

XRAY NT11

1/10 LUXURY NITRO TOURING CAR

PURE RACING DESIGN

LUXURY QUALITY

HIGHEST PERFORMANCE

TOY TRUCKS



INSTRUCTION MANUAL

XRAY®

BEFORE YOU START

The NT1 is a high-competition, high-quality, 1/10-scale nitro touring 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 NT1, YOU MUST read through all of the operating instructions and instruction manual and fully understand them to get

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

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 NT1 is not what you wanted or expected, do not continue any further. Your hobby dealer cannot accept your NT1 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.

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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

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

- 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.

- 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 exceed 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 additions that may arise from the use of this product.

All rights reserved.

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!

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

<p>Part bags used</p>	<p>Assemble in the specified order</p>	<p>Assemble left and right sides the same way</p>	<p>Pay attention here</p>	<p>Assemble as many times as specified (here twice)</p>	<p>Apply thread lock</p>	<p>Apply cyanoacrylate (CA) glue</p>
<p>Number of teeth</p>	<p>Apply oil (may indicate specific type)</p>	<p>Apply grease</p>	<p>Follow tip here</p>	<p>Ensure smooth non-binding movement</p>	<p>Cut off remaining material</p>	<p>Follow Set-Up Book</p>

TOOLS & EQUIPMENT INCLUDED

<p>XRAY Silicone Shock</p>	<p>XRAY Silicone Diff Oil</p>	<p>Turnbuckle Tool</p>
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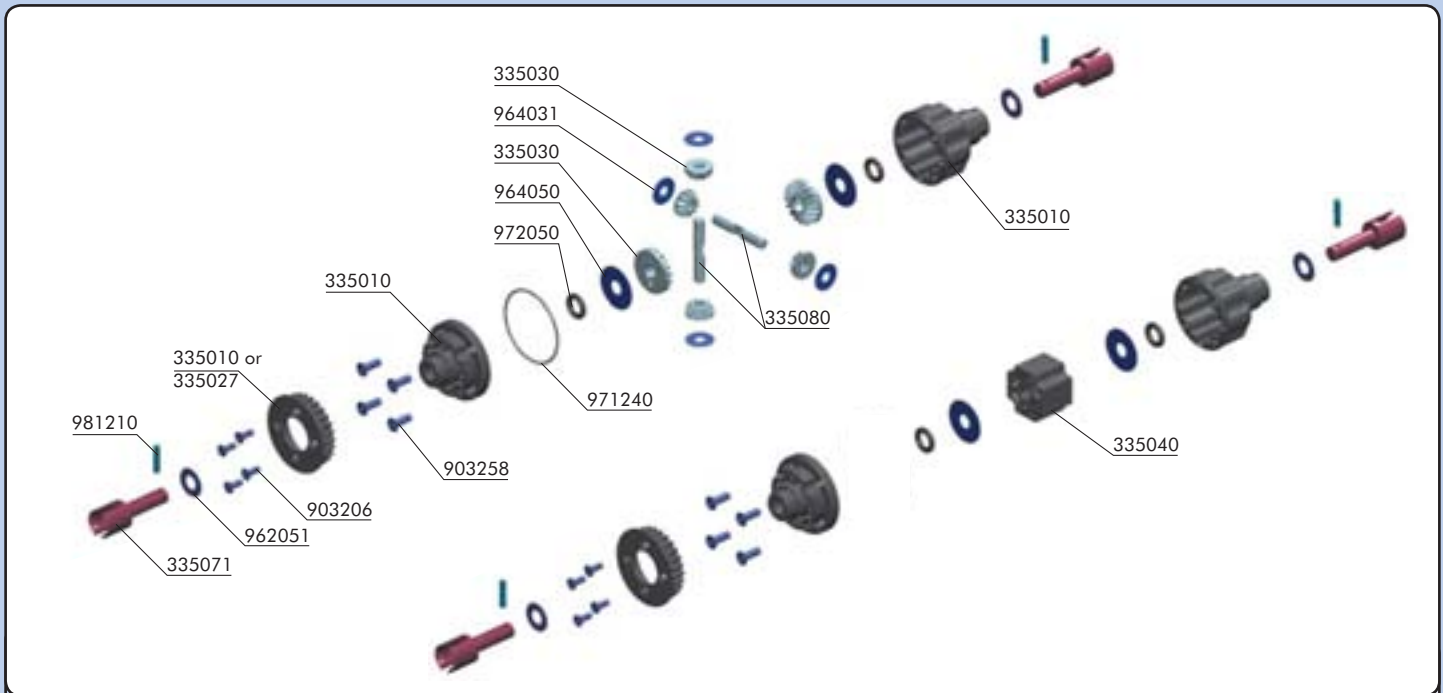
TOOLS REQUIRED

<p>HUDY TOOLS</p> <p>Phillips 3.5mm</p>	<p>Allen Ball 2.5mm</p>	<p>Shockabsorber Assembly Tool (HUDY #183010)</p>	<p>Wrench Glowplug/Clutchnut (HUDY #107581)</p>	<p>Reamer (HUDY #107600)</p>
<p>Allen 3.0 / 2.5 / 2.0 / 1.5mm</p>	<p>Socket 7.0mm</p>	<p>Pliers</p>	<p>Scissors</p>	<p>Side Cutters</p>
<p>Flywheel Tool (HUDY #182010)</p>	<p>Pinion Tools (HUDY #182001 & 182002)</p>	<p>Hobby Knife</p>		

EQUIPMENT REQUIRED

<p>Transmitter</p>	<p>Receiver & Personal Transponder</p>	<p>Steering & Throttle Servos</p>	<p>Engine</p>	<p>Starter Box & Battery Pack</p>	<p>Glowplug Igniter</p>
<p>Manifold & Exhaust</p>	<p>Lexan Paint</p>	<p>#309580 One-Way Lube</p>	<p>Battery Charger</p>	<p>Tape</p>	<p>Tires</p>
<p>200mm Bodysell</p>	<p>#309500 Grease</p>	<p>Threadlock & CA Glue</p>	<p>Air Filter & Oil</p>	<p>Tire Truer (HUDY #102003)</p>	
<p>Model R/C Car Fuel (nitromethane)</p>	<p>Receiver Battery Pack</p>	<p>Transmitter Batteries</p>	<p>Transmitter</p>	<p>Receiver</p>	

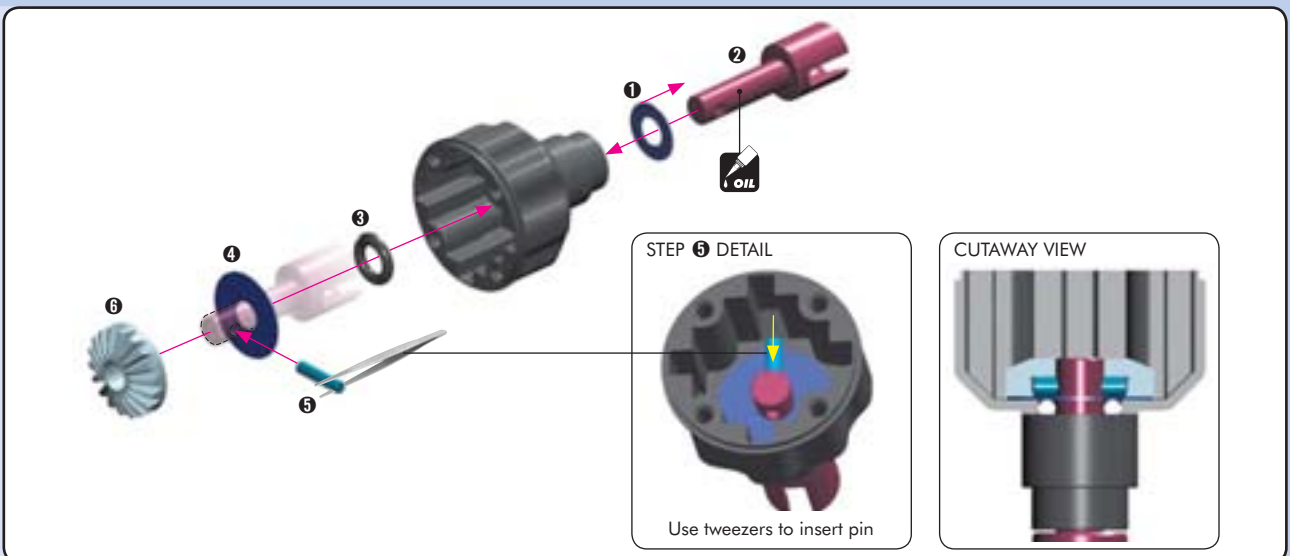
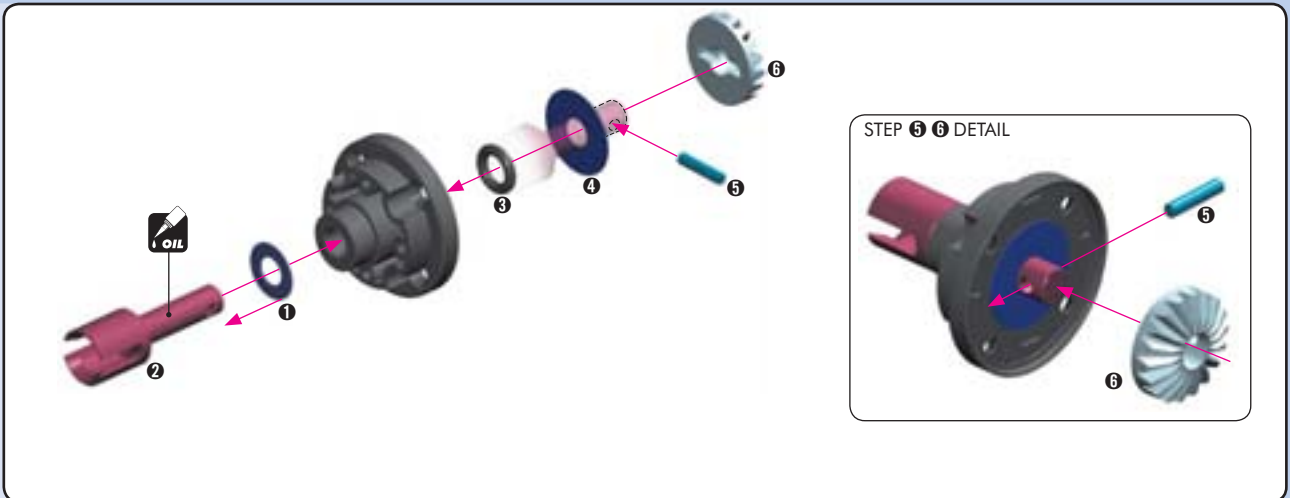
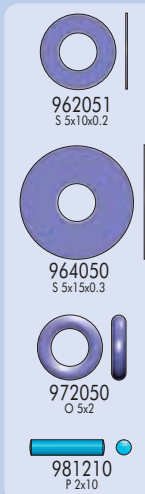
1. FRONT GEAR DIFFERENTIAL & SOLID AXLE



BAG



33 5000	FRONT GEAR DIFFERENTIAL - SET	96 2051	WASHER S 5x10x0.2 (10)
33 5010	COMPOSITE FRONT DIFF. CASE, COVER & 27T BELT PULLEY	96 4031	WASHER S 3.5x10x0.2 (10)
33 5027	COMPOSITE TIMING BELT PULLEY 27T	96 4050	WASHER S 5x15x0.3 (10)
33 5030	DIFF BEVEL & SATELLITE GEARS (2+4)	97 1240	SILICONE O-RING 24x0.7 (10)
33 5040	COMPOSITE SOLID AXLE ADAPTER	97 2050	SILICONE O-RING 5x2 (10)
33 5071	DIFF OUTDRIVE ADAPTER - LONG - HUDY SPRING STEEL™ (2)	98 1210	PIN 2x10 (10)
33 5080	DIFF PIN (2)		
90 3206	HEX SCREW SFH M2x6 (10)		
90 3258	HEX SCREW SFH M2.5x8 (10)		



FRONT GEAR DIFFERENTIAL & SOLID AXLE



964031
5.3x1.0x0.2



NOTE TIP
Fill differential up to the top of the diff pins. DO NOT fill the diff to the top of the housing.
Remove the nozzle of the bottle to allow easy filling of the diff.



903258
SFH M2.5x8

!
After disassembling the differential the large O-ring may have an increased size and may be more difficult to re-install. We recommend either replacing the O-ring or carefully inserting the O-ring in the diff cover.

Tighten the screws equally but do NOT tighten them completely

Finish tightening in this order



903206
SFH M2x6



962051
5.5x1.0x0.2



964050
5.5x1.5x0.3



972050
O 5x2



903258
SFH M2.5x8



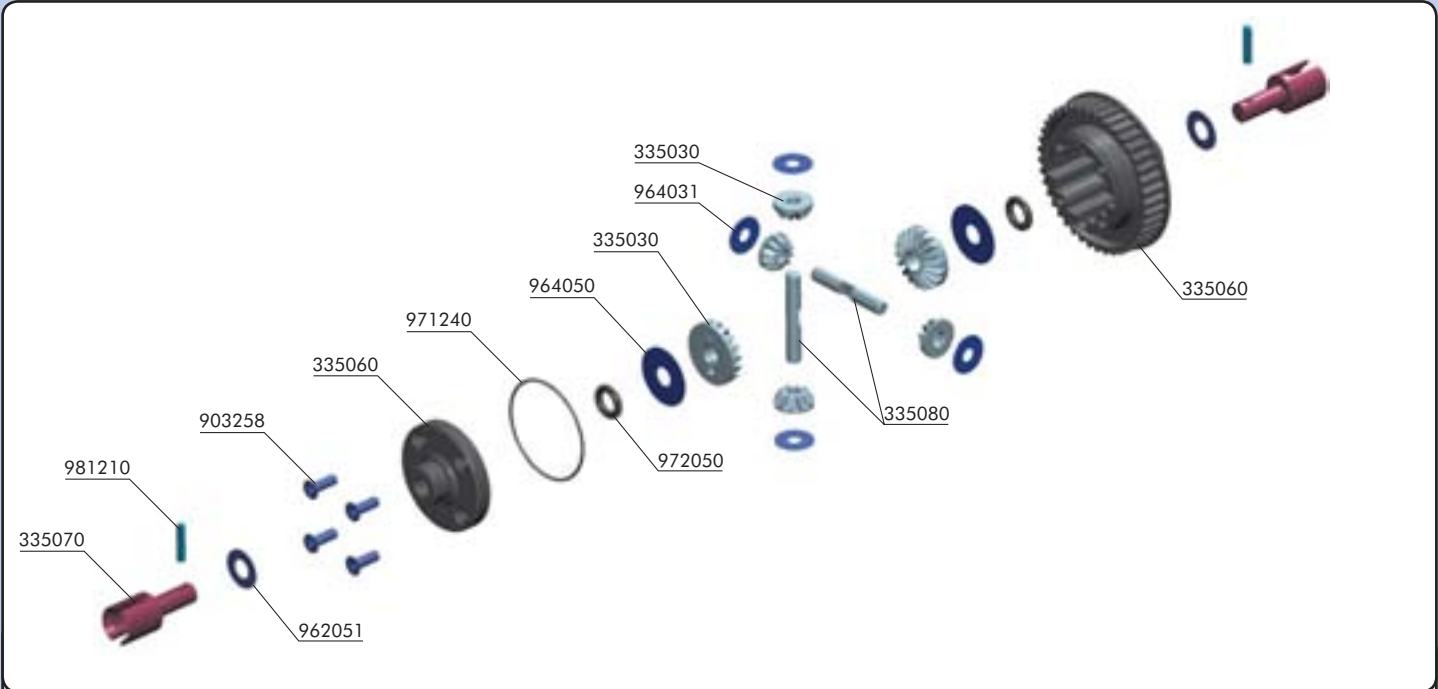
981210
P 2x10

The front diff can be easily changed into a solid axle. Remove the internal gears and replace with the solid axle locking body.

SOLID AXLE

NOTE ORIENTATION

1. REAR GEAR DIFFERENTIAL

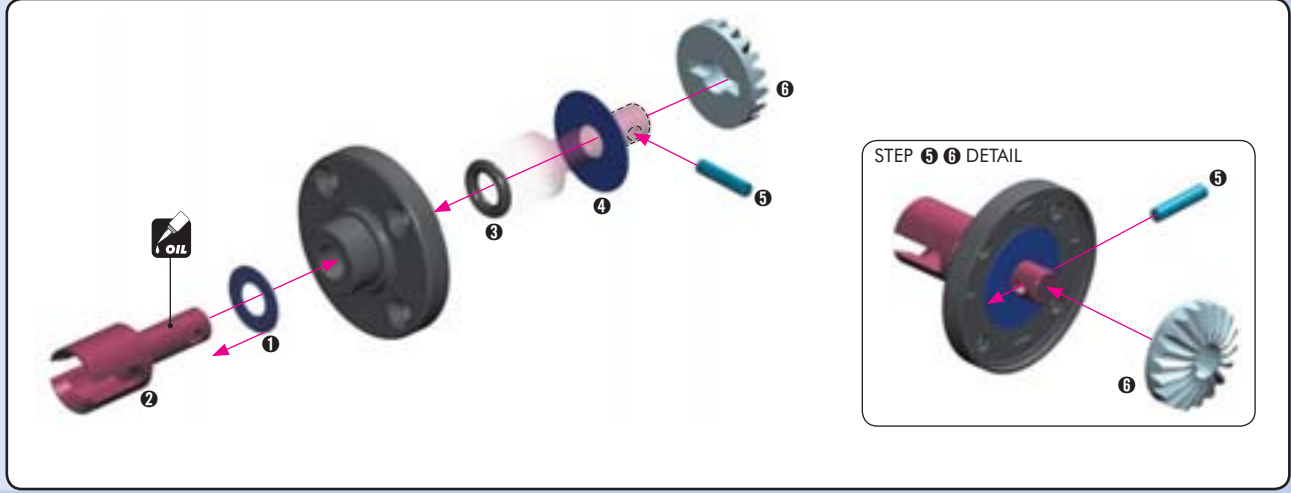


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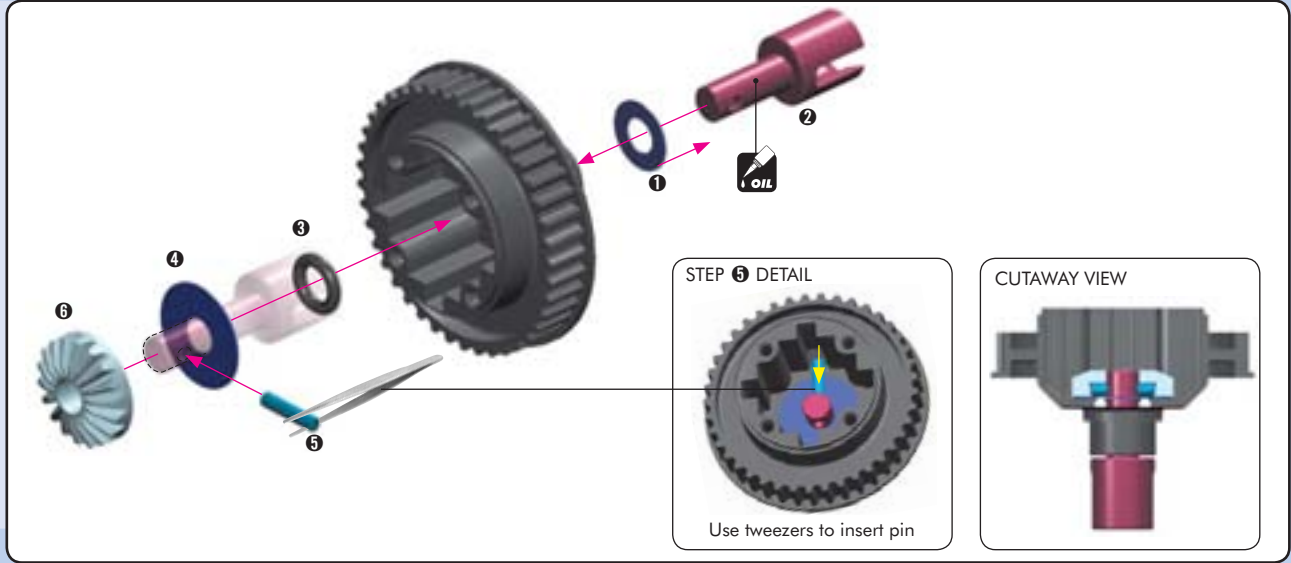
- 33 5030 DIFF BEVEL & SATELLITE GEARS (2+4)
- 33 5050 REAR GEAR DIFFERENTIAL - SET
- 33 5060 COMPOSITE REAR DIFF. CASE & COVER
- 33 5070 DIFF OUTDRIVE ADAPTER - HUDY SPRING STEEL™ (2)
- 33 5080 DIFF PIN (2)
- 90 3258 HEX SCREW SFH M2.5x8 (10)
- 96 2051 WASHER S 5x10x0.2 (10)
- 96 4031 WASHER S 3.5x10x0.2 (10)
- 96 4050 WASHER S 5x15x0.3 (10)

- 97 1240 SILICONE O-RING 24x0.7 (10)
- 97 2050 SILICONE O-RING 5x2 (10)
- 98 1210 PIN 2x10 (10)

- 962051
S 5x10x0.2
- 964050
S 5x15x0.3
- 972050
O 5x2
- 981210
P 2x10



- 962051
S 5x10x0.2
- 964050
S 5x15x0.3
- 972050
O 5x2
- 981210
P 2x10



REAR GEAR DIFFERENTIAL



964031
3.5x10x0.2



GEAR DIFF ADJUSTMENT

TIP
Fill differential up to the top of the diff pins. DO NOT fill the diff to the top of the housing.
Remove the nozzle of the bottle to allow easy filling of the diff.

