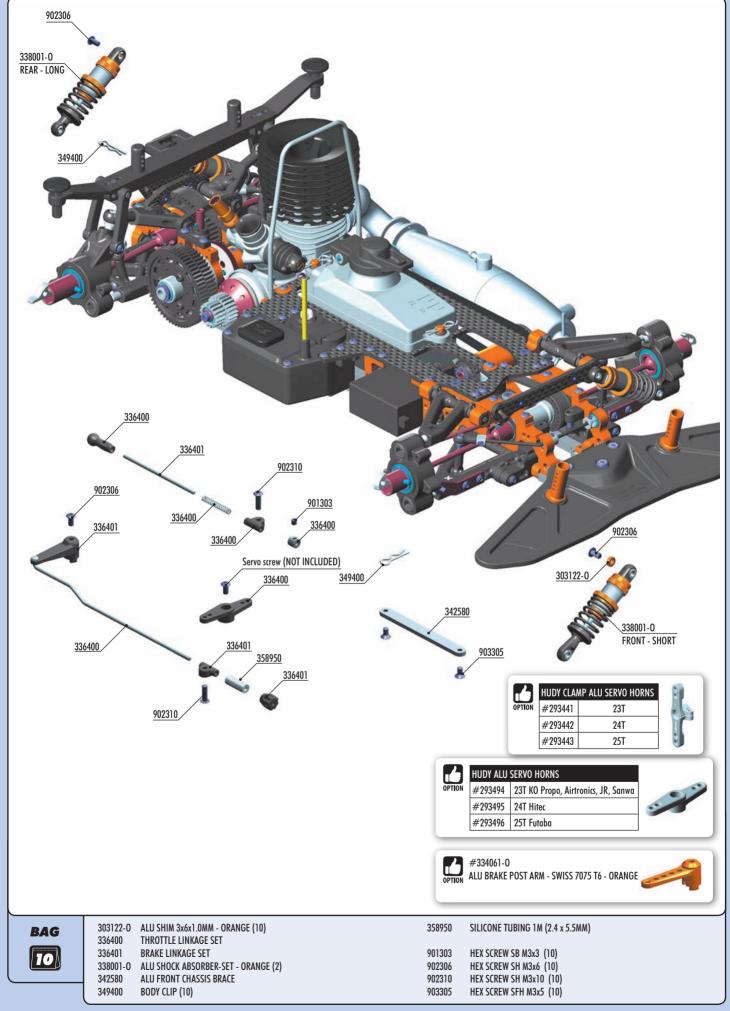
#### SHOCK LENGTH ADJUSTMENT

It is VERY important that all shocks are equal length.

Fully extend the shock absorber and measure the end-to-end length; we recommend using digital calipers to give an accurate measurement. If a shock absorber is shorter or longer than others, adjust the shock length by tightening or loosening the ball joint on the shock rod.



