XRAY RX8

INSTRUCTION MANUAL

BEFORE YOU START

The RX8 is a high-competition, high-quality, 1/8-scale 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 manual, the included set-up book, 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 our customers.

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

XRAY Europe
K Výstavisku 6992
91101 Trenčín
Slovakia, EUROPE
Phone: +421-32-7401100
Fax: +421-32-7401109
Email: info@teamxray.com

XRAY USA
RCAmerica, 2970 Blystone Lane, Suite 109
Dallas, Texas 75220
USA
Phone: (800) 519-7221 * (214) 744-2400
Fax: (214) 744-2401
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 of your model.
- 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 touching them.
- 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 down.
- 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 cables.
- 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 bad.
- 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.

QUALITY 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 thread lock
- 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
- Scale
- Pay attention here
- Follow tip here
- Use pliers
- Part bags used
- Assemble in the specified order
- Follow Set-Up Book

INCLUDED

XRAY Silicone Shock Oil

NOT INCLUDED

To ensure that you always have access to the most up-to-date version of the XRAY Set-up Book, XRAY will now be offering only the digital online version at our Web site at www.teamxray.com. By offering this online version instead of including a hardcopy printed version in kits, you will always be assured of having the most up-to-date version.

TOOLS REQUIRED

HUDY TOOLS

Phillips 3.5mm

Slotted Screwdriver 4.0mm

Allen 1.5 / 2.0 / 2.5 / 3.0mm

Allen Ball 2.5mm

Exhaust Spring / Caster Clip Remover

Turnbuckle Tool 3.0mm
(HUDY #181030)

Flywheel Tool
(HUDY #182010)

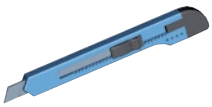
Pinion Tool Set
(XRAY #339901)

Pliers
(HUDY #189020)

Scissors
(HUDY #188990)

Side Cutters
(HUDY #189010)

Hobby Knife



Wrench Glowplug/Clutchnut
(HUDY #107581)

Reamer
(HUDY #107602)
(HUDY #107601)

EQUIPMENT REQUIRED

Transmitter

Receiver & Personal Transponder

Steering & Throttle Servos

Engine

Starter Box (HUDY #104400) & Battery Pack

Glowplug Igniter

Manifold & Exhaust

Lexan® Paint

Bodyshell

One-Way Lube
(HUDY #106231)

Receiver Battery Pack

Battery Charger

Fibre Tape (HUDY #107870)
Double-sided Tape

Wheels & Tires

Model R/C Car Fuel
(nitromethane)

Bearing Oil
(HUDY #106230)

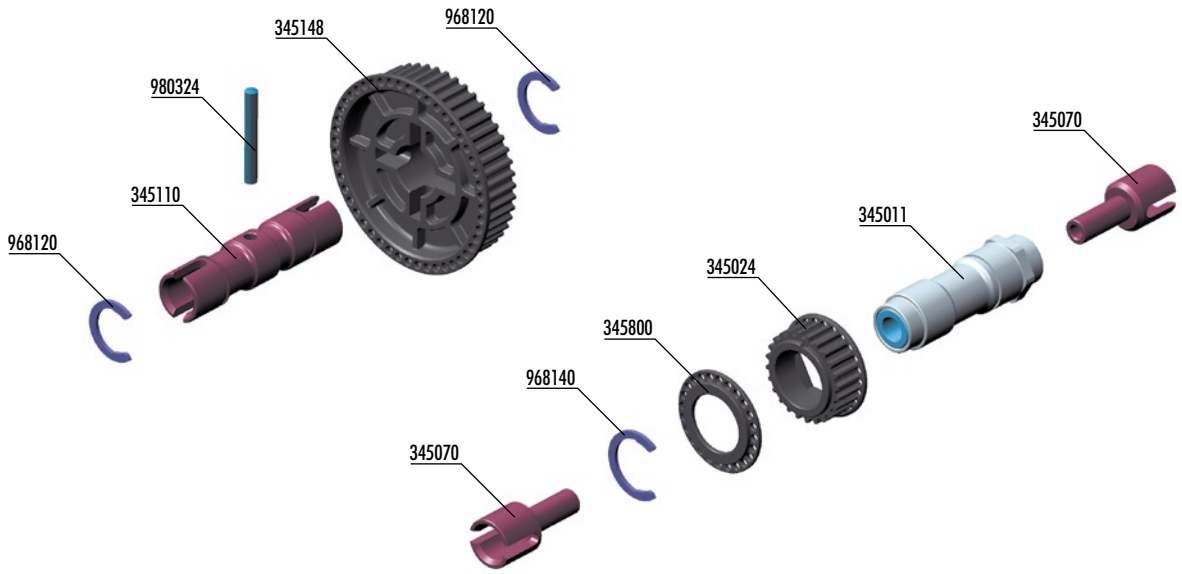
Graphite Grease
(HUDY #106210)

Air Filter & Oil

Threadlock & CA Glue

Tire Truer
(HUDY #102003)

1. FRONT ONE-WAY & REAR SOLID AXLE

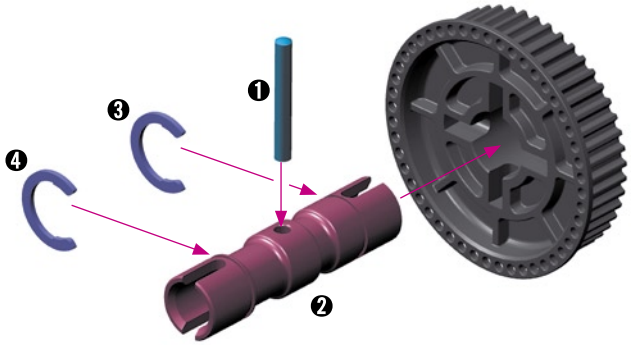


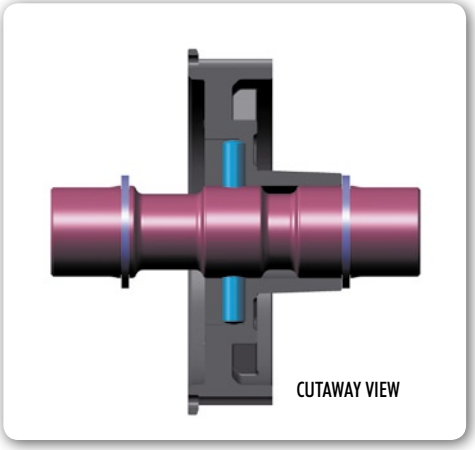
BAG 01

345001	FRONT ONE-WAY - HARD COATED + LIGHTWEIGHT ADAPTERS	345110	REAR SOLID AXLE SHAFT
345011	FRONT ONE-WAY AXLE - BLACK COATED	345148	COMPOSITE REAR SOLID AXLE PULLEY 48T
345024	COMPOSITE FRONT ONE-WAY AXLE PULLEY 24T		
345070	FRONT ONE-WAY AXLE OUTDRIVE ADAPTER - HUDY SPRING STEEL™ (2)	968120	C-CLIP 12 (10)
345071	FRONT ONE-WAY AXLE OUTDRIVE ADAPTER - LIGHTWEIGHT (2) (OPTION)	968140	C-CLIP 14 (10)
345800	COMPOSITE BELT PULLEY COVER SET	980324	PIN 3x24 (10)
345100	REAR SOLID AXLE - SET		

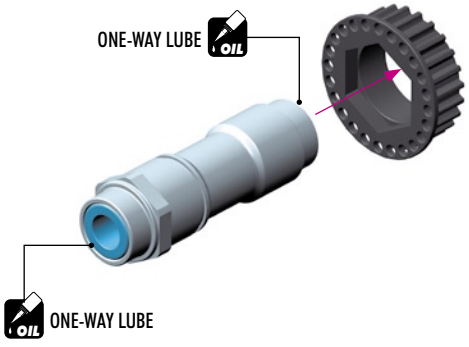
968120
C 12

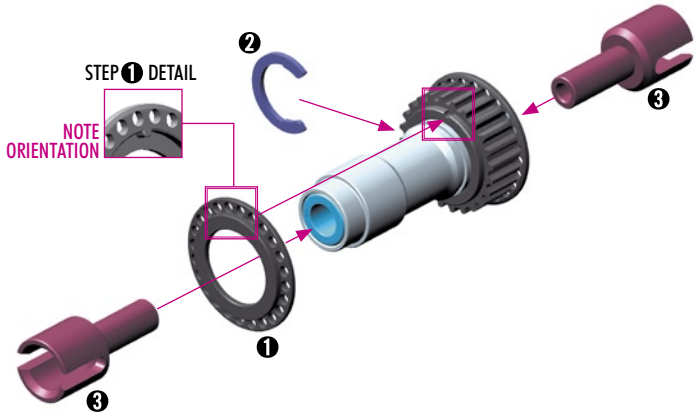
980324
P 3x24



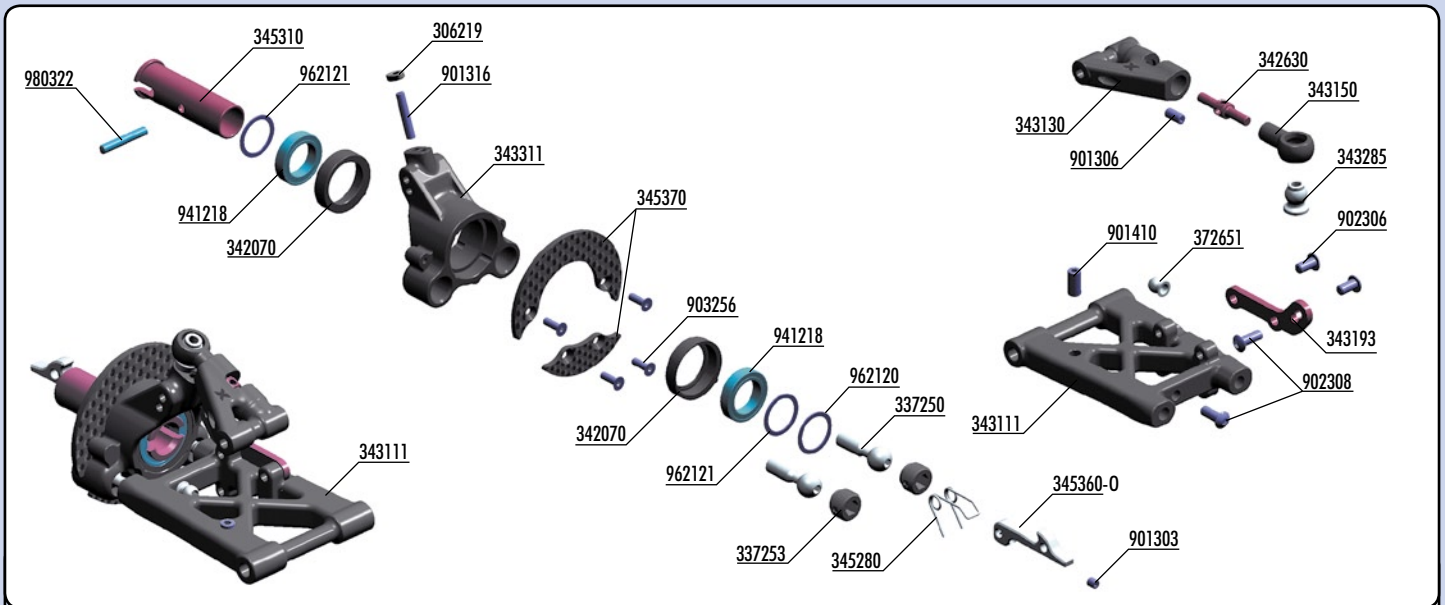


968140
C 14





2. REAR SUSPENSION



BAG 02.1

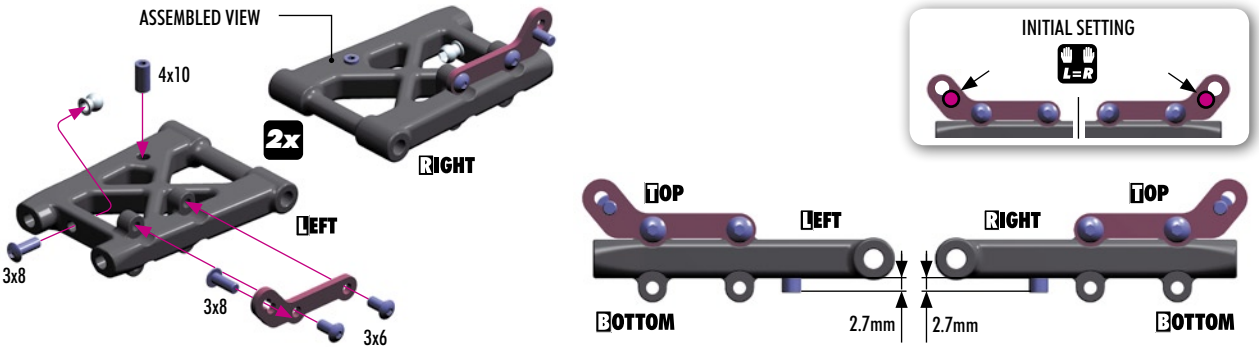
306219	COMPOSITE SET OF SERVO SHIMS (4)	343285	PIVOT BALL 6.8MM (2)	901306	HEX SCREW SB M3x6 (10)
337250	STEEL PIVOT BALL 8.4 MM (2)	343311	COMPOSITE UPRIGHT REAR FOR AERO DISC	901316	HEX SCREW SB M3x16 (10)
337253	COMPOSITE ADJUSTING NUT M10x1 (4)	345280	WHEEL SPRING (2)	901410	HEX SCREW SB M4x10 (10)
342070	COMPOSITE SET OF BUSHINGS (2)	345310	REAR WHEEL AXLE - HUDY SPRING STEEL™	902306	HEX SCREW SH M3x6 (10)
342630	ADJ. TURNBUCKLE L/R 20 MM - HUDY SPRING STEEL™ (2)	345360-O	ALU REAR WHEEL LOCK - SWISS 7075 T6 - ORANGE (2)	902308	HEX SCREW SH M3x8 (10)
343111	SUSPENSION ARM FOR GRAPHITE EXTENSION - REAR LOWER	345370	GRAPHITE REAR AERODYNAMIC DISC 2.2MM - SET	903256	HEX SCREW SFH M2.5x6 (10)
343130	COMPOSITE SUSPENSION ARM REAR UPPER	372651	PIVOT BALL UNIVERSAL 4.9 MM - HUDY SPRING STEEL™ (2)	962120	WASHER S 12x15x0.5 (10)
343150	UPPER BALL JOINT 5.8MM - SHORT & LONG (2+2)	941218	HIGH-SPEED BALL-BEARING 12x18x4 RUBBER SEALED (2)	962121	WASHER S 12x15x1.0 (10)
343193	STEEL EXTENSION FOR SUSPENSION ARM - REAR LOWER (2)	901303	HEX SCREW SB M3x3 (10)	980322	PIN 3x22 (10)


901410
SB M4x10

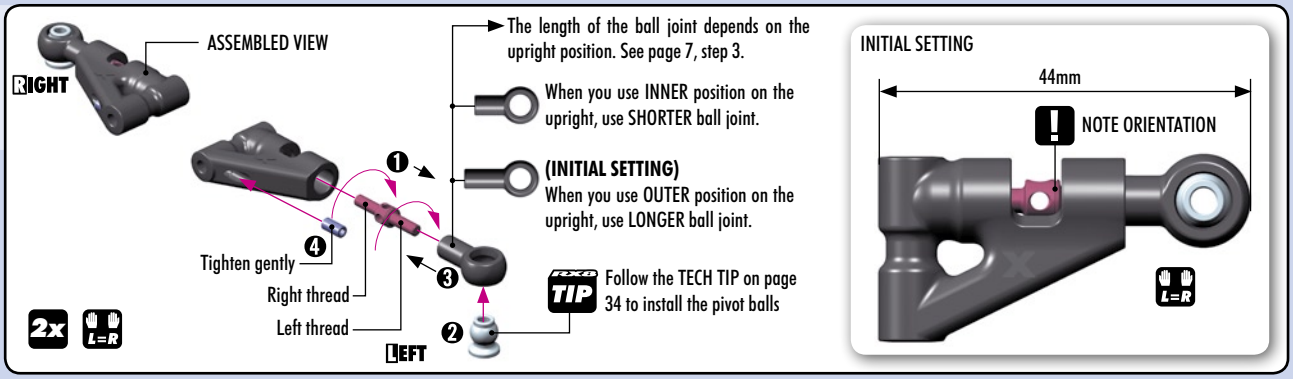

902306
SH M3x6

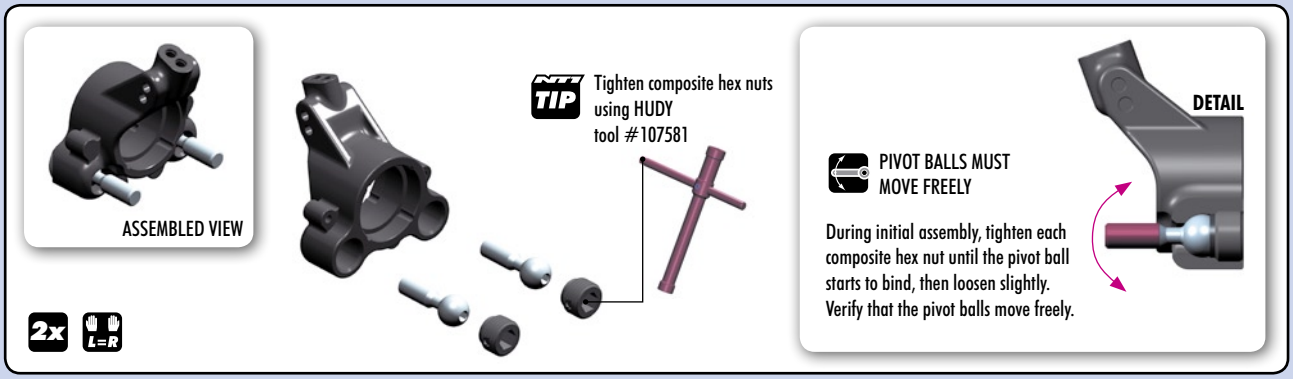

902308
SH M3x8

SET-UP BOOK
DOWNSTOPS



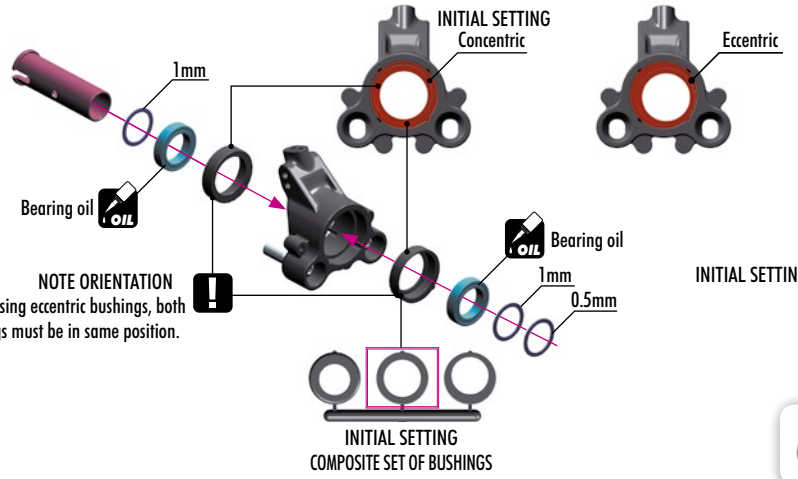

901306
SB M3x6

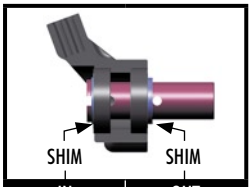




962121 S 12x15x1.0
962120 S 12x15x0.5
941218 BB 12x18x4

SET-UP BOOK
REAR TRACK-WIDTH
REAR ROLL CENTER



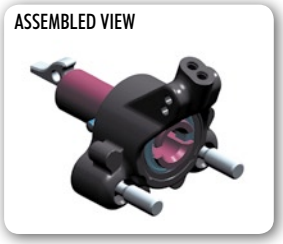


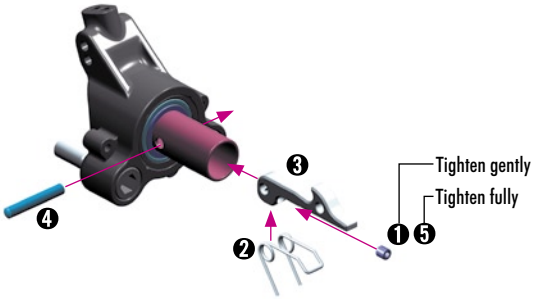
IN	OUT
1+1	0.5
1+0.5	1
1	1+0.5
0.5	1+1
0	1+1+0.5

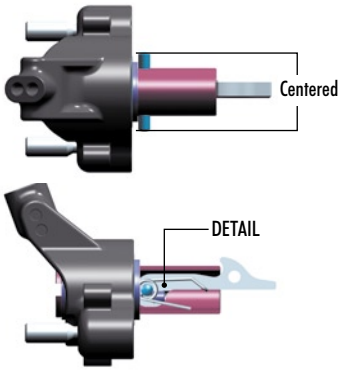
INITIAL SETTING

OPTION:
#345290 Alu shim 12x15x1.0mm (4)

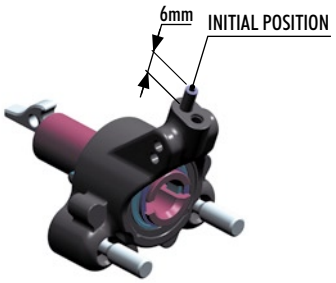
901303 SB M3x3
980322 P 3x22

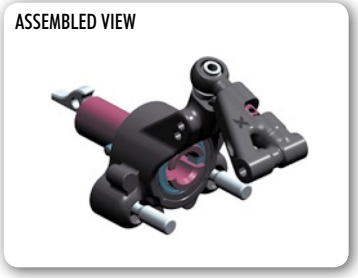


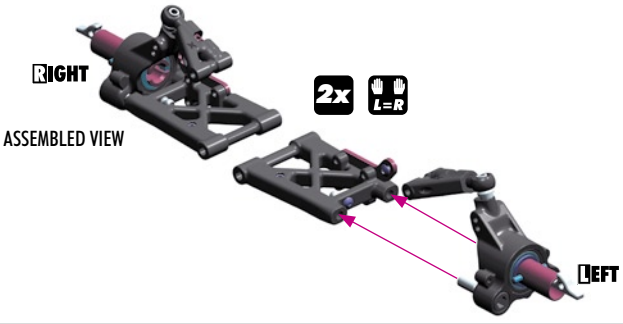


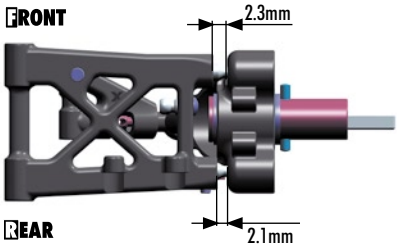


306219 SHIM 3x6x2
901316 SB M3x16

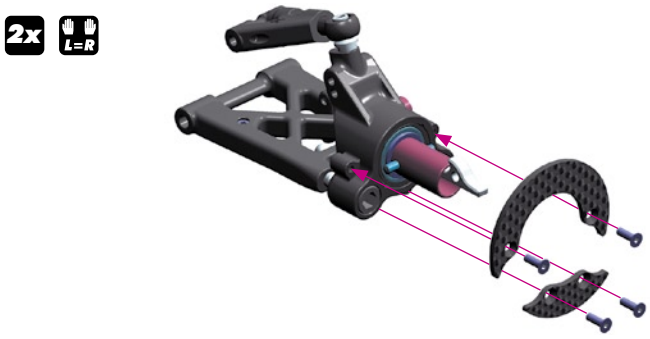




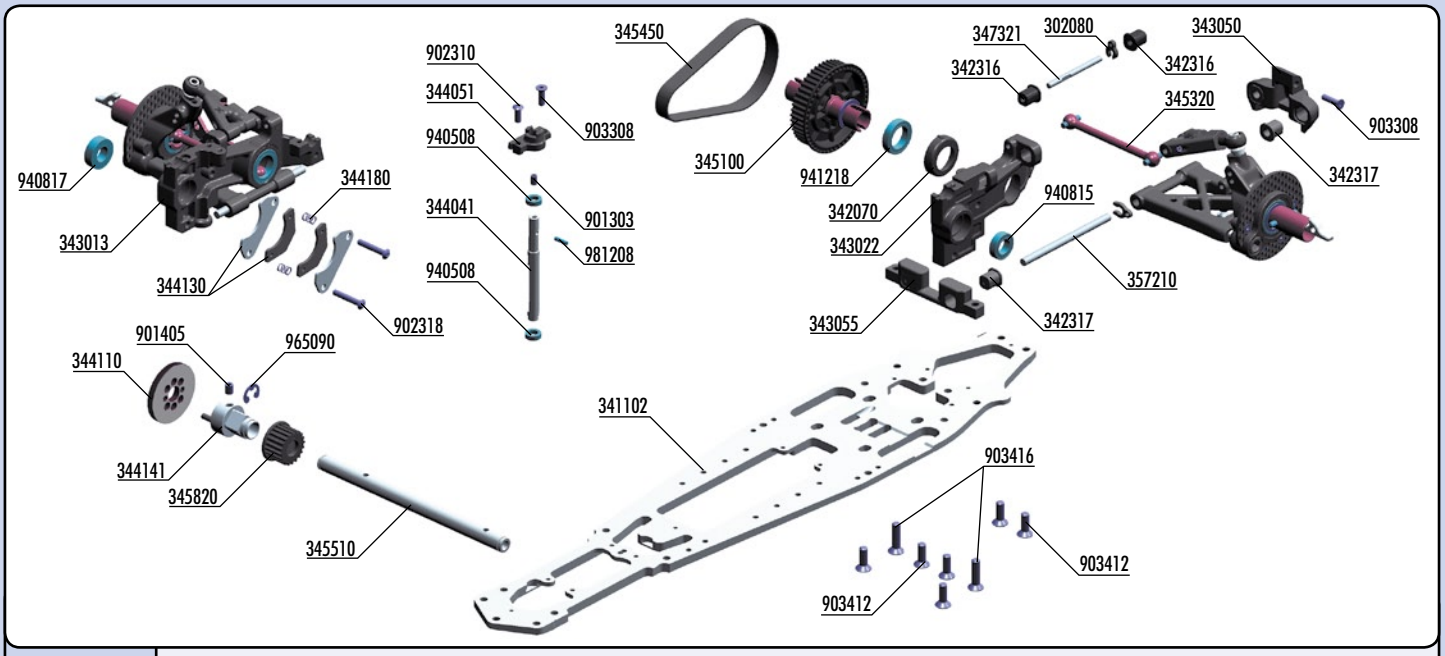




903256 SFH M2.5x6



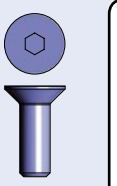
2. REAR SUSPENSION



BAG

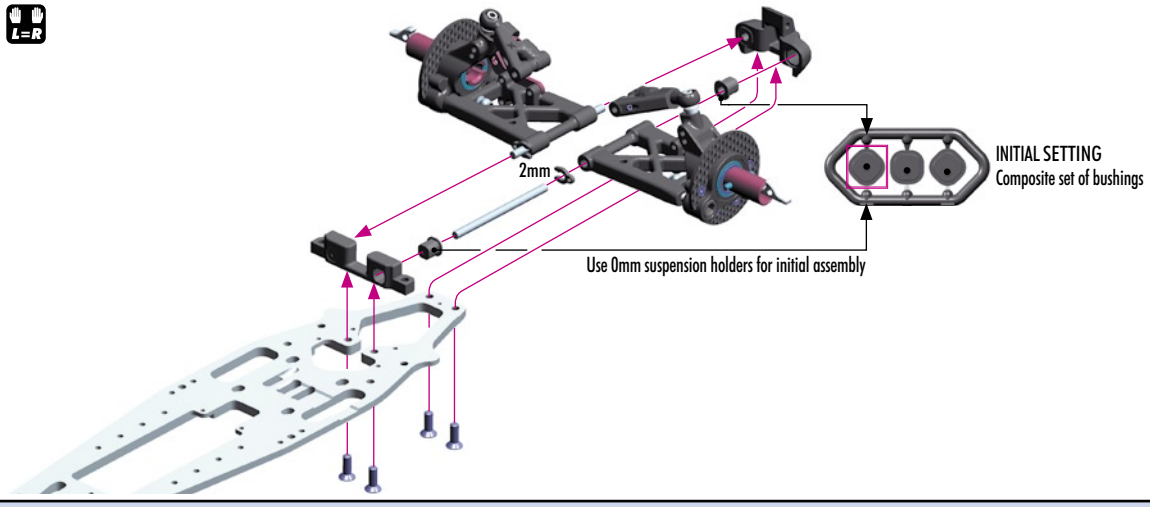
02.2

302080	COMPOSITE CASTER CLIPS SET 4+3+2+1 MM (2)	344110	VENTILATED BRAKE DISC - PRECISION-GROUND	901405	HEX SCREW SB M4x5 (10)
341102	CHASSIS 5MM - CNC MACHINED - SWISS 7075 T6	344130	BRAKE PAD SET	902310	HEX SCREW SH M3x10 (10)
342070	COMPOSITE SET OF BUSHINGS (2)	344141	BRAKE DISK ADAPTER - LIGHTWEIGHT - SWISS 7075 T6	902318	HEX SCREW SH M3x18 (10)
342180	COMPOSITE LOWER SUSP. ARM CLIPS (2)	344180	BRAKE DISK SPRING (2)	903308	HEX SCREW SFH M3x8 (10)
342316	COMPOSITE REAR UPPER SUSP. ECCENTRIC BUSHING (4)	345320	REAR DRIVE SHAFT 61MM - HUDY SPRING STEEL™	903412	HEX SCREW SFH M4x12 (10)
342317	COMPOSITE REAR LOWER SUSP. ECCENTRIC BUSHING (4)	345450	PUR® REINFORCED DRIVE BELT REAR 8.0 x 204 MM	903416	HEX SCREW SFH M4x16 (10)
343013	BULKHEAD REAR RIGHT FOR WIRE ANTI-ROLL BAR	345510	2-SPEED SHAFT 8MM - SUPER LIGHTWEIGHT - HUDY SPRING STEEL™	940508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)
343022	BULKHEAD REAR LEFT FOR WIRE ANTI-ROLL BAR	345820	COMPOSITE 2-SPEED BELT PULLEY 20T - CENTER	940815	HIGH-SPEED BALL-BEARING 8x14x4 RUBBER SEALED (2)
343050	COMPOSITE REAR BULKHEAD COVER	347321	REAR UPPER INNER PIVOT PIN WITH FLAT SPOT (2)	940817	HIGH-SPEED BALL-BEARING 8x16x5 RUBBER SEALED (2)
343055	COMPOSITE REAR LOWER SUSP. ARM HOLDER	357210	LOWER INNER PIVOT PIN F/R (2)	941218	HIGH-SPEED BALL-BEARING 12x18x4 RUBBER SEALED (2)
344041	BRAKE CAM POST - STEEL			965090	E-CLIP 9 (10)
344051	COMPOSITE BRAKE UPPER PLATE + CLAMPS FOR REAR ANTI-ROLL BAR	901303	HEX SCREW SB M3x3 (10)	981208	PIN 2x8 (10)



903412
SFH M4x12

L=R



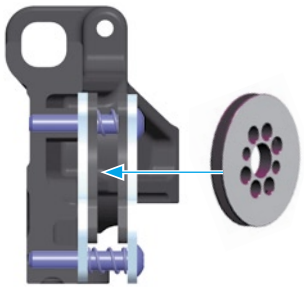
SET-UP BOOK

WHEELBASE
REAR ROLL CENTER
REAR TRACK-WIDTH

902318
SH M3x18

940508
BB 5x8x2.5

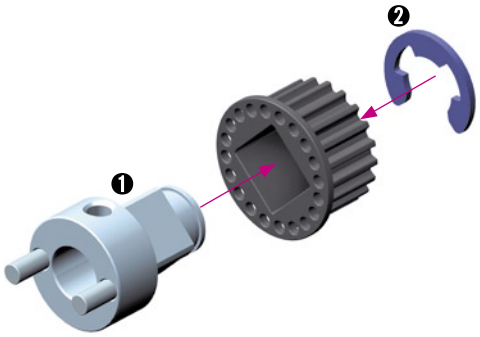
DETAIL



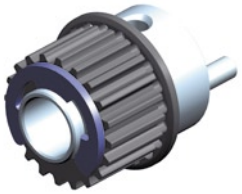
Before tightening the screws, insert the brake disk between the brake pads.