971240
O 24x0.7

!
After disassembling the differential the large O-ring may have an increased size and may be more difficult to re-install. We recommend either replacing the O-ring or carefully inserting the O-ring in the diff cover.

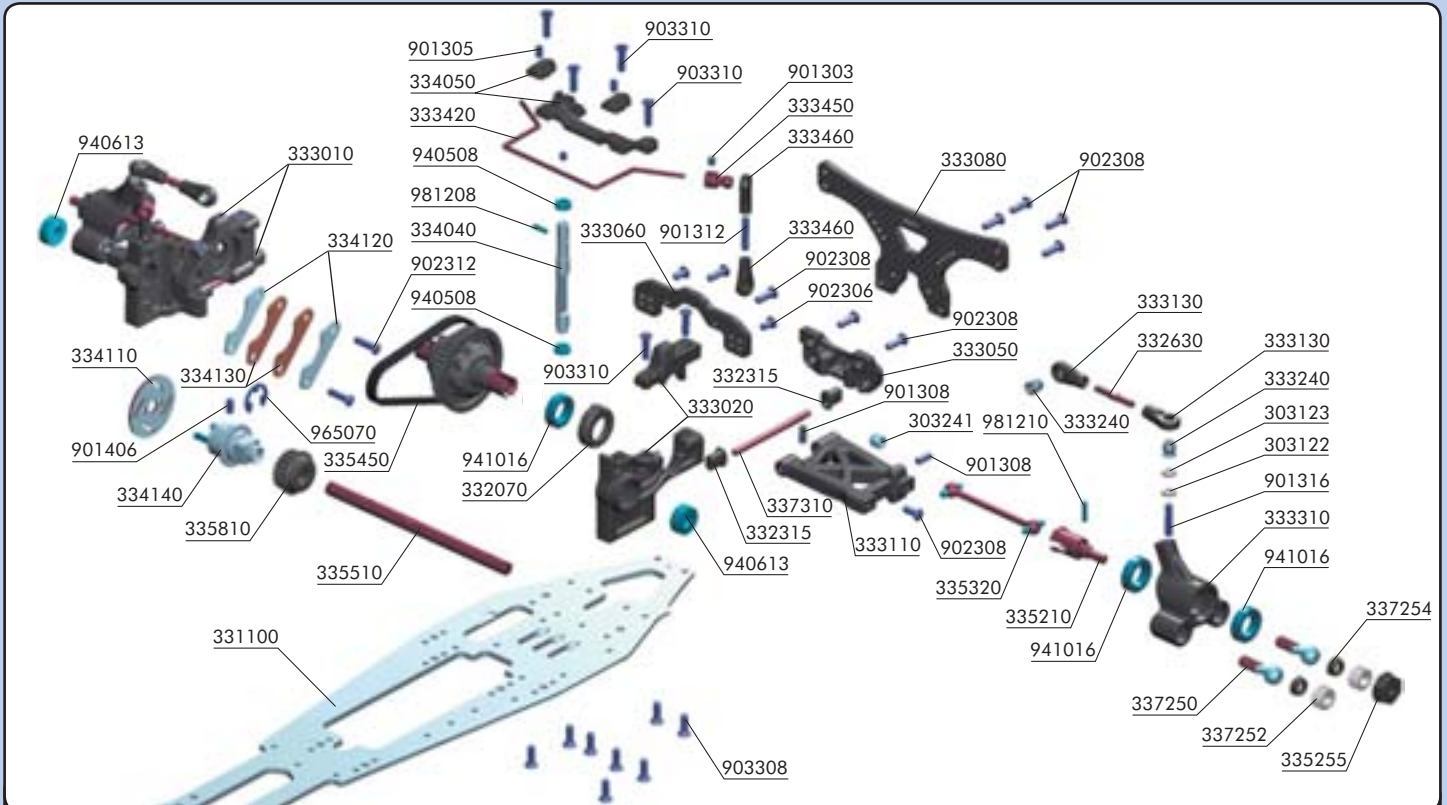


903258
SFH M2.5x8

Tighten the screws equally but do NOT tighten them completely

Finish tightening in this order

2. REAR SUSPENSION



BAG

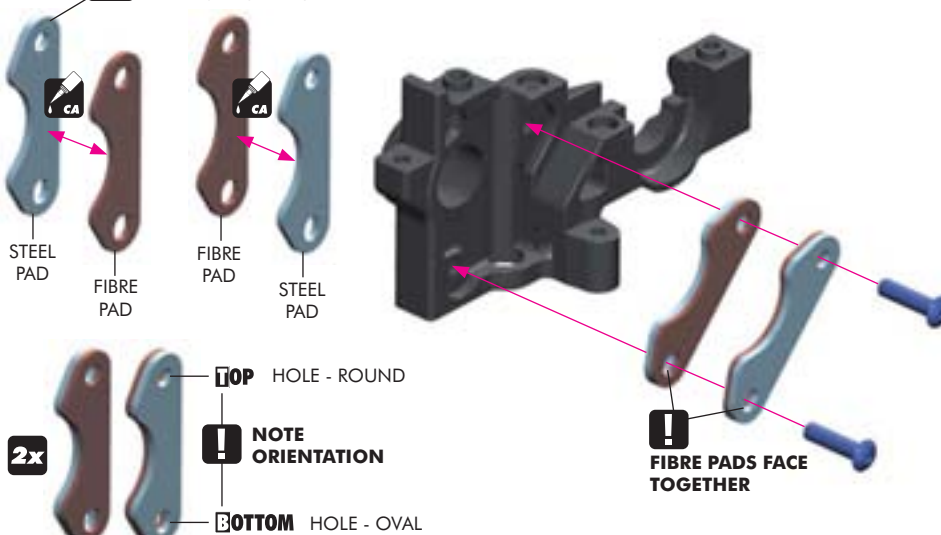
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30 3122	ALU SHIM 3x6x1.0MM (10)	33 5320	DRIVE SHAFT - 60 MM - HUDY SPRING STEEL™
30 3123	ALU SHIM 3x6x2.0MM (10)	33 5450	PUR REINFORCED DRIVE BELT REAR 3 x 177 MM
30 3241	BALL UNIVERSAL 5.8 MM HEX (4)	33 5510	2-SPEED SHAFT
33 1100	CHASSIS 3MM - CNC MACHINED - SWISS 7075 T6	33 5810	COMPOSITE BELT PULLEY 20T - 2-SPEED-CENTER
33 2070	COMPOSITE ADJUST. BALL-BEARING HUB (4)	33 7250	STEEL PIVOT BALL 8.4 MM (2)
33 2315	COMPOSITE SUSP. ECCENTRIC BUSHING (4)	33 7252	ALU ADJUSTING NUT M10x1 (4)
33 2630	ADJ. TURNBUCKLE L/R 25 MM - HUDY SPRING STEEL™ (2)	33 7254	COMPOSITE BALL CUP 8.4 MM (8)
33 3010	COMPOSITE LOWER & UPPER BULKHEAD REAR RIGHT	33 7310	COMPOSITE SUSP. ECCENTRIC BUSHING (4)
33 3020	COMPOSITE LOWER & UPPER BULKHEAD REAR RIGHT	90 1303	HEX SCREW SB M3x3 (10)
33 3050	COMPOSITE REAR BULKHEAD COVER	90 1305	HEX SCREW SB M3x5 (10)
33 3060	GRAPHITE ROLL-CENTER BRIDGE	90 1308	HEX SCREW SB M3x8 (10)
33 3080	GRAPHITE SHOCK TOWER REAR 3 MM	90 1312	HEX SCREW SB M3x12 (10)
33 3110	COMPOSITE SUSPENSION ARM REAR LOWER	90 1316	HEX SCREW SB M3x16 (10)
33 3130	COMPOSITE REAR UPPER CAMBER LINK BALL JOINT 5.8 MM (4)	90 1406	HEX SCREW SB M4x6 (10)
33 3240	BALL UNIVERSAL 5.8 MM HEX (4)	90 2306	HEX SCREW SH M3x6 (10)
33 3310	COMPOSITE UPRIGHT REAR	90 2308	HEX SCREW SH M3x8 (10)
33 3420	ANTI-ROLL BAR REAR 2.0 MM	90 2312	HEX SCREW SH M3x12 (10)
33 3450	ANTI-ROLL BAR BALL JOINT 5.8 MM (2)	90 3308	HEX SCREW SFH M3x8 (10)
33 3460	COMPOSITE ANTI-ROLL BAR BALL JOINT 5.8 MM (4)	90 3310	HEX SCREW SFH M3x10 (10)
33 4040	BRAKE CAM POST - ALU 7075 T6	94 0508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)
33 4050	COMPOSITE BRAKE UPPER PLATE + COMPOSITE CLAMPS	94 0613	HIGH-SPEED BALL-BEARING 6x13x5 RUBBER SEALED (2)
33 4110	VENTILATED BRAKE DISK - LASER CUT - PRECISION-GROUND	94 1016	HIGH-SPEED BALL-BEARING 10x16x4 RUBBER SEALED (2)
33 4120	HARDENED STEEL BRAKE PAD - LASER CUT (2)	96 5070	E-CLIP 7 (10)
33 4130	BRAKE PAD FERODO (2)	98 1208	PIN 2x8 (10)
33 4140	BRAKE DISK ADAPTER - ALU 7075 T6	98 1210	PIN 2x10 (10)
33 5210	DRIVE AXLE - HUDY SPRING STEEL™		
33 5255	COMPOSITE WHEEL HUB (2)		



902312
SH M3x12

TIP Roughen steel plates with sandpaper before gluing fibre pads



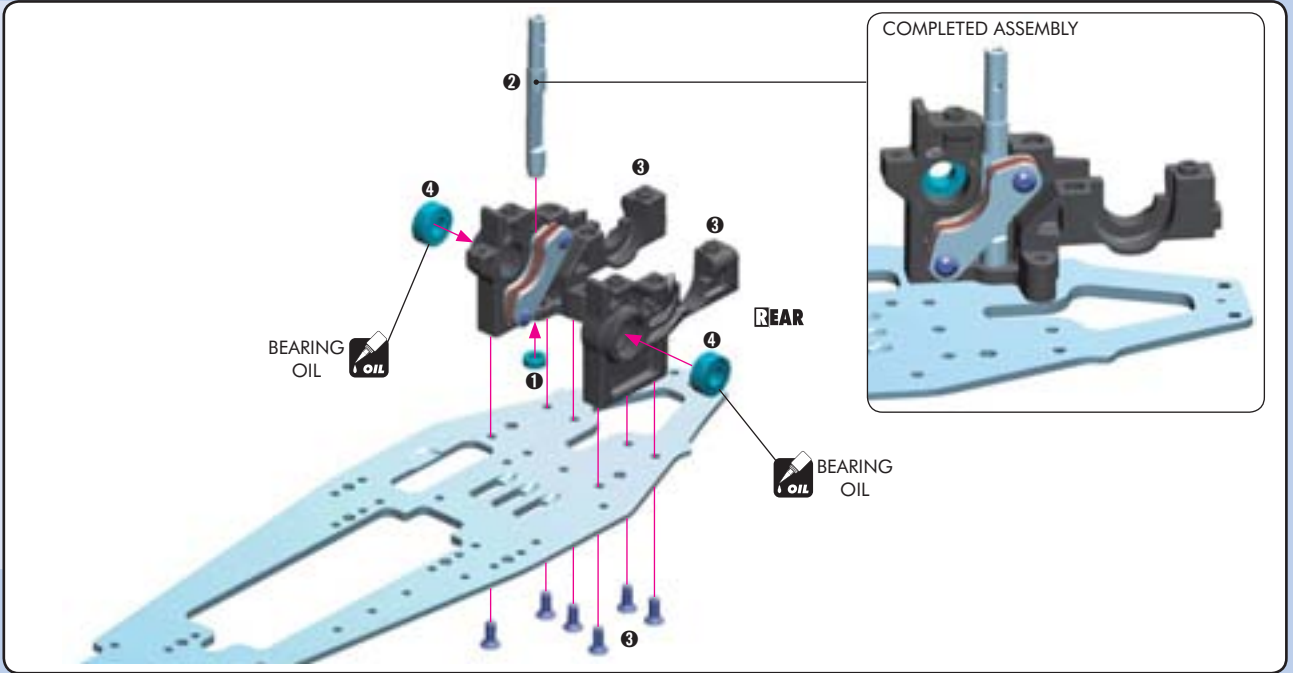
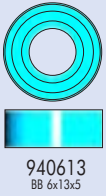
DETAIL

! Tighten both screws until ends are flush with outer edge of bulkhead

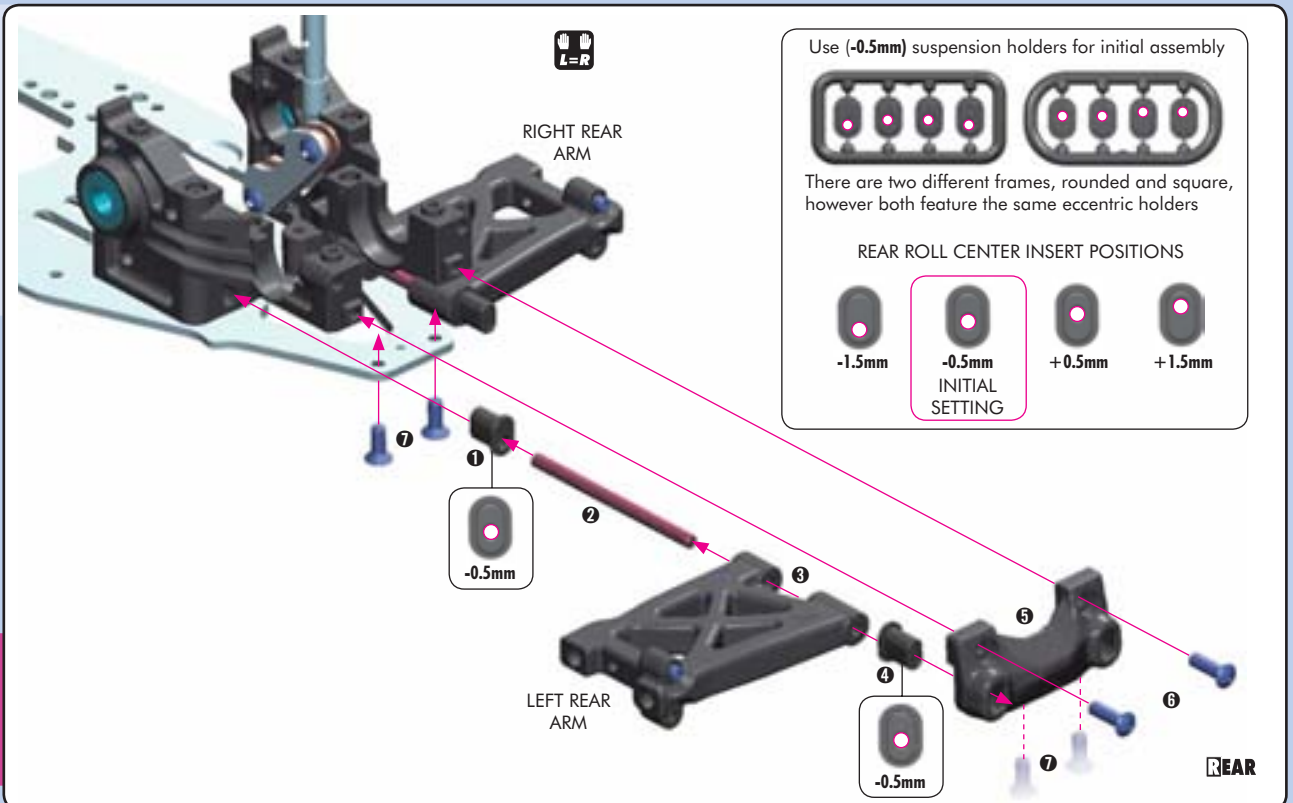
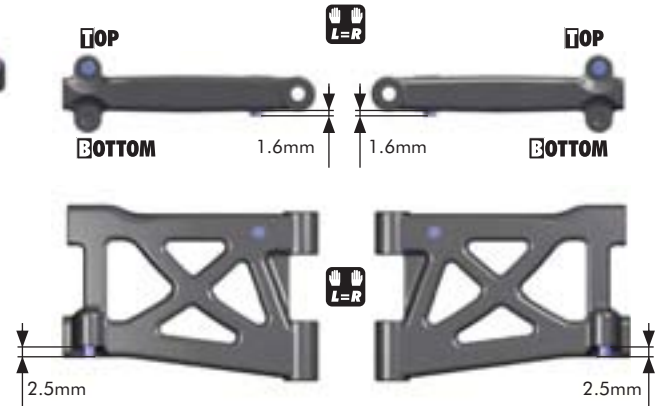
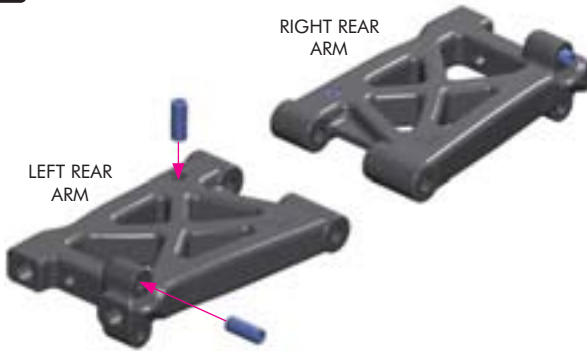


!