#### 10. FINAL ASSEMBLY

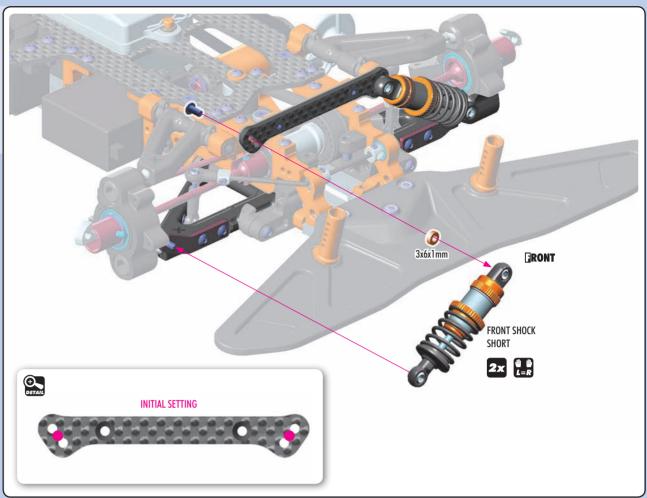




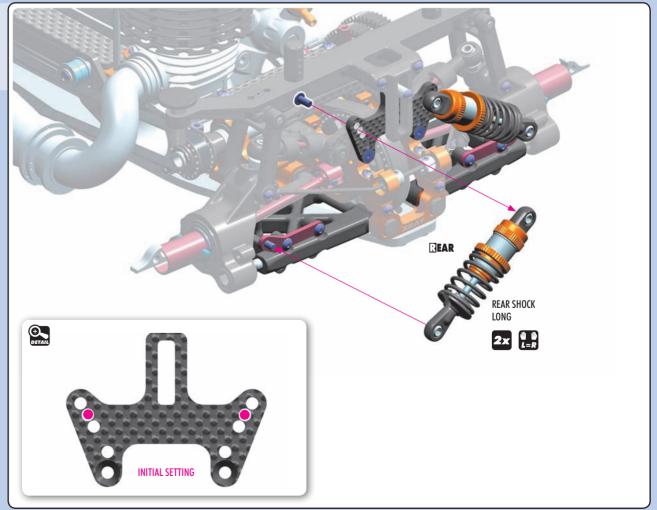
#### 10. FINAL ASSEMBLY









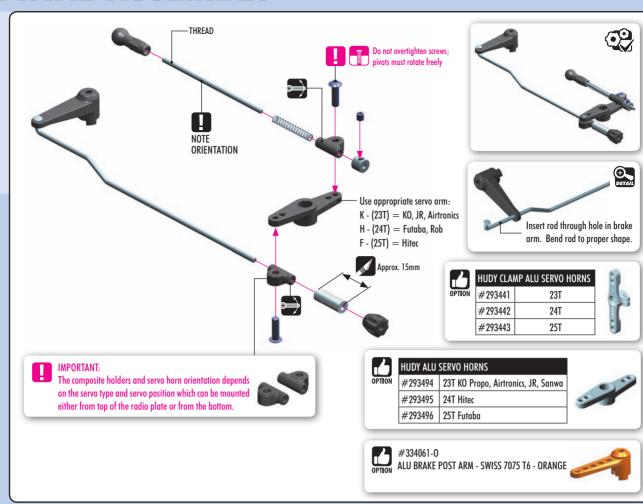


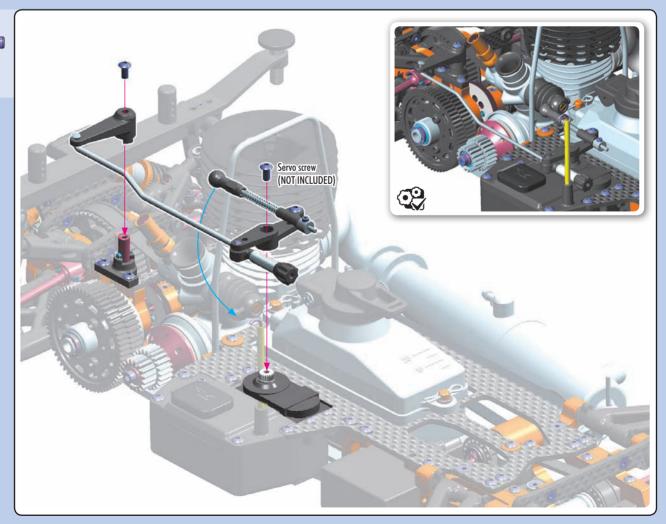
#### 10. FINAL ASSEMBLY

901303 SB M3x3

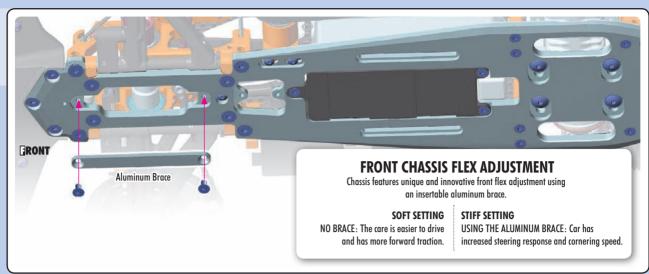
902310 SH M3x10

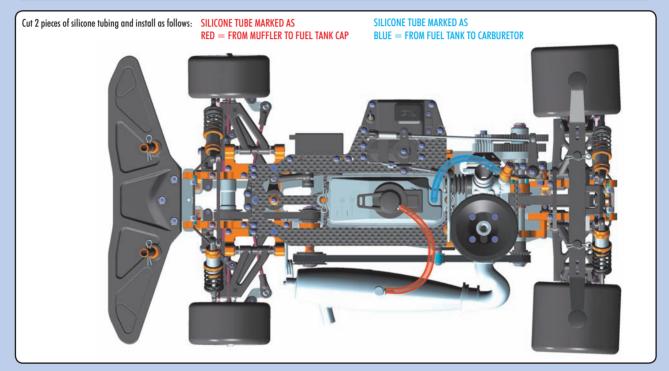
902306 SH M3x6



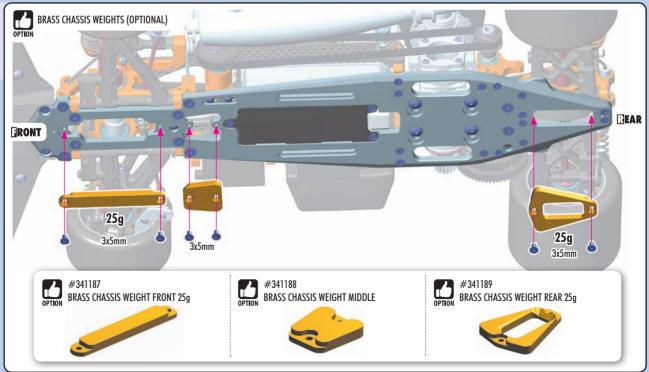












#### CARB LINKAGE ADJUSTMENT

# Approx. 0.5mm

Turn on transmitter and receiver and set the throttle servo trim to the neutral position.

Adjust the idle adjustment screw on the carburetor to open approx. 0.5-1 mm.

Adjust both collars on the carb and brake linkages accordingly. The carb linkage must have approximately 0.5mm of preload on the spring at neutral.

DO NOT ADJUST while the engine is running.



#### **FULL THROTTLE**



With the engine NOT RUNNING but the receiver turned ON, apply full throttle at the transmitter.

Adjust the transmitter's throttle servo high-end point so that the servo horn fully opens the carburettor when the transmitter's throttle control (e.g., throttle trigger) is at 95% of full throttle. The servo should not have excessive strain when at full throttle, or throttle/carb damage will result.

If the transmitter does not have throttle high-end point adjustment, adjust the throttle linkage pivot position on the servo horn until full throttle is obtained.



#### BRAKE



 $\label{eq:Adjust} \mbox{ Adjust the composite collar on the brake linkage so the brakes work smoothly.}$ 

If the brakes apply too much or not enough, adjust the collar accordingly. If your transmitter has throttle servo lowend point adjustment (or brake adjustment), use that to set the appropriate amount of throttle servo horn throw.













RX8E Alu Spur Gear Collar - Swiss 7075 T6

RX8E Alu Pinion Gear Adapter - Swiss 7075 T6



#345690

#346130

Alu Shim 5x17x1.5mm - Black (2)