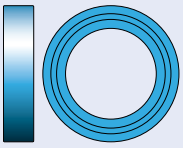
Evenly tighten the screws fully (CW), and then loosen both screws by one turn (CCW). The brake disk should have a small amount of play between the brake pads.

965090
C 9

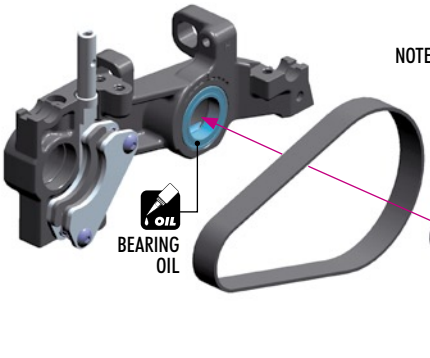


ASSEMBLED VIEW





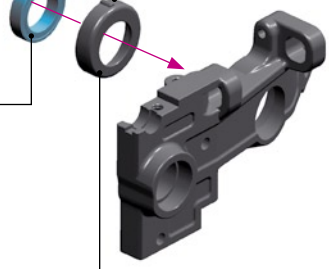
941218
BB 12x18x4



BEARING OIL

NOTE ORIENTATION

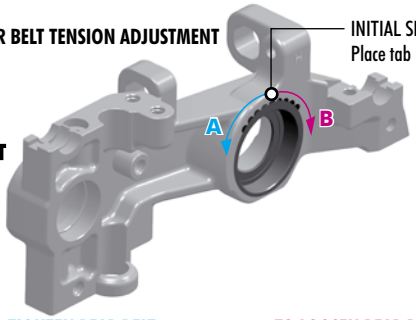
NOTE ORIENTATION
Both bushings must be in same position

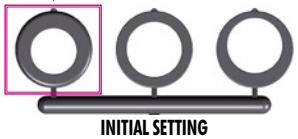


BEARING OIL

L=R REAR BELT TENSION ADJUSTMENT

INITIAL SETTING
Place tab in this notch



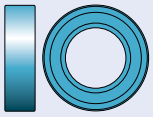


INITIAL SETTING
COMPOSITE SET OF BUSHINGS

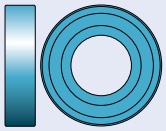
TO TIGHTEN REAR BELT
Rotate BOTH rear composite bushings in arrow direction (A)

TO LOOSEN REAR BELT
Rotate BOTH rear composite bushings in arrow direction (B)

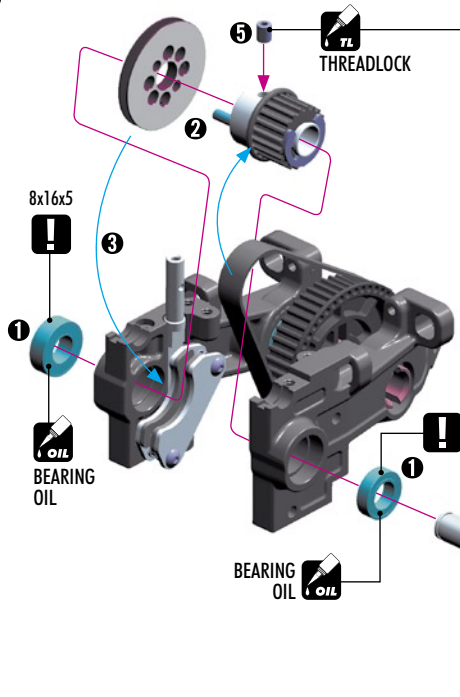
901405
SB M4x5



940815
BB 8x14x4



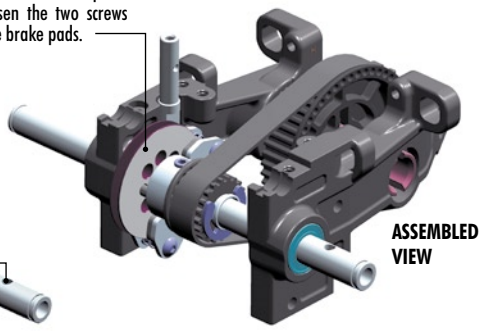
940817
BB 8x16x5



Tighten setscrew onto flat spot

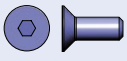
DETAIL

The brake disc must freely move between the brake pads. If not, loosen the two screws holding the brake pads.

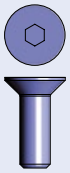


ASSEMBLED VIEW

2. REAR SUSPENSION

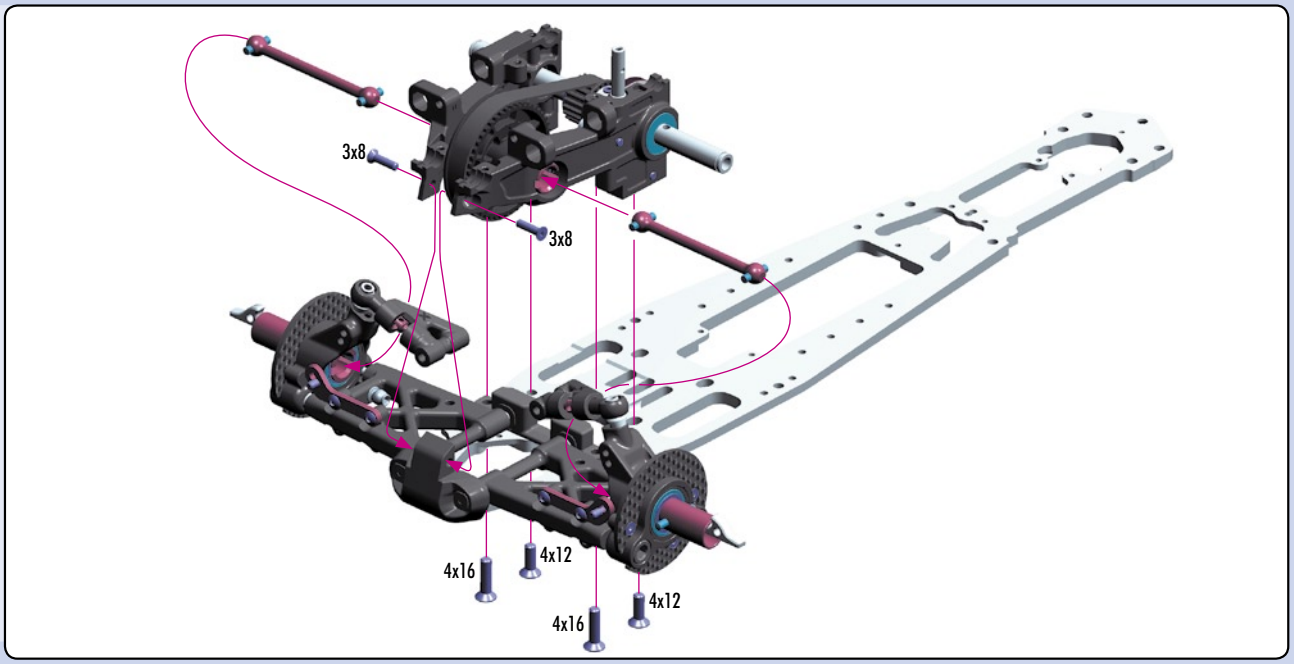


903308
SFH M3x8

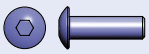


903412
SFH M4x12

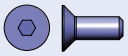
903416
SFH M4x16



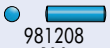
901303
SB M3x3



902310
SH M3x10

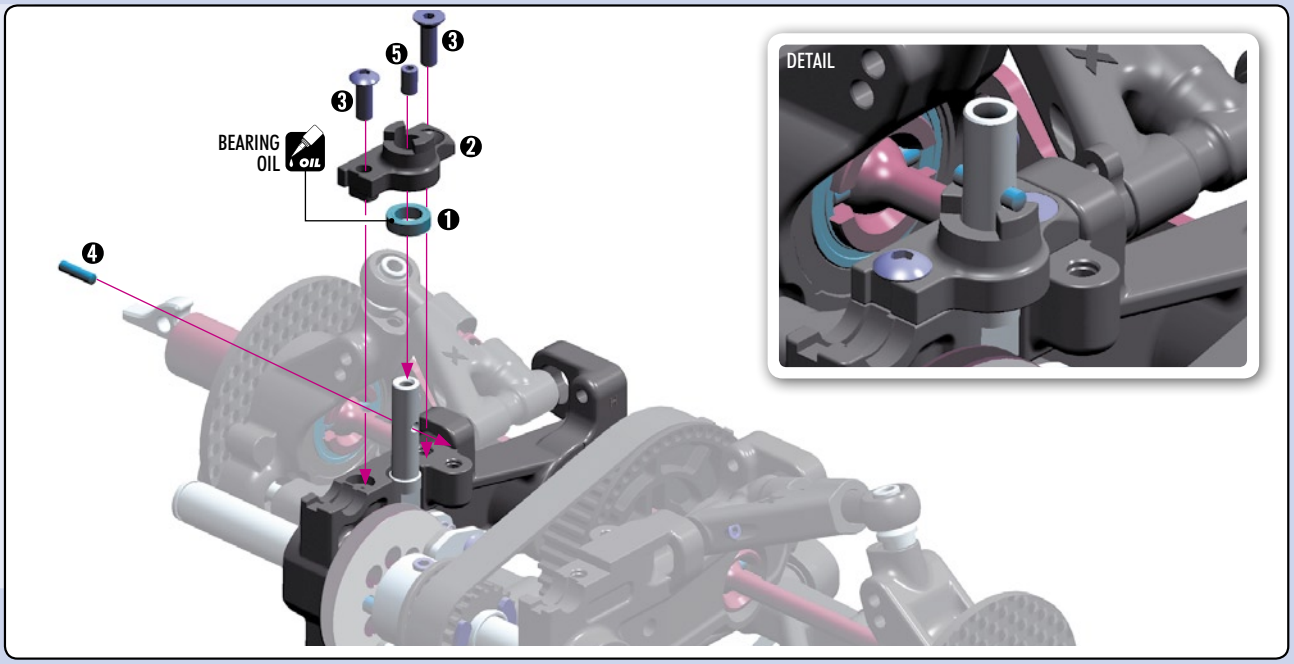


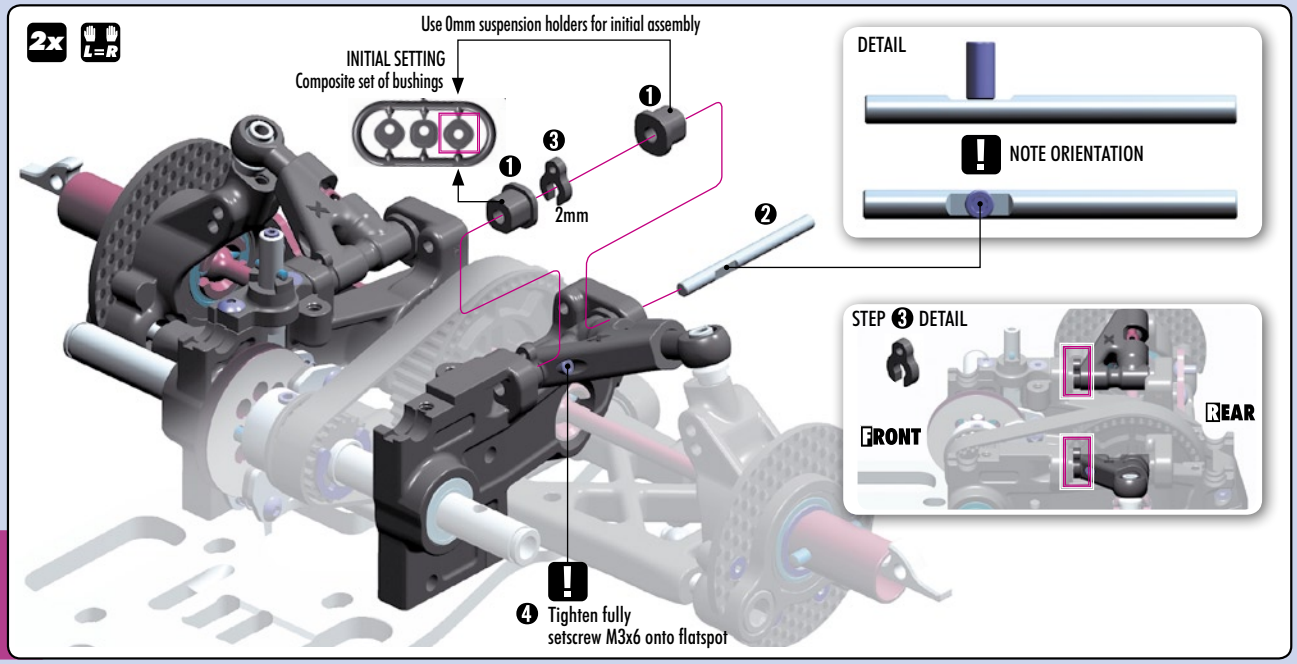
903308
SFH M3x8



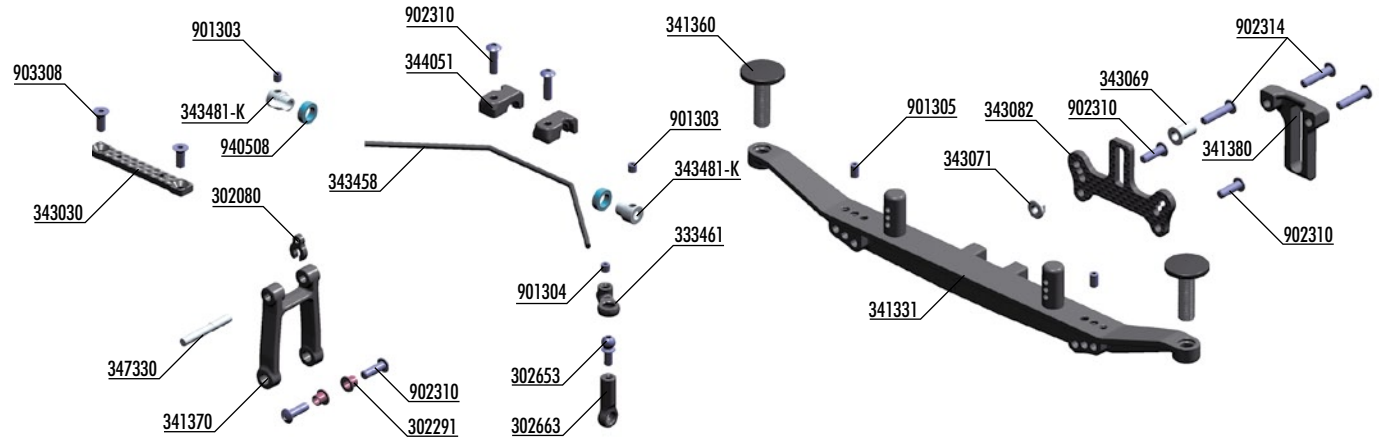
981208
P 2x8

940508
BB 5x8x2.5



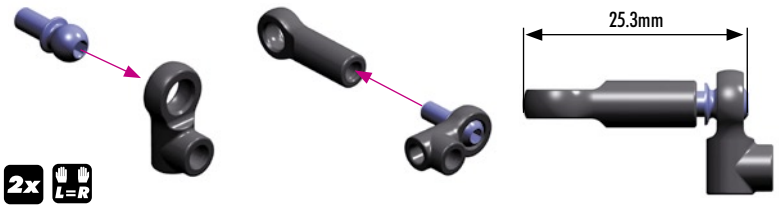


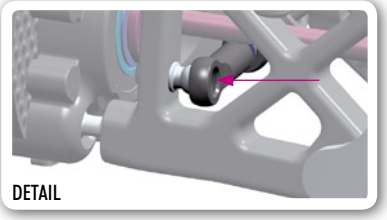
SET-UP BOOK
REAR CAMBER RISE
REAR ROLL CENTER

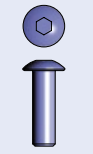


BAG 02.3

302080	CASTER CLIPS SET 4+3+2+1 MM (2)	343030	GRAPHITE REAR BRACE	901303	HEX SCREW SB M3x3 (10)
302291	STEEL STEERING BUSHING (2+2)	343069	STEEL BUSHING (2)	901304	HEX SCREW SB M3x4 (10)
302653	BALL END 4.9MM WITH THREAD 6MM (2)	343071	BELT TENSIONER SET - STEEL	901305	HEX SCREW SB M3x5 (10)
302663	COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8)	343082	GRAPHITE SHOCK TOWER REAR	902310	HEX SCREW SH M3x10 (10)
333461	COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9 MM (4)	343458	ANTI-ROLL BAR REAR 2.8 MM	902312	HEX SCREW SH M3x12 (10)
341331	COMPOSITE REAR BODY HOLDER - HIGHER	343481-K	ALU CUTTED ANTI-ROLL BAR COLLAR - BLACK (2)	902314	HEX SCREW SH M3x14 (10)
341360	COMPOSITE REAR BODY HOLDER SCREW (2)	344051	COMPOSITE BRAKE UPPER PLATE + CLAMPS FOR REAR ANTI-ROLL BAR	903308	HEX SCREW SFH M3x8 (10)
341370	COMPOSITE REAR BODY HOLDER ARM	347330	REAR BODY HOLDER ARM PIN (2)		
341380	COMPOSITE REAR BODY CENTERING PLATE				
341381	GRAPHITE REAR BODY CENTERING PLATE - SET (OPTION)	940508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)		

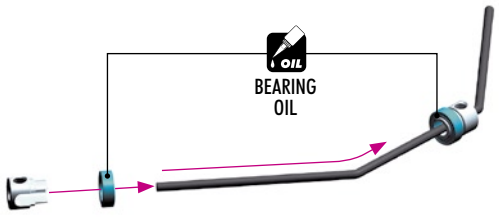




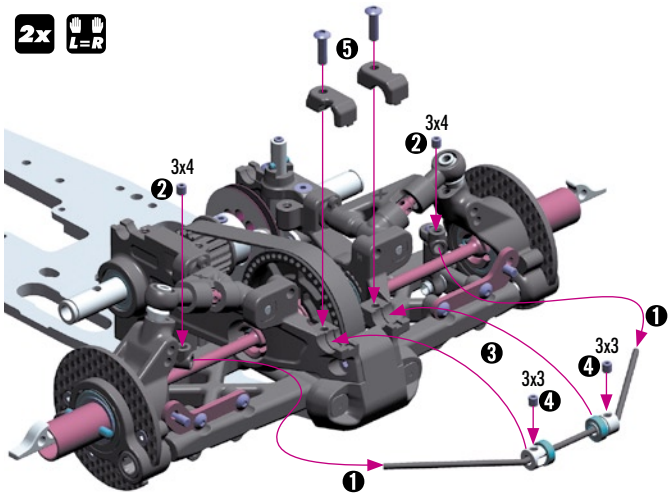


2x L=R

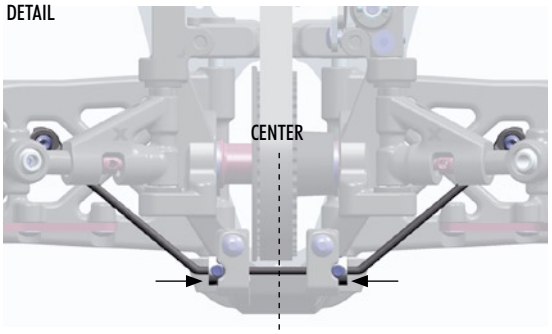
REAR ANTI-ROLL BARS		
343456	REAR ø2.6mm	OPTION
343458	**REAR ø2.8mm**	**STANDARD**
343460	REAR ø3.0mm	OPTION



2x L=R

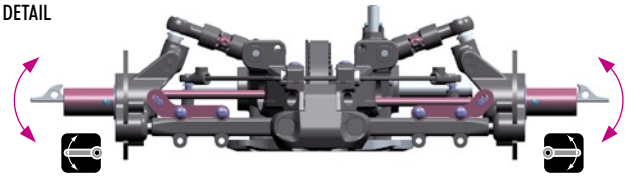


DETAIL



Eliminate the play of the bars with the anti-roll bar bushings. Make sure to set the wire is in center and that it moves freely after tightening the bushings.

DETAIL



When the bars are set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same and that the bar wire is flat.

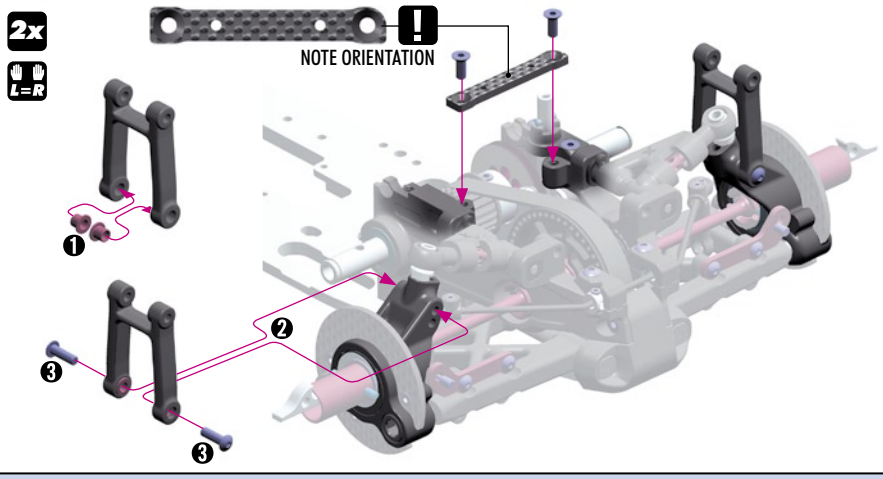
If the sides still does not move at the same time, adjust the length of the bar holders.