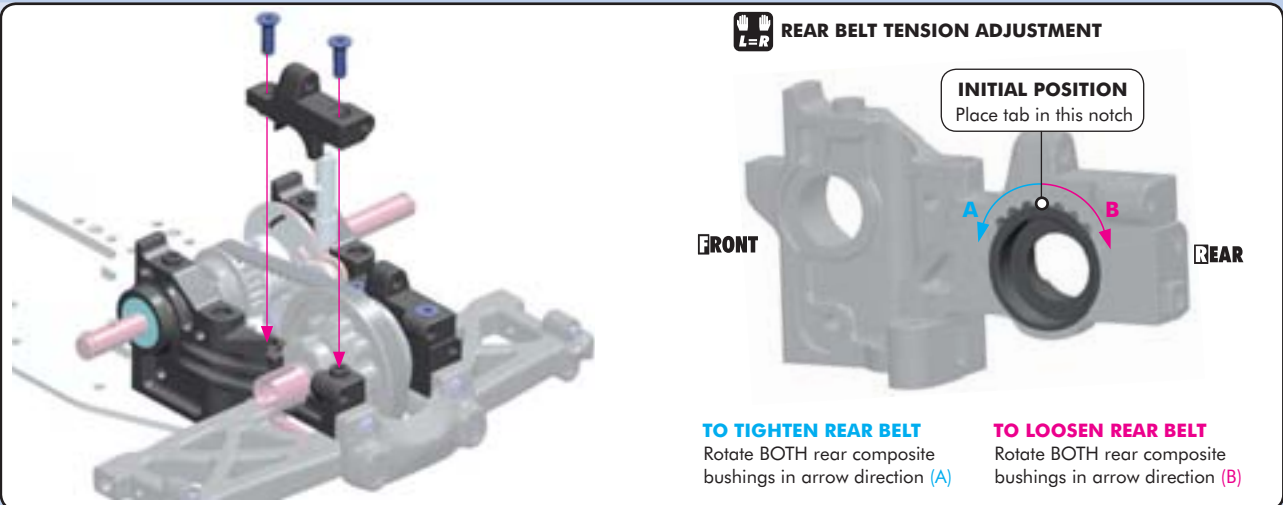
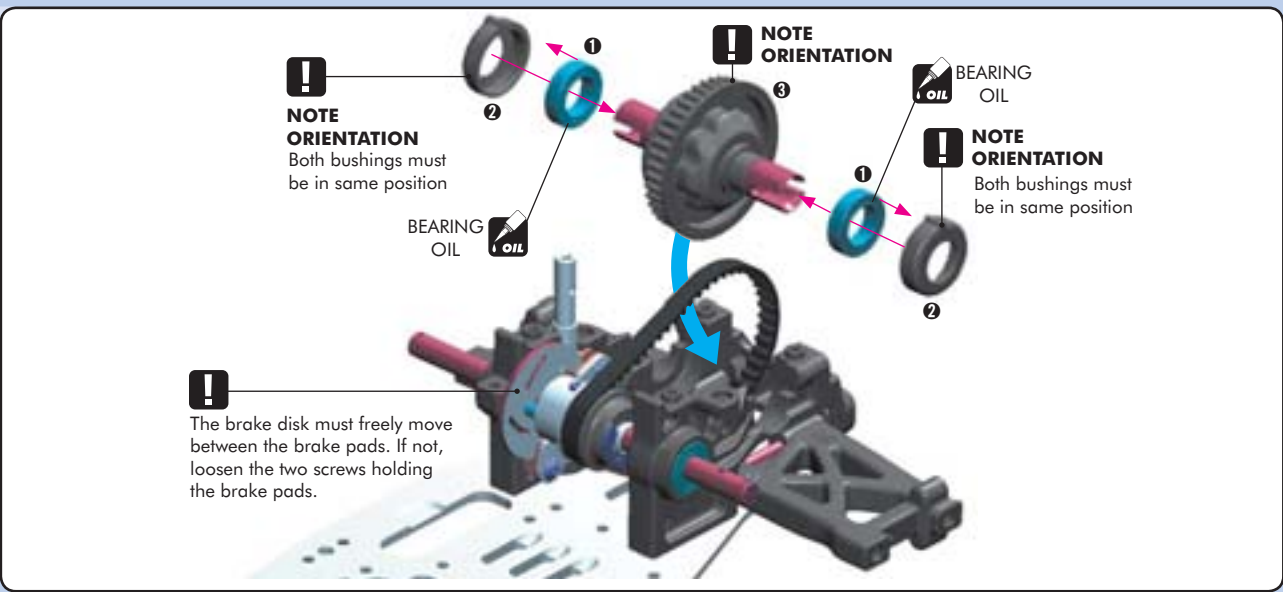
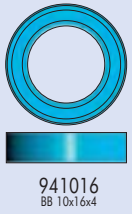
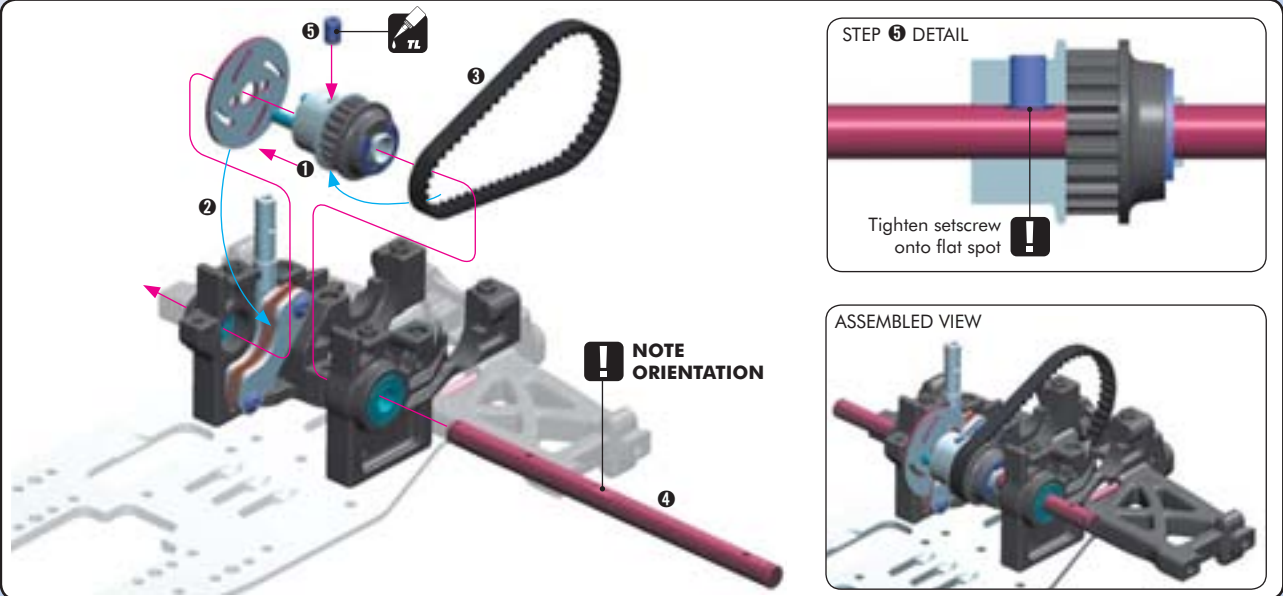
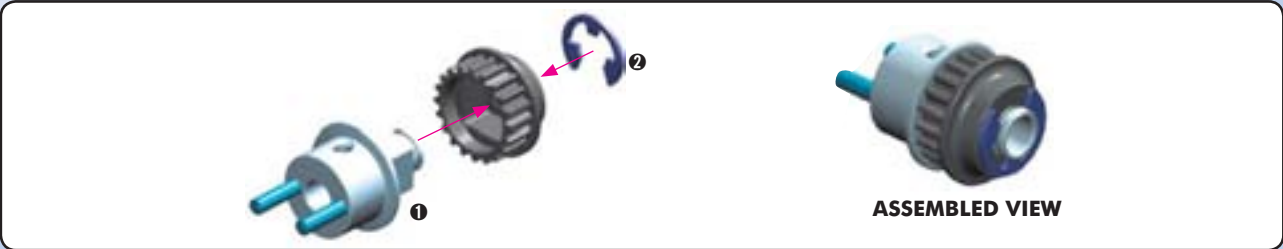
REAR SUSPENSION



REAR ARMS



REAR SUSPENSION



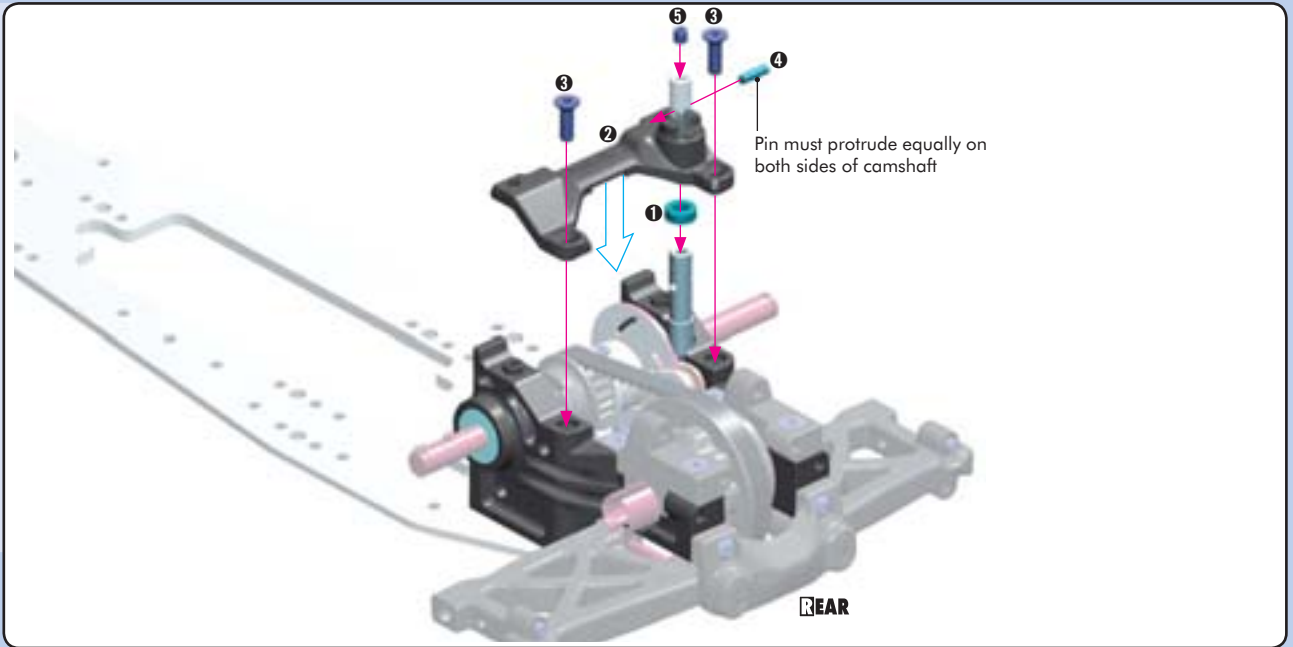
REAR SUSPENSION

901303
SB M3x3

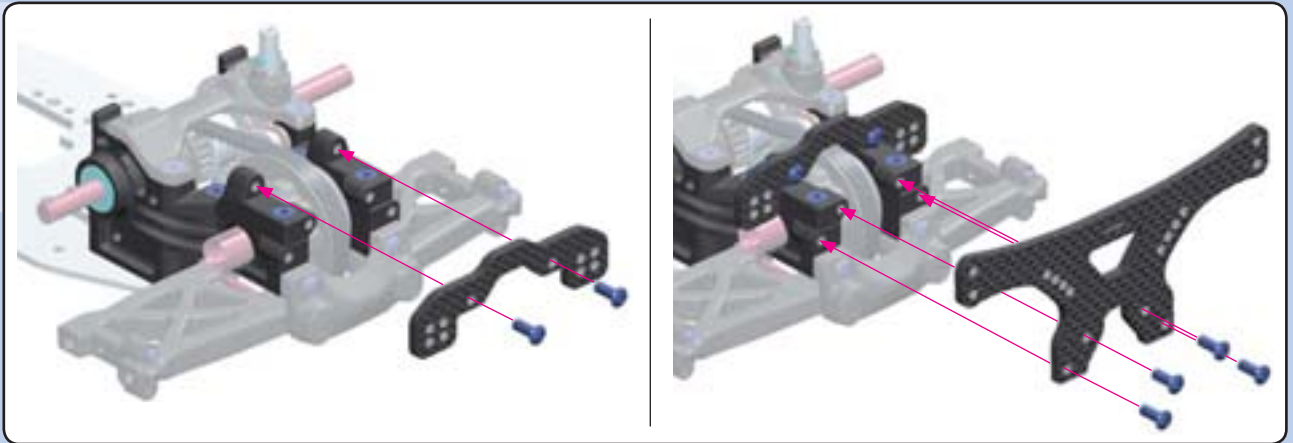
903310
SFH M3x10

940508
BB 5x8x2.5

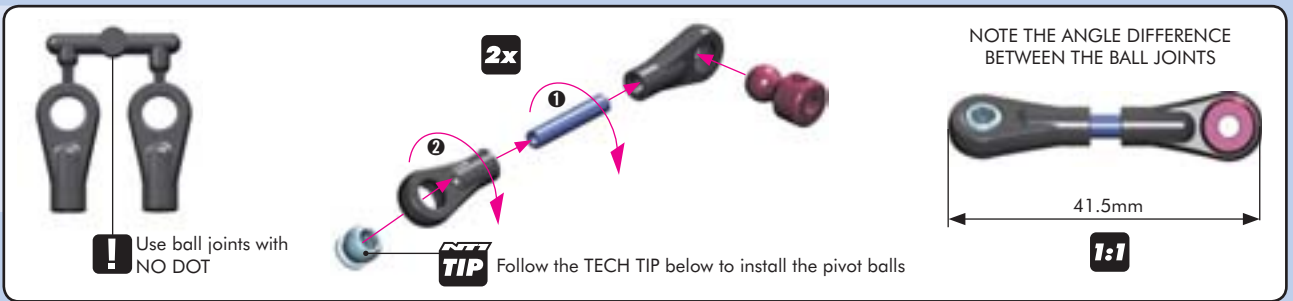
981208
P 2x8



902308
SH M3x8



901312
SB M3x12

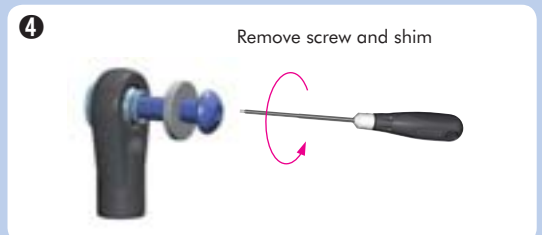


TECH TIP

Follow this tech tip to install pivot balls into ball joints.

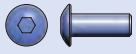
- Parts Needed:
- M3 x 16 SH screw
 - M3 shim

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

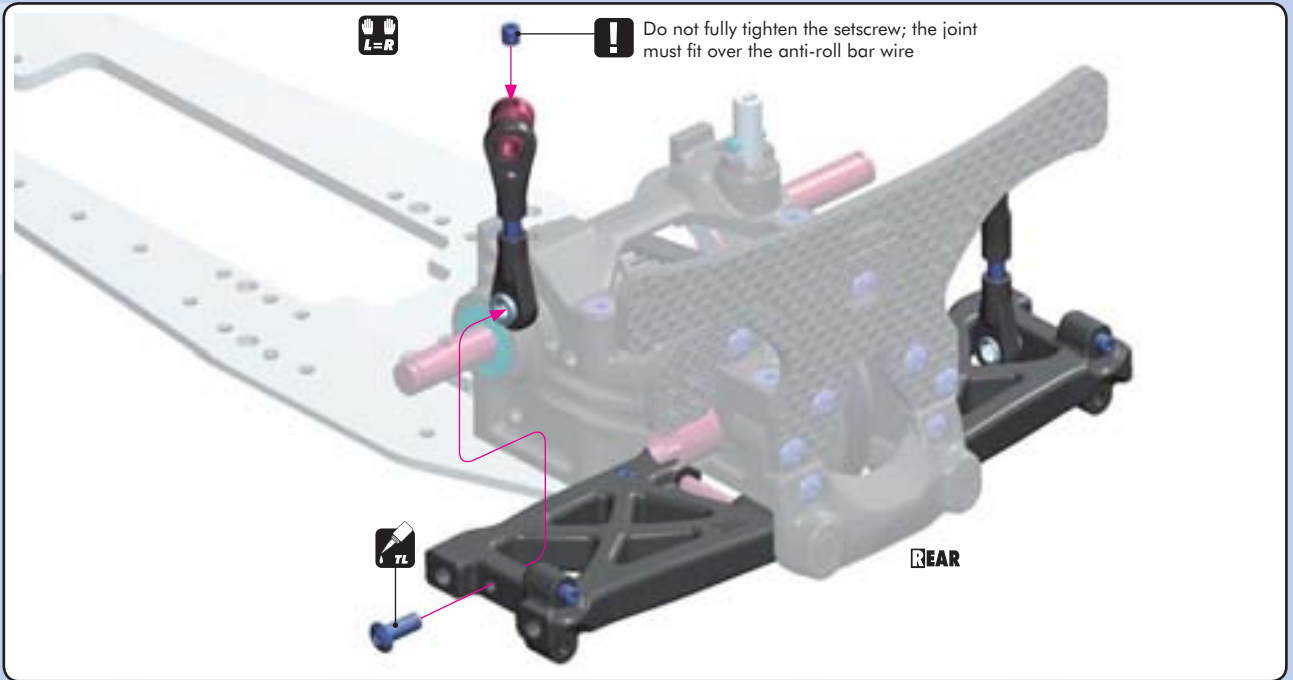


REAR SUSPENSION

901303
SB M3x3



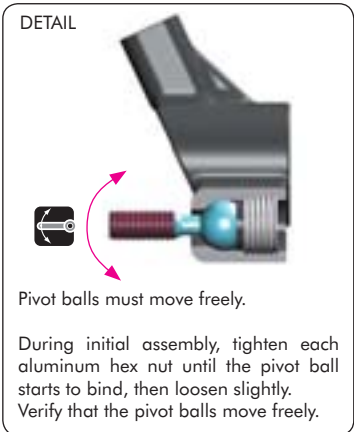
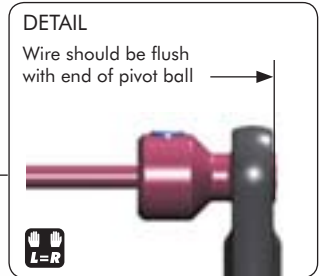
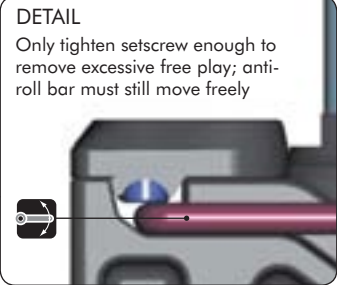
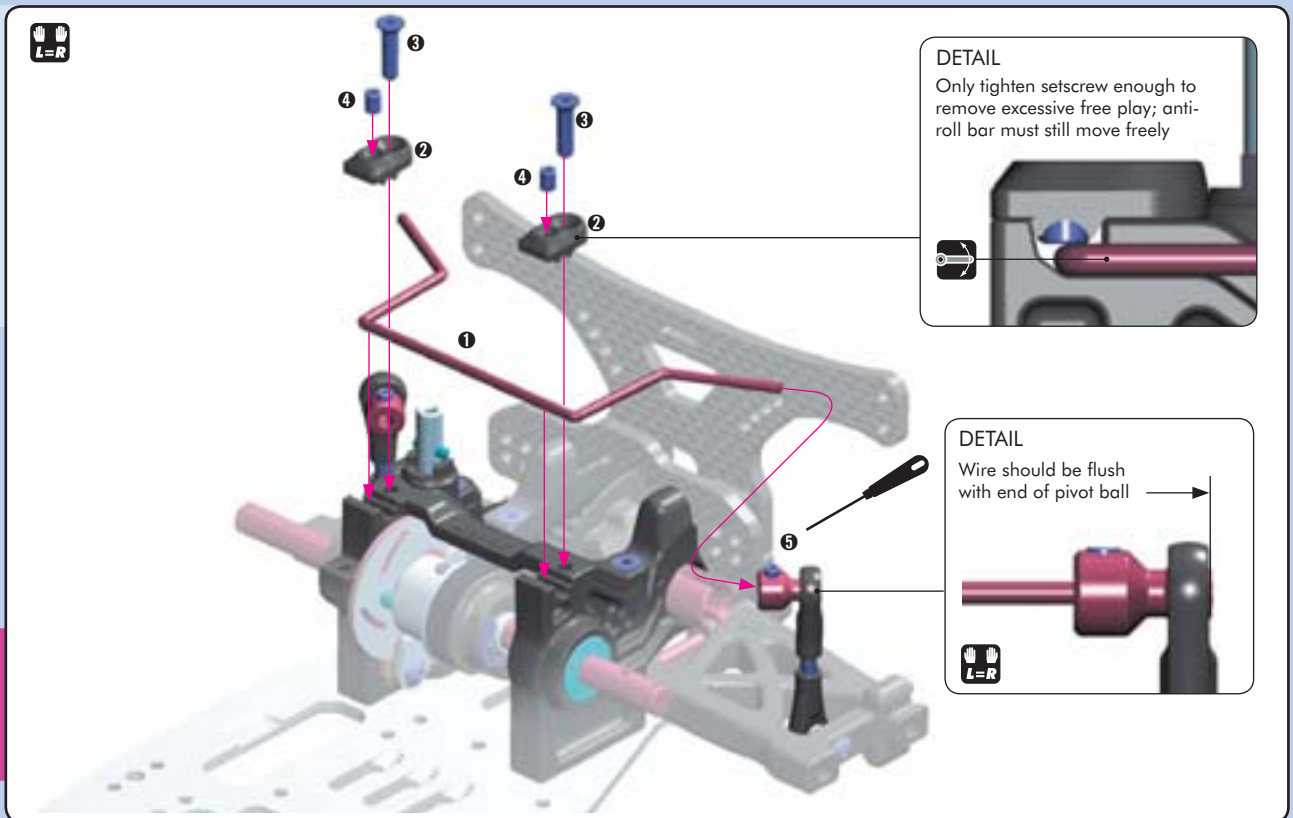
902308
SH M3x8