#346132 RX8E Graphite Fan Holder 2.5mm



RX8E Graphite Receiver Case Holder 2.5mm



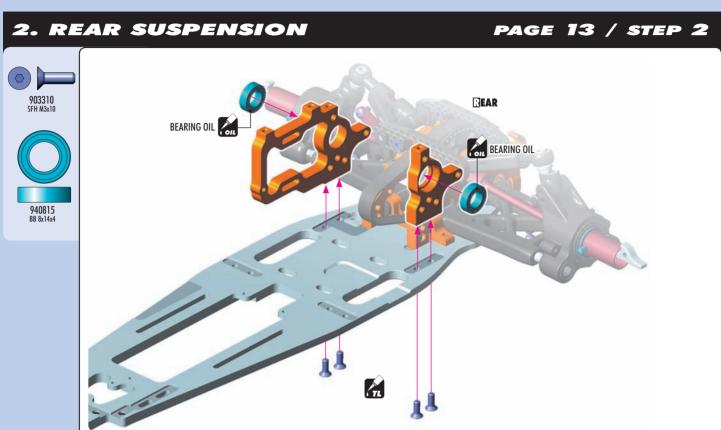


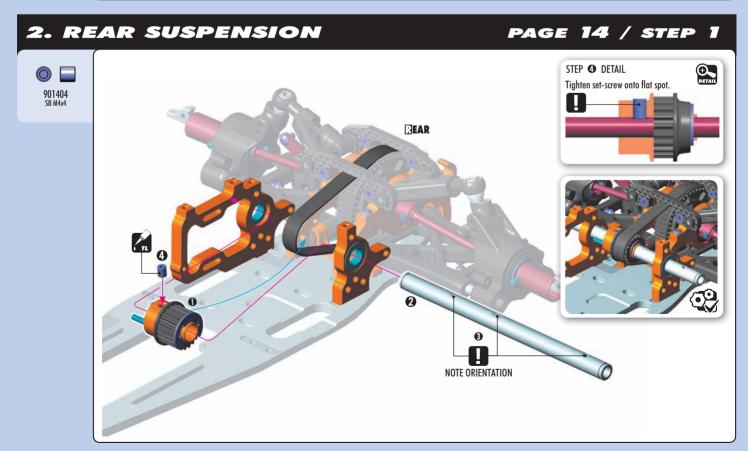
#344030 Alu Electric Motor Mount - Swiss 7075 T6





This conversion set fits also RX8'16 &'17 &'18 specs car.