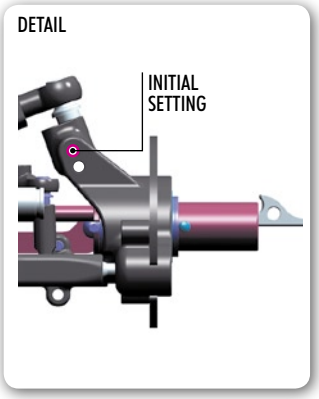
SET-UP BOOK
REAR ANTI-ROLL BAR

2. REAR SUSPENSION

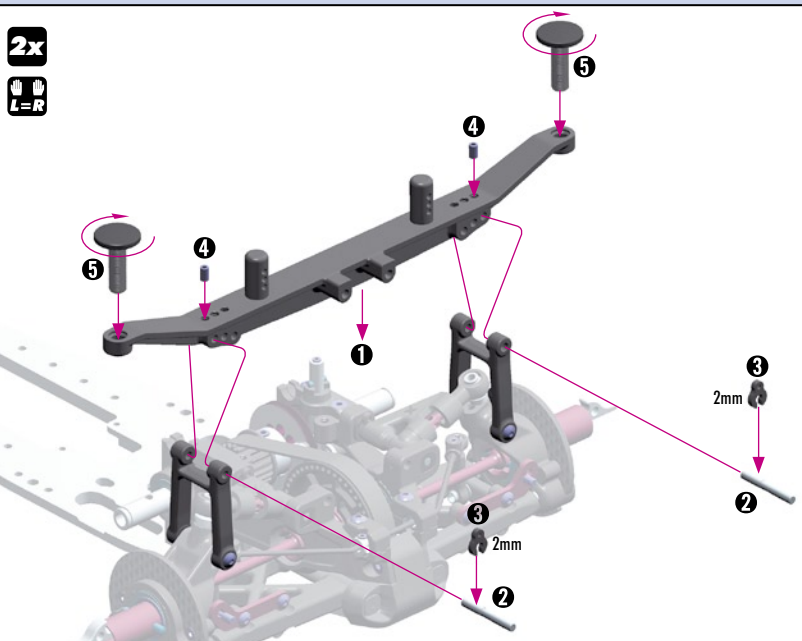
902310
SH M3x10

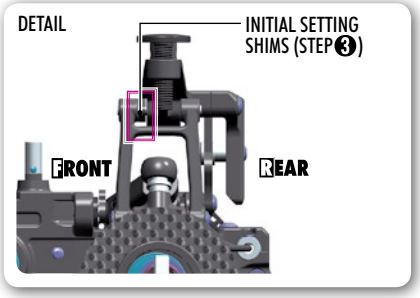
903308
SFH M3x8

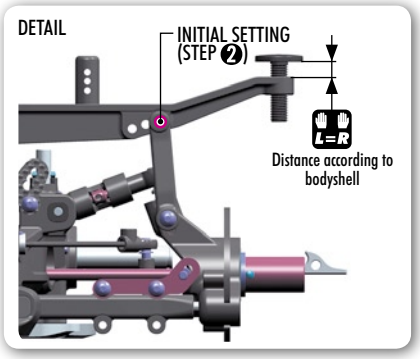




901305
SB M3x5



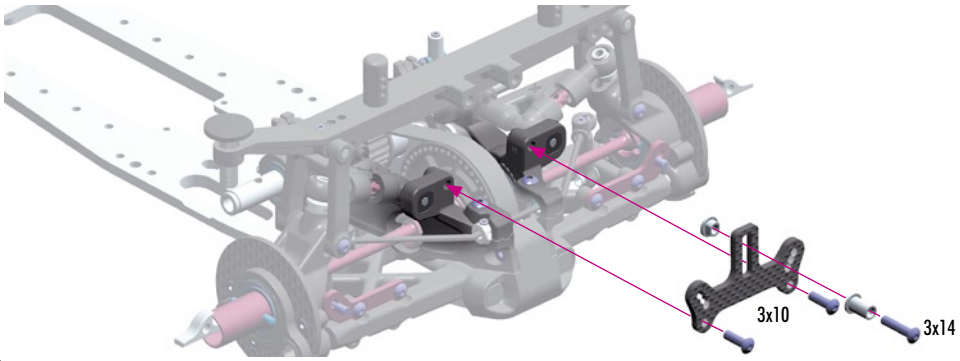




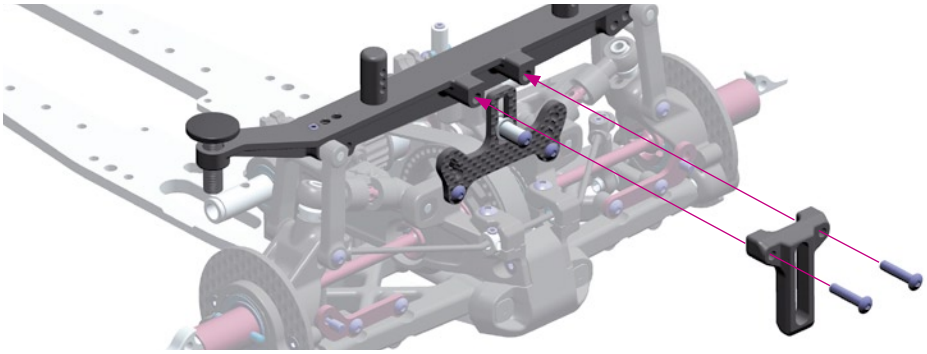
SET-UP BOOK
REAR BODY MOUNT

902310
SH M3x10

902314
SH M3x14

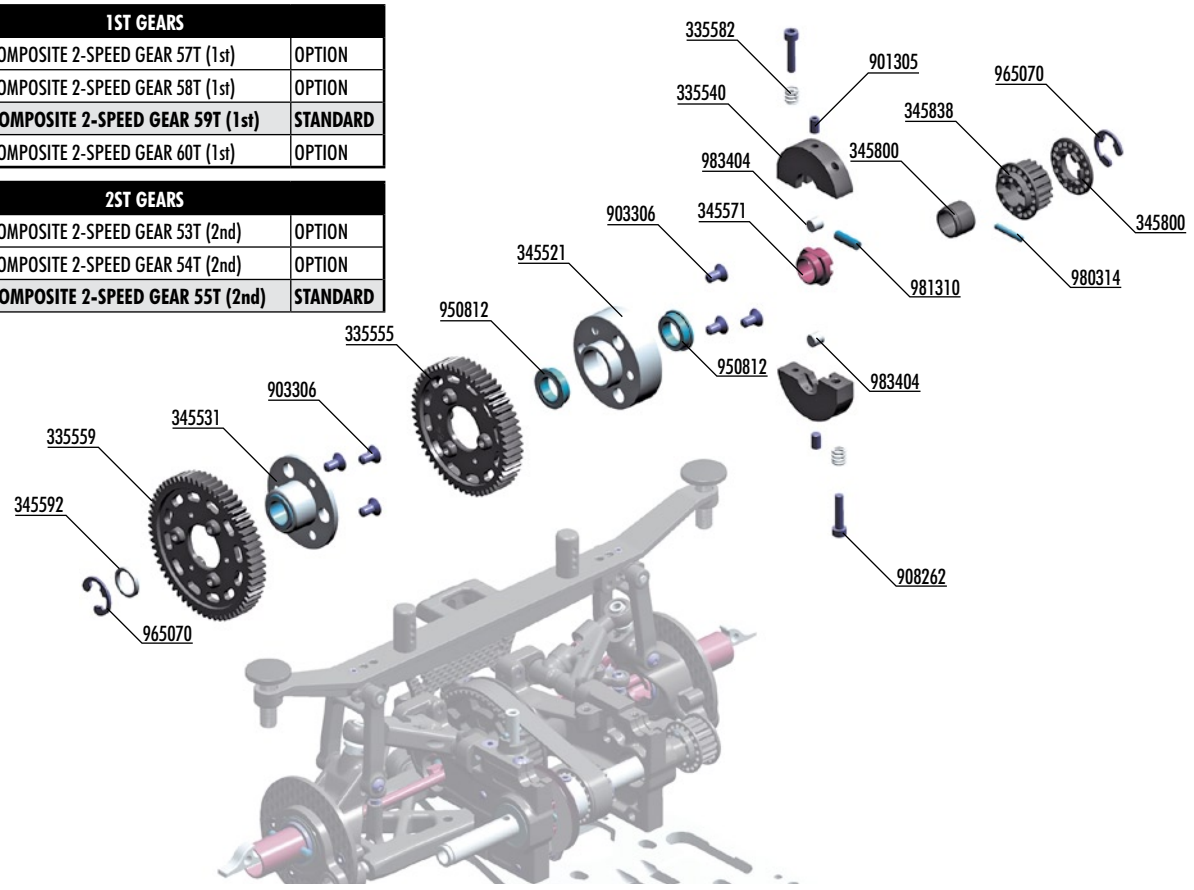


902314
SH M3x14



1ST GEARS		
335557	COMPOSITE 2-SPEED GEAR 57T (1st)	OPTION
335558	COMPOSITE 2-SPEED GEAR 58T (1st)	OPTION
335559	**COMPOSITE 2-SPEED GEAR 59T (1st)**	**STANDARD**
335560	COMPOSITE 2-SPEED GEAR 60T (1st)	OPTION

2ST GEARS		
335553	COMPOSITE 2-SPEED GEAR 53T (2nd)	OPTION
335554	COMPOSITE 2-SPEED GEAR 54T (2nd)	OPTION
335555	**COMPOSITE 2-SPEED GEAR 55T (2nd)**	**STANDARD**

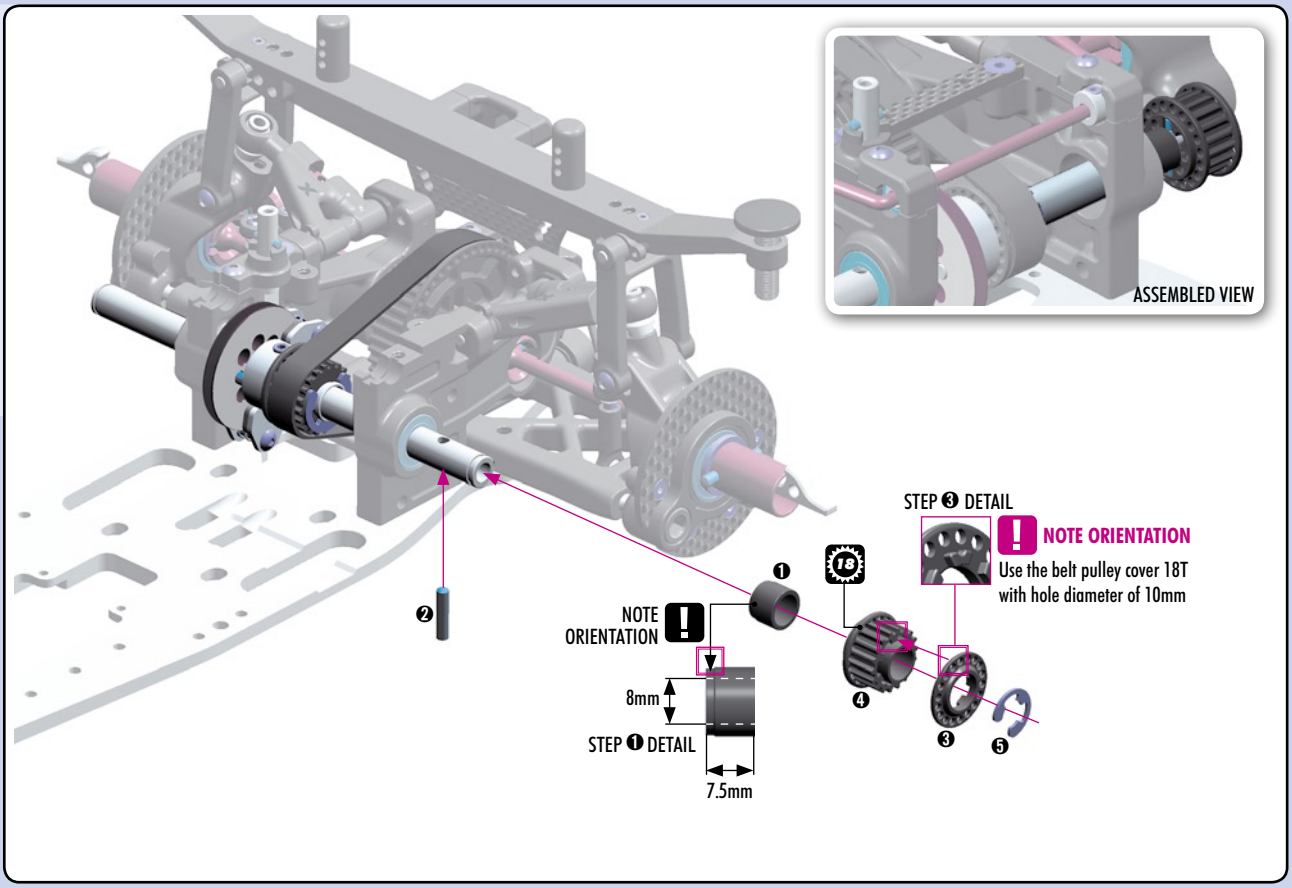


BAG 03

335540	COMPOSITE 2-SPEED GEAR BOX SHOE SET	345592	ALU 2-SPEED SHAFT SHIM (2)	950812	BALL-BEARING 8x12x3.5 FLANGED (2)
335555	COMPOSITE 2-SPEED GEAR 55T (2nd) - V3	345800	COMPOSITE BELT PULLEY COVER SET	965070	E-CLIP 7 (10)
335559	COMPOSITE 2-SPEED GEAR 59T (1st)	345838	COMPOSITE SIDE BELT PULLEY 18T ø8 - REAR	980314	PIN 3x14 (10)
335582	SPRING FOR GEAR BOX - HARD (2)			981210	PIN 3x10 (10)
345521	CARRIER FOR 2-SPEED GEAR (2nd) - SMALL - SWISS 7075 T6	901305	HEX SCREW SB M3x5 (10)	983404	ROLLER PIN 4x4 MM (2)
345531	ALU DRIVE FLANGE WITH ONE-WAY BEARING - SMALL - 7075 T6	908262	HEX SCREW SOCKET HEAD CAP M2.5x12 (10)		
345571	ADAPTER 2-SPEED SMALL	903306	HEX SCREW SFH M3x6 (10)		

965070
C 7

980314
P 3x14

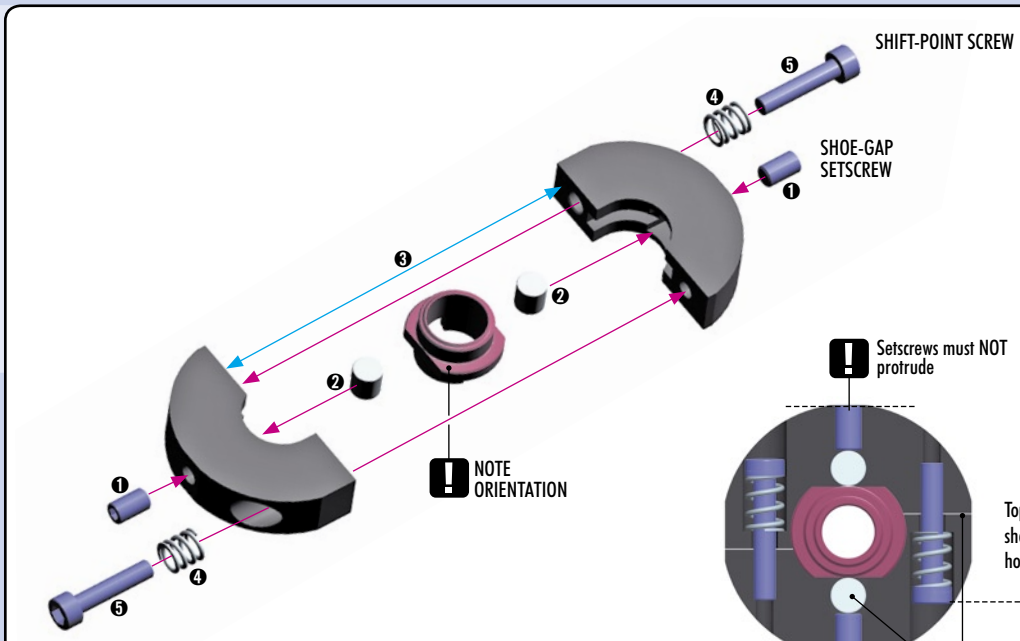


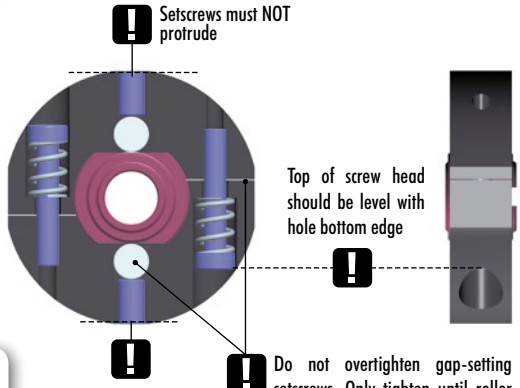
3. REAR TRANSMISSION

901305
SB M3x5

908262
SCH M2.5x12

983404
RP 4x4





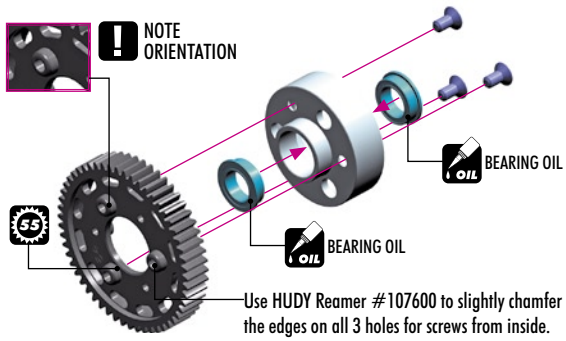
TIP Use white paint to color the top of ONE screw head. This will allow you to identify the two different screws - one white, one dark - when you are adjusting the shift point.

SET-UP BOOK
2-SPEED TRANSMISSION

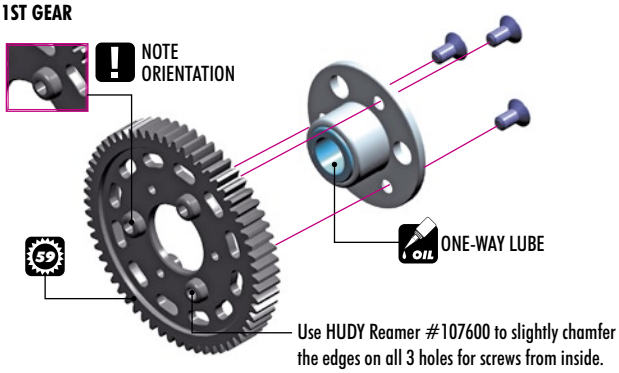
950812
BB 8x12x4

903306
SFH M3x6

2ND GEAR



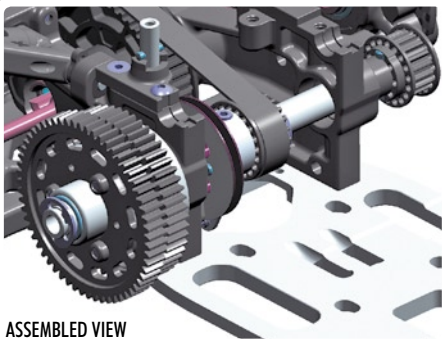
1ST GEAR



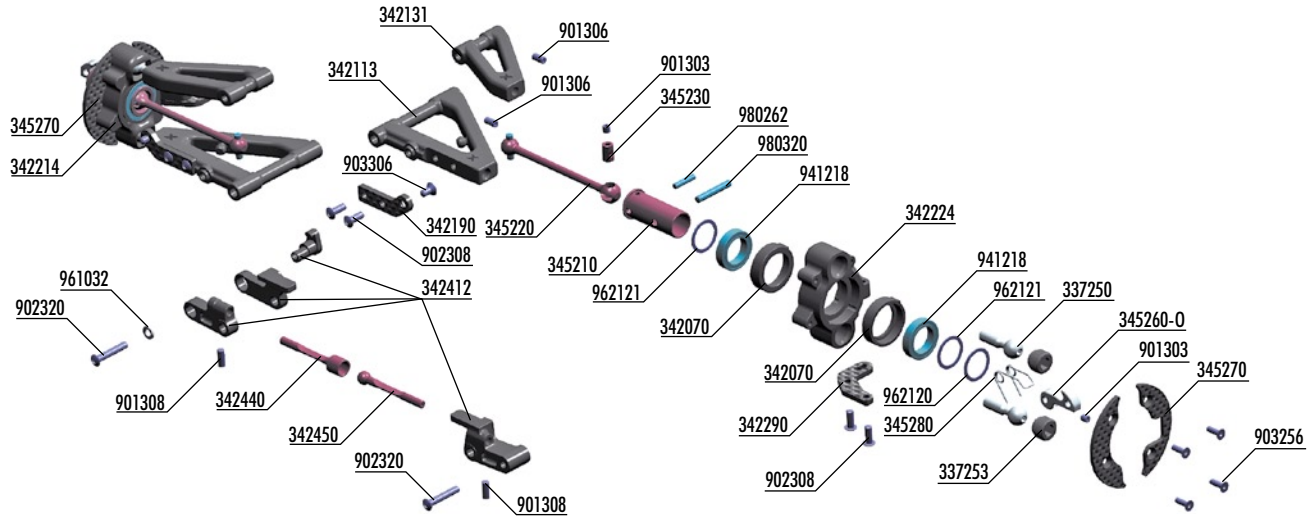
965070
C 7

981310
P 3x10

345592
SHIM 8x10x1.5



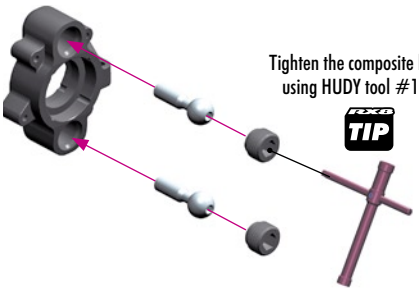
SET-UP BOOK
TRANSMISSION



BAG 04.1

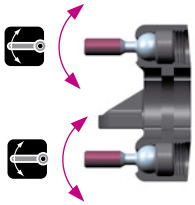
337250	STEEL PIVOT BALL 8.4 MM (2)	342450	ANTI-ROLL BAR FRONT MALE - HUDY SPRING STEEL™	901308	HEX SCREW SB M3x8 (10)
337253	COMPOSITE ADJUSTING NUT M10x1 (4)	345210	FRONT WHEEL AXLE - HUDY SPRING STEEL™	902308	HEX SCREW SH M3x8 (10)
342070	COMPOSITE SET OF BUSHINGS (2)	345220	FRONT CVD DRIVE SHAFT 71MM - HUDY SPRING STEEL™	902320	HEX SCREW SH M3x20 (10)
342113	SUSPENSION ARM FOR WIRE ANTI-ROLL BAR - FRONT	345230	DRIVE SHAFT COUPLING - HUDY SPRING STEEL™	903256	HEX SCREW SFH M2.5x6 (10)
342131	COMPOSITE SUSPENSION ARM FRONT UPPER - SHORT	345260-O	ALU FRONT WHEEL LOCK - SWISS 7075 T6 - ORANGE (2)	903306	HEX SCREW SFH M3x6 (10)
342190	GRAPHITE EXTENSION FOR FRONT SUSP. ARM (L+R)	345270	GRAPHITE FRONT AERODYNAMIC DISC 2.2MM - SET	961032	WASHER S 3.2 (10)
342214	COMPOSITE STEERING BLOCK FOR AERO DISC - RIGHT	345280	WHEEL SPRING (2)	962120	WASHER S 12x15x0.5 (10)
342224	COMPOSITE STEERING BLOCK FOR AERO DISC - LEFT			962121	WASHER S 12x15x1.0 (10)
342290	GRAPHITE EXTENSION FOR STEERING BLOCK (2)	941218	HIGH-SPEED BALL-BEARING 12x18x4 RUBBER SEALED (2)	980262	PIN 2.5x12 (10)
342412	COMPOSITE FRONT ANTI-ROLL BAR HOLDERS	901303	HEX SCREW SB M3x3 (10)	980320	PIN 3x20 (10)
342440	ANTI-ROLL BAR FRONT FEMALE - HUDY SPRING STEEL™	901306	HEX SCREW SB M3x6 (10)		

2x L=R



Tighten the composite hex nuts using HUDY tool #107581

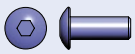
TIP



PIVOT BALLS MUST MOVE FREELY.

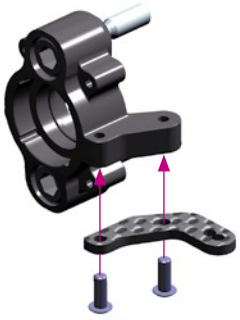
During initial assembly, tighten each composite hex nut until the pivot ball starts to bind, then loosen slightly. Verify that the pivot balls move freely.

ASSEMBLED VIEW



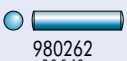
902308
SH M3x8

2x L=R



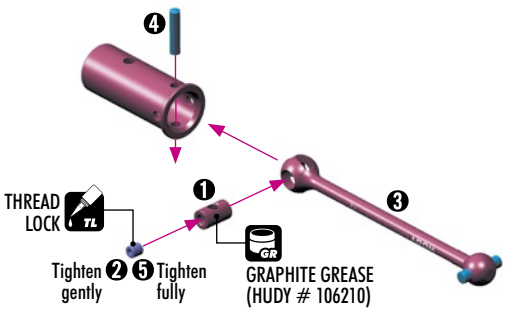
ASSEMBLED VIEW

901303
SB M3x3



980262
P 2.5x12

2x L=R



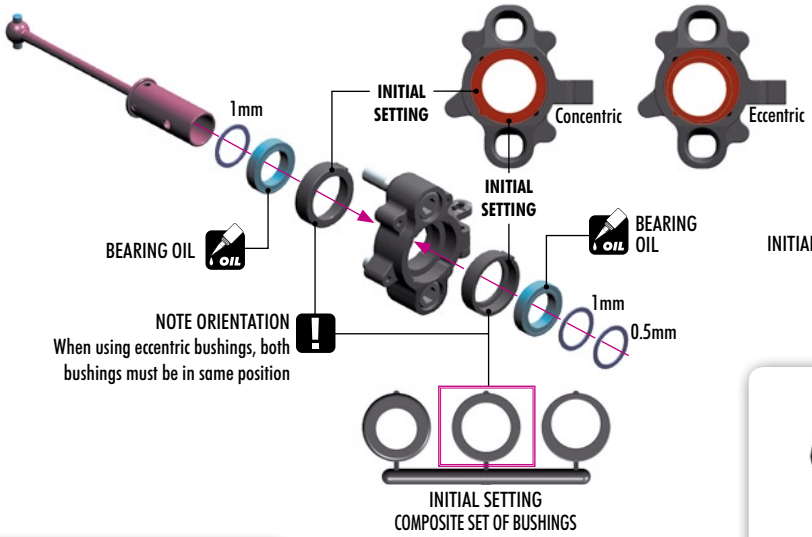
4. FRONT SUSPENSION

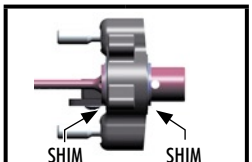
962121
S 12x15x1.0

962120
S 12x15x0.5

941218
BB 12x18x4

2x L=R

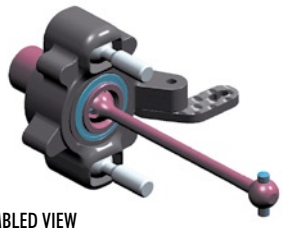




IN	OUT
1+1	0.5
1+0.5	1
1	1+0.5
0.5	1+1
0	1+1+0.5

INITIAL SETTING

OPTION:
#345290 Alu shim 12x15x1.0mm (4)



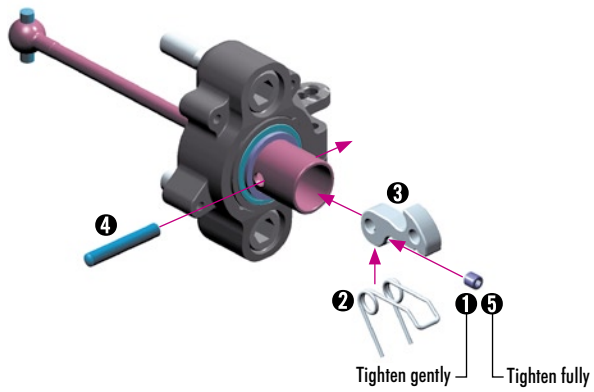
ASSEMBLED VIEW

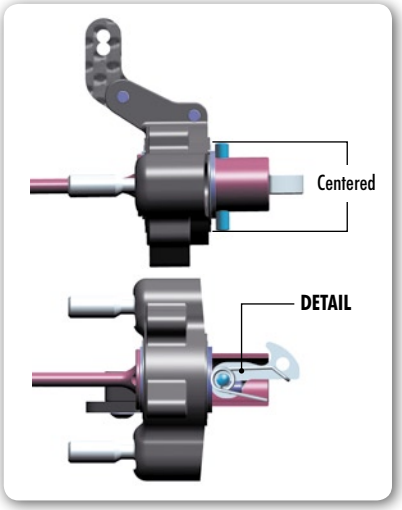
SET-UP BOOK
WHEELBASE
FRONT ROLL CENTER

901303
SB M3x3

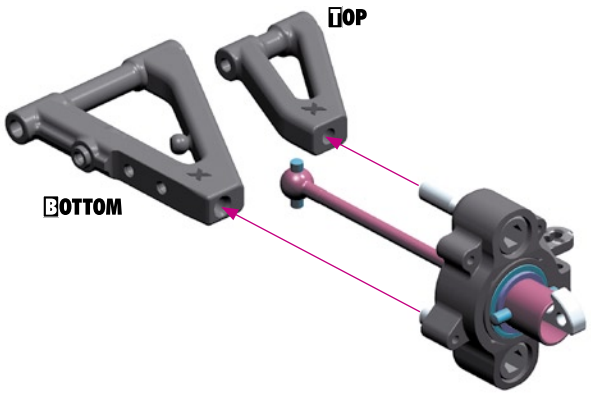
980320
P 3x20

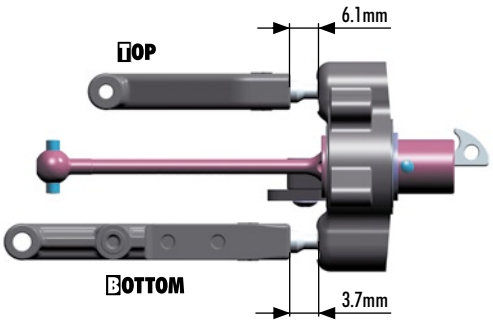
2x L=R



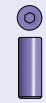


2x L=R





SET-UP BOOK
FRONT CAMBER

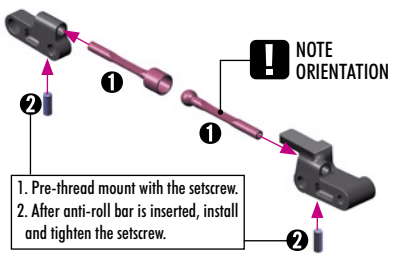

901308
SB M3x8

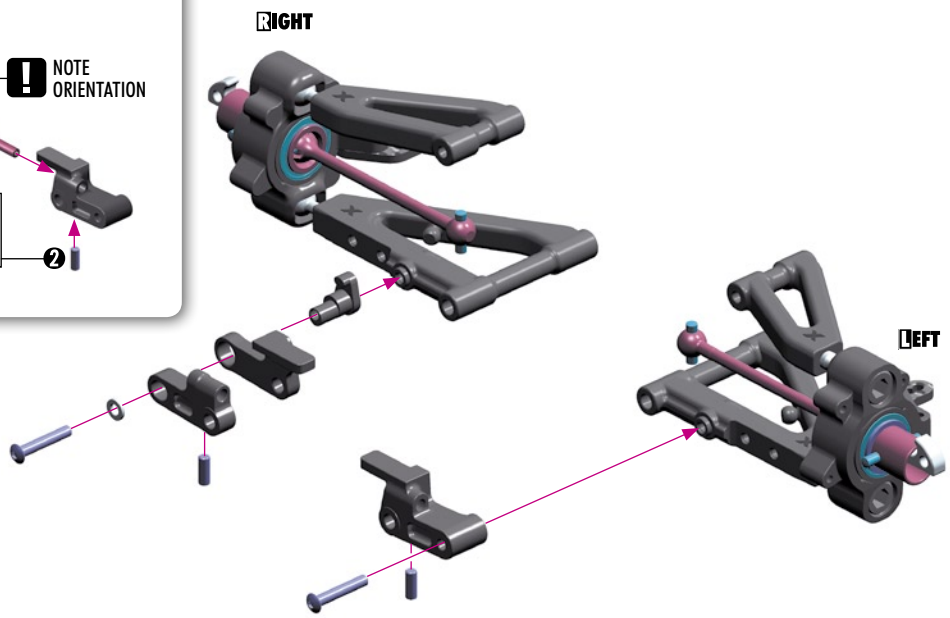

902320
SH M3x20


961032
S 3.2

SET-UP BOOK
FRONT ANTI-ROLL BAR

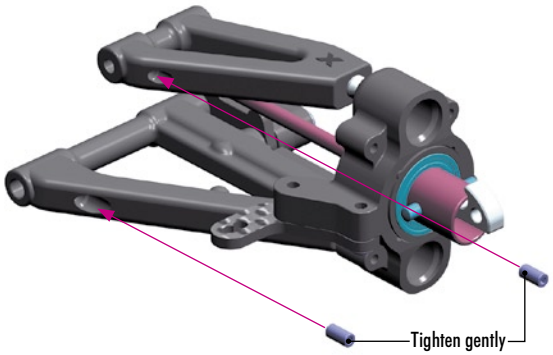
ALTERNATIVE 2: BLADE ANTI-ROLL BAR



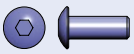



901306
SB M3x6

2x L=R



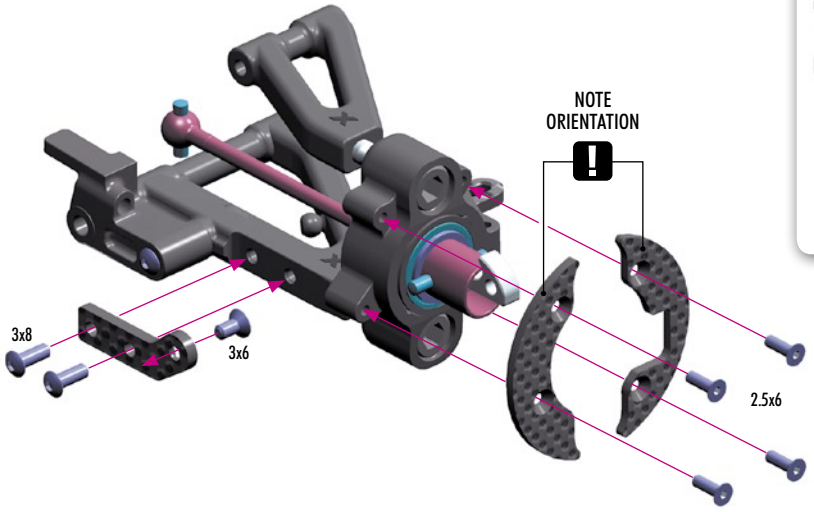
Tighten gently, tighten fully when the drive pins are assembled. Page 18, step 2