901305
SB M3x5





903310
SFH M3x10

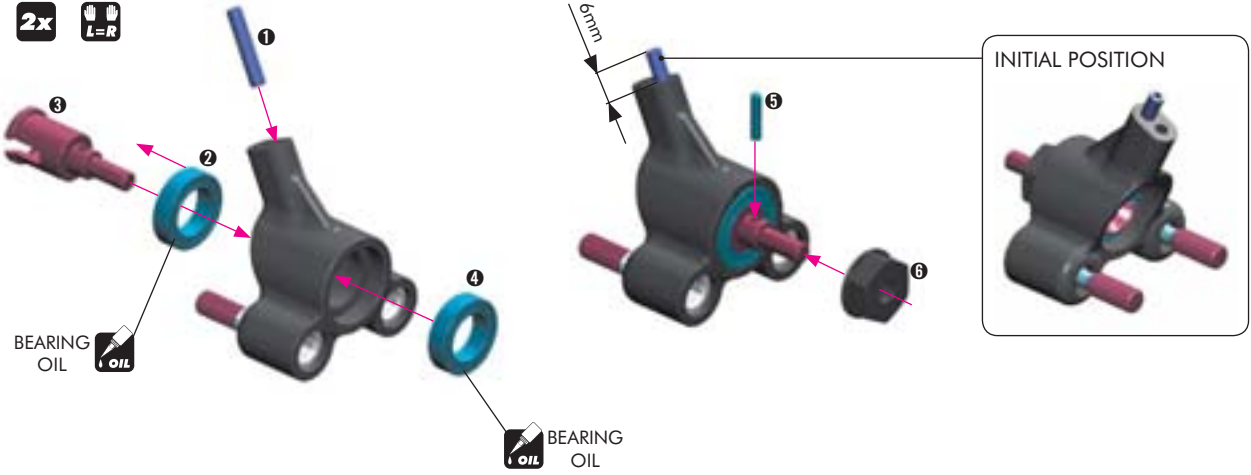


REAR SUSPENSION

 901316
SB M3x16
 981210
P 2x10
 941016
BB 10x16x4


REAR CAMBER RISE ADJUSTMENT


 



INITIAL POSITION

BEARING OIL

BEARING OIL


REAR CAMBER ADJUSTMENT

  1:1





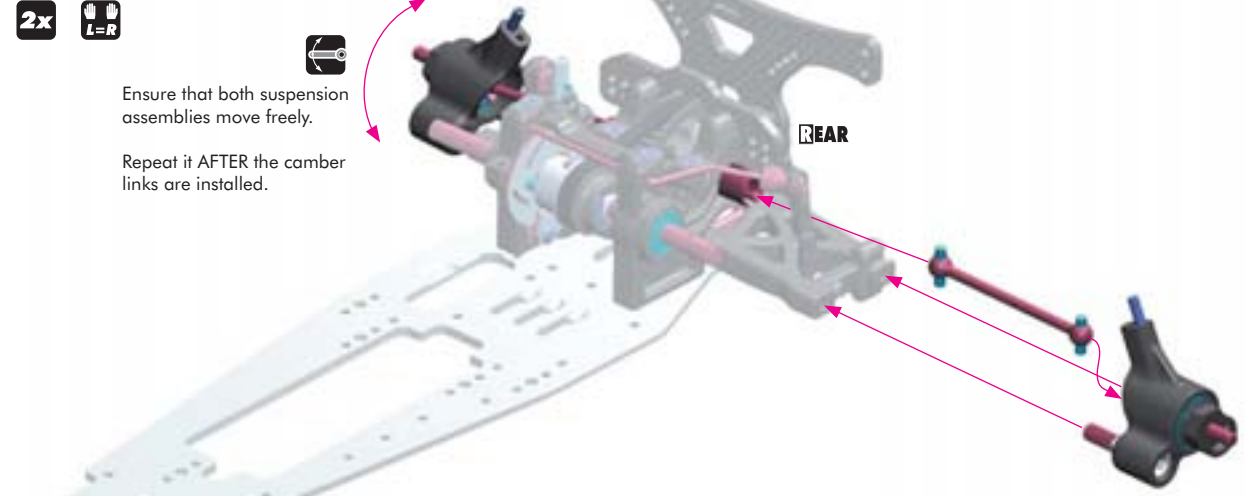
Use ball joints WITH DOT

TIP Follow the TECH TIP on page 13 to install the pivot balls

47mm

NOTE THE 90° ANGLE DIFFERENCE BETWEEN THE BALL JOINTS


 






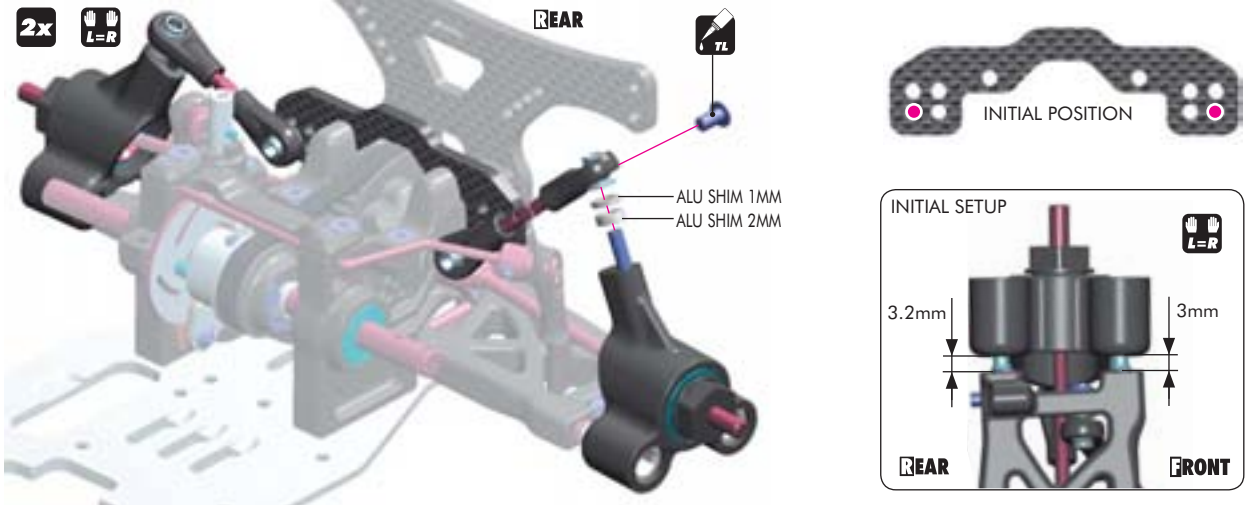
Ensure that both suspension assemblies move freely.

Repeat it AFTER the camber links are installed.

 902306
SH M3x6


REAR ROLL CENTER ADJUSTMENT
REAR TOE-IN ADJUSTMENT



ALU SHIM 1MM

ALU SHIM 2MM

INITIAL POSITION

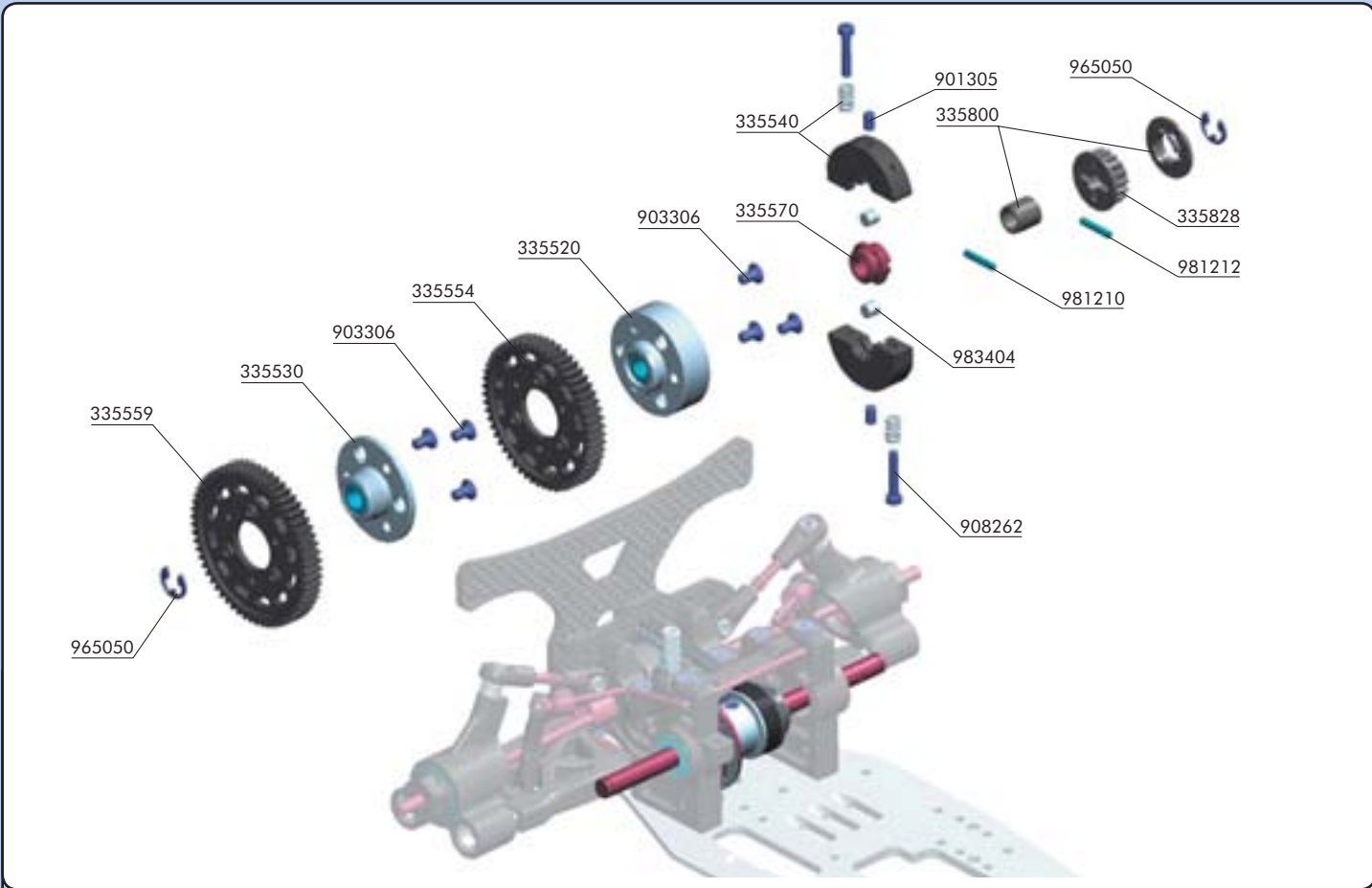
INITIAL SETUP

3.2mm

3mm

REAR FRONT

3. REAR TRANSMISSION



BAG

03

- 33 5520 CARRIER FOR 2-SPEED GEAR (2nd) - ALU 7075 T6 + BALL-BEARING
- 33 5530 DRIVE FLANGE WITH ONE-WAY BEARING - ALU 7075 T6
- 33 5540 COMPOSITE 2-SPEED GEAR BOX SHOE SET
- 33 5554 COMPOSITE 2-SPEED GEAR 54T (2nd)
- 33 5559 COMPOSITE 2-SPEED GEAR 59T (1st)
- 33 5570 ADAPTER 2-SPEED - HUDY SPRING STEEL™
- 33 5800 COMPOSITE BELT PULLEY COVER SET
- 33 5828 COMPOSITE BELT PULLEY 18T - 2-SPEED-SIDE

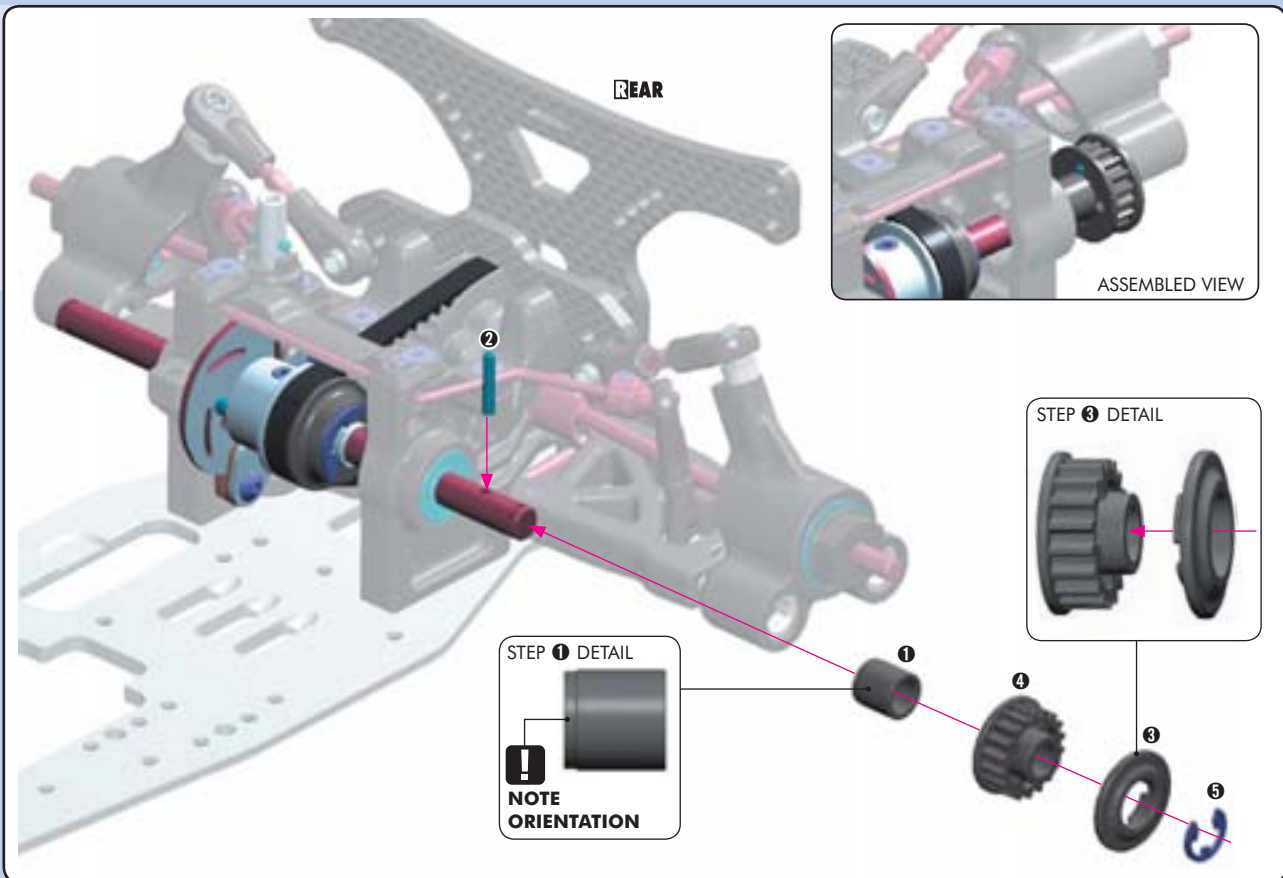
- 90 1305 HEX SCREW SB M3x5 (10)
- 90 3306 HEX SCREW SFH M3x6 (10)
- 90 8262 HEX SCREW SOCKET HEAD CAP M2.5x12 (10)
- 96 5050 E-CLIP 5 (10)
- 98 1210 PIN 2x10 (10)
- 98 1212 PIN 2x12 (10)
- 98 3404 ROLLER PIN 4x4 MM (2)