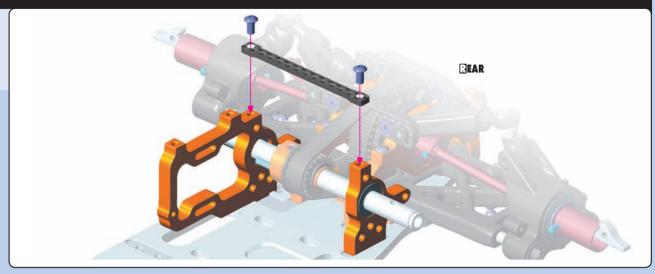




#### 2. REAR SUSPENSION

#### PAGE 14 / STEP 2





# 2. REAR SUSPENSION

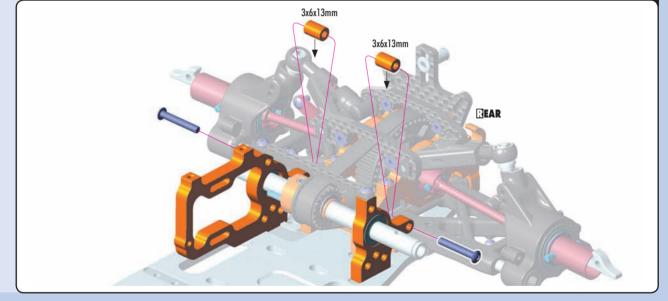
#### PAGE 15 / STEP







902325 SH M3x25

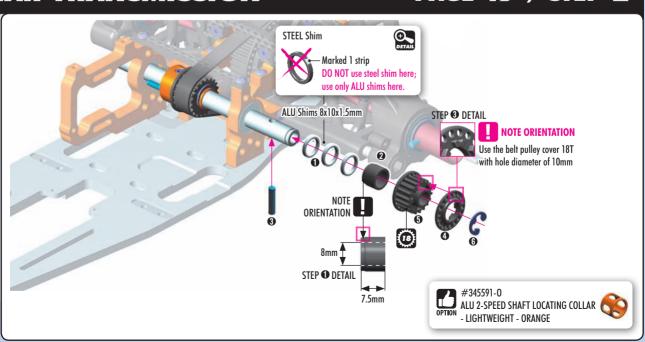


# 2. REAR TRANSMISSION

#### PAGE 19 / STEP 2



980314 P 3x14





# 3. REAR SUSPENSION

# PAGE 20 / STEP 2





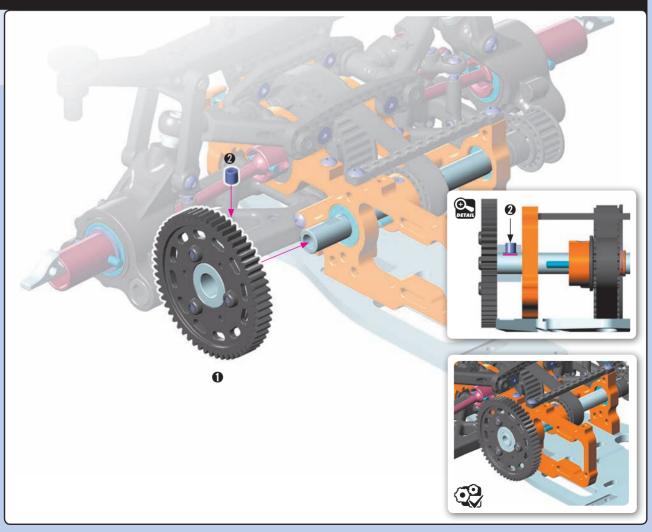
4	GRAPHITE GEARS			6
PTION	335653	53T	OPTION	
	335654	54T	OPTION	
	335655	55T	OPTION	400
	335657	57T	OPTION	RECOMMENDED
	335658	58T	OPTION	
	335659	59T	OPTION	
	335660	60T	OPTION	