902308
SH M3x8


903306
SFH M3x6

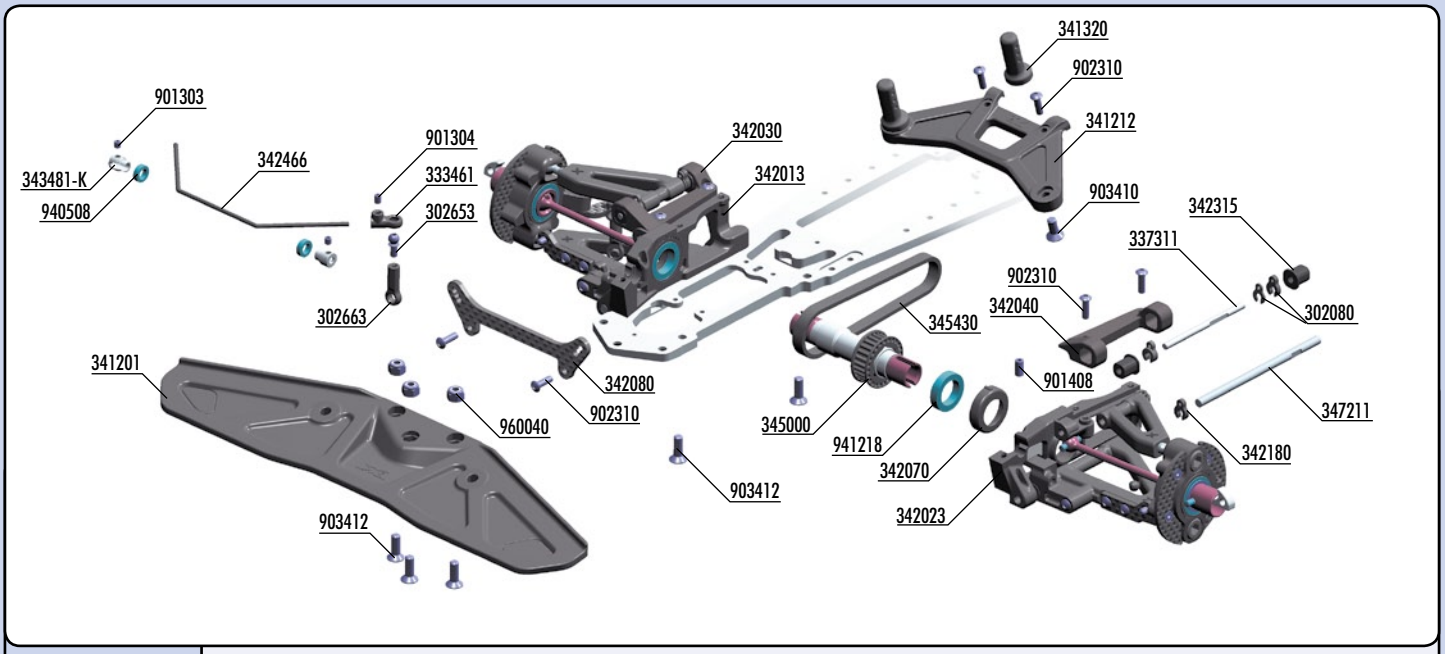

903256
SFH M2.5x6

2x L=R



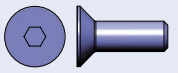
ASSEMBLED VIEW

4. FRONT SUSPENSION

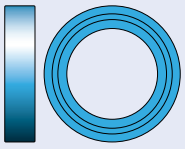


BAG 04.2

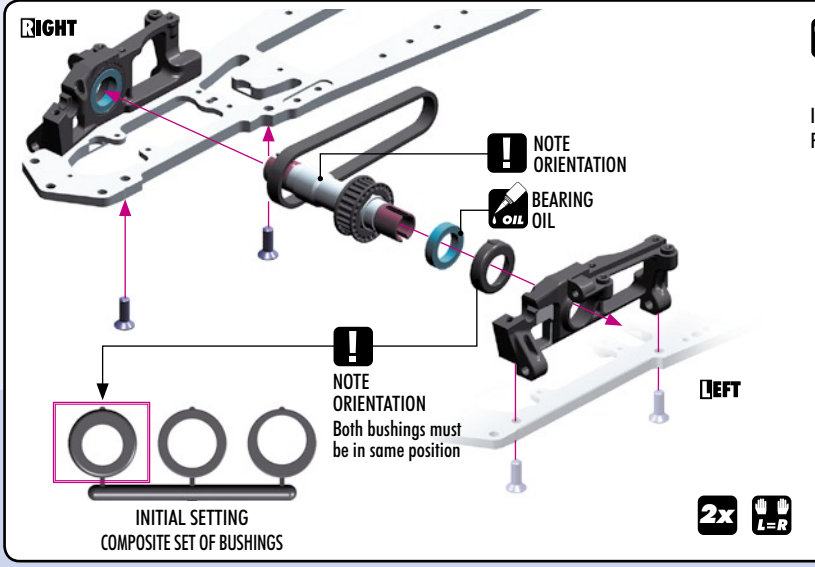
302080	COMPOSITE CASTER CLIPS SET 4+3+2+1 MM (2)	
302653	BALL END 4.9MM WITH THREAD 6MM (2)	
302663	COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8)	
333461	COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9 MM (4)	
337311	PIVOT PIN WITH FLAT SPOT (2)	
341201	COMPOSITE BUMPER - DOWNFORCE	
341212	COMPOSITE HOLDER FOR FRONT BODY POSTS	
341320	COMPOSITE FRONT BODY POST (2)	
342013	COMPOSITE LOWER BULKHEAD FRONT RIGHT	
342023	COMPOSITE LOWER BULKHEAD FRONT LEFT	
342030	COMPOSITE UPPER ARM HOLDER RIGHT	
342040	COMPOSITE UPPER ARM HOLDER LEFT	
342070	COMPOSITE SET OF BUSHINGS (2)	
342080	GRAPHITE SHOCK TOWER FRONT	
342180	COMPOSITE LOWER SUSP. ARM CLIPS (2)	
342315	COMPOSITE FRONT UPPER SUSP. ECCENTRIC BUSHING (4)	
342466	ANTI-ROLL BAR FRONT 2.6 MM	
343481-K	ALU CUTTED ANTI-ROLL BAR COLLAR - BLACK (2)	
345430	PUR® REINFORCED DRIVE BELT FRONT 6.0 x 204 MM	
347211	FRONT LOWER INNER PIVOT PIN WITH FLAT SPOT (2)	
901303	HEX SCREW SB M3x3 (10)	
901304	HEX SCREW SB M3x4 (10)	
901408	HEX SCREW SB M4x8 (10)	
902310	HEX SCREW SH M3x10 (10)	
903410	HEX SCREW SFH M4x10 (10)	
903412	HEX SCREW SFH M4x12 (10)	
940508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)	
941218	HIGH-SPEED BALL-BEARING 12x18x4 RUBBER SEALED (2)	
960040	NUT M4 (10)	



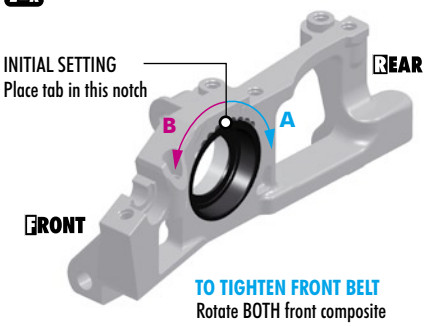
903412
SFH M4x12



941218
BB 12x18x4

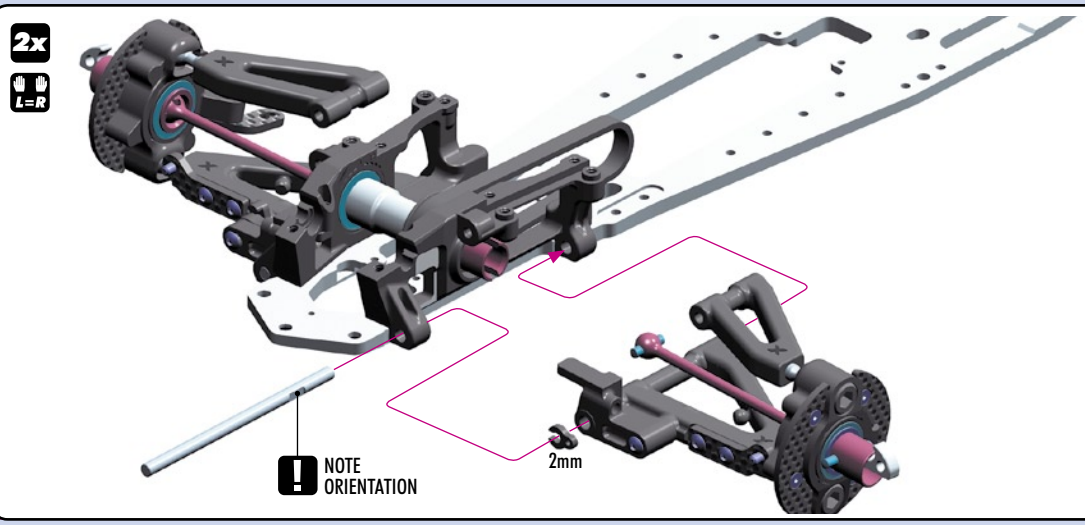


L=R FRONT BELT TENSION ADJUSTMENT



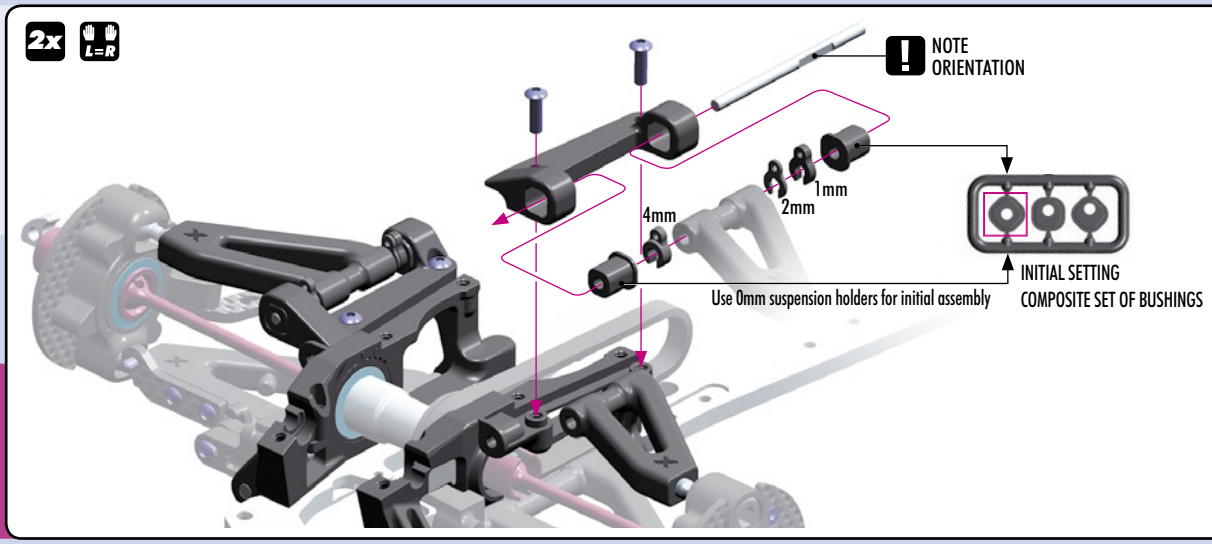
TO TIGHTEN FRONT BELT
Rotate BOTH front composite bushings in arrow direction (A)

TO LOOSEN FRONT BELT
Rotate BOTH front composite bushings in arrow direction (B)

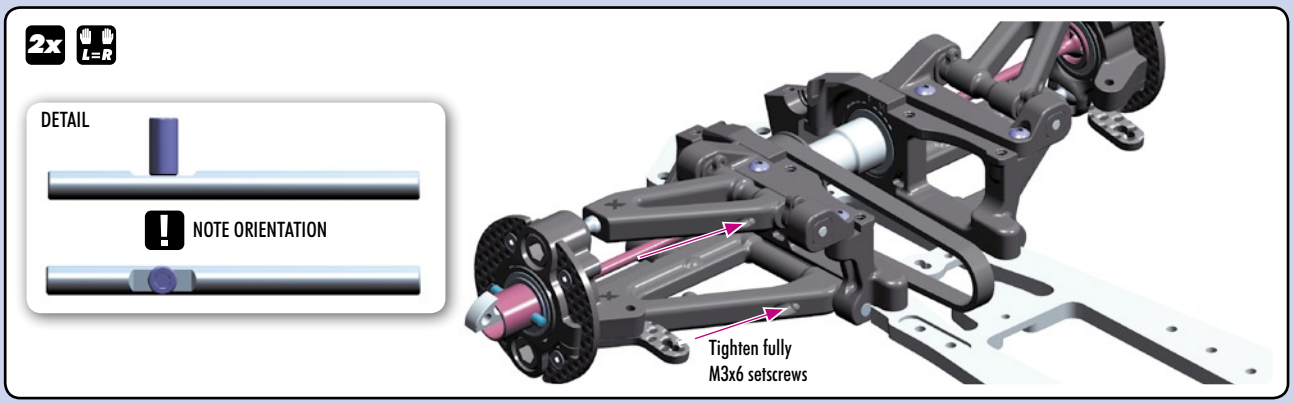


SET-UP BOOK
WHEELBASE

902310
SH M3x10



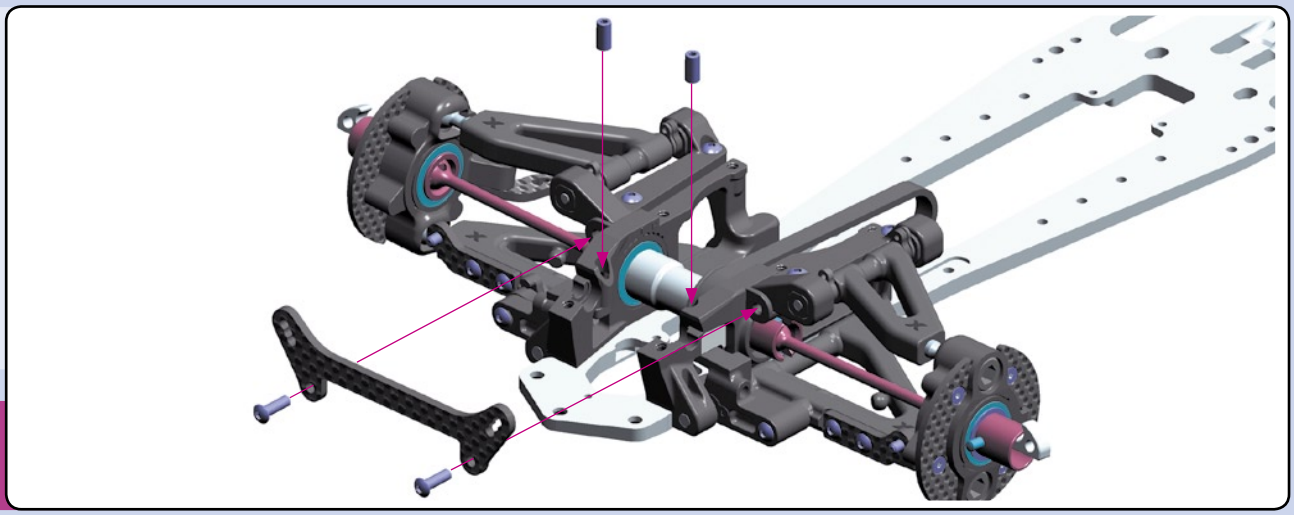
SET-UP BOOK
WHEELBASE
FRONT ROLL CENTER
FRONT CAMBER RISE
CASTER



901408
SB M4x8

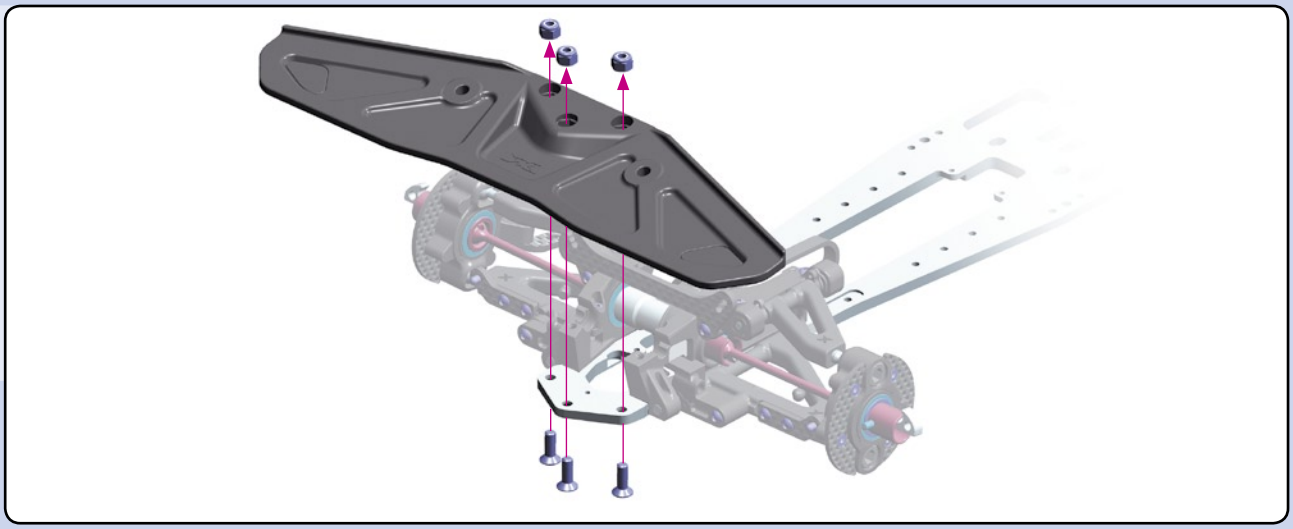
902310
SH M3x10

SET-UP BOOK
DOWNSTOPS



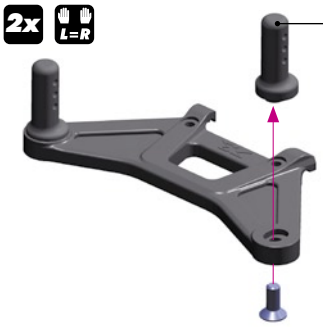
903412
SFH M4x12

960040
N M4



903410
SFH M4x10

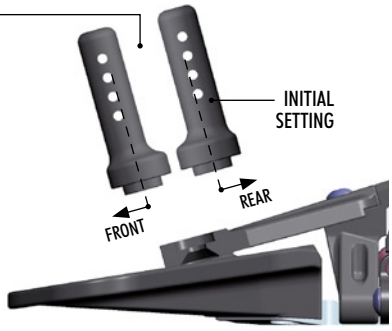
2x L=R



The front body post has two positions - FRONT and REAR. The distance difference between these two positions is 2mm. The position of the front body post depends on the position of the rear body mount: (Page 12 step 2)

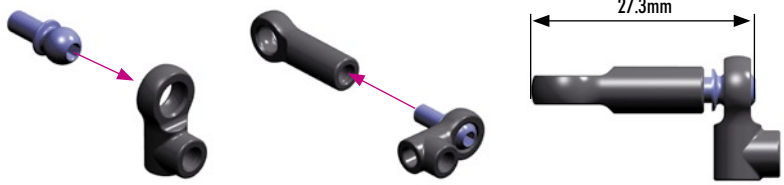
1) INITIAL SETTING: If the shim on the rear body mount is IN FRONT OF the body mount, place the front body mount in position REAR.

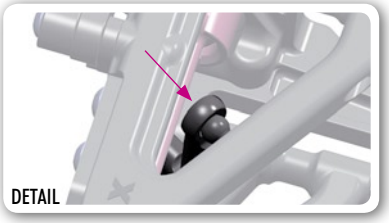
2) If the shim on the rear body mount IS BEHIND the body mount, place the front body mount in position FRONT.



2x L=R

ALTERNATIVE 1: WIRE ANTI-ROLL BAR





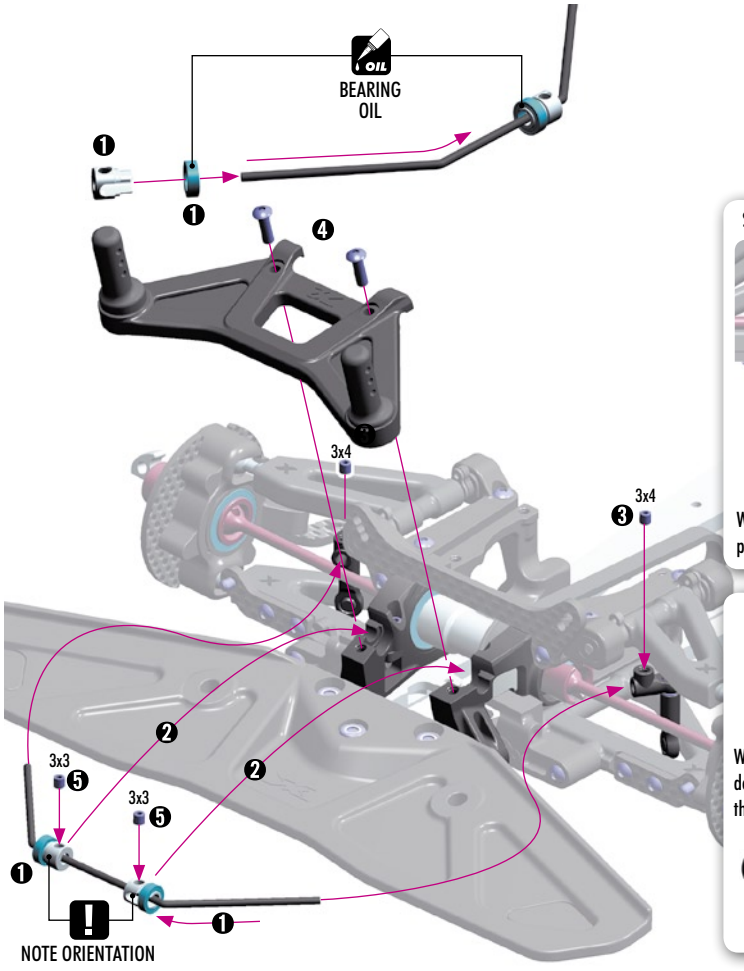
901303
SB M3x3

901304
SB M3x4

902310
SH M3x10

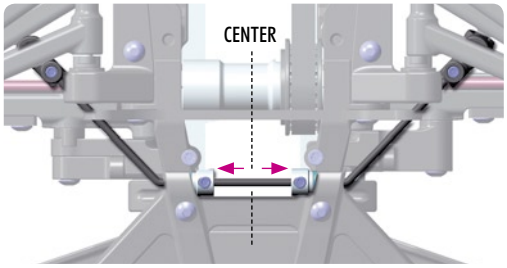
940508
BB 5x8x2.5

ALTERNATIVE 1: WIRE ANTI-ROLL BAR



FRONT ANTI-ROLL BARS		
342462	FRONT ø2.2mm	OPTION
342464	FRONT ø2.4mm	OPTION
342466	**FRONT ø2.6mm**	**STANDARD**
342468	FRONT ø2.8mm	OPTION

Step 5 detail



When the upper bumper is installed, set the bar into the center, remove the play with the bushings, and tighten the setscrews fully.

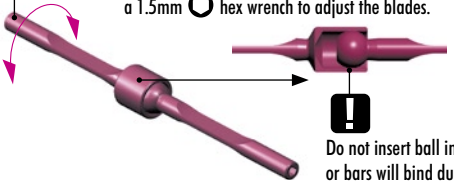
When the bars are set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same and that the bar wire is flat.

If the sides still does not move at the same time, adjust the length of the bar holders.

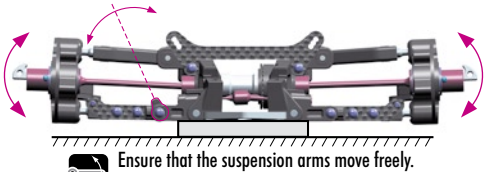
SET-UP BOOK
FRONT ANTI-ROLL BAR

ALTERNATIVE 2: BLADE ANTI-ROLL BAR

FRONT ANTI-ROLL BAR
Each anti-roll bar blade has a hex hole at its end. Use a 1.5mm hex wrench to adjust the blades.



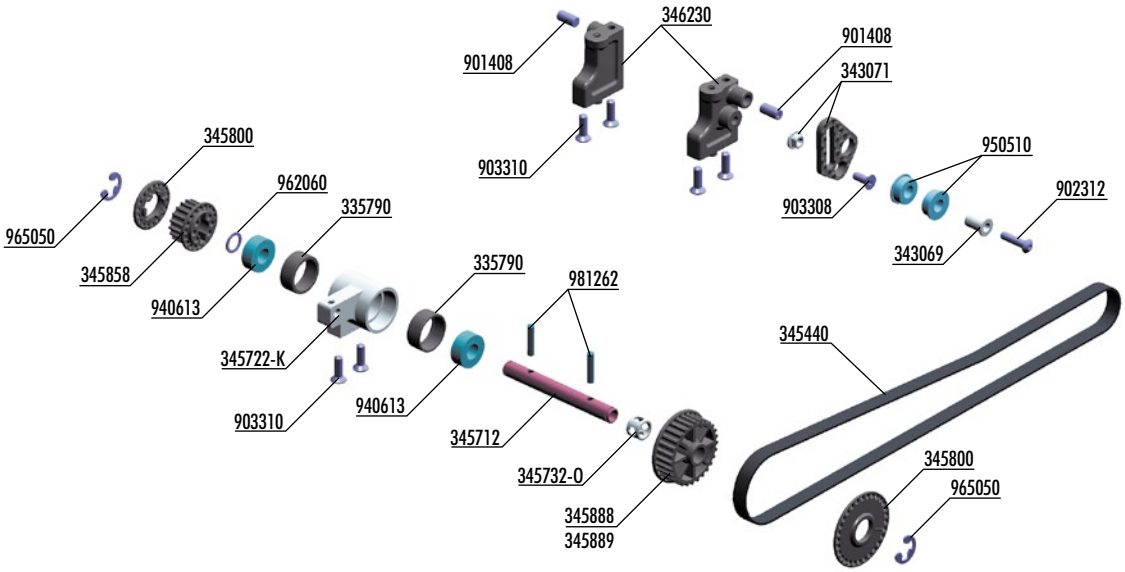
Do not insert ball into cup too deeply or bars will bind during operation



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

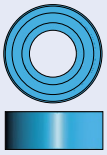
When the bar is set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same. If the arms still do not move at the same time, gently loosen the screw which holds eccentric bushing and move with the bushing until the arms do not move same time. Retighten the screw fully.