965050
C5



981212
P 2x12



REAR

ASSEMBLED VIEW

STEP 1 DETAIL

NOTE ORIENTATION

STEP 3 DETAIL

REAR TRANSMISSION



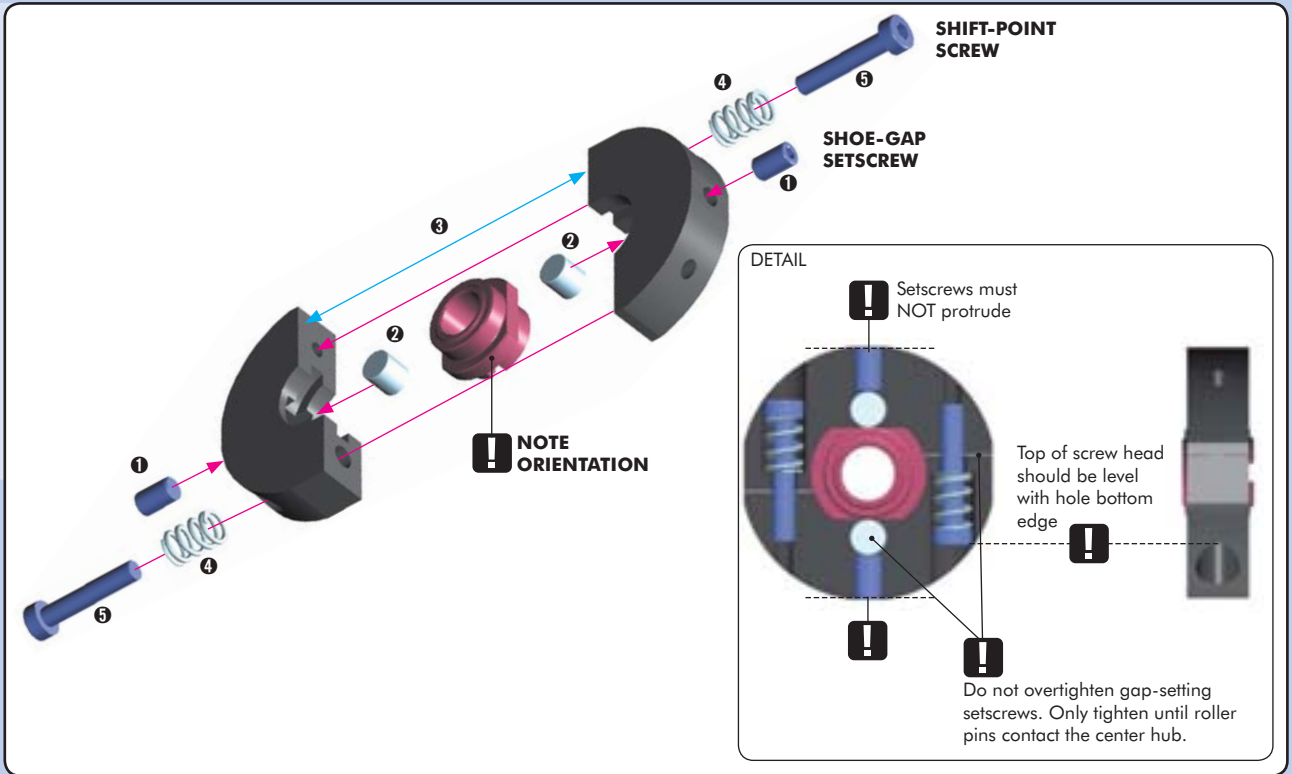
901305
SB M3x5



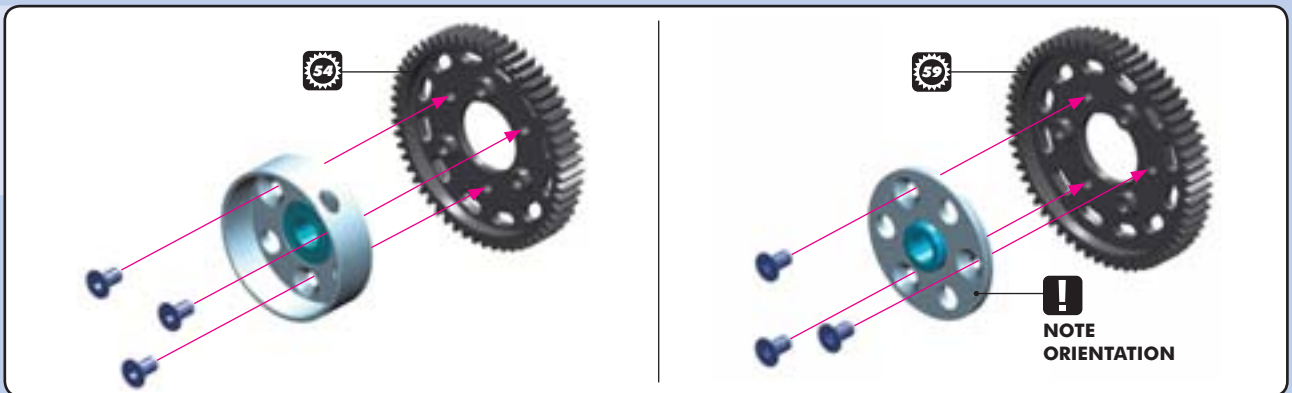
908262
SCH M2.5x12



983404
RP 4x4



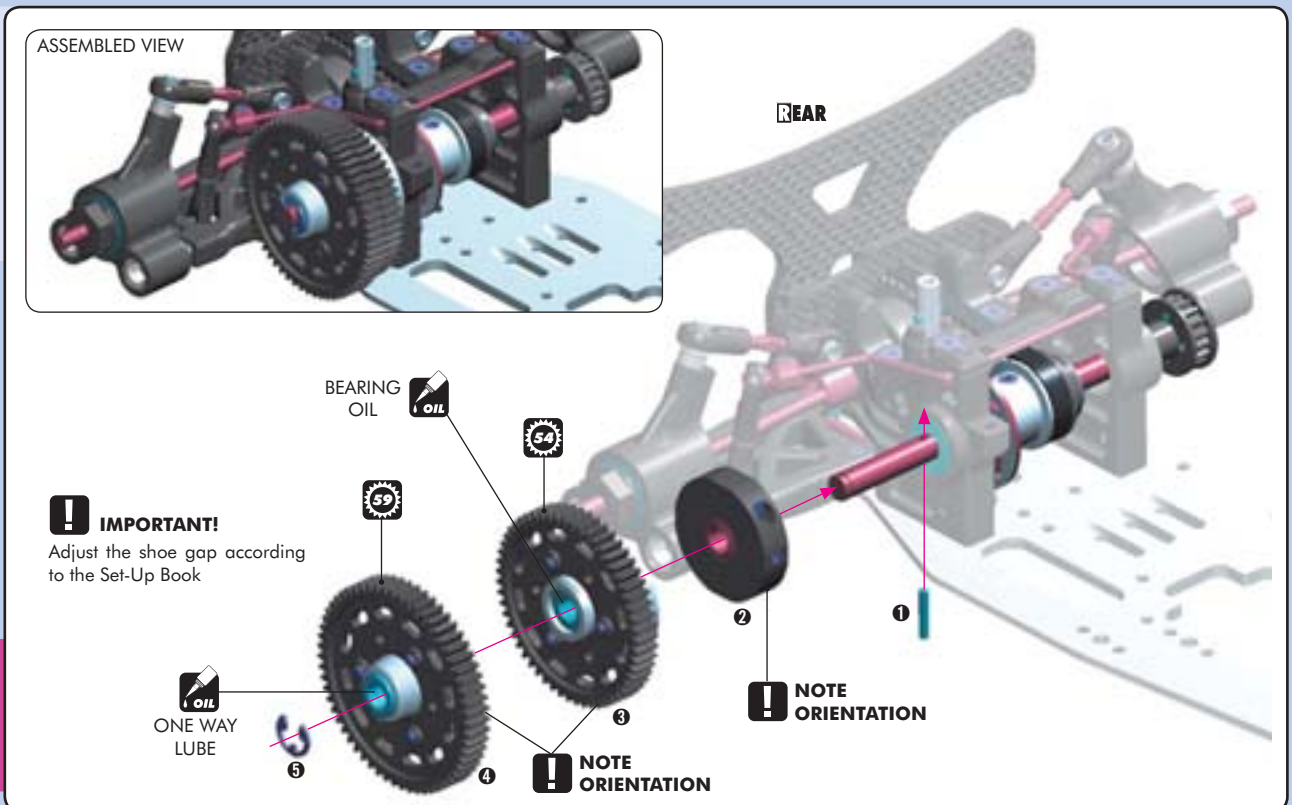
903306
SFH M3x6



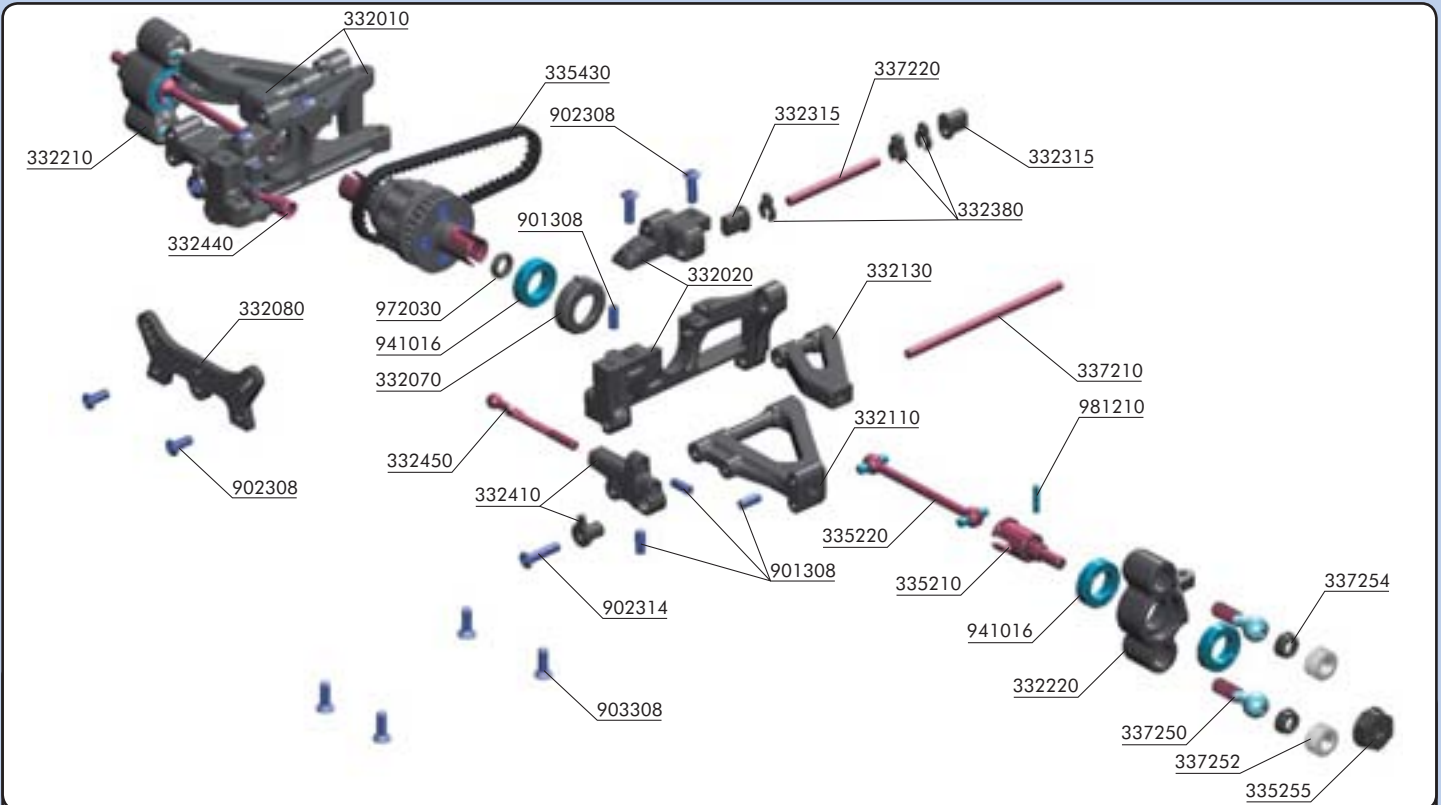
965050
C5



981210
P 2x10



4. FRONT SUSPENSION



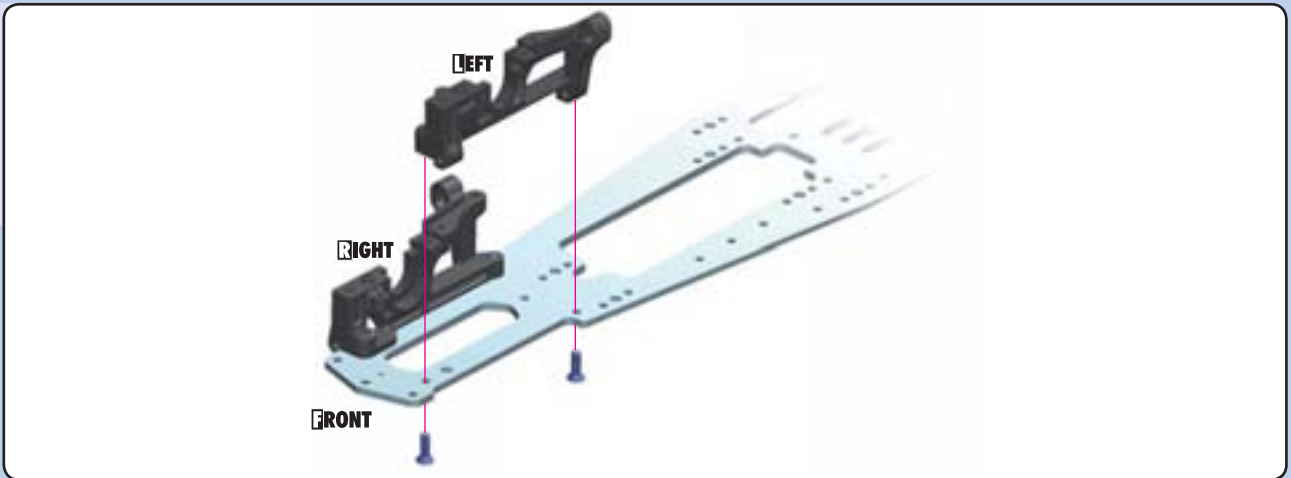
BAG

04

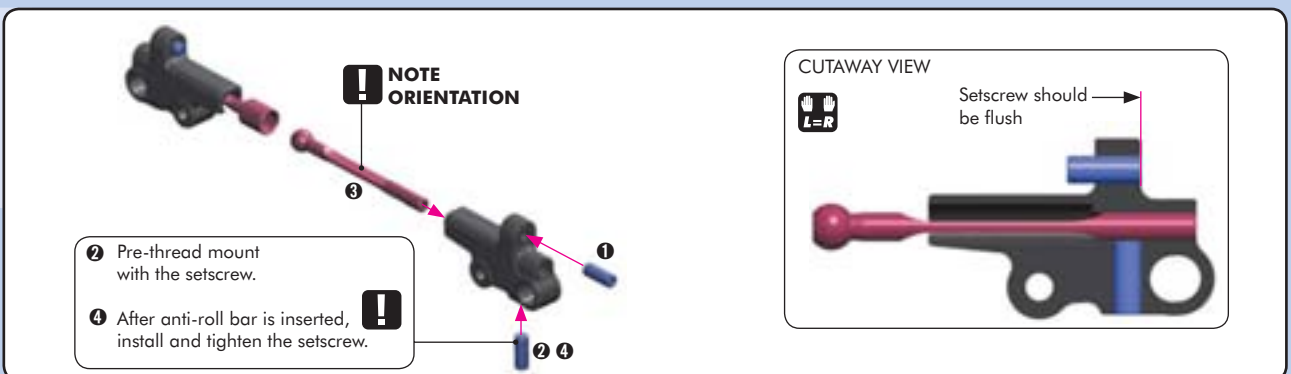
- | | | | |
|---------|--|---------|---|
| 33 2010 | COMPOSITE LOWER & UPPER BULKHEAD FRONT RIGHT | 33 5255 | COMPOSITE WHEEL HUB (2) |
| 33 2020 | COMPOSITE LOWER & UPPER BULKHEAD FRONT LEFT | 33 5430 | PUR REINFORCED DRIVE BELT FRONT 3 x 186 MM |
| 33 2070 | COMPOSITE ADJUST. BALL-BEARING HUB (4) | 33 7210 | FRONT LOWER INNER PIVOT PIN (2) |
| 33 2080 | GRAPHITE SHOCK TOWER FRONT 2.5MM | 33 7220 | FRONT UPPER PIVOT PIN (2) |
| 33 2110 | COMPOSITE SUSPENSION ARM FRONT LOWER | 33 7250 | STEEL PIVOT BALL 8.4 MM (2) |
| 33 2130 | COMPOSITE SUSPENSION ARM FRONT UPPER | 33 7252 | ALU ADJUSTING NUT M10x1 (4) |
| 33 2210 | COMPOSITE STEERING BLOCK RIGHT | 33 7254 | COMPOSITE BALL CUP 8.4 MM (8) |
| 33 2220 | COMPOSITE STEERING BLOCK LEFT | | |
| 33 2315 | COMPOSITE SUSP. ECCENTRIC BUSHING (4) | 90 1308 | HEX SCREW SB M3x8 (10) |
| 33 2380 | COMPOSITE CASTER CLIPS (2) | 90 2308 | HEX SCREW SH M3x8 (10) |
| 33 2410 | COMPOSITE FRONT ANTI-ROLL BAR HOLDER & ECCENTRIC (2+2) | 90 2314 | HEX SCREW SH M3x14 (10) |
| 33 2440 | ANTI-ROLL BAR FRONT FEMALE - HUDY SPRING STEEL™ | 90 3308 | HEX SCREW SFH M3x8 (10) |
| 33 2450 | ANTI-ROLL BAR FRONT MALE - HUDY SPRING STEEL™ | 94 1016 | HIGH-SPEED BALL-BEARING 10x16x4 RUBBER SEALED (2) |
| 33 5210 | DRIVE AXLE - HUDY SPRING STEEL™ | 97 2030 | SILICONE O-RING 3x2 (10) |
| 33 5220 | DRIVE SHAFT - 55 MM - HUDY SPRING STEEL™ | 98 1210 | PIN 2x10 (10) |



903308
SFH M3x8



901308
SB M3x8



FRONT SUSPENSION



901308
SB M3x8



902314
SH M3x14

SET-UP BOOK
FRONT ANTI-ROLL BAR
ADJUSTMENT
DOWNSTOP ADJUSTMENT

L=R

FRONT

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.

1.5mm

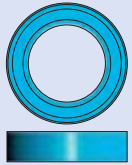
! Do not insert ball into cup too deeply or bars will bind during operation

DETAIL

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

STEP 7 DETAIL

L=R



941016
BB 10x16x4

NOTE ORIENTATION

BEARING OIL

! NOTE ORIENTATION

Both bushings must be in same position

FRONT

! NOTE ORIENTATION

BEARING OIL

Both bushings must be in same position



902308
SH M3x8

SET-UP BOOK
FRONT ROLL CENTER
ADJUSTMENT

L=R

! NOTE

Left and right arms are identical

FRONT

Use (-0.5mm) suspension holders for initial assembly

There are two different frames, rounded and square, however both feature the same eccentric holders

FRONT ROLL CENTER INSERT POSITIONS

L=R **FRONT BELT TENSION ADJUSTMENT**

INITIAL POSITION
Place tab in this notch

FRONT **REAR**

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

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

FRONT SUSPENSION

2x

NOTE ORIENTATION

TIP
Tighten the aluminum hex nuts using HUDY tool #107581

DETAIL

Pivot balls must move freely.

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

! Use the composite ball cup #337254 from **BAG**

02

941016
BB 10x16x4

981210
BB 10x16x4

2x

RIGHT STEERING BLOCK

LEFT STEERING BLOCK

BEARING OIL

BEARING OIL

BEARING OIL

972030
O 3x2

RIGHT STEERING BLOCK

FRONT

LEFT STEERING BLOCK

DETAIL

L=R

4.3mm

3.7mm

Ensure that the front suspension moves freely

CUTAWAY VIEW

! Ensure sufficient play

DIFF ADAPTER

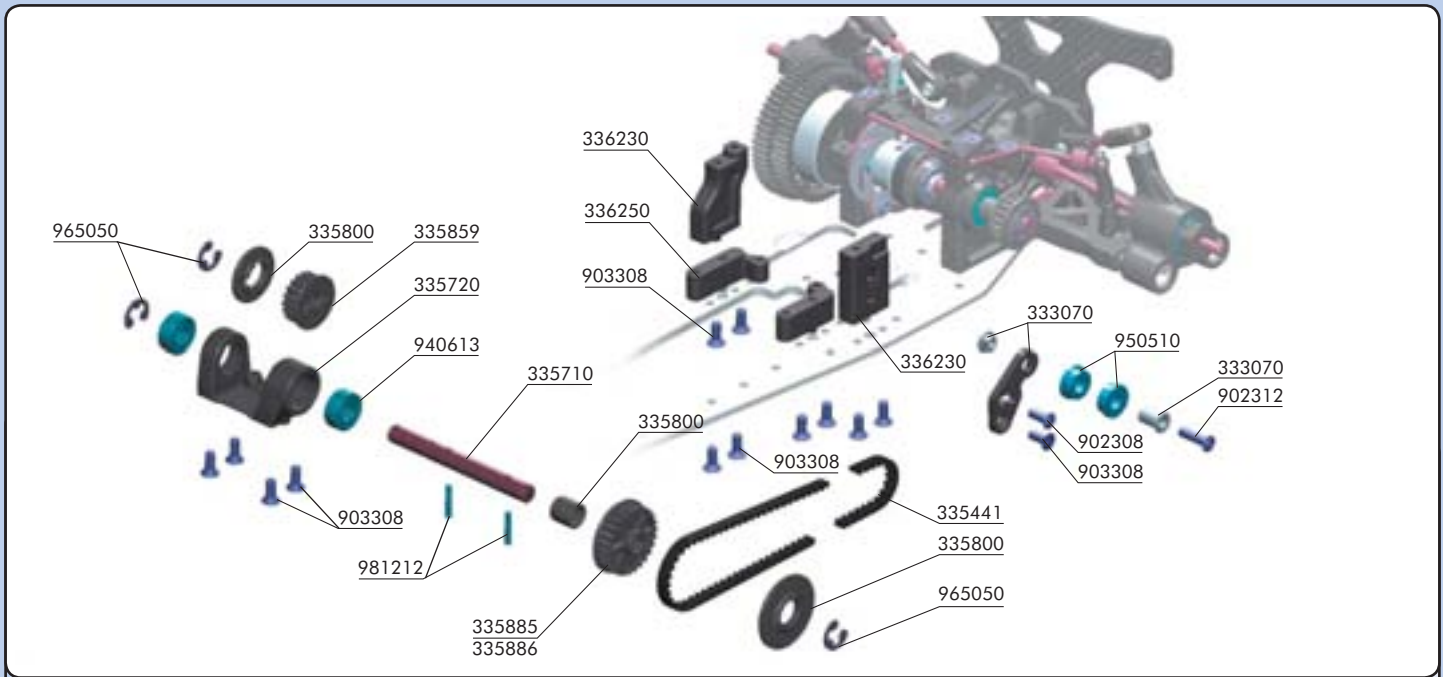
WHEEL AXLE

FRONT WHEELBASE & CAMBER ADJUSTMENT

902308
SH M3x8

FRONT

5. FRONT TRANSMISSION

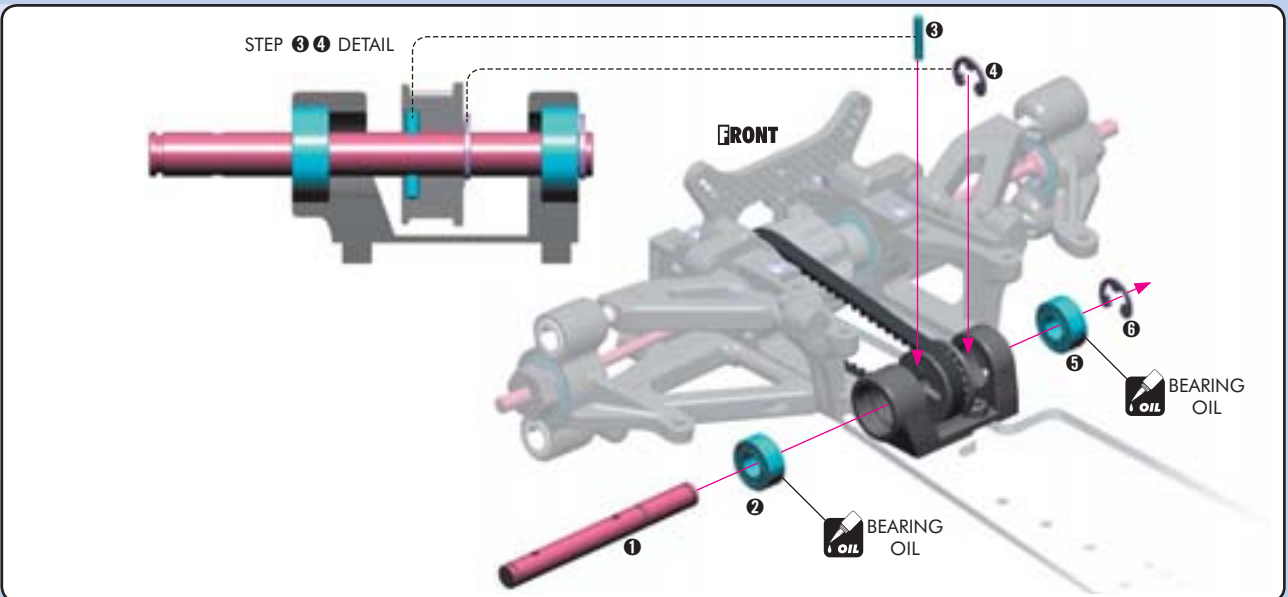
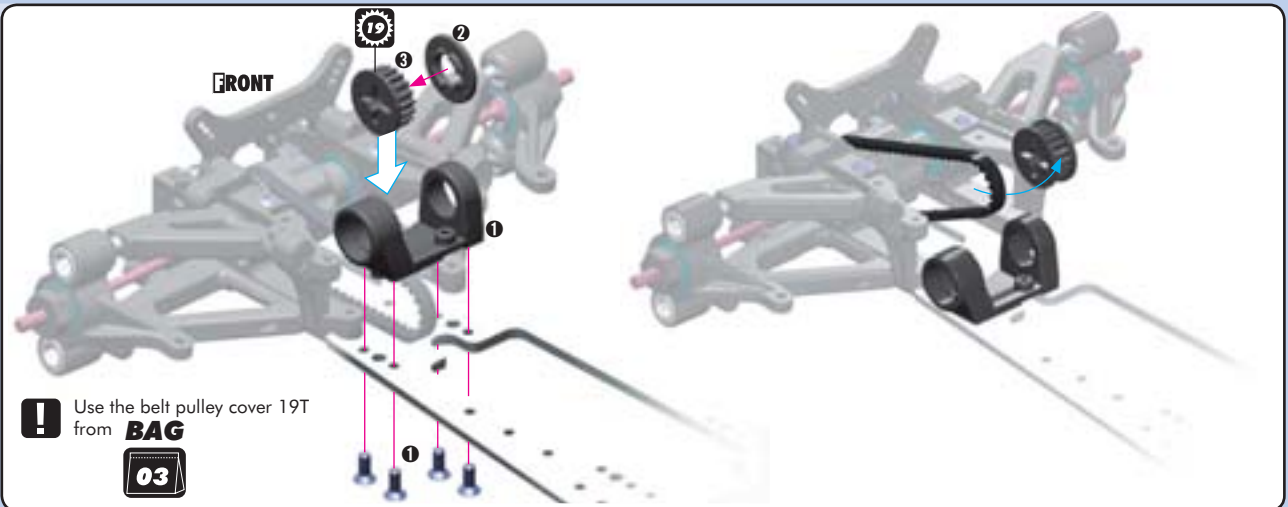