# 3. REAR SUSPENSION

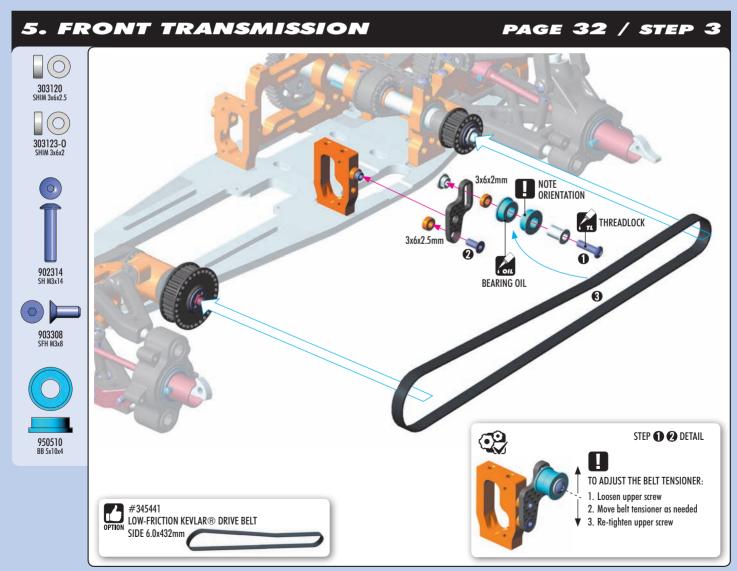
#### PAGE 20 / STEP 3

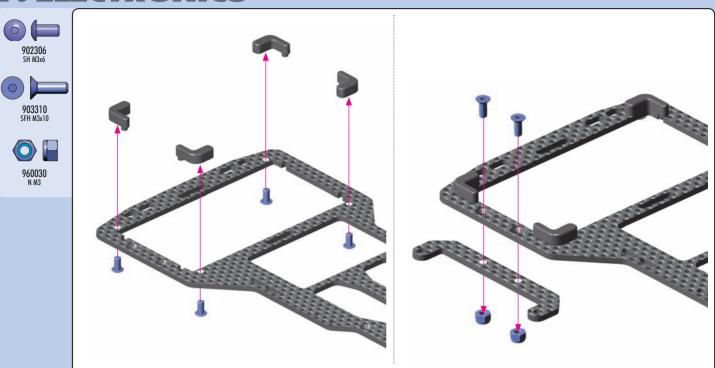


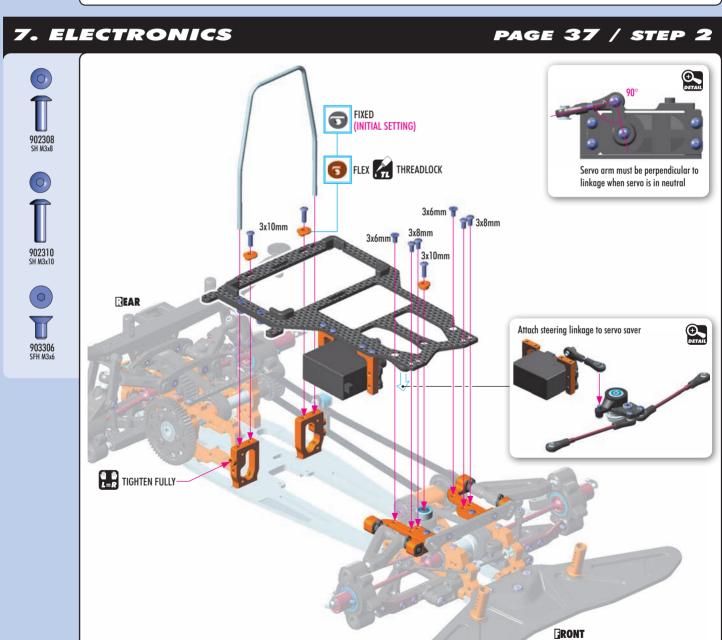




# S. FRONT TRANSMISSION PAGE 32 / STEP 2 TIGHTEN GENTLY 901410 SS MAID 903308 STR Maid





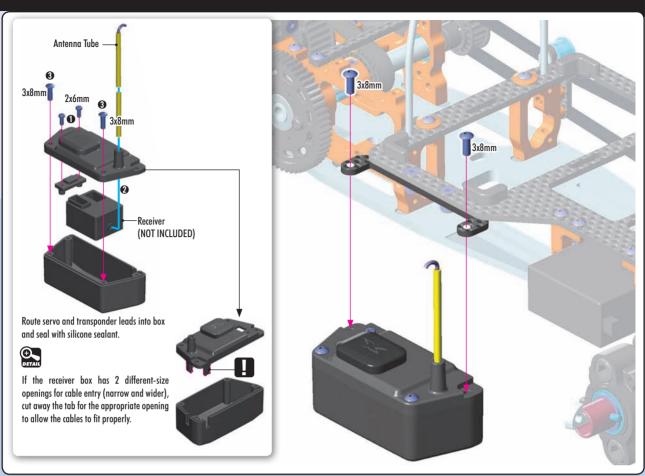


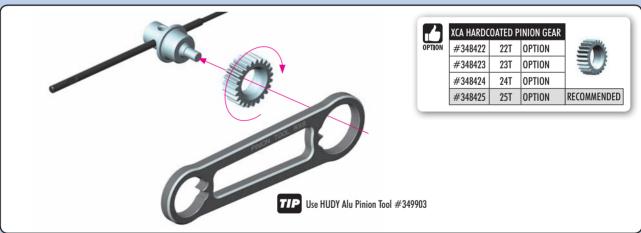