SET-UP BOOK
FRONT ANTI-ROLL BAR

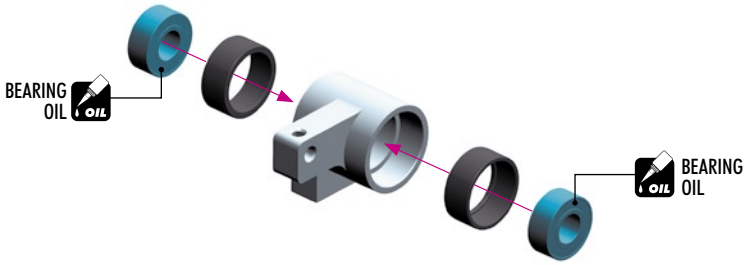


BAG 05

335790	COMPOSITE BALL-BEARING BUSHING FOR MIDDLE SHAFT (2)	901408	HEX SCREW SB M4x8 (10)
343069	STEEL BUSHING (2)	902312	HEX SCREW SH M3x12 (10)
343071	BELT TENSIONER SET - STEEL	903308	HEX SCREW SFH M3x8 (10)
345440	PUR® REINFORCED DRIVE BELT SIDE 6.0 x 432 MM	903310	HEX SCREW SFH M3x10 (10)
345712	FRONT MIDDLE SHAFT - LIGHTWEIGHT - HUDY SPRING STEEL™	940613	HIGH-SPEED BALL-BEARING 6x13x5 RUBBER SEALED (2)
345722-K	ALU FRONT MIDDLE SHAFT HOLDER - BLACK	950510	BALL-BEARING 5x10x4 FLANGED (2)
345732-O	ALU MIDDLE SHAFT LOCATING COLLAR - SHORT - LIGHTWEIGHT - ORANGE	962060	WASHER S 6x8x0.5 (10)
345800	COMPOSITE BELT PULLEY COVER SET	965050	E-CLIP 5 (10)
345858	COMPOSITE FRONT BELT PULLEY 18T o6 - CENTER	981262	PIN 2.5x12 (10)
345888	COMPOSITE SIDE BELT PULLEY 28T - FRONT		
345889	COMPOSITE SIDE BELT PULLEY 29T - FRONT		
346230	COMPOSITE RADIO PLATE MOUNTS (L+R)		

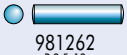


940613
BB 6x13x5

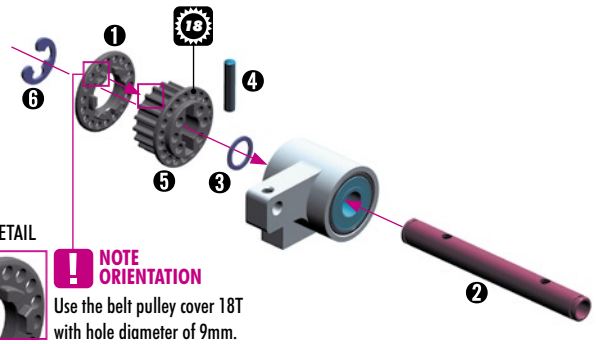


962060
SHIM 6x8x0.2

965050
C 5



981262
P 2.5x12

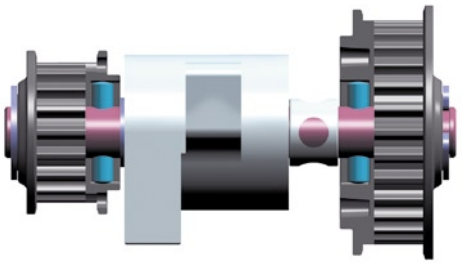


STEP 1 DETAIL

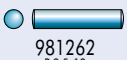
NOTE ORIENTATION

Use the belt pulley cover 18T with hole diameter of 9mm.

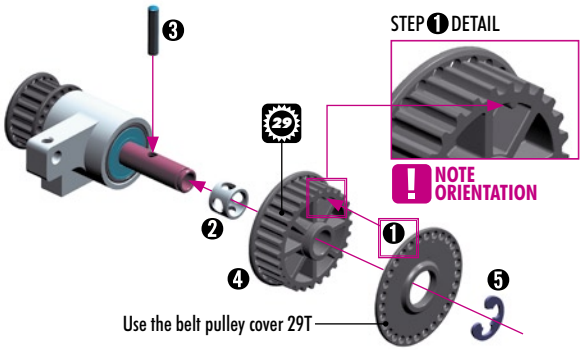
ASSEMBLED AND CUTAWAY VIEW



965050
C 5



981262
P 2.5x12

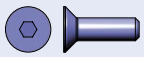


STEP 1 DETAIL

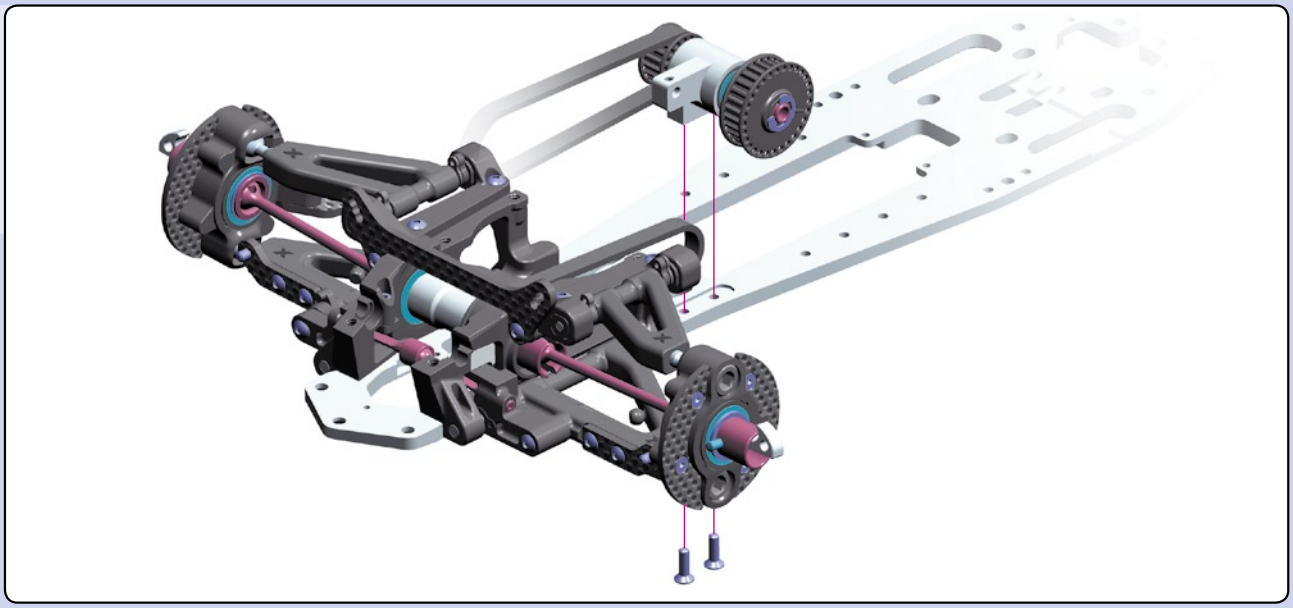
NOTE ORIENTATION

Use the belt pulley cover 29T

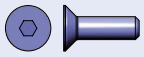
5. FRONT TRANSMISSION



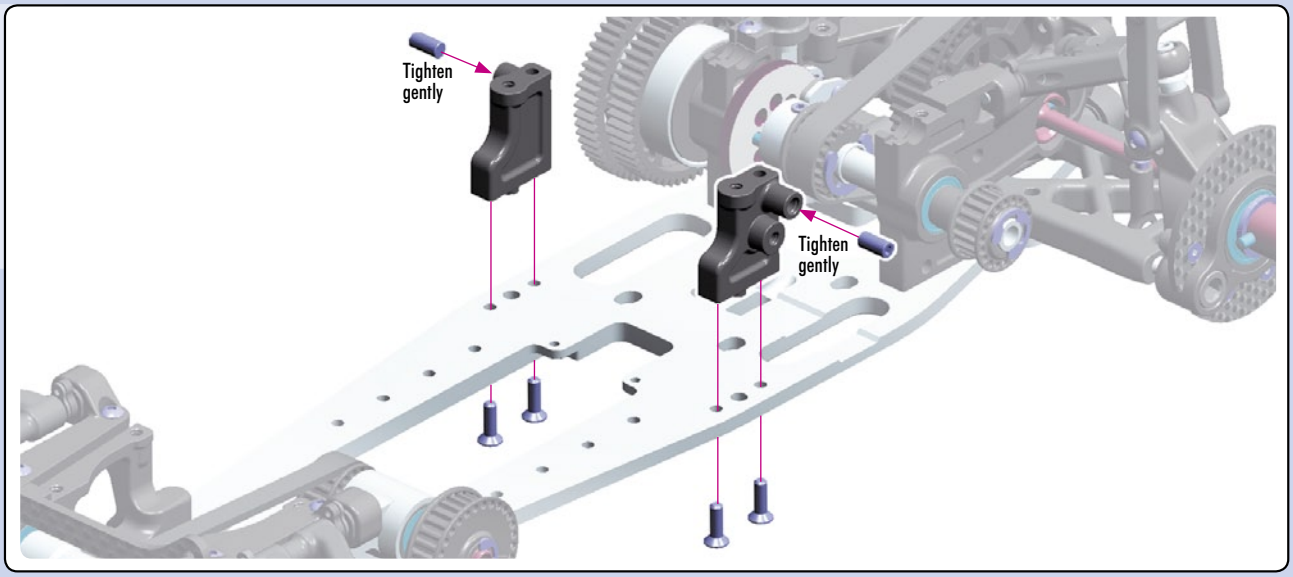
903310
SFH M3x10



901408
SB M4x8

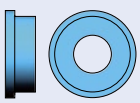


903310
SFH M3x10

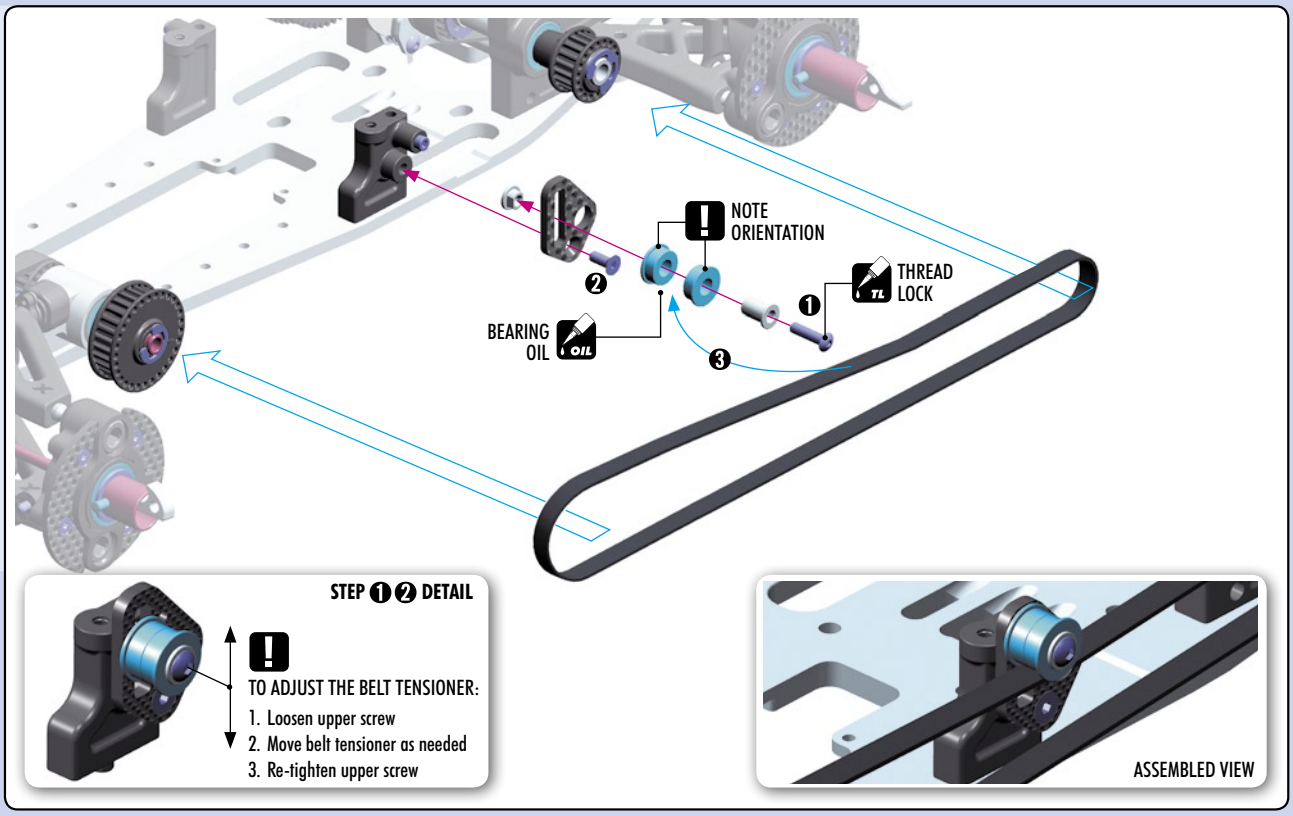


903308
SFH M3x8

902312
SH M3x12



950510
BB 5x10x4

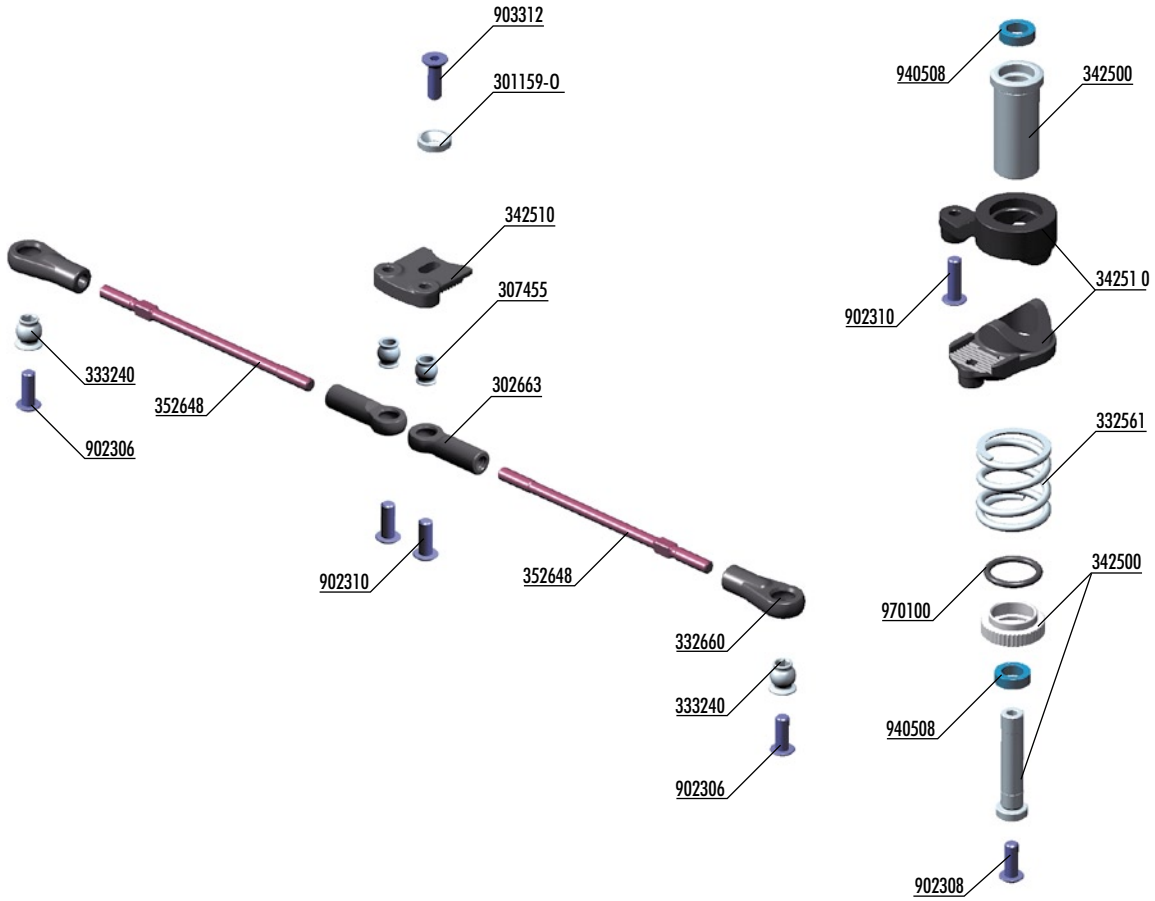


STEP 1 2 DETAIL

TO ADJUST THE BELT TENSIONER:

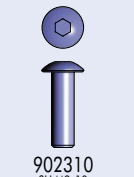
1. Loosen upper screw
2. Move belt tensioner as needed
3. Re-tighten upper screw

ASSEMBLED VIEW

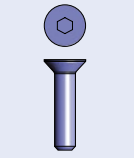


BAG 06

301159-O	ALU COUNTERSUNK SHIM - ORANGE (4)	352648	XT8 ADJ. TURNBUCKLE M3 L/R 62 MM - HUDY SPRING STEEL (2)
302663	COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8)	902306	HEX SCREW SH M3x6 (10)
307455	PIVOT BALL 4.9 MM DOUBLE BEVEL SHOULDERS (10)	902308	HEX SCREW SH M3x8 (10)
332561	SERVO SAVER SPRING C=14	902310	HEX SCREW SH M3x10 (10)
332660	COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2)	903312	HEX SCREW SFH M3x12 (10)
333240	BALL UNIVERSAL 5.8 MM HEX (4)	940508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)
342500	SERVO SAVER COMPLETE SET - V2	970100	O-RING 10 x 1.5 (10)
342510	COMPOSITE SERVO SAVER		



902310
SH M3x10

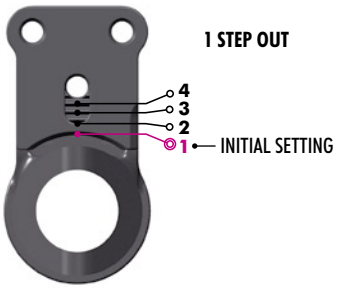


903312
SFH M3x12

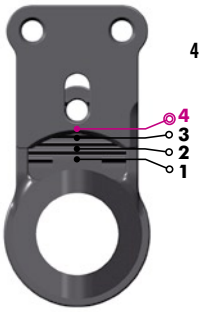
970100
O 10x1.5

THERE ARE 4 DIFFERENT ACKERMANN SETTINGS POSSIBLE WITH THE QUICK-SAVER™

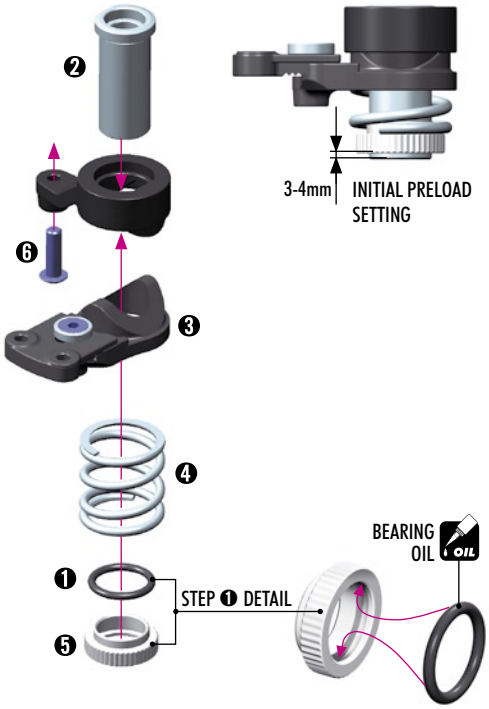
For initial Ackermann setting, use Step 1 (2nd shortest length).



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

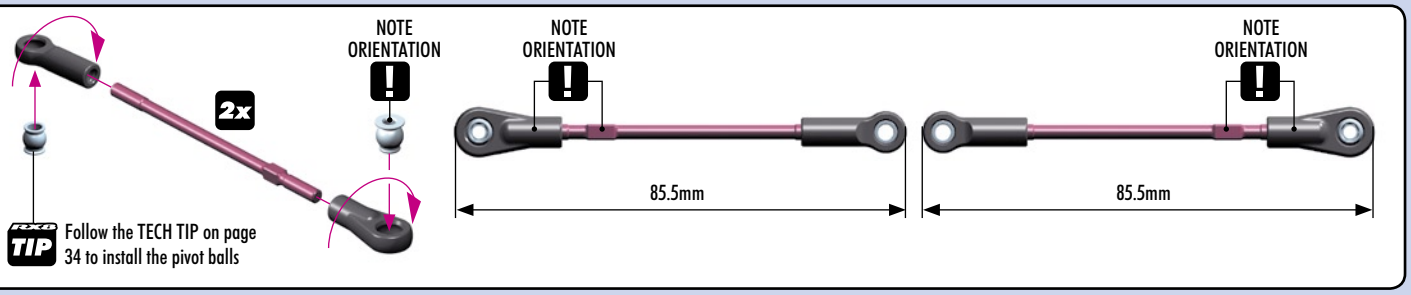


STEP 4 gives the least Ackermann and creates a lot of steering into and out of corners. However, the car is more difficult to drive in chicanes because there is less traction and stability.
For tracks with a lot of in-corner steering needed.

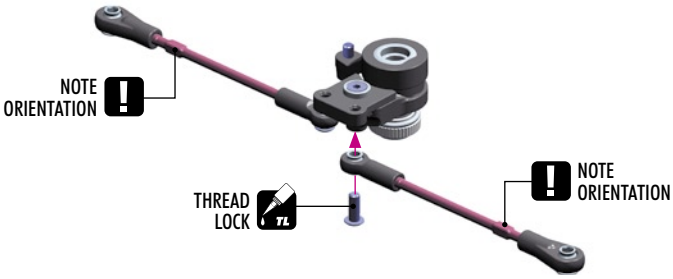


SET-UP BOOK
ACKERMANN

6. STEERING

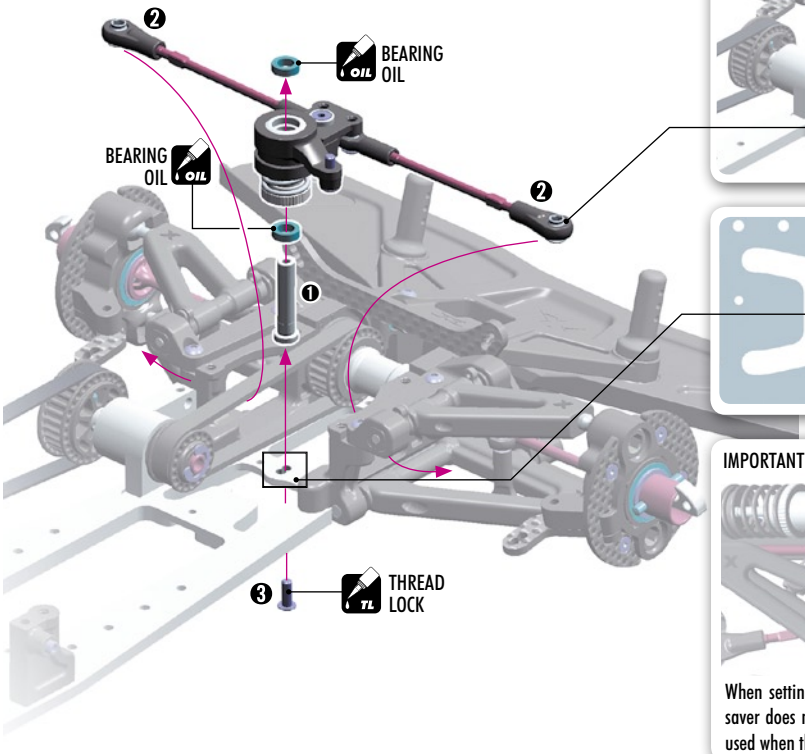


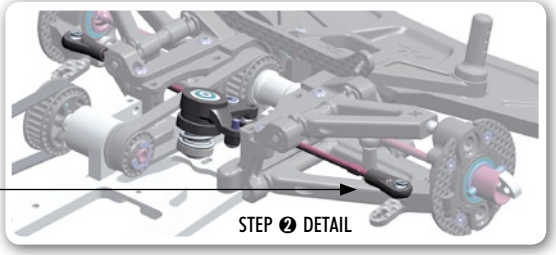

902310
SH M3x10

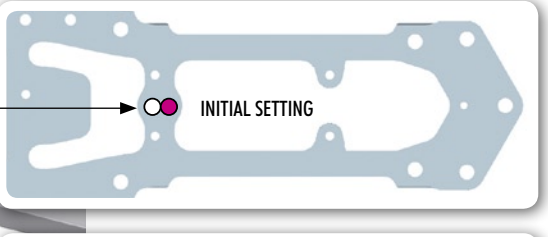



902308
SH M3x8

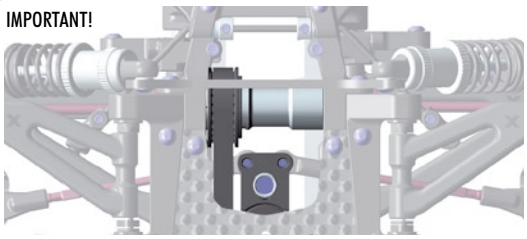

940508
BB 5x8x2.5







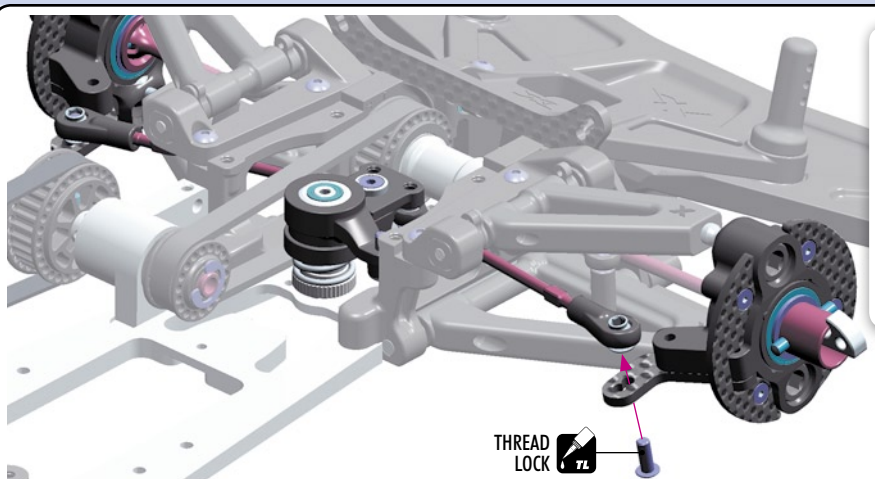
IMPORTANT!

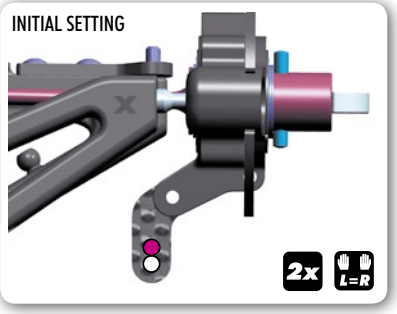


When setting Ackermann position on servo saver, make sure that the servo saver does not touch one-way pulley. Not all positions of Ackermann can be used when the servo saver is placed in the forward position.