BAG

05

- 33 3070 BELT TENSIONER SET
- 33 5441 PUR REINFORCED DRIVE BELT SIDE 3 x 390 MM
- 33 5710 FRONT MIDDLE SHAFT
- 33 5720 COMPOSITE FRONT MIDDLE SHAFT HOLDER
- 33 5800 COMPOSITE BELT PULLEY COVER SET
- 33 5859 COMPOSITE BELT PULLEY 19T - MID-CENTER
- 33 5885 COMPOSITE BELT PULLEY 25T - MID-SIDE
- 33 5886 COMPOSITE BELT PULLEY 26T - MID-SIDE
- 33 6230 COMPOSITE RADIO PLATE MOUNTS (1+1)

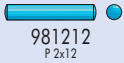
- 33 6250 COMPOSITE BATTERY MOUNT L+R (2)
- 90 2308 HEX SCREW SH M3x8 (10)
- 90 2312 HEX SCREW SH M3x12 (10)
- 90 3308 HEX SCREW SFH M3x8 (10)
- 94 0613 HIGH-SPEED BALL-BEARING 6x13x5 RUBBER SEALED (2)
- 95 0510 BALL-BEARING FR85ZZ 5x10x4 FLANGED (2)
- 96 5050 E-CLIP 5 (10)
- 98 1212 PIN 2x12 (10)



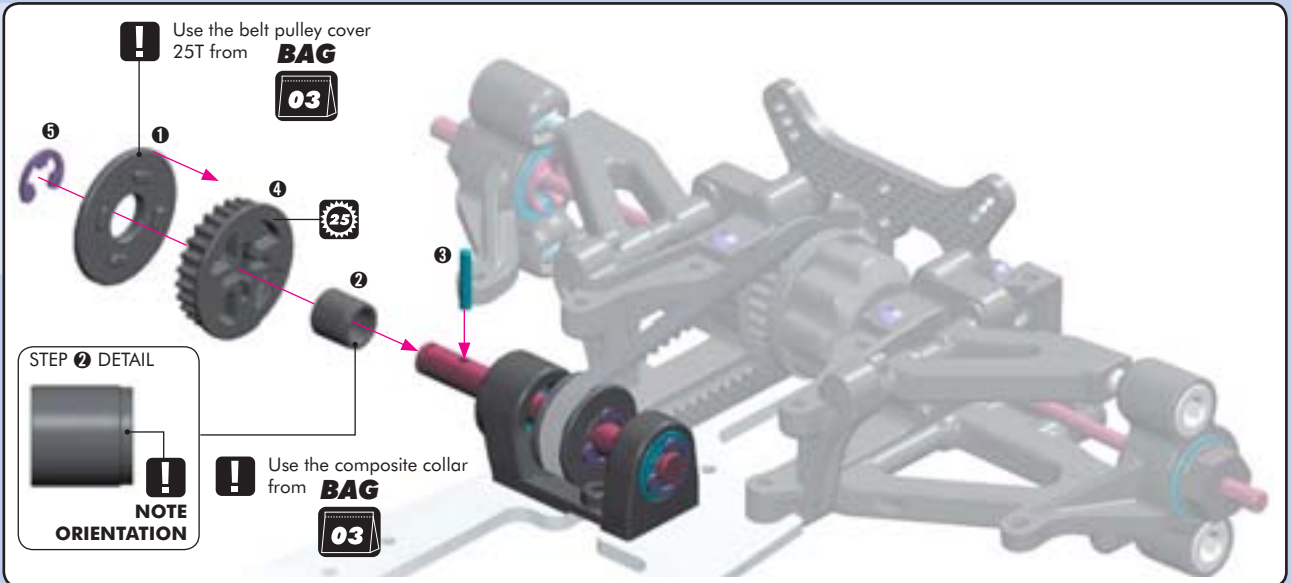
FRONT TRANSMISSION



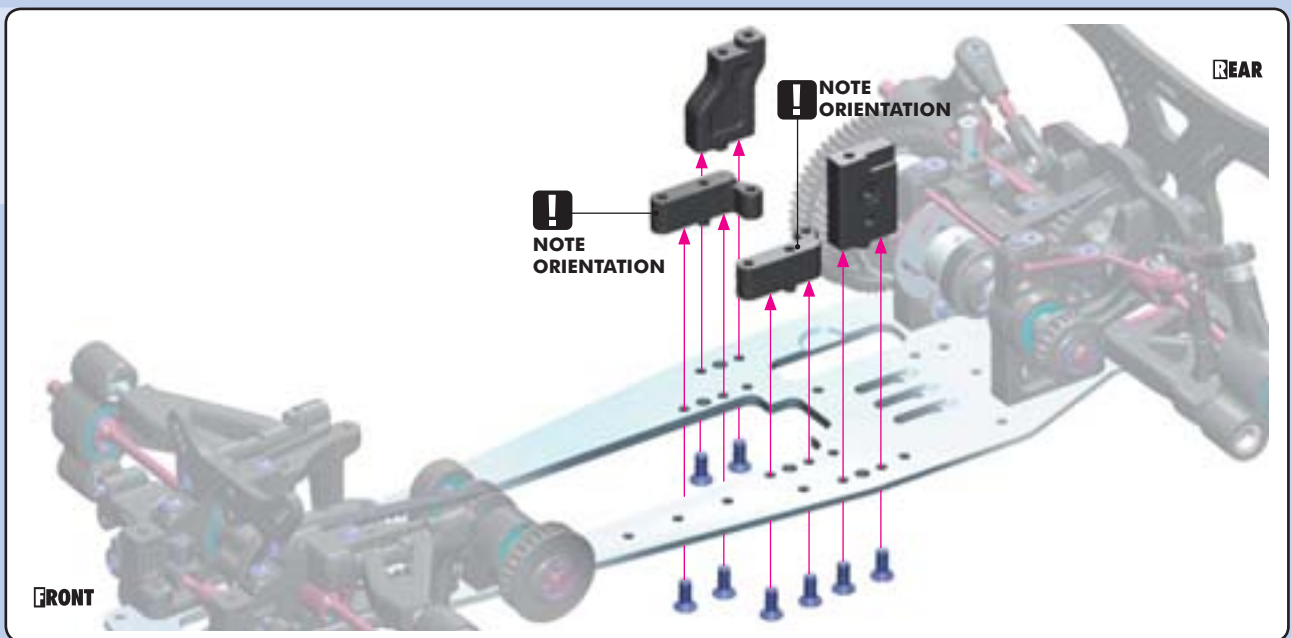
965050
C5



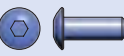
981212
P 2x12



903308
SFH M3x8



903308
SFH M3x8



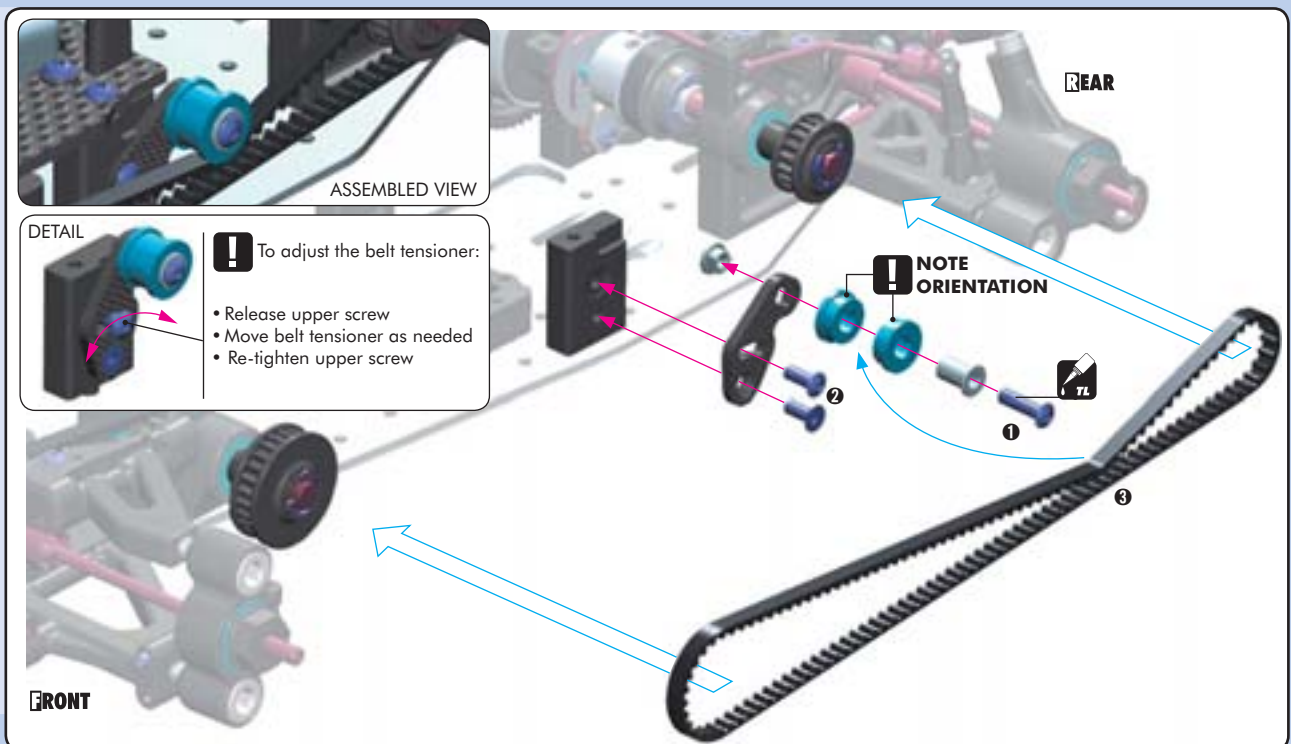
902308
SH M3x8



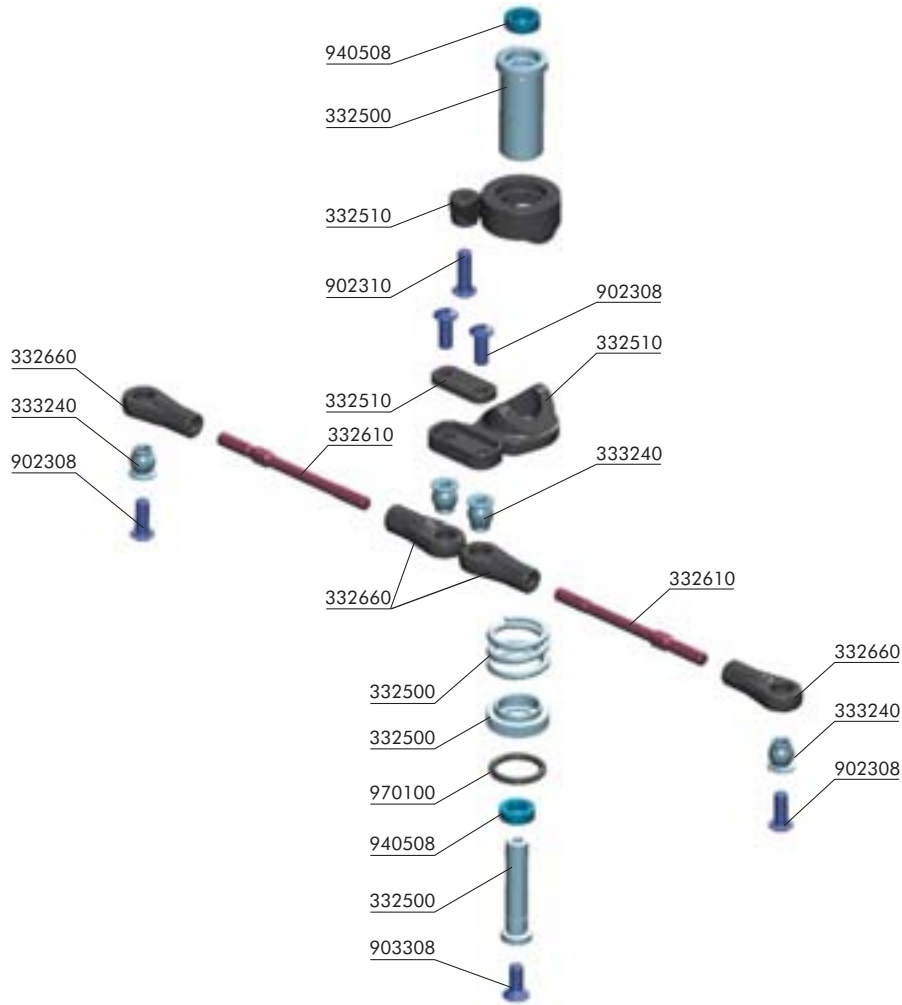
902312
SH M3x12



950510
BB 5x10x4



6. STEERING



BAG

06

- 33 2500 SERVO SAVER COMPLETE SET
- 33 2510 COMPOSITE SERVO SAVER
- 33 2610 ADJ. TURNBUCKLE L/R 42 MM - HUDY SPRING STEEL™ (2)
- 33 2660 COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2)
- 33 3240 BALL UNIVERSAL 5.8 MM HEX (4)
- 90 2308 HEX SCREW SH M3x8 (10)
- 90 2310 HEX SCREW SH M3x10 (10)

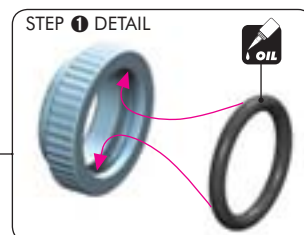
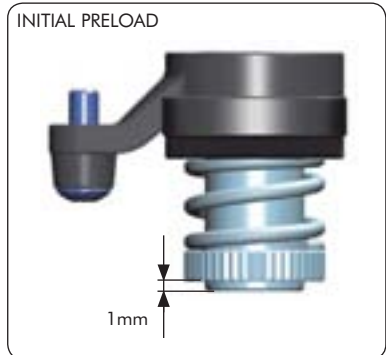
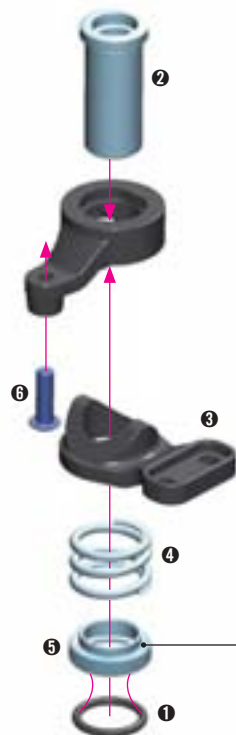
- 90 3308 HEX SCREW SFH M3x8 (10)
- 94 0508 HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)
- 97 0100 O-RING 10 x 1.5 (10)



902310
SH M3x10



970100
O 10x1.5



TIP Follow the TECH TIP on page 12 to install the pivot balls

70.6mm

70.6mm

L=R 1:1



NOTE ORIENTATION

ACKERMANN SETTINGS

INITIAL SETTING

B C C B D A A D

There are two different Ackermann inserts labeled AD and CB. You can insert each of the Ackermann inserts in two different orientations which will result in the different Ackermann settings. Note the orientation of the mounting positions.