#### PAGE 38 / STEP 1



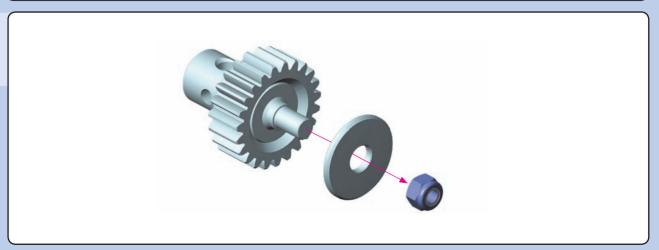


T 907206 2x6



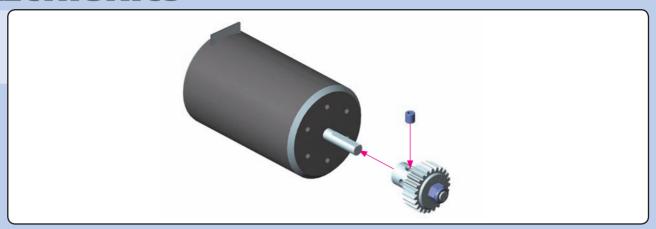




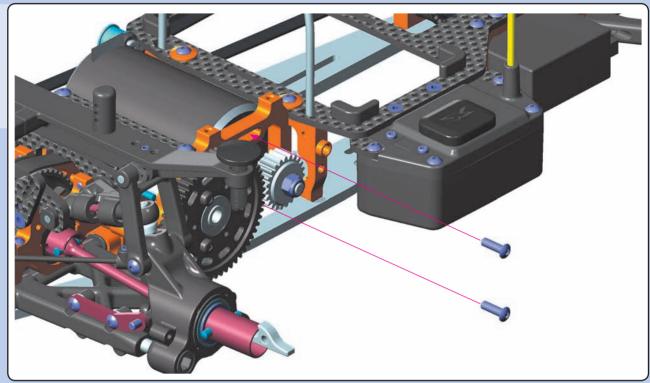




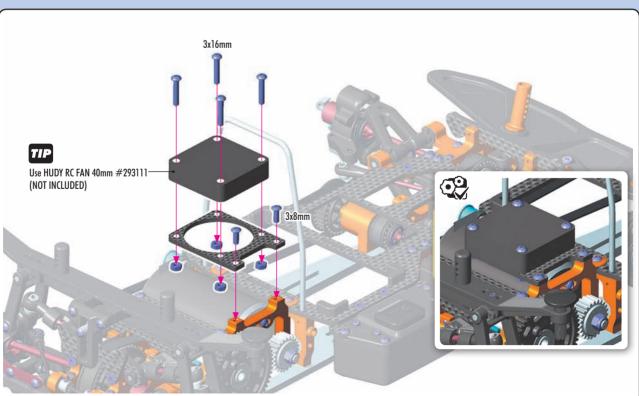




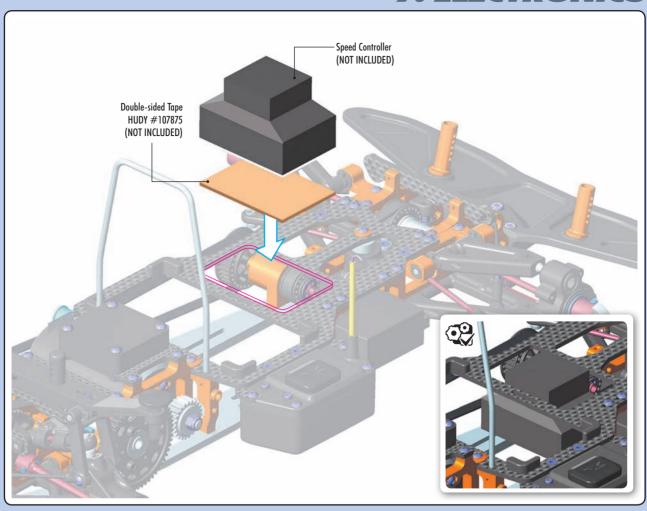


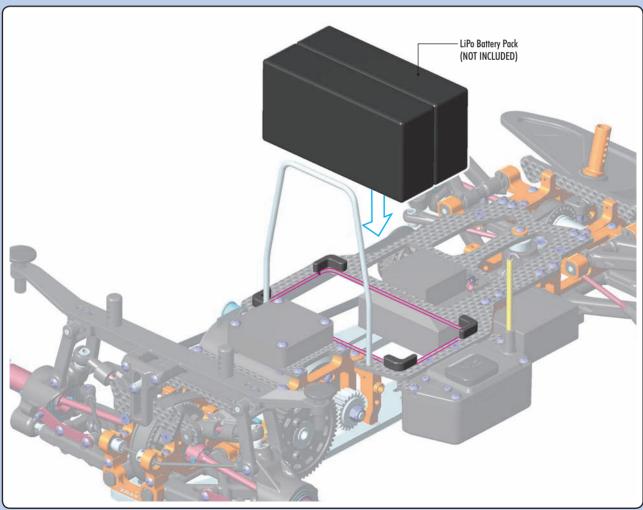












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