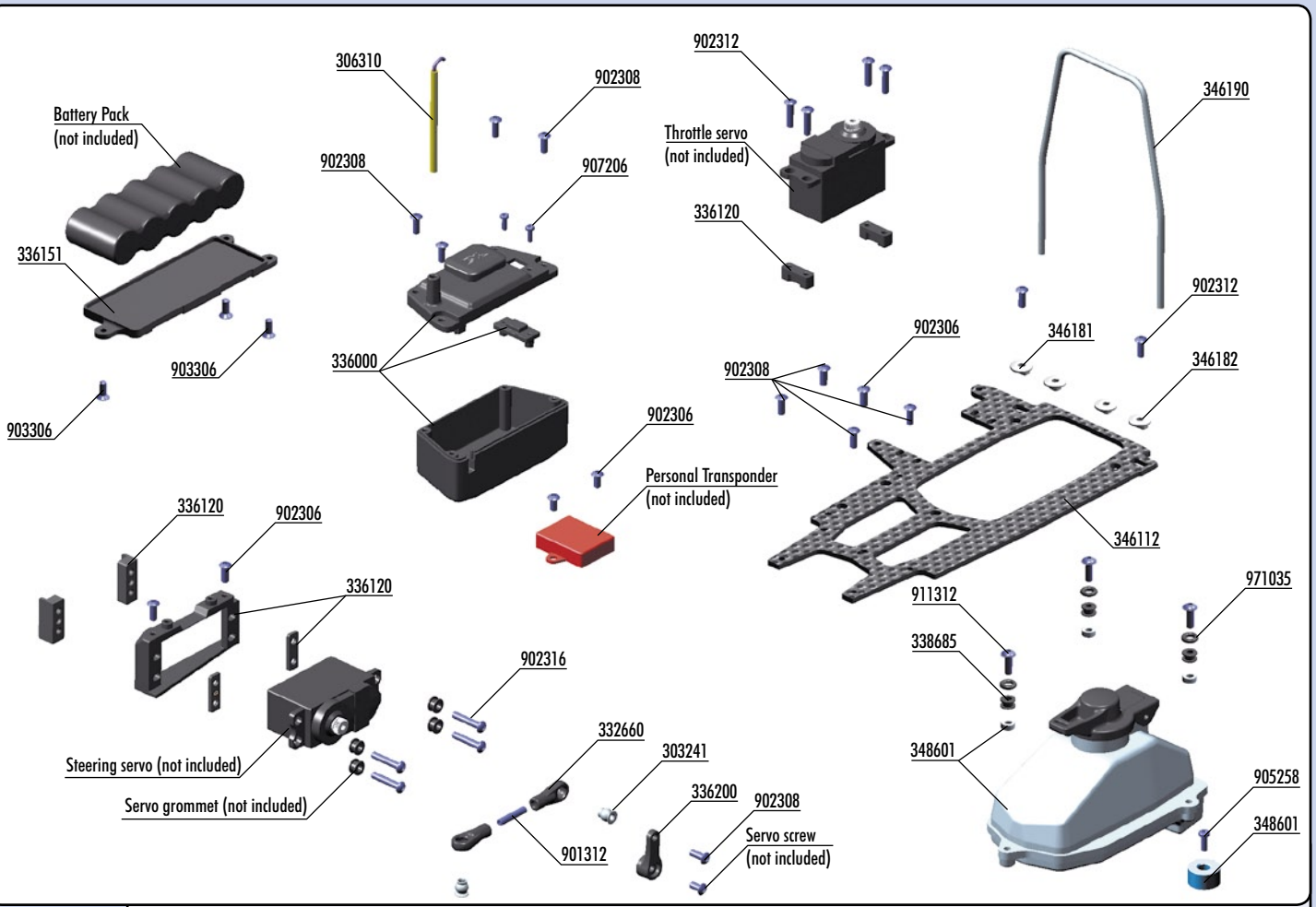
SET-UP BOOK
ACKERMANN


902306
SH M3x6





SET-UP BOOK
FRONT TOE-IN



BAG 07

303241	BALL UNIVERSAL 5.8 MM HEX (4)
306310	ANTENNA TUBE (2)
332660	COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2)
336000	COMPOSITE RECEIVER CASE
336120	COMPOSITE STEERING SERVO HOLDER - SET - V2
336151	COMPOSITE BATTERY PLATE
336200	COMPOSITE STEERING SERVO ARMS - SET
338685	FUEL TANK MOUNTING GROMMET (3)
346112	GRAPHITE RADIO PLATE
346181	ALU RADIO PLATE TWEAK BUSHING - HARD COATED (2)
346182	ALU RADIO PLATE TWEAK BUSHING FIX (2)
346190	ROLL-OVER BAR
348601	FUEL TANK 125CCM - SET - V2
901312	HEX SCREW SB M3x12 (10)
902306	HEX SCREW SH M3x6 (10)
902308	HEX SCREW SH M3x8 (10)
902312	HEX SCREW SH M3x12 (10)
902316	HEX SCREW SH M3x16 (10)
903306	HEX SCREW SFH M3x6 (10)
905258	SCREW PHILLIPS 2.5x8 (10)
907206	SCREW PHILLIPS M2x6 (10)
911312	HEX SCREW FLANGED SH M3x12 (10)
971035	SILICONE O-RING 3.5x2 (10)

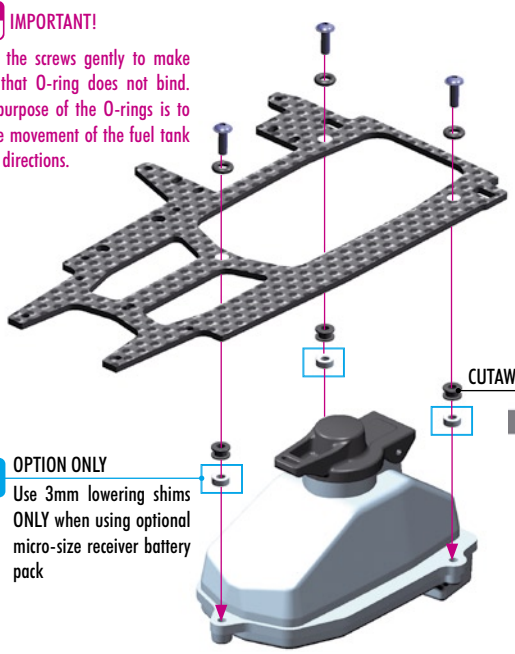
911312
SHF M3x12

905258
2.5x8

971035
O 3.5x2

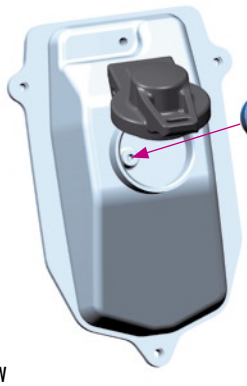
IMPORTANT!

Tight the screws gently to make sure that O-ring does not bind. The purpose of the O-rings is to create movement of the fuel tank in all directions.



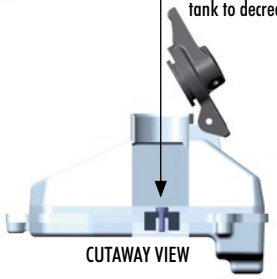
OPTION ONLY

Use 3mm lowering shims ONLY when using optional micro-size receiver battery pack



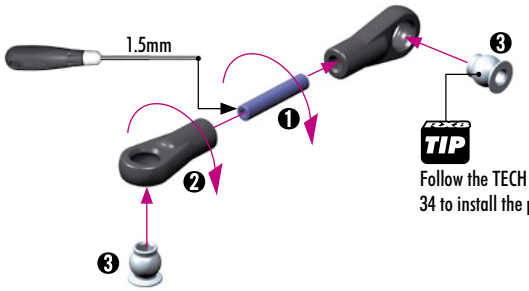
Install insert ONLY if fuel capacity is over the limit.

The fuel tank was designed to have the maximum legal racing capacity (125cc). However, the actual capacity of the fuel tank may vary slightly. We strongly recommend you check that the fuel tank capacity is 125cc. If the capacity is larger, install the insert in the fuel tank to decrease the fuel capacity.

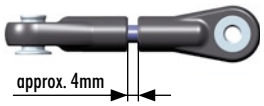


7. FUEL TANK & ELECTRONICS

901312
SB M3x12



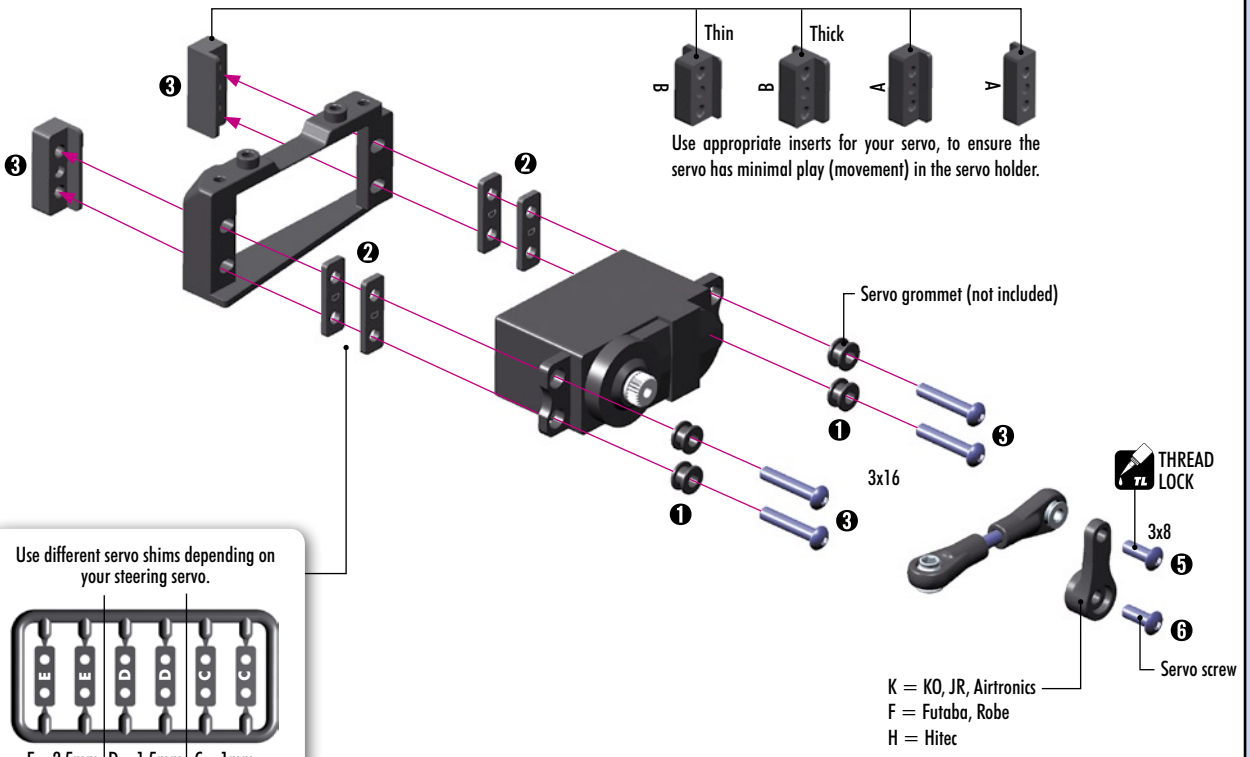
Follow the TECH TIP on page 34 to install the pivot balls



Note the 90° angle difference between the ball joints

902308
SH M3x8

902316
SH M3x16



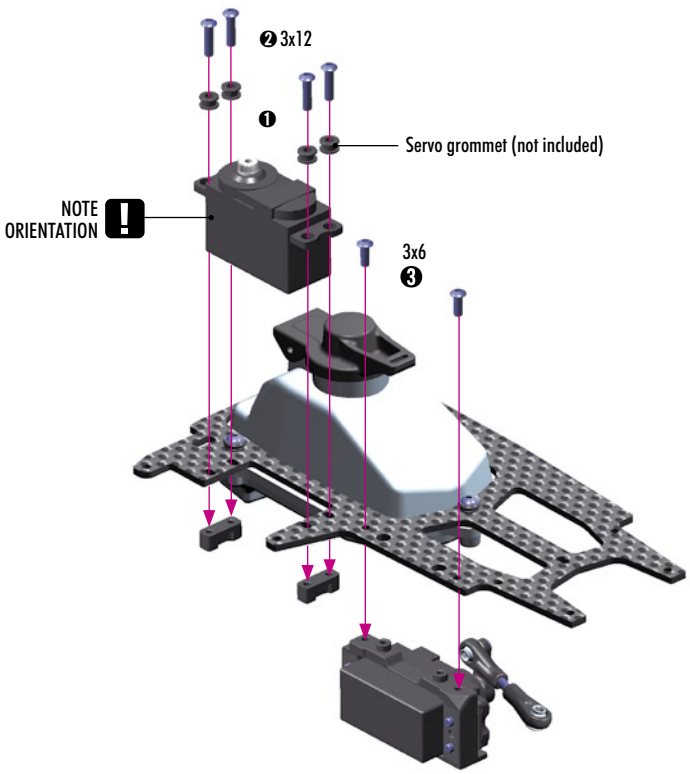
Use appropriate inserts for your servo, to ensure the servo has minimal play (movement) in the servo holder.

Use different servo shims depending on your steering servo.

E=2.5mm | D=1.5mm | C=1mm

902306
SH M3x6

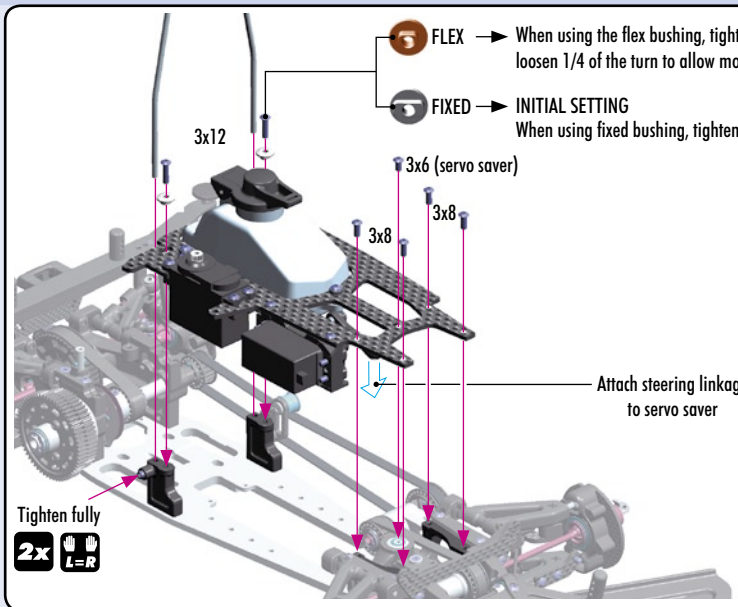
902312
SH M3x12



902306
SH M3x6

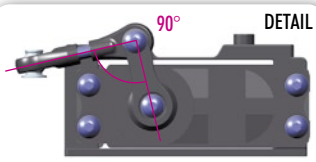
902308
SH M3x8

902312
SH M3x12



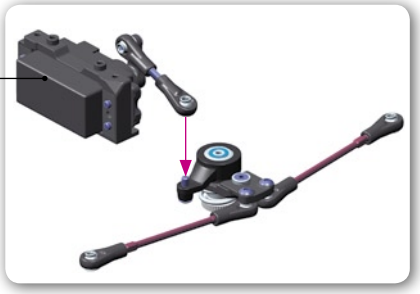
FLEX → When using the flex bushing, tighten the screw fully and then loosen 1/4 of the turn to allow movement of the top deck.

FIXED → INITIAL SETTING
When using fixed bushing, tighten fully.



Servo arm must be perpendicular to linkage when servo is in neutral

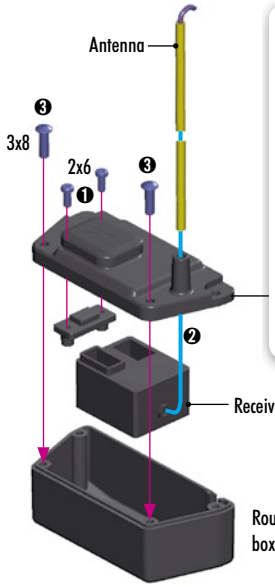
Attach steering linkage to servo saver



902306
SH M3x6

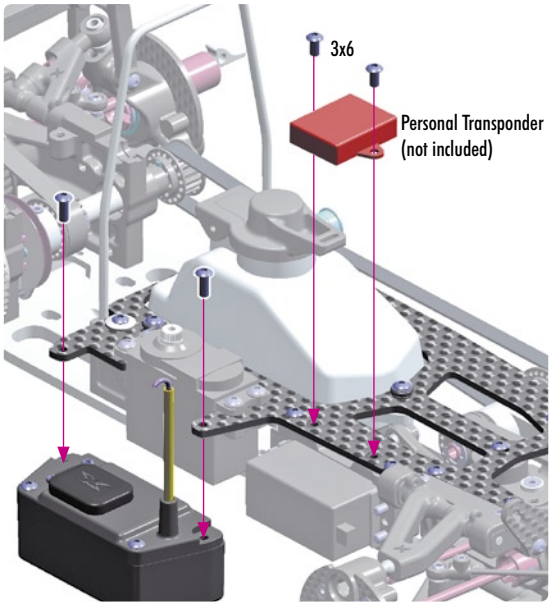
902308
SH M3x8

907206
2x6



If the receiver box has 2 different-size openings for cable entry (narrow and wider), cut away the tab for the appropriate opening to allow the cables to fit properly.

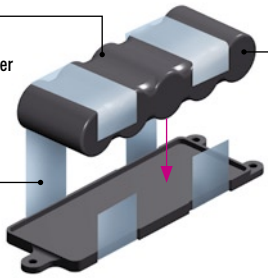
Route servo and transponder leads into box and seal with silicone sealant.



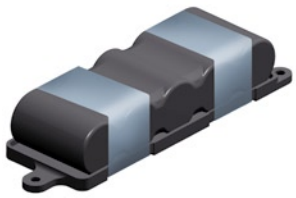
Use an appropriate receiver battery pack

The RX8 accommodates standard 5-cell receiver packs or optional micro-size packs.

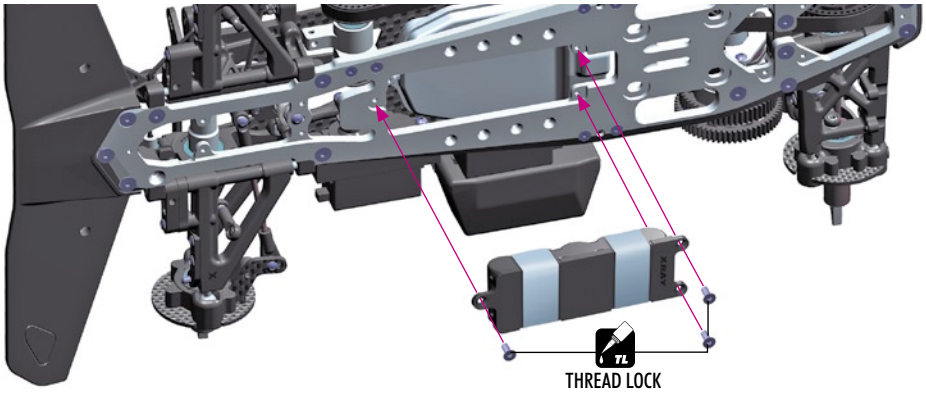
Use tape to mount the receiver battery pack to the lower holder (not included).



ASSEMBLED VIEW



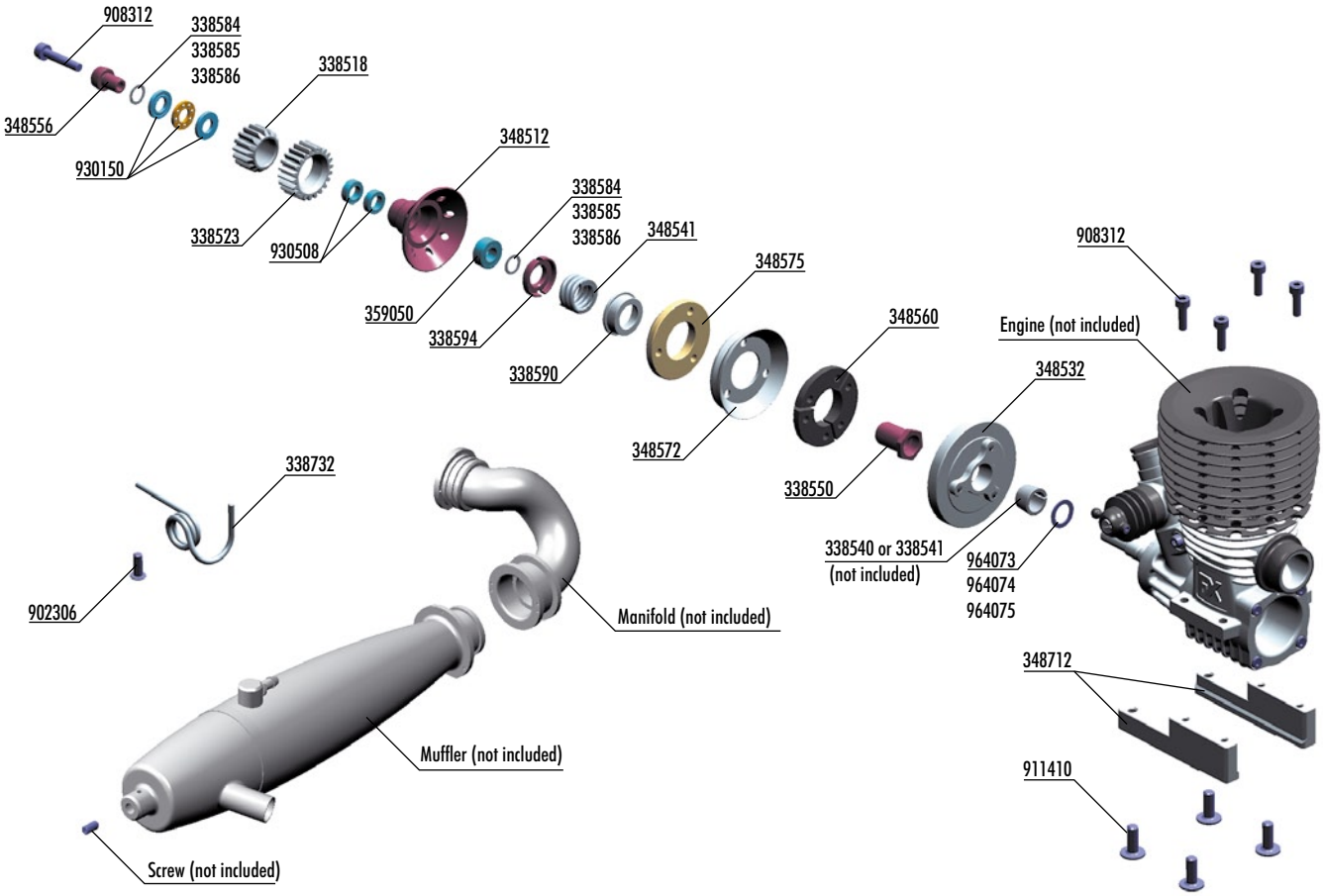
903306
SFH M3x6



8. ENGINE & CLUTCH

1ST PINION GEARS		
338515	XCA HARDCOATED PINION GEAR - 15T (1st)	OPTION
338516	XCA HARDCOATED PINION GEAR - 16T (1st)	OPTION
338517	XCA HARDCOATED PINION GEAR - 17T (1st)	OPTION
338518	**XCA HARDCOATED PINION GEAR 18T (1st)**	**STANDARD**

2ST PINION GEARS		
338520	XCA HARDCOATED PINION GEAR - 20T (2nd)	OPTION
338521	XCA HARDCOATED PINION GEAR - 21T (2nd)	OPTION
338522	XCA HARDCOATED PINION GEAR - 22T (2nd)	OPTION
338523	**XCA HARDCOATED PINION GEAR 23T (2nd)**	**STANDARD**
338524	XCA HARDCOATED PINION GEAR - 24T (2nd)	OPTION



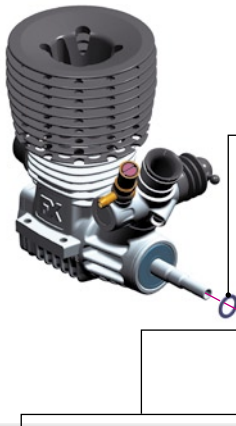
BAG 08

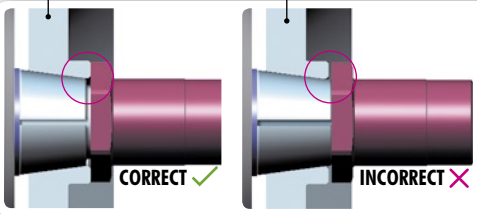
338518	XCA ALU 7075 T6 HARD COATED PINION GEAR - 18T (1ST)
338523	XCA ALU 7075 T6 HARD COATED PINION GEAR - 23T (2ND)
338540	FLYWHEEL COLLAR 7MM - NOVAROSSI (OPTION)
338541	FLYWHEEL COLLAR 6MM - PICCO (OPTION)
338550	FLYWHEEL NUT - HUDY SPRING STEEL™
338584	SHIM 5x7x0.2 (10)
338585	SHIM 5x7x0.3 (10)
338586	SHIM 5x7x0.5 (10)
338590	CLUTCH SPRING CUP - ALU 7075 T6
338594	CLUTCH PRELOAD ADJ. NUT - HUDY SPRING STEEL™
338732	EXHAUST MOUNTING WIRE - EXTRA-LONG
348502	XCA (XRAY CENTRIFUGAL-AXIAL) CLUTCH SET - REVERSE - SMALL
348512	XCA CLUTCHBELL FOR SMALLER PINION GEARS - HUDY STEEL
348532	FLYWHEEL - FLAT - SWISS 7075 T6 - HARD COATED
348541	CLUTCH SPRING - ULTRA-STABILE
348556	THRUSTBEARING COLLAR - HUDY SPRING STEEL™
348560	CLUTCH FLYWEIGHT SET
348572	ALU CLUTCH DISK - CONICAL - SWISS 7075 T6
348575	CLUTCH SHOE - YELLOW
348576	CLUTCH SHOE - RED (OPTION)
348712	ALU ENGINE MOUNTS (L+R)
359050	CLUTCH BELL BALL-BEARING 5x10x4 (2)
902306	HEX SCREW SH M3x6 (10)
908312	HEX SCREW SOCKET HEAD CAP M3x12 (10)
911410	HEX SCREW FLANGED SH M4x10 (10)
930150	CARBIDE AXIAL THRUSTBEARING F5-10 5x10x4
930508	BALL-BEARING 5x8x2.5 (2)
964073	WASHER S 7x10x0.2 (10)
964074	WASHER S 7x10x0.3 (10)
964075	WASHER S 7x10x0.5 (10)


964073
S 7x10x0.2


964074
S 7x10x0.3

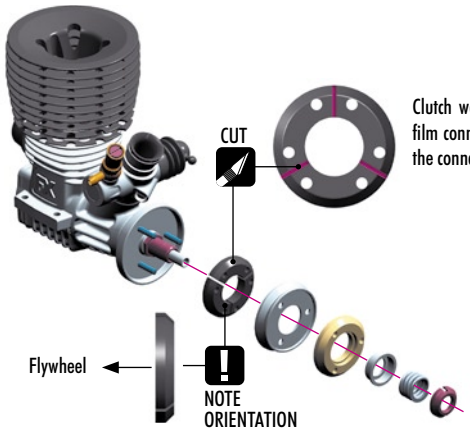

964075
S 7x10x0.5





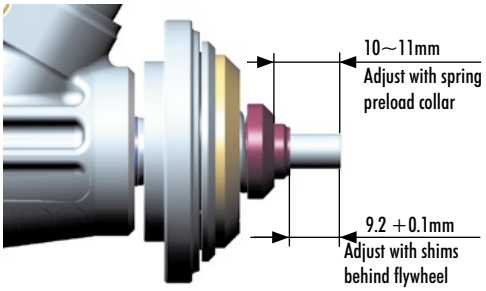
The flywheel collar must stay inside the flywheel.

If the flywheel collar is too long – if it is flush with the flywheel or protrudes slightly – remove a small amount of material from the end, or use an XRAY collar.

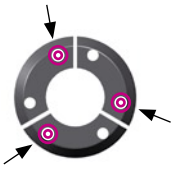


Clutch weights are machined as 1 piece, with thin film connecting the pieces together. You need to cut the connecting film to separate the 3 shoes.

DETAIL



DETAIL



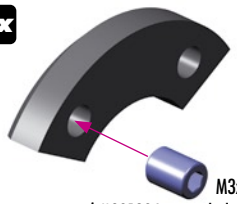
INITIAL POSITION FOR FLYWHEEL PINS

TECH TIP FOR EXTRA BOTTOM-END POWER

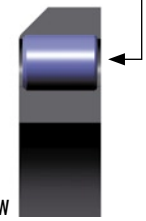
For extra bottom-end power, thread a M3x4 setscrew (#901304) into each clutch flyweight as shown. The setscrew will add more weight to the end of the flyweight which will cause the flyweight to open harder, giving more bottom-end power. This is recommended for high-traction tracks where bottom-end power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

IMPORTANT!
Install setscrew into free (non-pivot) end of flyweight.

3x



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



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.

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

❶ Install clutch according to manual.

❷ Check that the spring preload is not too much; for run-in process use less preload.

❸ 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.

❹ 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.)

❺ 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.

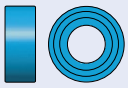
❻ Continue this process until the clutch shoe is properly run in; this will be indicated by a dark and glossy surface colour on the top of the clutch shoe.