BEARING OIL

BEARING OIL

LEFT

FRONT

RIGHT

STEP 5 DETAIL

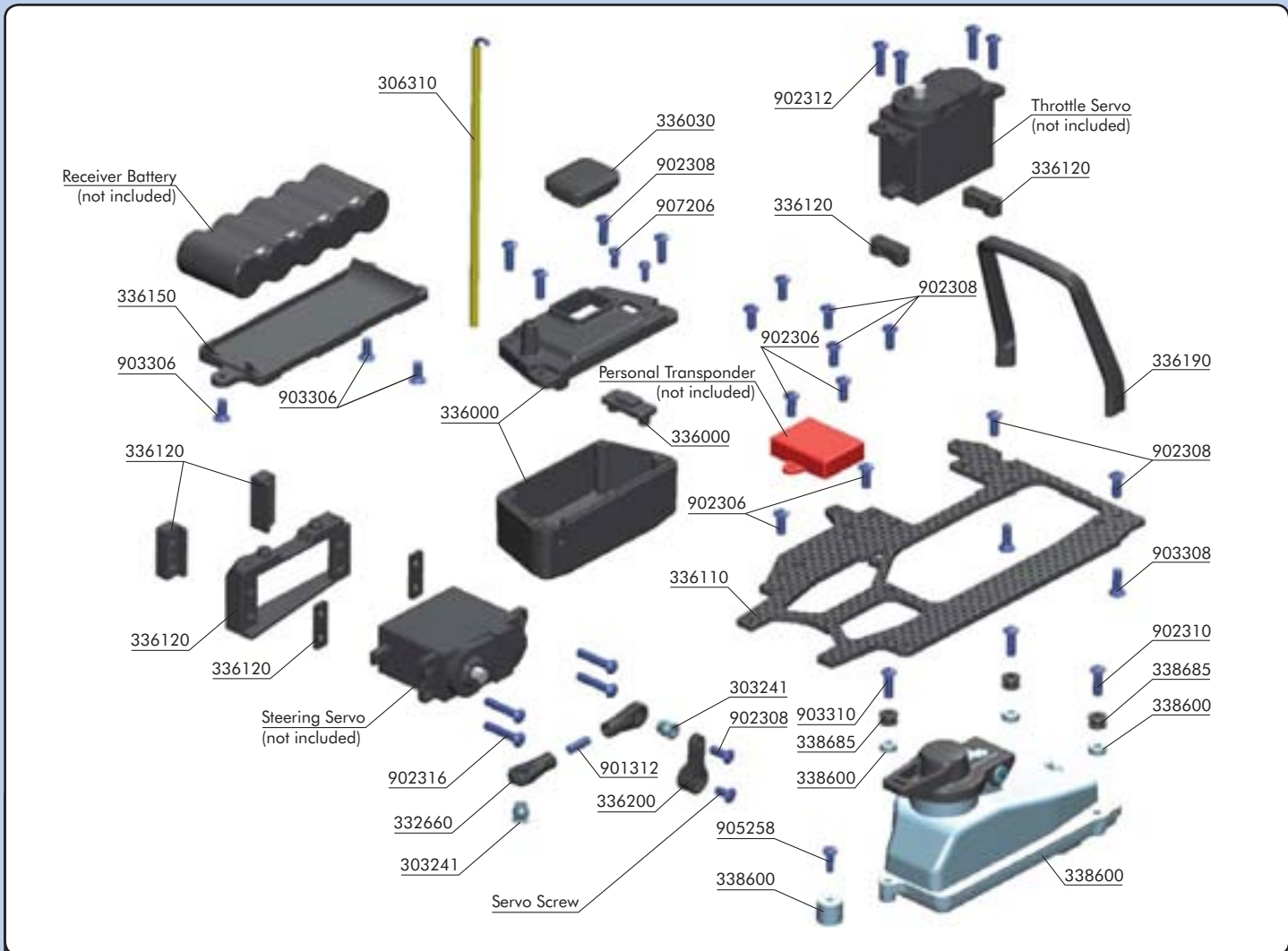


2x L=R

FRONT

TL

7. FUEL TANK & ELECTRONICS

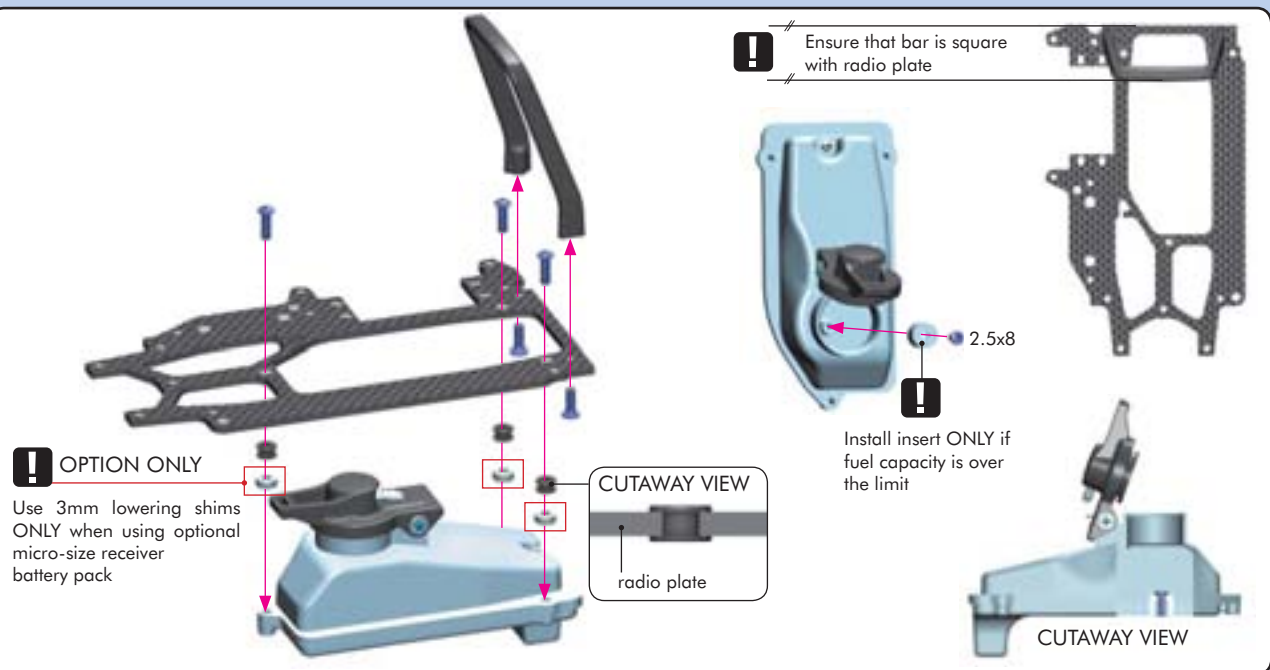


BAG

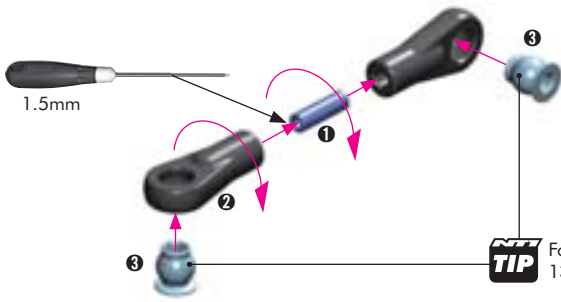
07

- | | | | |
|---------|--|---------|--------------------------------|
| 30 3241 | BALL UNIVERSAL 5.8 MM HEX (4) | 33 8685 | FUEL TANK MOUNTING GROMMET (3) |
| 30 6310 | ANTENNA TUBE (2) | 90 1312 | HEX SCREW SB M3x12 (10) |
| 33 2660 | COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2) | 90 2306 | HEX SCREW SH M3x6 (10) |
| 33 6000 | COMPOSITE RECEIVER CASE | 90 2308 | HEX SCREW SH M3x8 (10) |
| 33 6030 | RUBBER RECEIVER CASE COVER | 90 2310 | HEX SCREW SH M3x10 (10) |
| 33 6110 | GRAPHITE RADIO PLATE | 90 2312 | HEX SCREW SH M3x12 (10) |
| 33 6120 | COMPOSITE STEERING SERVO HOLDER - SET | 90 2316 | HEX SCREW SH M3x16 (10) |
| 33 6150 | COMPOSITE BATTERY PLATE | 90 2319 | HEX SCREW SH M3x19 (10) |
| 33 6190 | COMPOSITE ROLL-OVER BAR | 90 3306 | HEX SCREW SFH M3x6 (10) |
| 33 6200 | STEERING SERVO ARMS - SET | 90 3308 | HEX SCREW SFH M3x8 (10) |
| 33 8600 | FUEL TANK 75CC - SET | 90 5258 | SCREW PHILLIPS 2.5x8 (10) |
| | | 90 7206 | SCREW PHILLIPS M2x6 (10) |

-  902310
SH M3x10
-  903308
SFH M3x8
-  905258
2.5x8



901312
SB M3x12

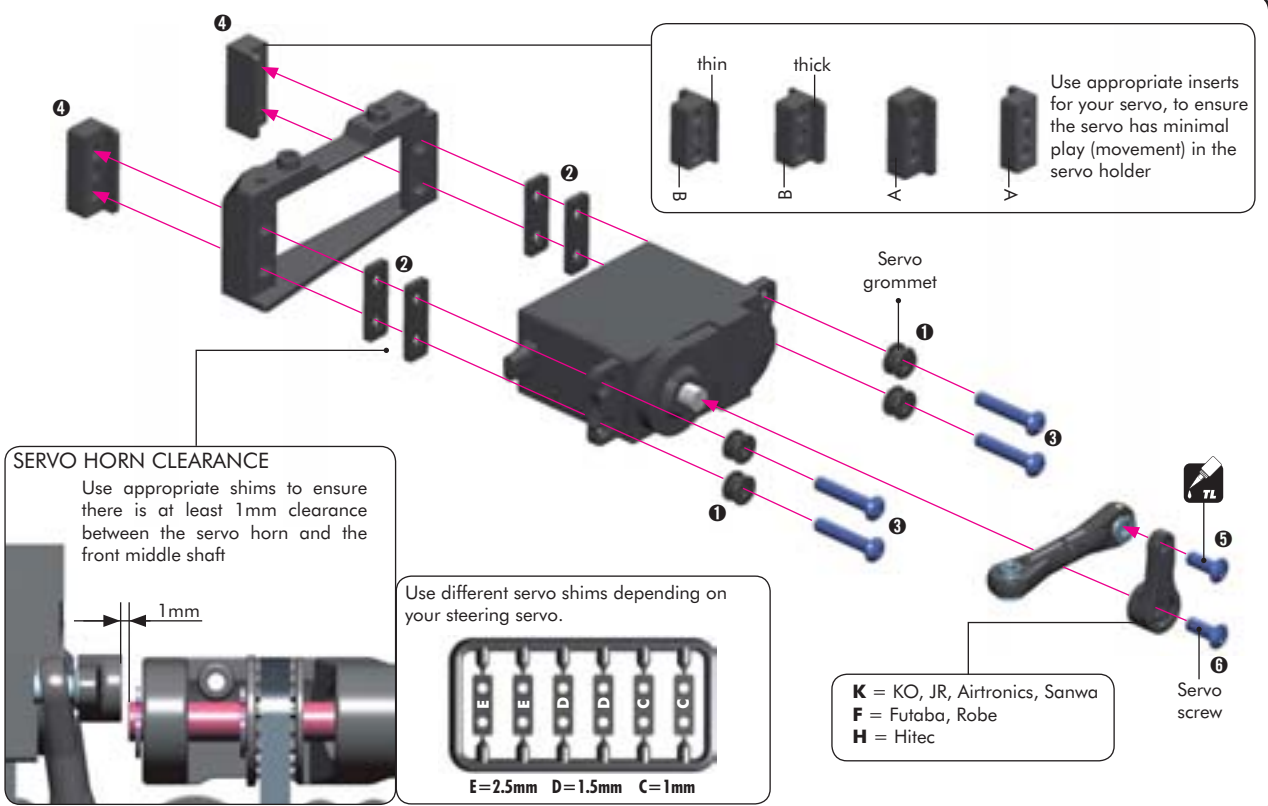


TECH TIP Follow the TECH TIP on page 13 to install the pivot balls

Note the 90° angle difference between the ball joints

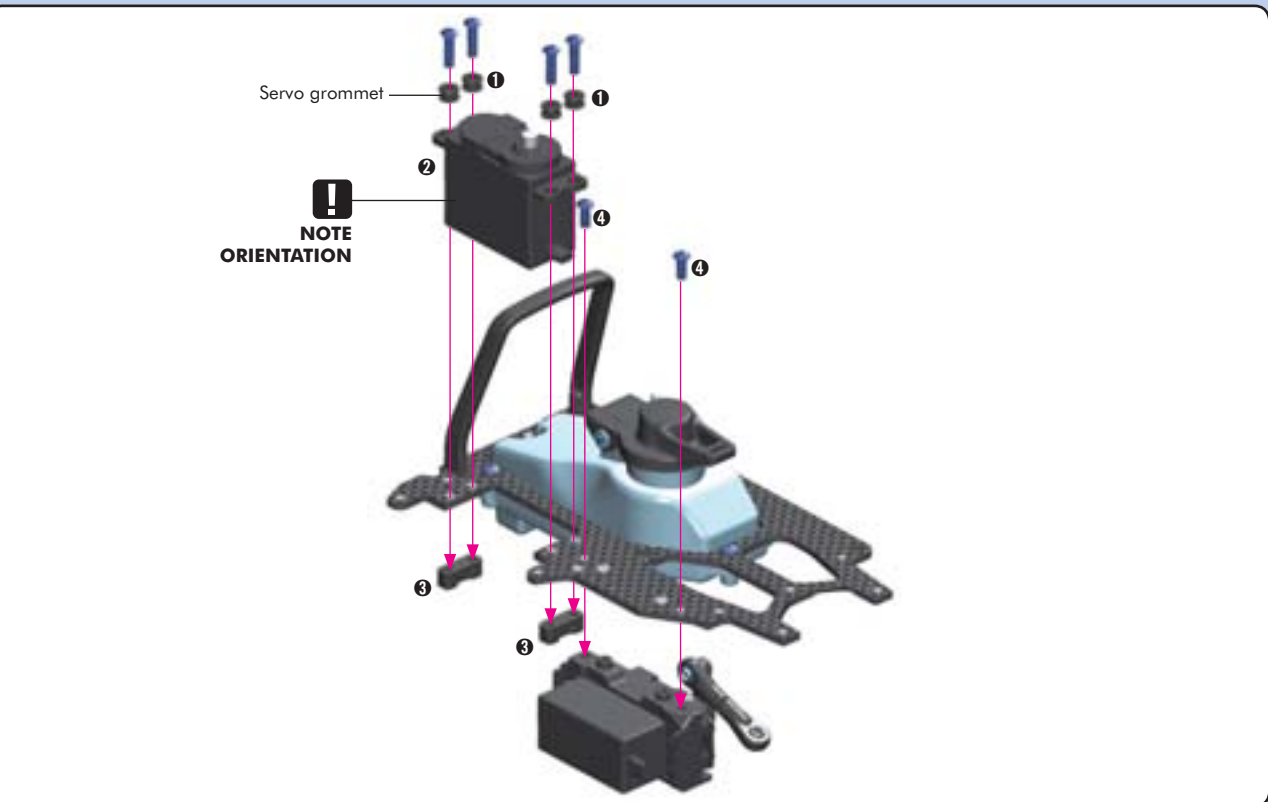
902308
SH M3x8

902316
SH M3x16

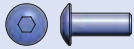


902306
SH M3x6

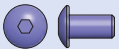
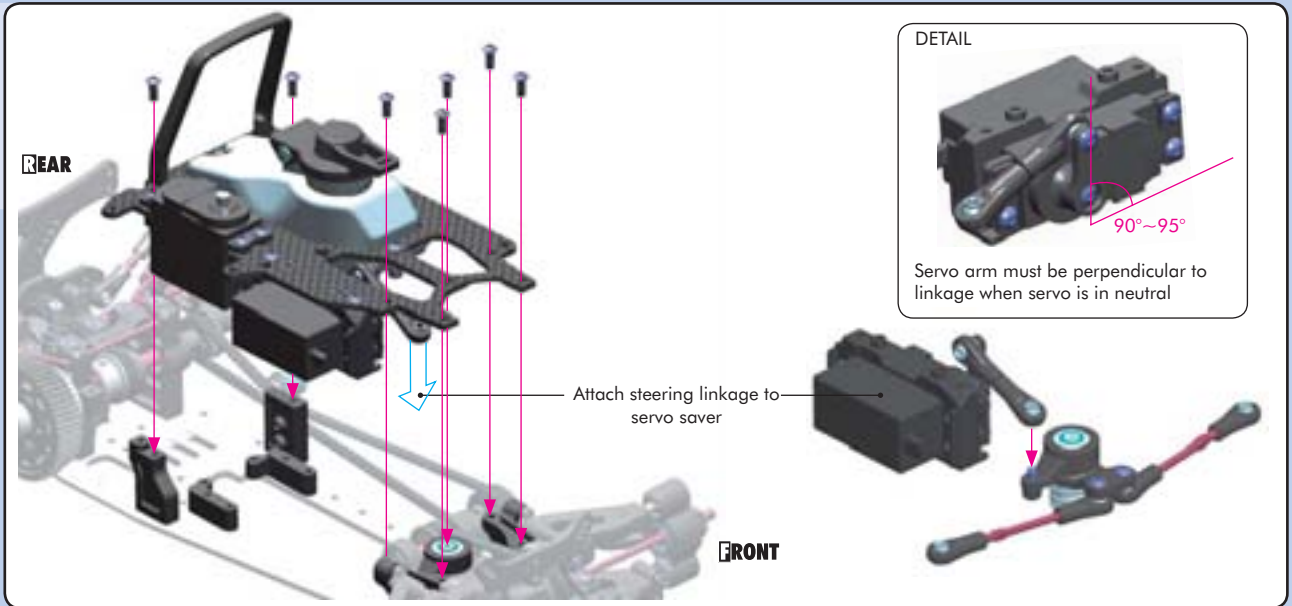
902312
SH M3x12



FUEL TANK & ELECTRONICS



902308
SH M3x8



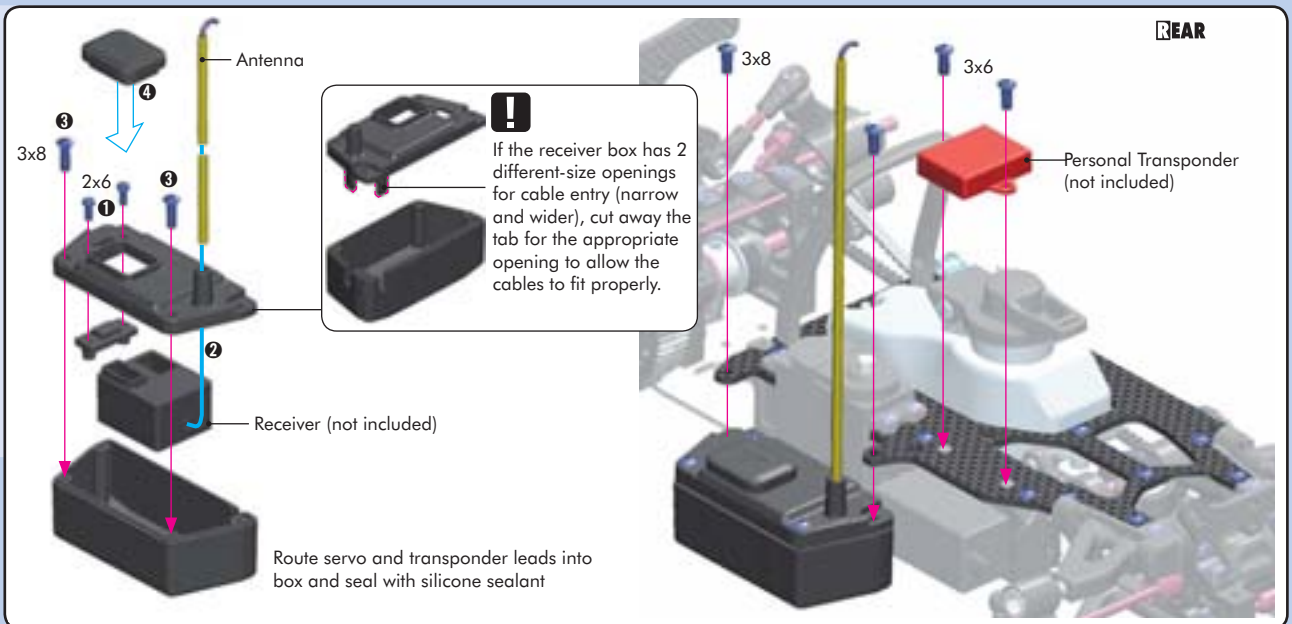
902306
SH M3x6



902308
SH M3x8



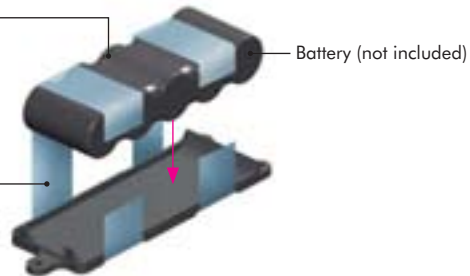
907206
2x6



Use an appropriate receiver battery pack.

The NT1 accommodates standard 5-cell receiver packs or optional micro-size packs.

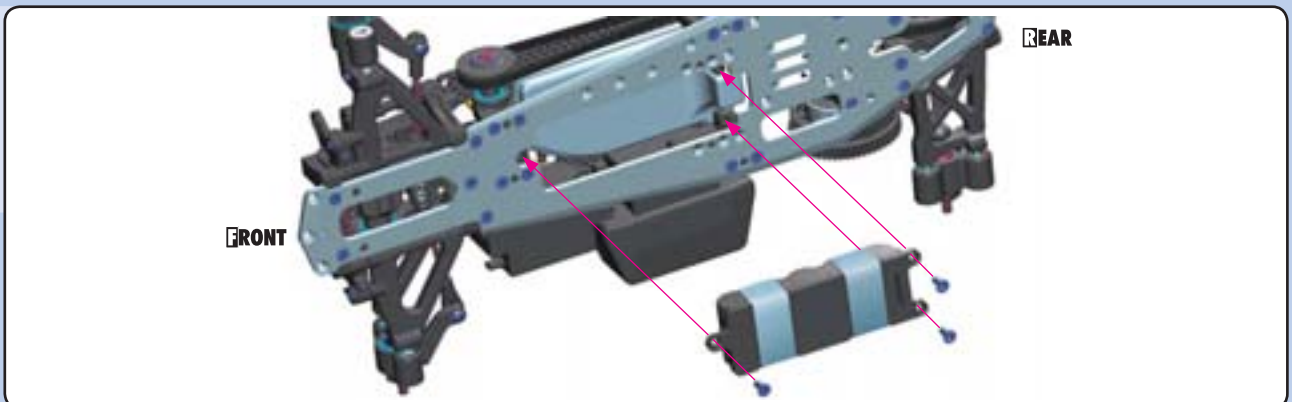
Use tape to mount the receiver battery pack to the lower holder.