338584
S 5x7x0.2

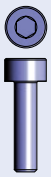

338585
S 5x7x0.3

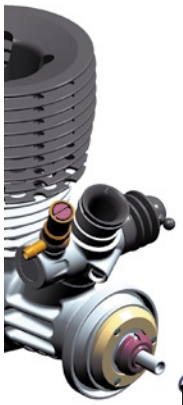

338586
S 5x7x0.5


930508
BB 5x10x4


359050
BB 5x10x4


930150
BA 5x10


908312
SCH M3x12



DO NOT INSTALL
this bearing when setting clutch gap.

INSTALL this bearing when setting endplay.

IMPORTANT
Degrease this bearing with standard bearing cleaner, and then lubricate with light bearing oil.

5x10x4

ø10mm

ø5.2mm

5x8x2.5

ø9.8mm

ø5.0mm

TIP

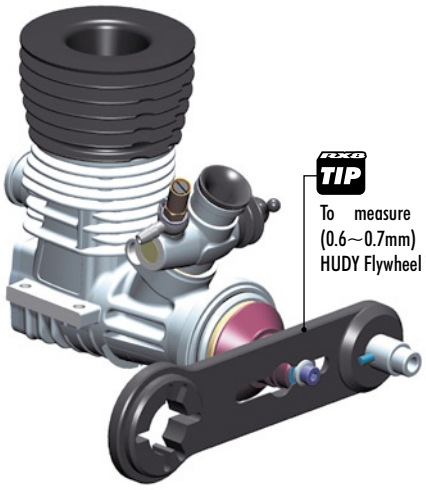
ENDPLAY SHIMS
These shims are used to adjust clutchbell endplay.

OIL BEARING OIL

GRAPHITE GREASE GR

TIP

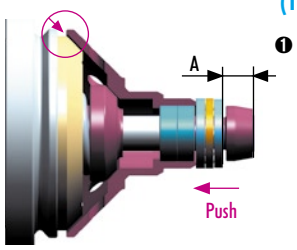
CLUTCH GAP SHIMS
These shims are used to adjust clutch gap.



TIP

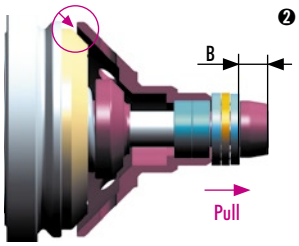
To measure the clutch gap (0.6～0.7mm) you can also use HUDY Flywheel Tool #182010

(1) ADJUSTING THE CLUTCH GAP

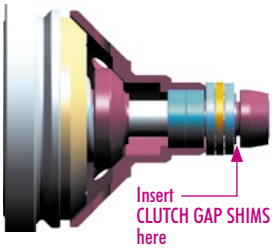


❶ Install the clutchbell, outer ball-bearing (small), and thrustbearing assembly on the engine crankshaft. DO NOT install the inner ball-bearing or internal shims.

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



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

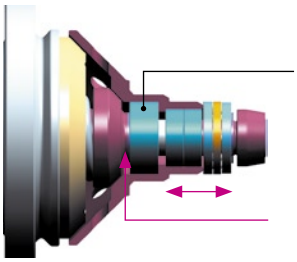


❸ The clutch gap is A - B;
the correct gap is 0.6-0.7mm

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=5.5mm,
B=4.5mm
Shim thickness = 5.5-4.5-0.7=0.3mm

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

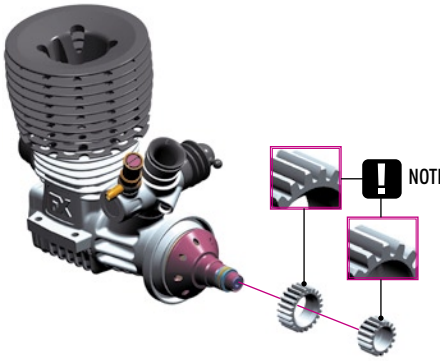


(2) ADJUSTING THE ENDPLAY

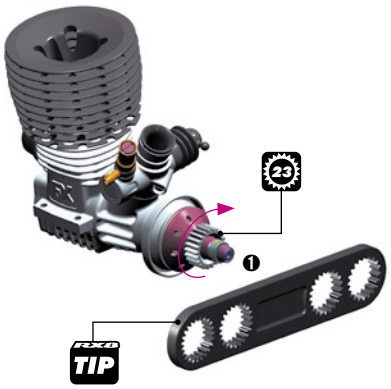
Measure endplay with this bearing installed

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

Insert ENDPLAY SHIMS here
(approximately 0.7～1.0mm)



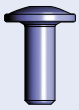
NOTE ORIENTATION



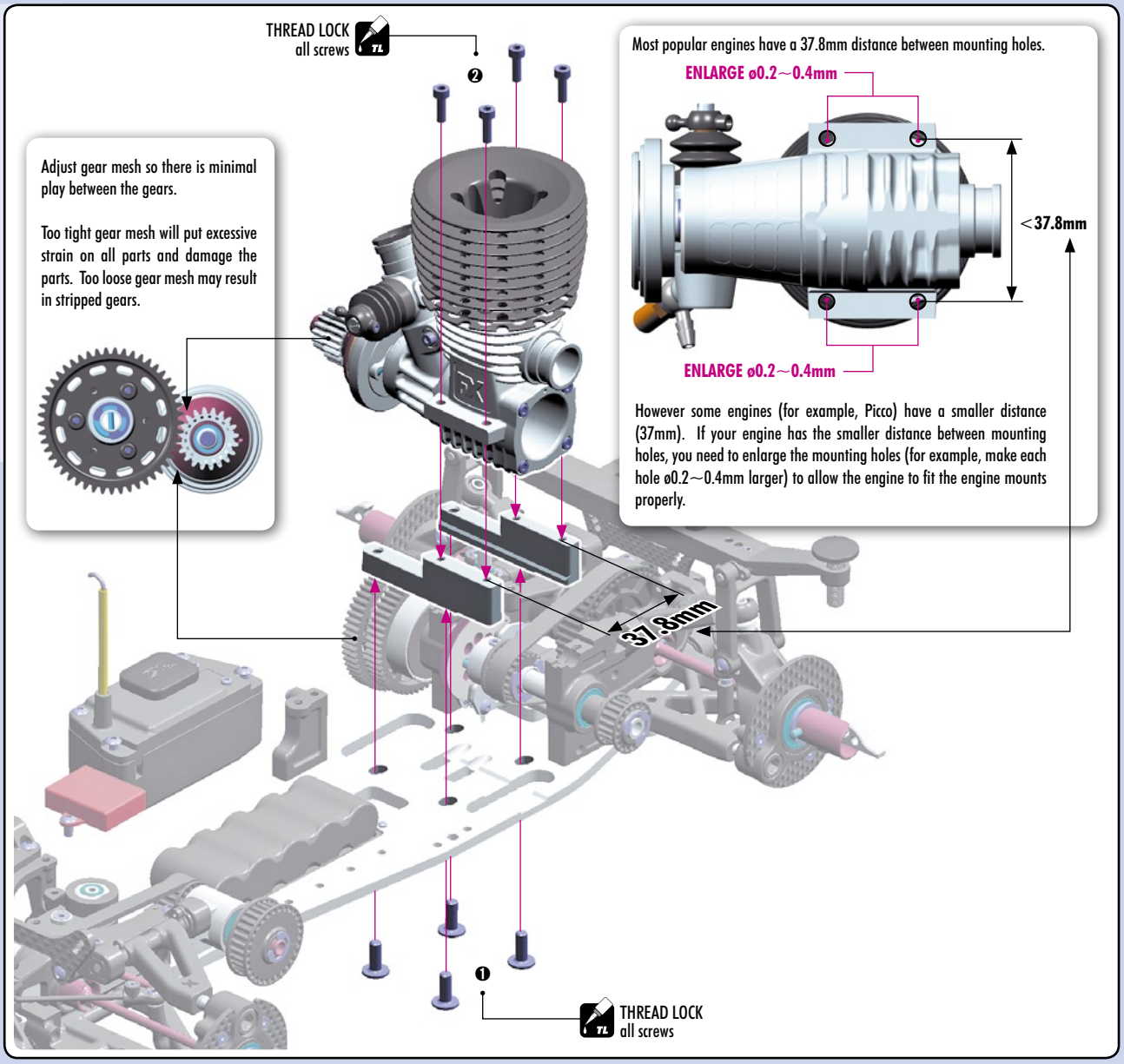
To tighten the 23T pinion gear use the optional #339901 XRAY NT1 Pinion Tool (20～23T; 15～18T).

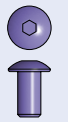
To tighten the 18T pinion gear use the optional #339901 XRAY NT1 Pinion Tool (20～23T; 15～18T).

911410
SHF M4x10

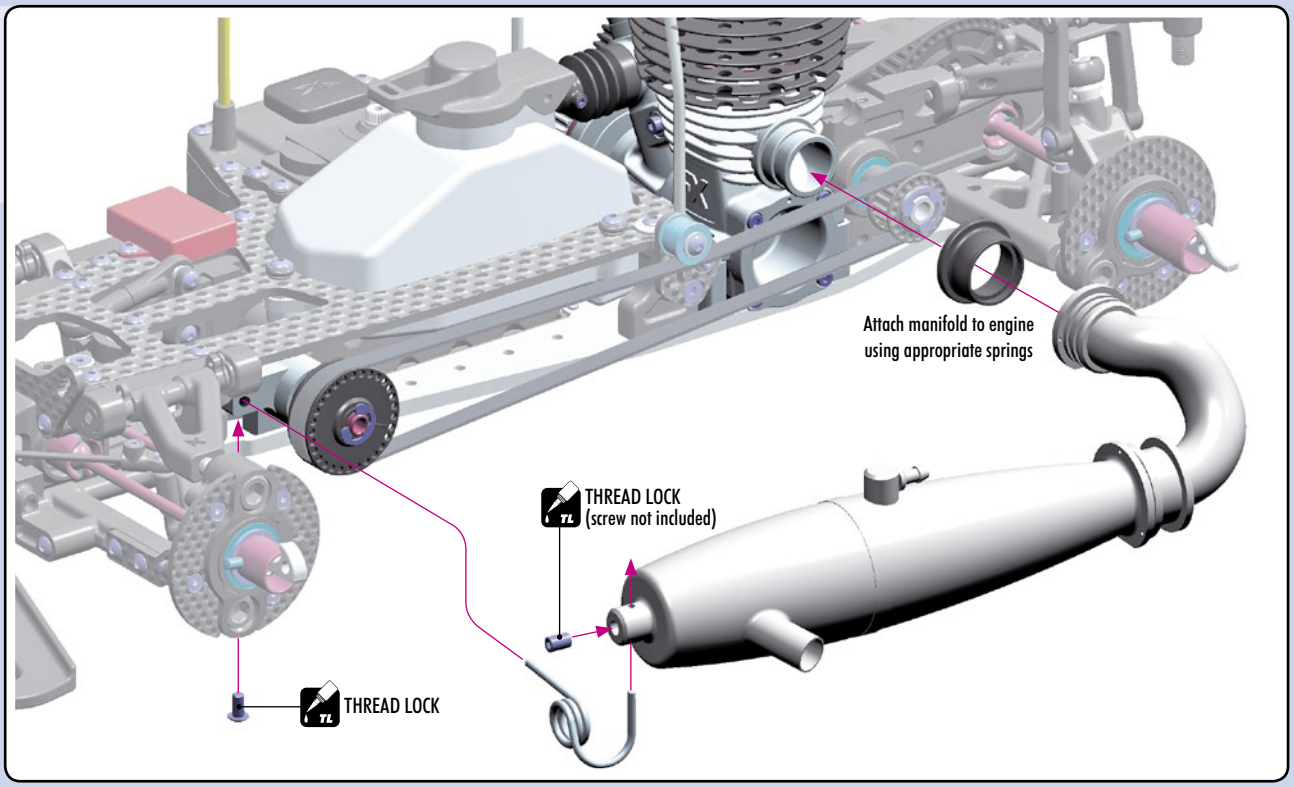


908312
SCH M3x12

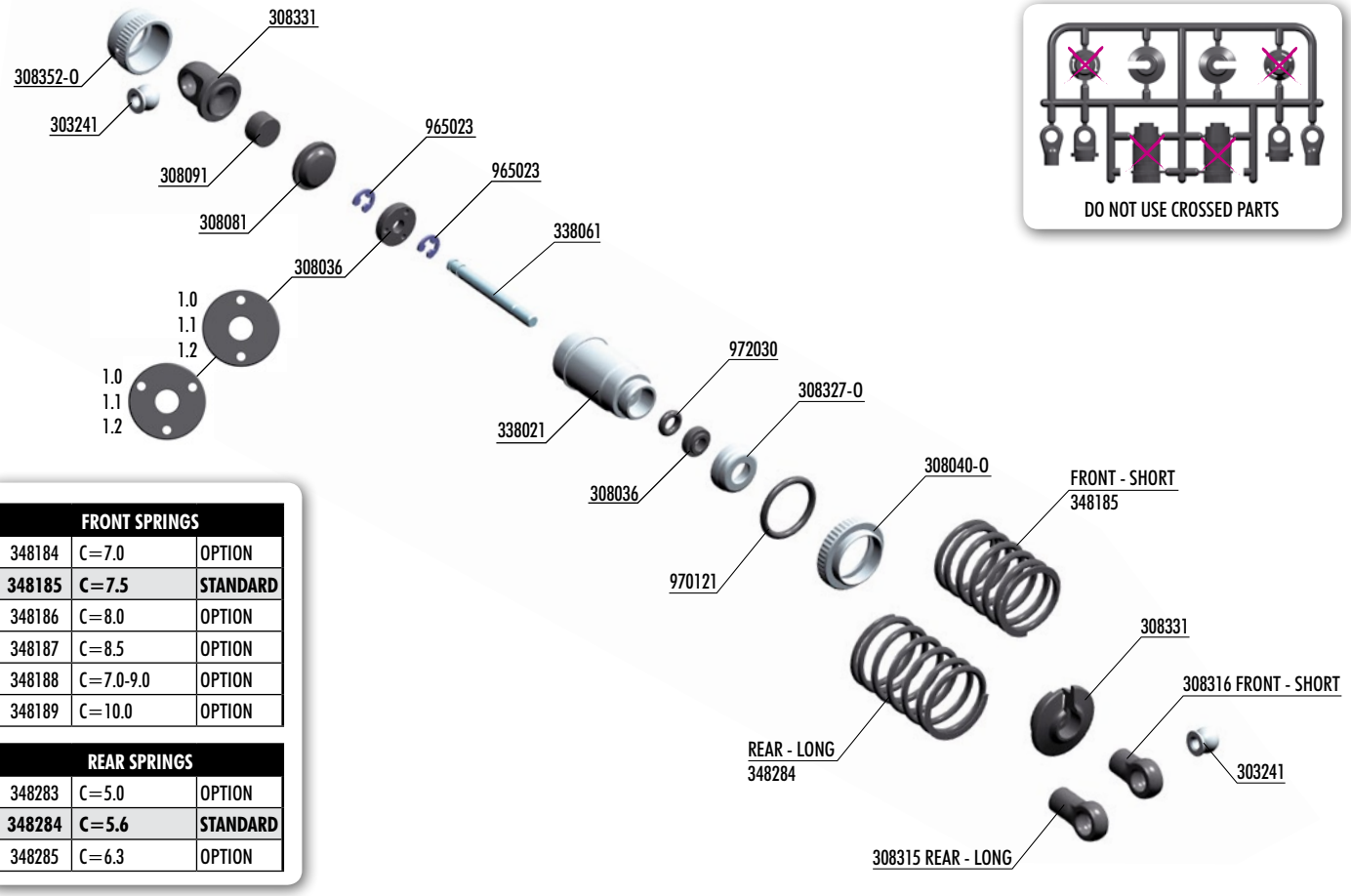




902306
SH M3x6



9. SHOCK ABSORBERS



DO NOT USE CROSSED PARTS

FRONT SPRINGS		
348184	C=7.0	OPTION
348185	**C=7.5**	**STANDARD**
348186	C=8.0	OPTION
348187	C=8.5	OPTION
348188	C=7.0-9.0	OPTION
348189	C=10.0	OPTION

REAR SPRINGS		
348283	C=5.0	OPTION
348284	**C=5.6**	**STANDARD**
348285	C=6.3	OPTION

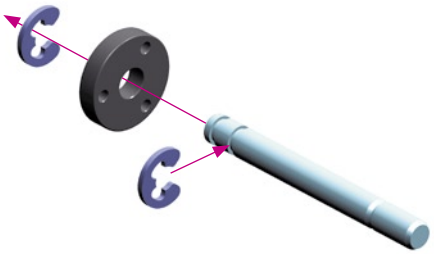
BAG 09

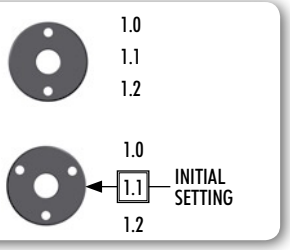
303241 BALL UNIVERSAL 5.8 MM HEX (4)
308036 COMPOSITE NON-ADJUSTABLE PISTONS - DELRIN - V3
308040-O SHOCK ADJ. NUT ALU + O-RING - ORANGE (4)
308081 SHOCK ABSORBER MEMBRANE - LOW (4)
308091 SHOCK FOAM INSERTS - LOW (4)
308315 COMPOSITE SHOCK BALL JOINT - LONG (4)
308316 COMPOSITE SHOCK BALL JOINT - OPEN (4)
308327-O ALU CAP FOR XRAY SHOCK BODY - ORANGE (2)
308331 COMPOSITE FRAME SHOCK PARTS 4-STEP - SHORT
308352-O ALU SHOCK CAP-NUT WITH HOLE - ORANGE (2)
338001-O ALU SHOCK ABSORBER-SET - ORANGE (2)
338021 ALU SHOCK BODY (2)
338061 HARDENED SHOCK SHAFT (2)
348185 XRAY SPRING-SET C=7.5 - 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

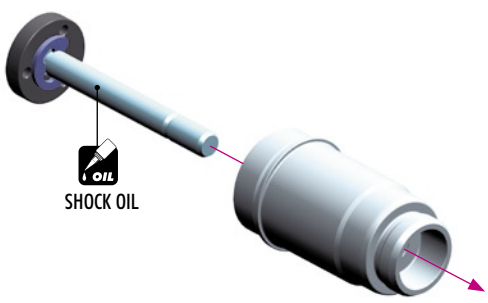
4x

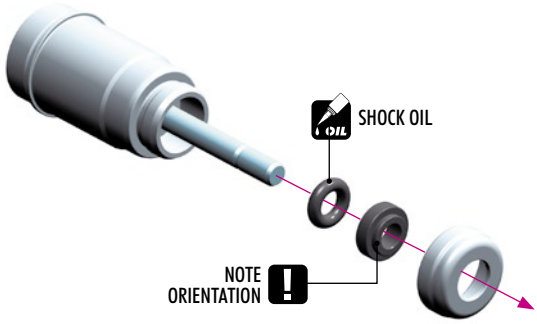




972030
O 3x2

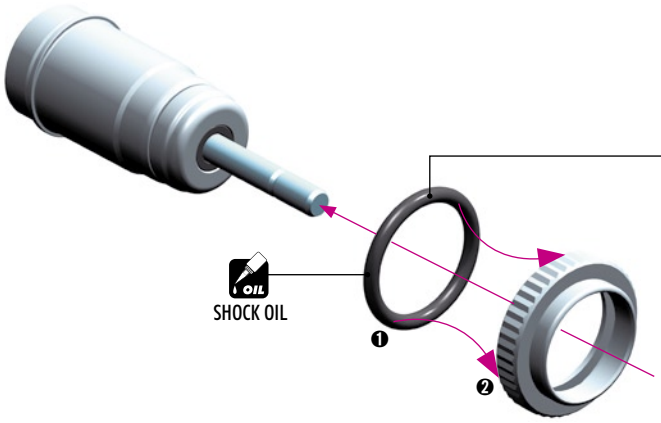
4x





970121
O 12.1x1.6

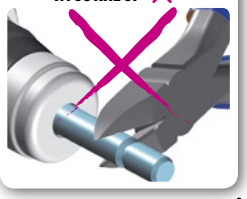
4x



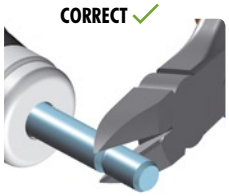
CUTAWAY VIEW

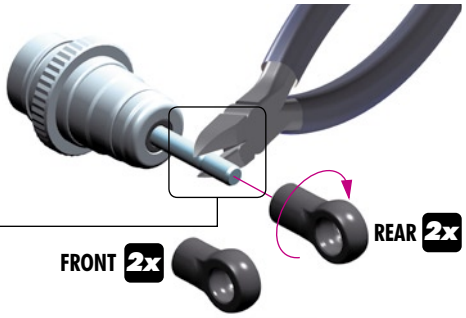
Be careful not to cross-thread the collar on the shock body.

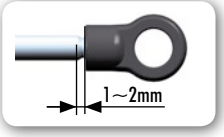
INCORRECT

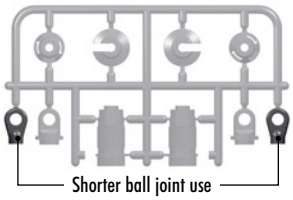


CORRECT







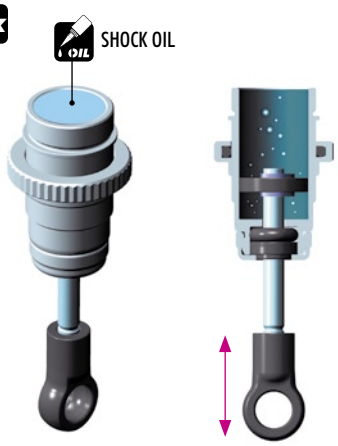


Shorter ball joint use only for **FRONT**

Longer ball joint (available separately, not in the part tree) use only for **REAR**

HINT: Pre-thread the ball joint using an M3 screw.
WARNING! Be careful not to pre-thread too far, since the ball joint may split or the plastic threads may strip out

4x



SHOCK FILLING

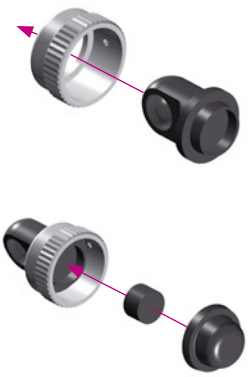
❶ Fully extend the piston rod so the piston is at the bottom of the shock body.

❷ Hold the shock upright and slightly overfill the shock body with shock oil.

❸ 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.

❹ 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.

4x



CUTAWAY VIEW

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

4x

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

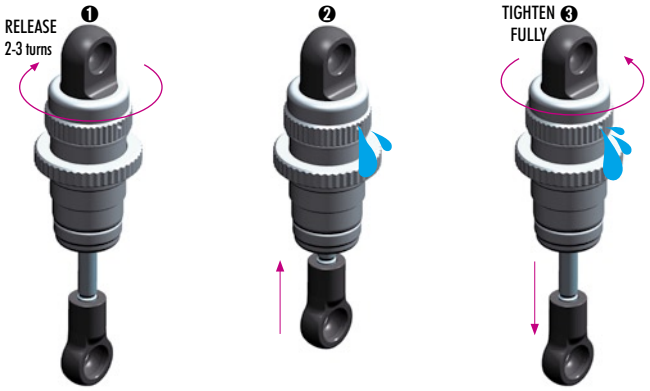
Fully tighten the cap and clean off any excess oil.

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.

9. SHOCK ABSORBERS

4x



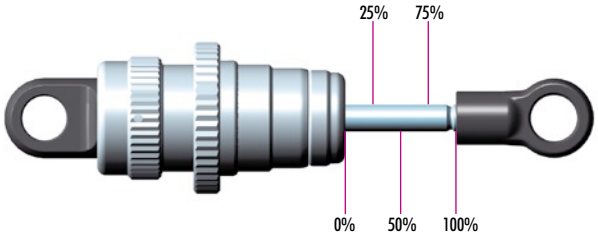
REBOUND ADJUSTMENT

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

❶ Release the shock cap by 2-3 turns.

❷ Push the shock shaft fully up. For the first time the extra oil will release through the hole in the alu cap-nut.

❸ 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

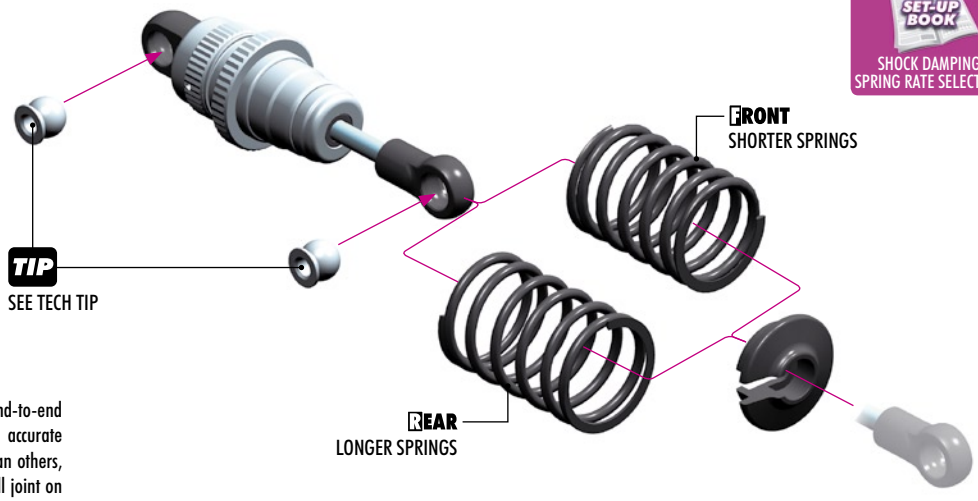
It is very important to push the shock shaft into the shock body slowly otherwise air can come into the shock body which would create bubles.

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.

4x

SET-UP BOOK
SHOCK DAMPING
SPRING RATE SELECTION



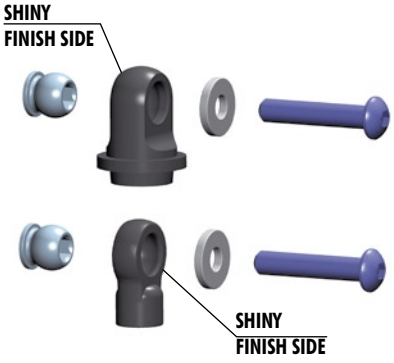
SHOCK LENGTH ADJUSTMENT:
It is VERY important that all shocks are equal length.
Fully extend the shock absorber and measure the end-to-end length; we recommend using digital calipers to give an accurate measurement. If a shock absorber is shorter or longer than others, adjust the shock length by tightening or loosening the ball joint on the shock rod.

TECH TIP

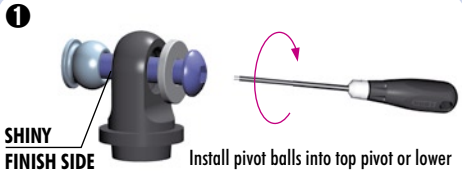
Follow this tech tip to properly install pivot balls into the top pivot and bottom ball joint.

Parts needed:
- M3 x 16 SH screw
- M3 shim

Note that the composite parts have two sides, noticeable around the pivot ball hole: one side has a shiny finish, the other side has a regular finish.

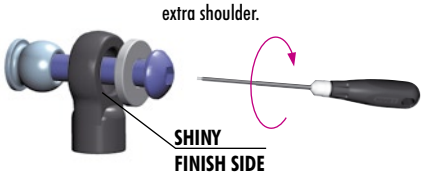


❶

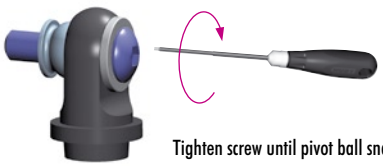


Install pivot balls into top pivot or lower ball joint as shown, on the proper sides.

Note that the lower pivot ball has an extra shoulder.



❷

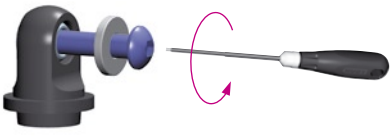


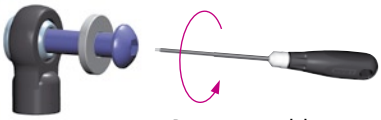
Tighten screw until pivot ball snaps into place

❸

Ensure pivot balls move freely

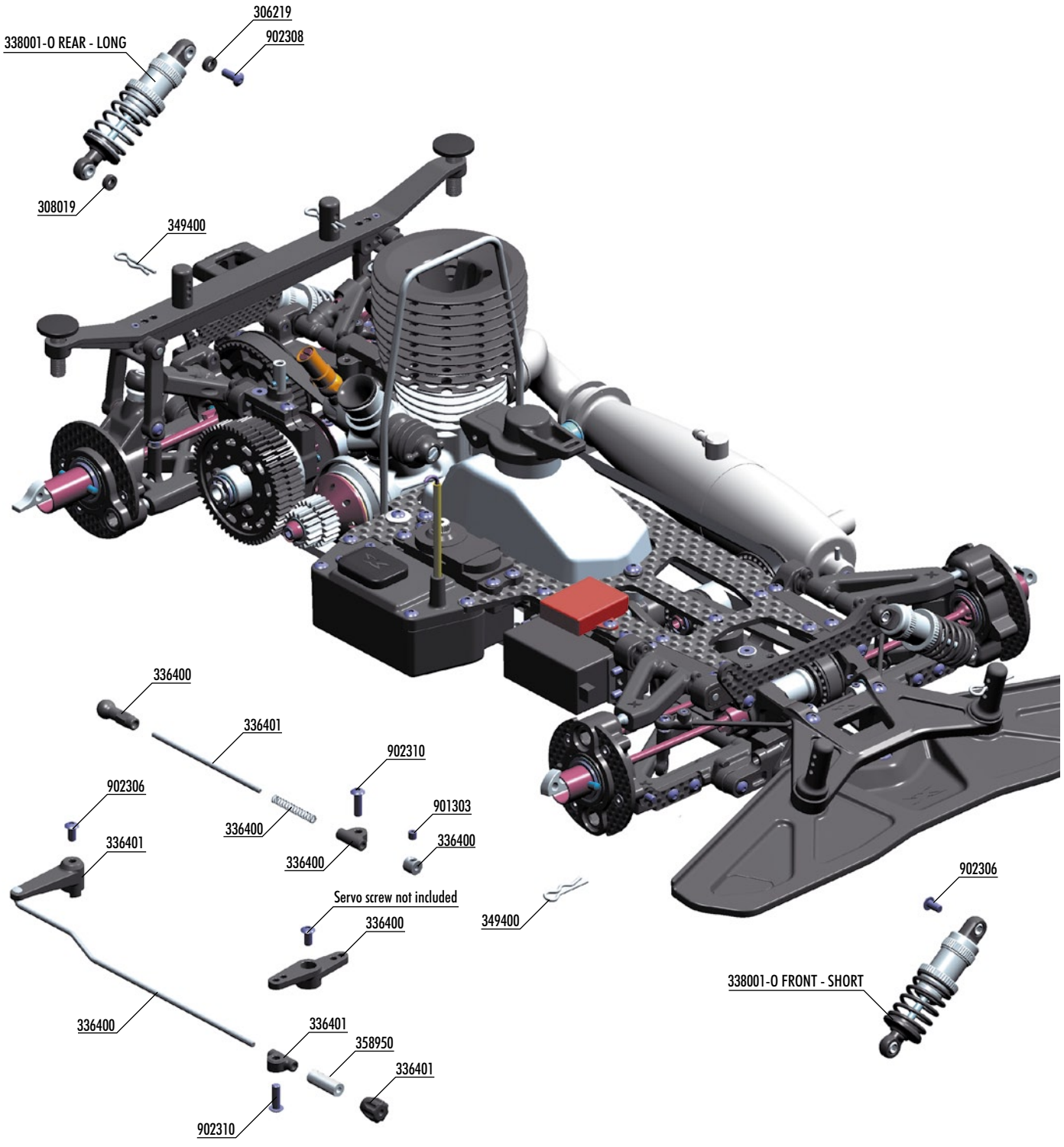
❹





Remove screw and shim

10. FINAL ASSEMBLY

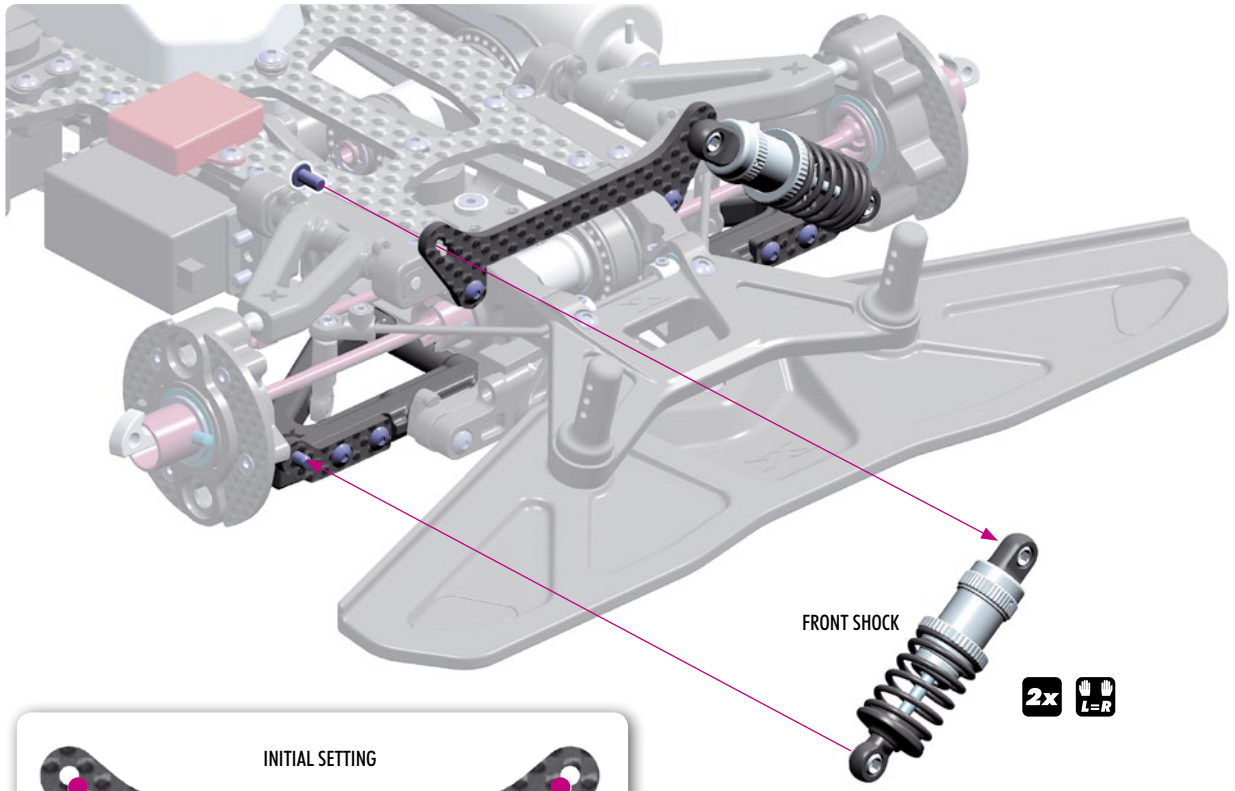


BAG 10

306219	COMPOSITE SET OF SERVO SHIMS (4)	901303	HEX SCREW SB M3x3 (10)
308019	COMPOSITE SET OF SHOCKS SHIMS & NUTS (2)	902306	HEX SCREW SH M3x6 (10)
336400	THROTTLE LINKAGE SET	902308	HEX SCREW SH M3x8 (10)
336401	BRAKE LINKAGE SET	902310	HEX SCREW SH M3x10 (10)
338001-O	ALU SHOCK ABSORBER-SET - ORANGE (2)		
349400	BODY CLIP (10)		
358950	SILICONE TUBING 1M (2.4 x 5.5MM)		

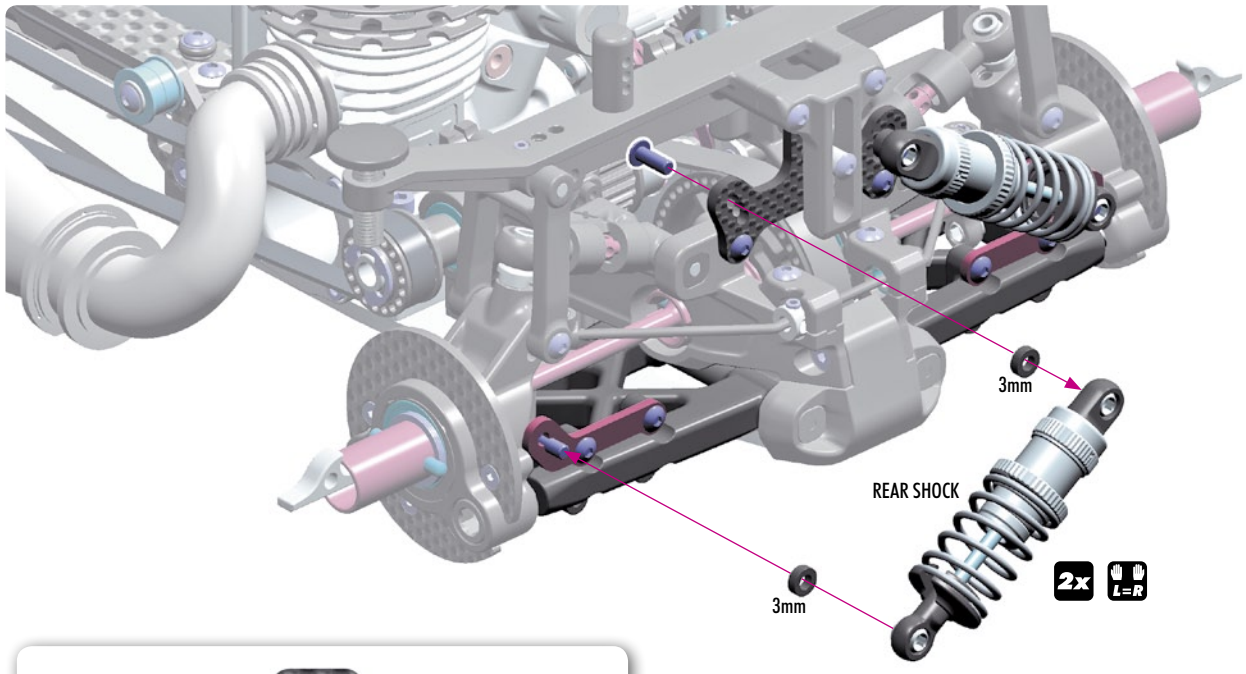
10. FINAL ASSEMBLY

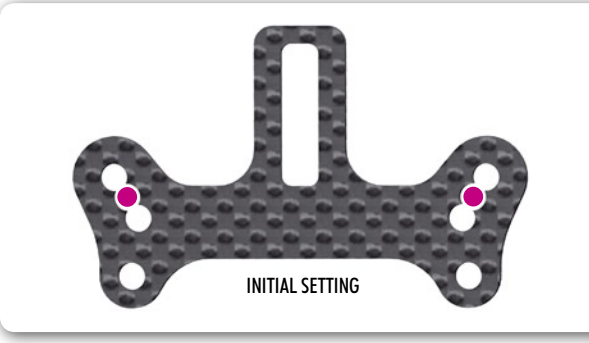
902306
SH M3x6



902308
SH M3x8

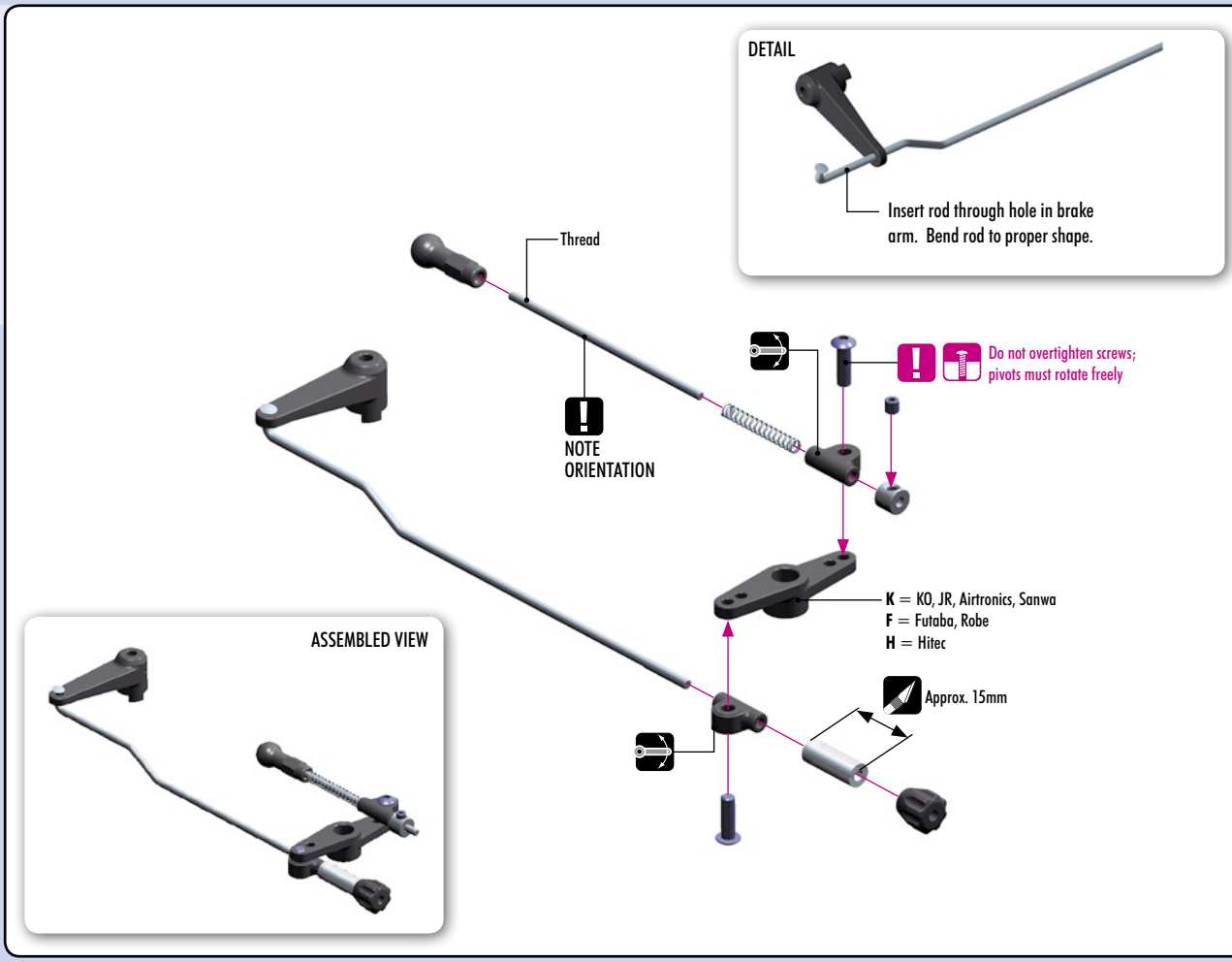
306219
SHIM 3x6x3



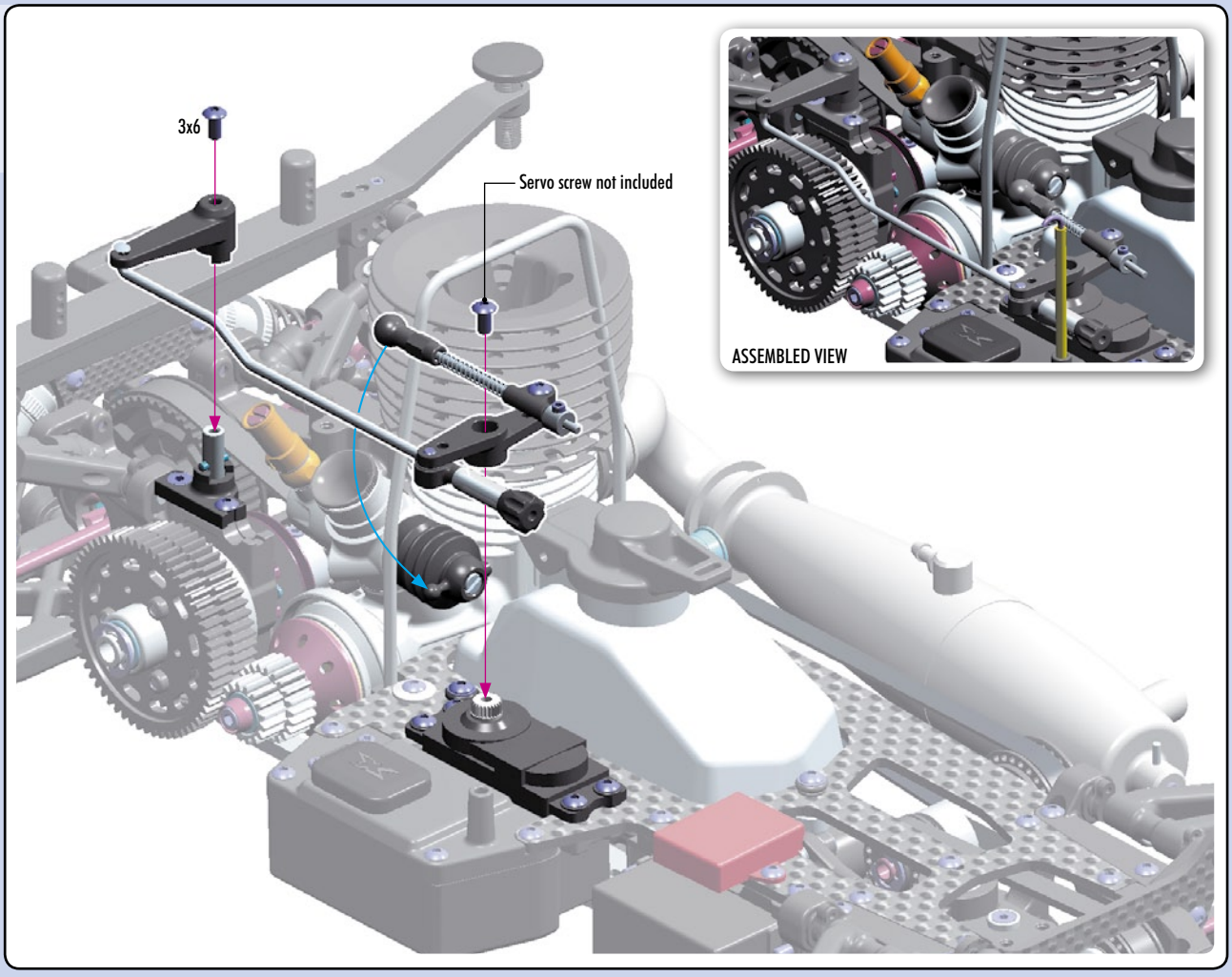



901303
SB M3x3

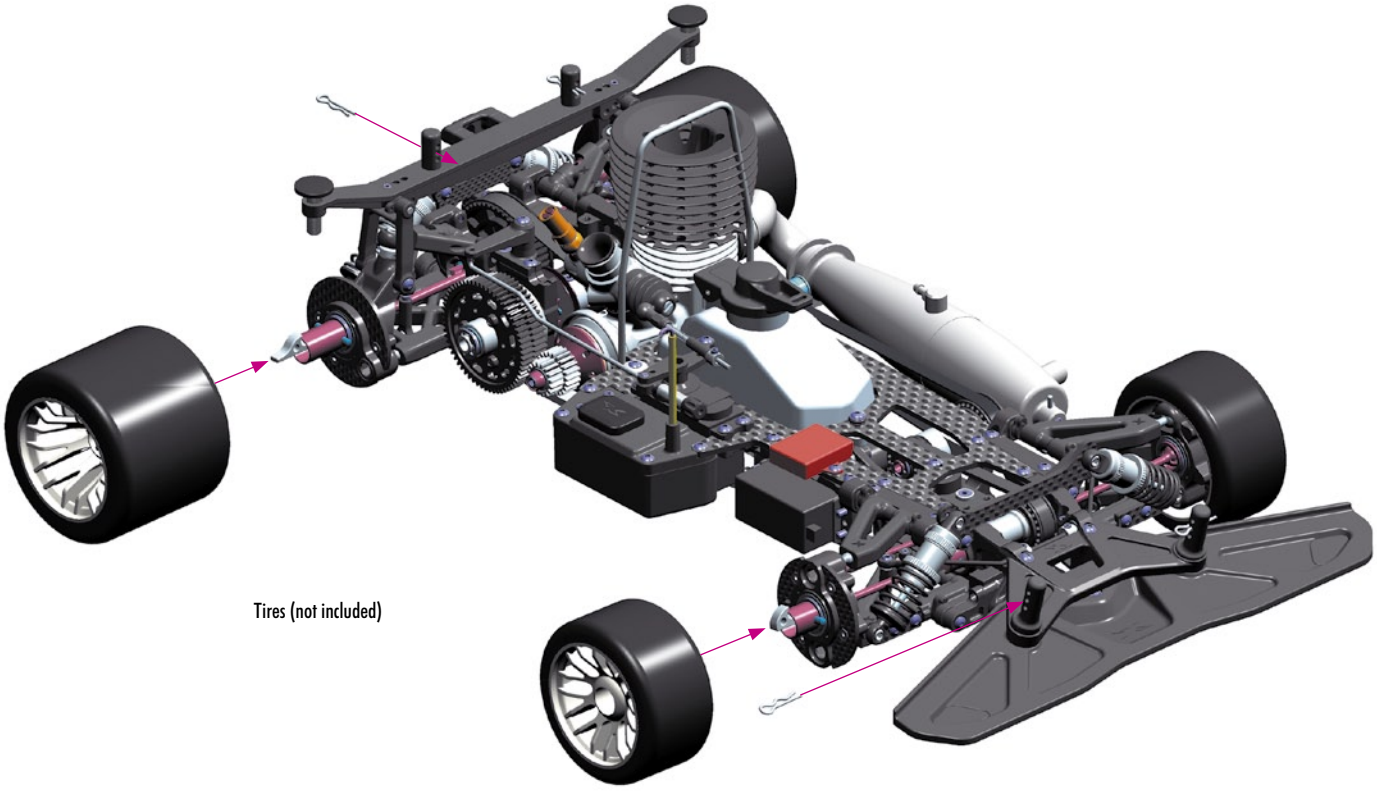

902310
SH M3x10




902306
SH M3x6



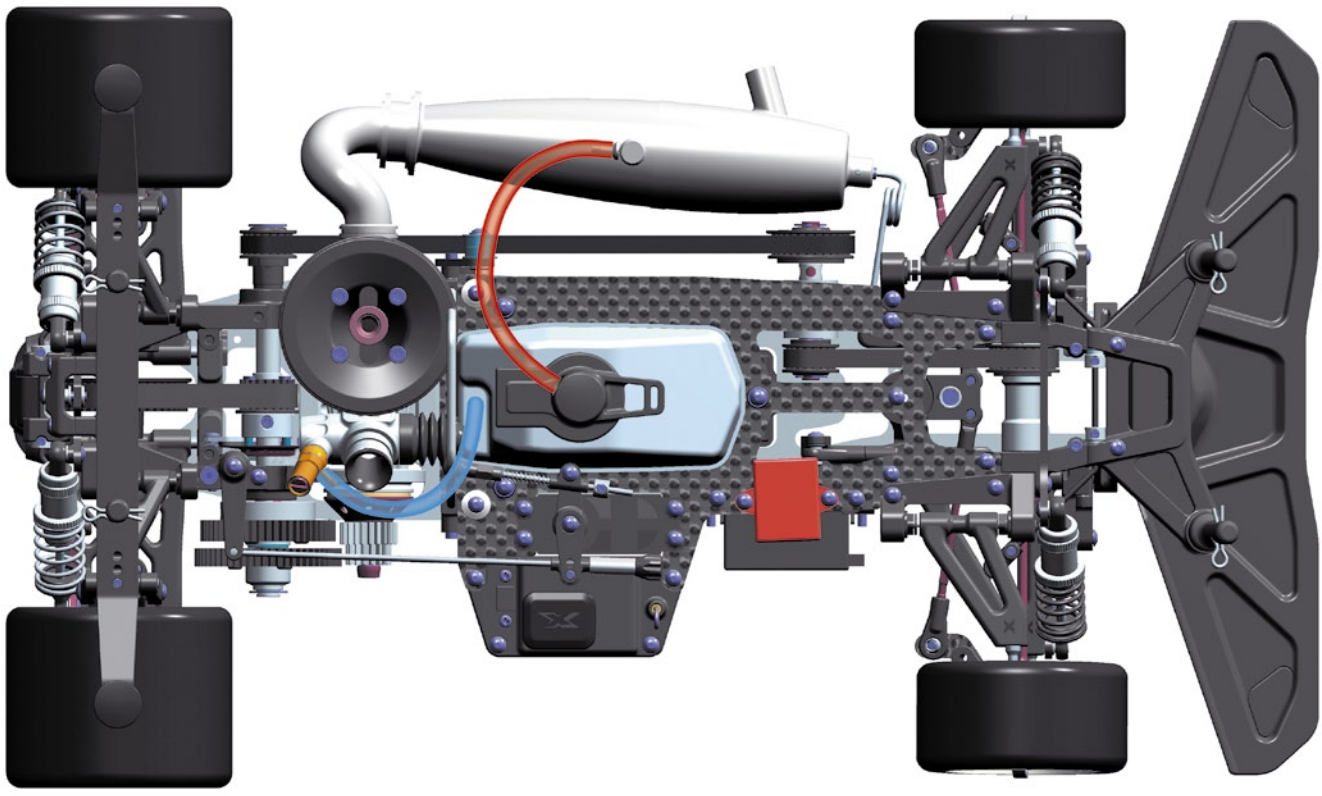
4x



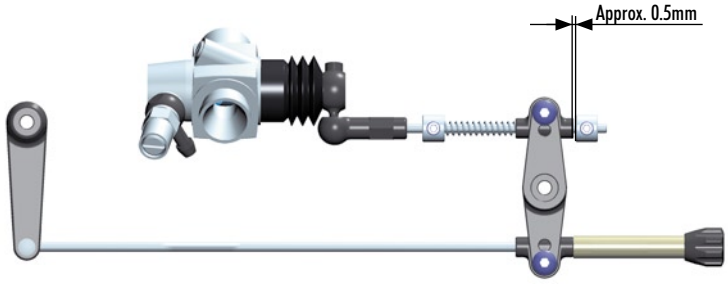
Tires (not included)

Cut 2 pieces of silicone tubing and install as follows: SILICONE TUBE MARKED AS
RED = FROM MUFFLER TO FUEL TANK CAP

SILICONE TUBE MARKED AS
BLUE = FROM FUEL TANK TO CARBURETOR



NEUTRAL (IDLE)

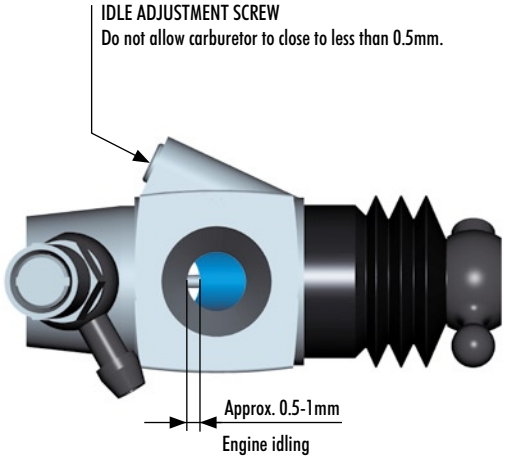


Turn on transmitter and receiver and set the throttle servo trim to the neutral position.

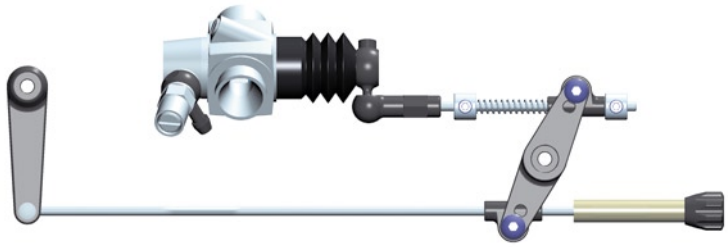
Adjust the idle adjustment screw on the carburetor to open approx. 0.5-1mm.

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.



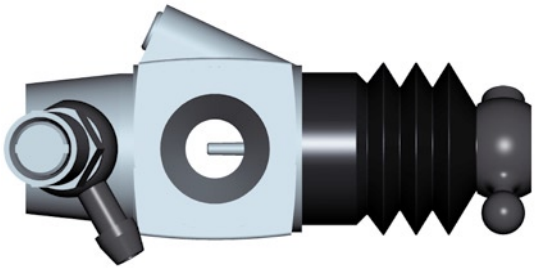
FULL THROTTLE



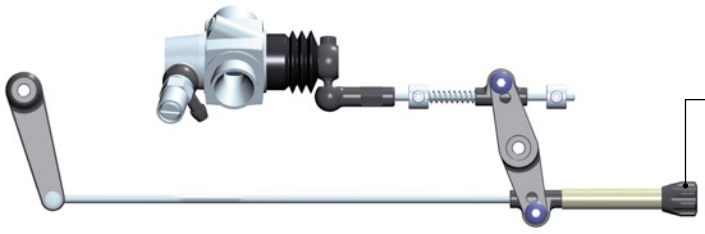
With the engine NOT RUNNING but the receiver turned ON, apply full throttle at the transmitter.

Adjust the transmitter's throttle servo high-end point so that the servo horn fully opens the carburetor 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



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 low-end point adjustment (or brake adjustment), use that to set the appropriate amount of throttle servo horn throw.