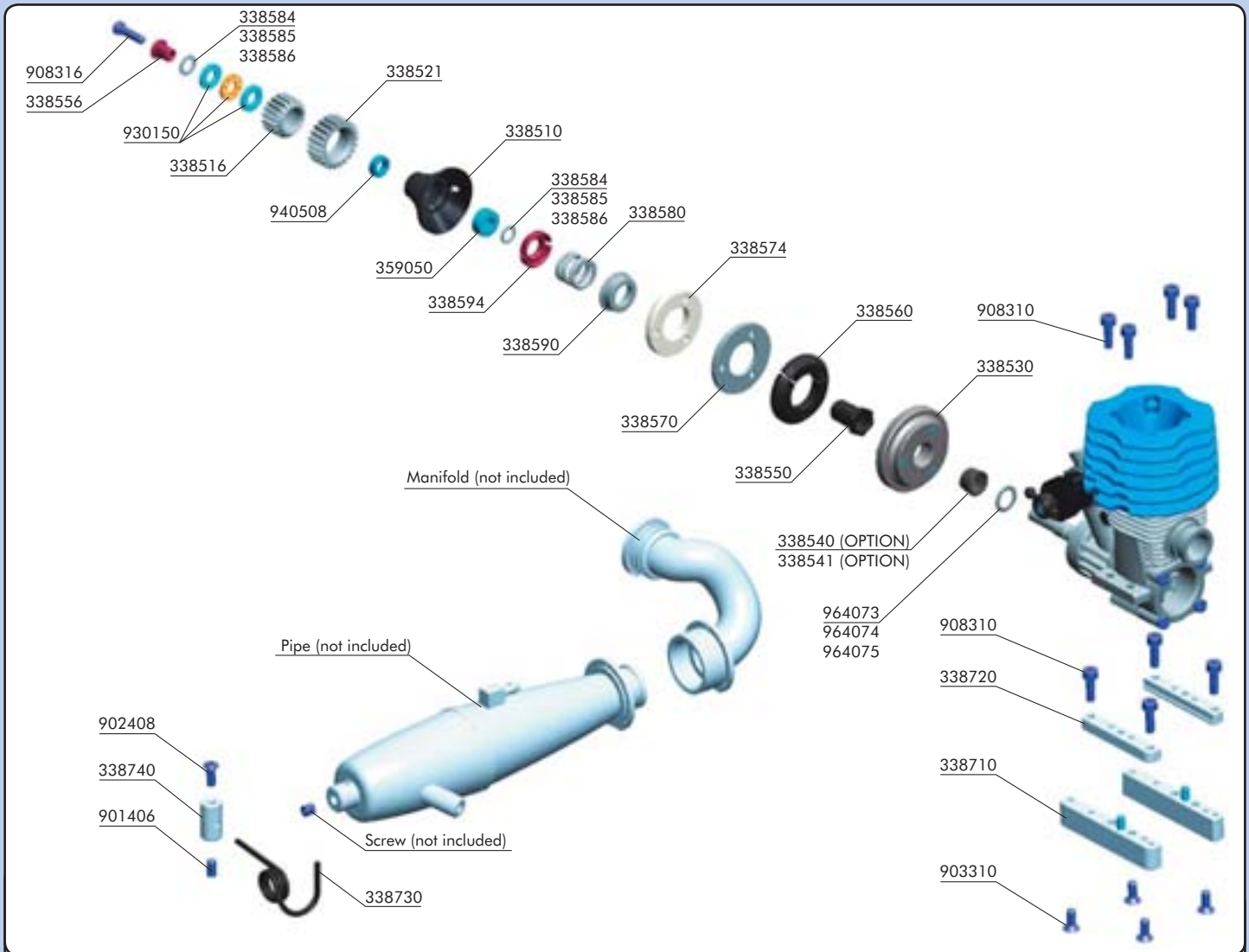
ASSEMBLED VIEW



903306
SFH M3x6



8. ENGINE & CLUTCH



BAG

08

33 8510	CLUTCH BELL - HUDY STEEL	33 8710	ALU ENGINE MOUNT (2)
33 8516	XCA ALU 7075 T6 HARD COATED PINION GEAR - 16T (1ST)	33 8720	ALU STAND FOR ENGINE MOUNT (2)
33 8521	XCA ALU 7075 T6 HARD COATED PINION GEAR - 21T (2ND)	33 8730	EXHAUST MOUNTING WIRE
33 8530	FLYWHEEL - ALU 7075 T6 - HARD COATED	33 8740	EXHAUST WIRE MOUNT
33 8540	FLYWHEEL COLLAR 7MM - NOVAROSSO (OPTION)		
33 8541	FLYWHEEL COLLAR 6MM - PICCO (OPTION)	35 9050	CLUTCH BELL BALL-BEARING MR105ZZ 5x10x4 (2)
33 8550	FLYWHEEL NUT - HUDY SPRING STEEL™		
33 8556	CLUTCH BELL BUSHING - HUDY SPRING STEEL™	90 1406	HEX SCREW SB M4x6 (10)
33 8560	CLUTCH FLYWEIGHT - BLACK (3)	90 2408	HEX SCREW SH M4x8 (10)
33 8570	CLUTCH DISK - ALU 7075 T6	90 3310	HEX SCREW SFH M3x10 (10)
33 8574	CLUTCH SHOE - WHITE	90 8310	HEX SCREW SOCKET HEAD CAP M3x10 (10)
33 8580	CLUTCH SPRING	90 8316	HEX SCREW SOCKET HEAD CAP M3x16 (10)
33 8584	SHIM 5x7x0.2 (10)	93 0150	CARBIDE BALL-BEARING AXIAL F5-10 5x10x4 WITH GROOVE
33 8585	SHIM 5x7x0.3 (10)	94 0508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)
33 8586	SHIM 5x7x0.5 (10)	96 4073	WASHER S 7x10x0.2 (10)
33 8590	CLUTCH SPRING CUP - ALU 7075 T6	96 4074	WASHER S 7x10x0.3 (10)
33 8594	CLUTCH PRELOAD ADJ. NUT - HUDY SPRING STEEL™	96 4075	WASHER S 7x10x0.5 (10)



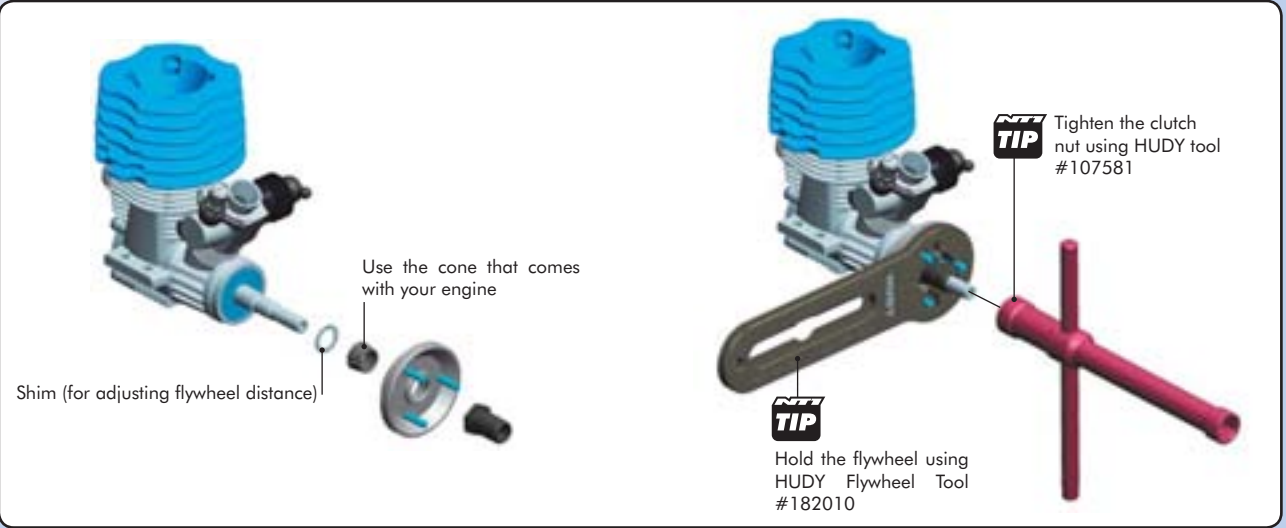
964073
S 7x10x0.2







964074
S 7x10x0.3



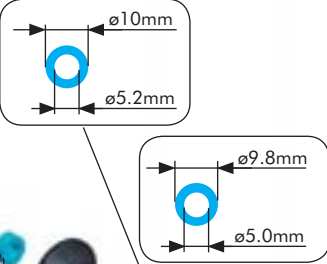
964075
S 7x10x0.5





-  **338584**
S 5x7x0.2
-  **338585**
S 5x7x0.3
-  **338586**
S 5x7x0.5
-  **940508**
BB 5x8x2.5
-  **359050**
BB 5x10x4
-  **930150**
BA 5x10
-  **908316**
SCH M3x16

NOTE TIP ENDPLAY SHIMS
These shims are used to adjust clutchbell endplay.



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.

BEARING OIL **GR**

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

NOTE TIP
To measure the clutch gap you can also use HUDY Flywheel Tool #182010

1) ADJUSTING THE CLUTCH GAP

1 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

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

Pull

3 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

Insert CLUTCH GAP SHIMS here

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

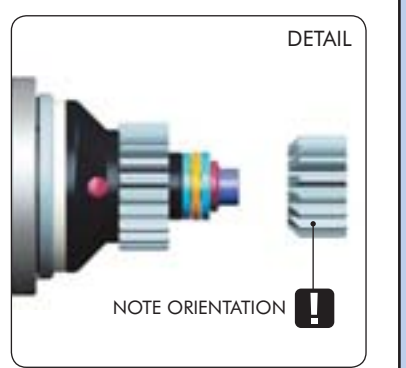
Insert ENDPLAY SHIMS here
(Approximately 0.7~1.0mm shim)

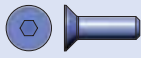
1

NOTE TIP
To tighten the **21T** pinion gear use the optional #182002 HUDY Pinion Tool.

2

NOTE TIP
To tighten the **16T** pinion gear use the optional #182001 HUDY Pinion Tool.





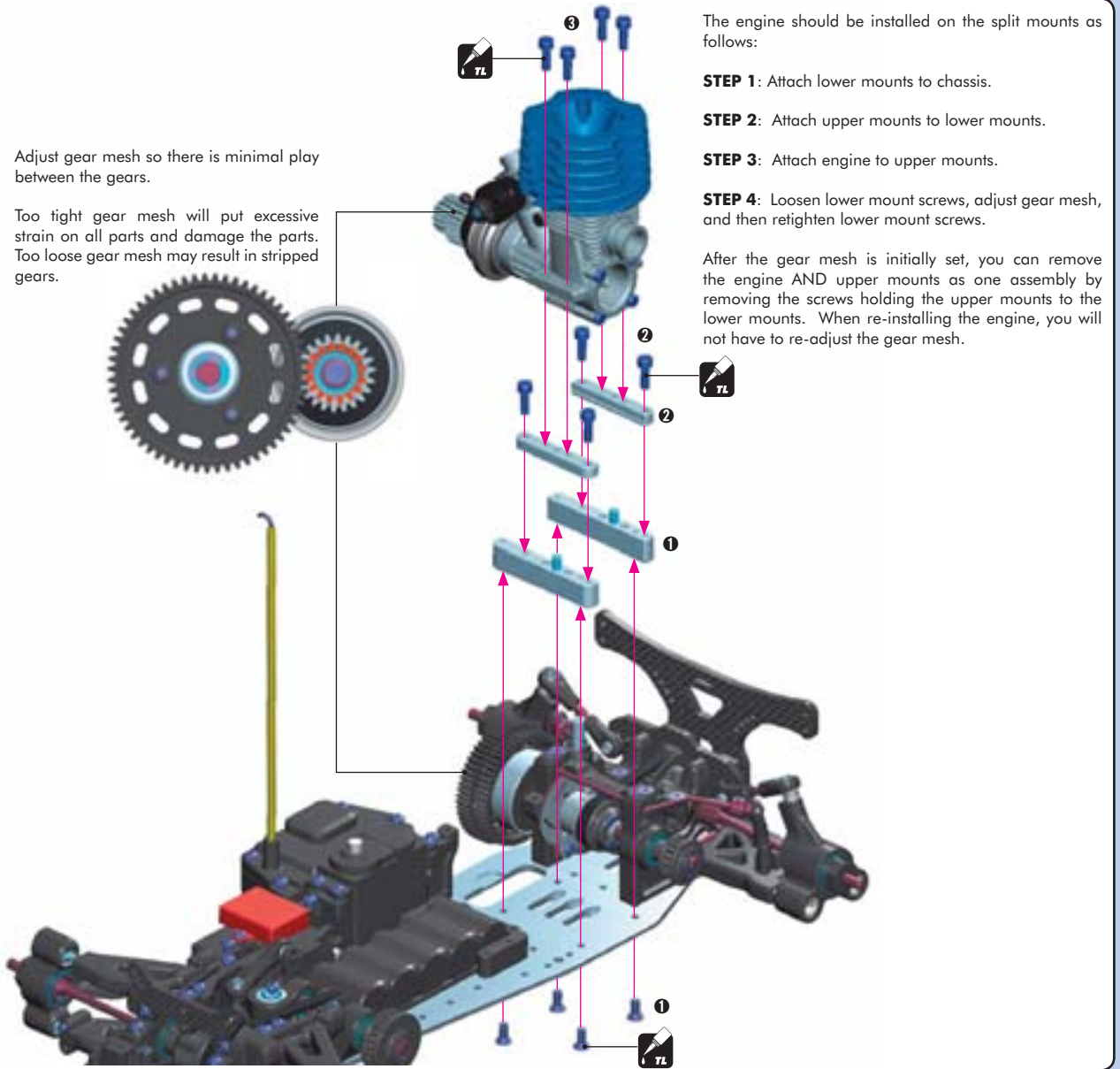
903310
SFH M3x10



908310
SCH M3x10

Adjust gear mesh so there is minimal play between the gears.

Too tight gear mesh will put excessive strain on all parts and damage the parts. Too loose gear mesh may result in stripped gears.



The engine should be installed on the split mounts as follows:

STEP 1: Attach lower mounts to chassis.

STEP 2: Attach upper mounts to lower mounts.

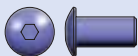
STEP 3: Attach engine to upper mounts.

STEP 4: Loosen lower mount screws, adjust gear mesh, and then retighten lower mount screws.

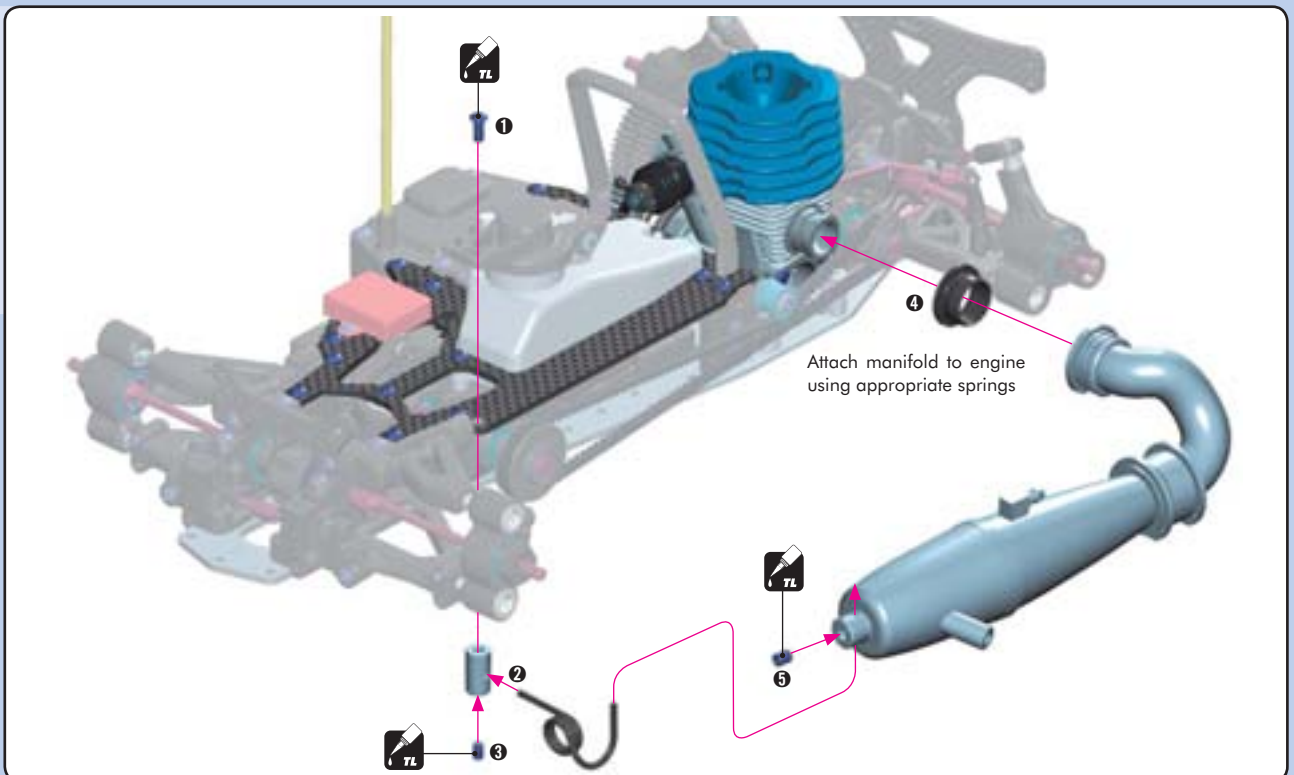
After the gear mesh is initially set, you can remove the engine AND upper mounts as one assembly by removing the screws holding the upper mounts to the lower mounts. When re-installing the engine, you will not have to re-adjust the gear mesh.



901406
SB M4x6

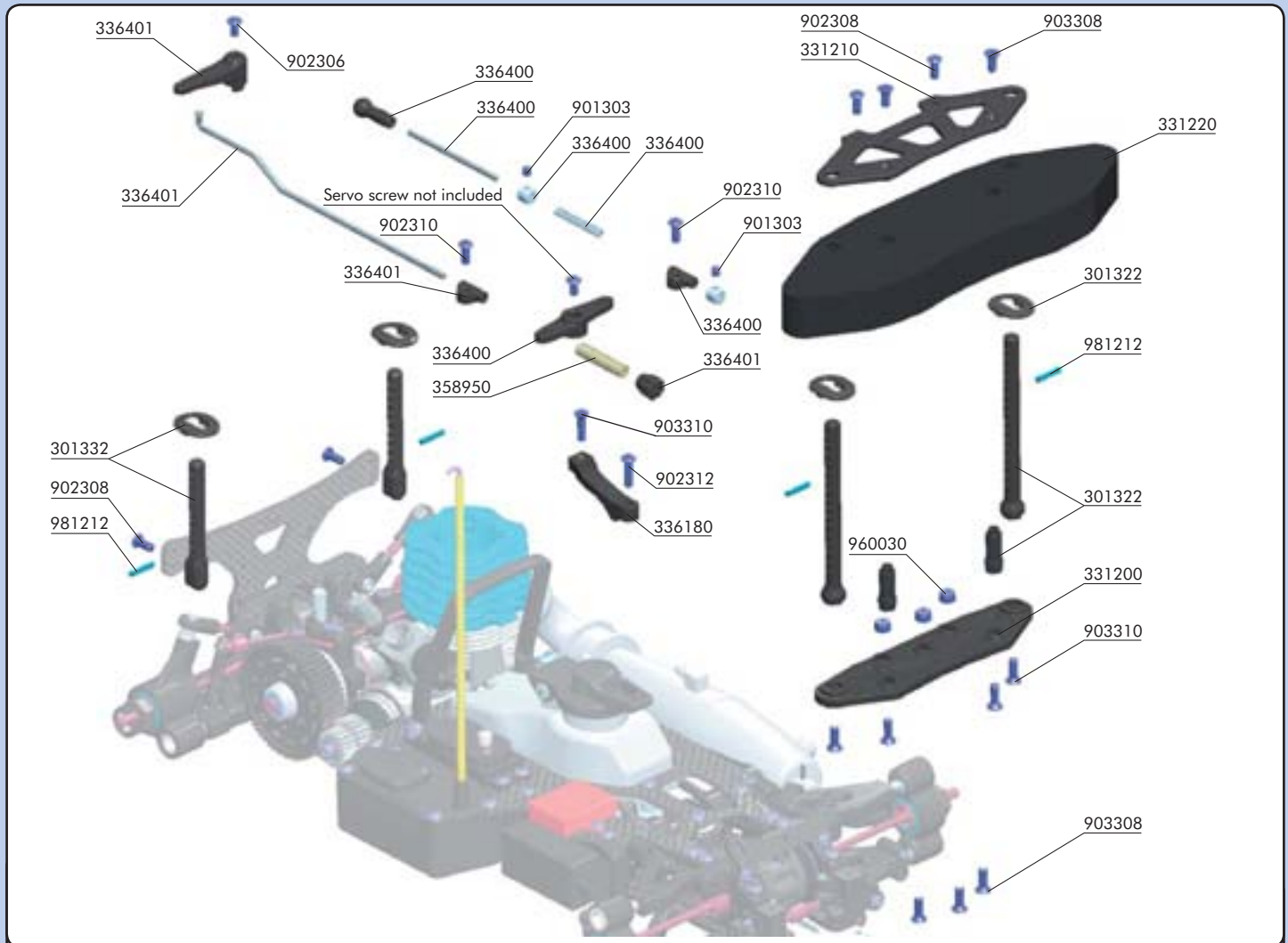


902408
SH M4x8



Attach manifold to engine using appropriate springs

9. CARB LINKAGE & BODYMOUNTS



BAG

09

30 1322 FRONT BODY MOUNT SET 6MM
30 1332 REAR BODY MOUNT SET 6MM

33 1200 COMPOSITE BUMPER
33 1210 COMPOSITE UPPER HOLDER FOR BUMPER
33 1220 FOAM BUMPER
33 6180 COMPOSITE REAR STIFFENER
33 6400 THROTTLE SYSTEM SET
33 6401 BRAKE SYSTEM SET

35 8950 SILICONE TUBING 1M (2.4 x 5.5MM)

90 1303 HEX SCREW SB M3x3 (10)
90 2306 HEX SCREW SH M3x6 (10)
90 2308 HEX SCREW SH M3x8 (10)
90 2310 HEX SCREW SH M3x10 (10)
90 2312 HEX SCREW SH M3x12 (10)
90 3308 HEX SCREW SFH M3x8 (10)
90 3310 HEX SCREW SFH M3x10 (10)
96 0030 NUT M3 (10)
98 1212 PIN 2x12 (10)



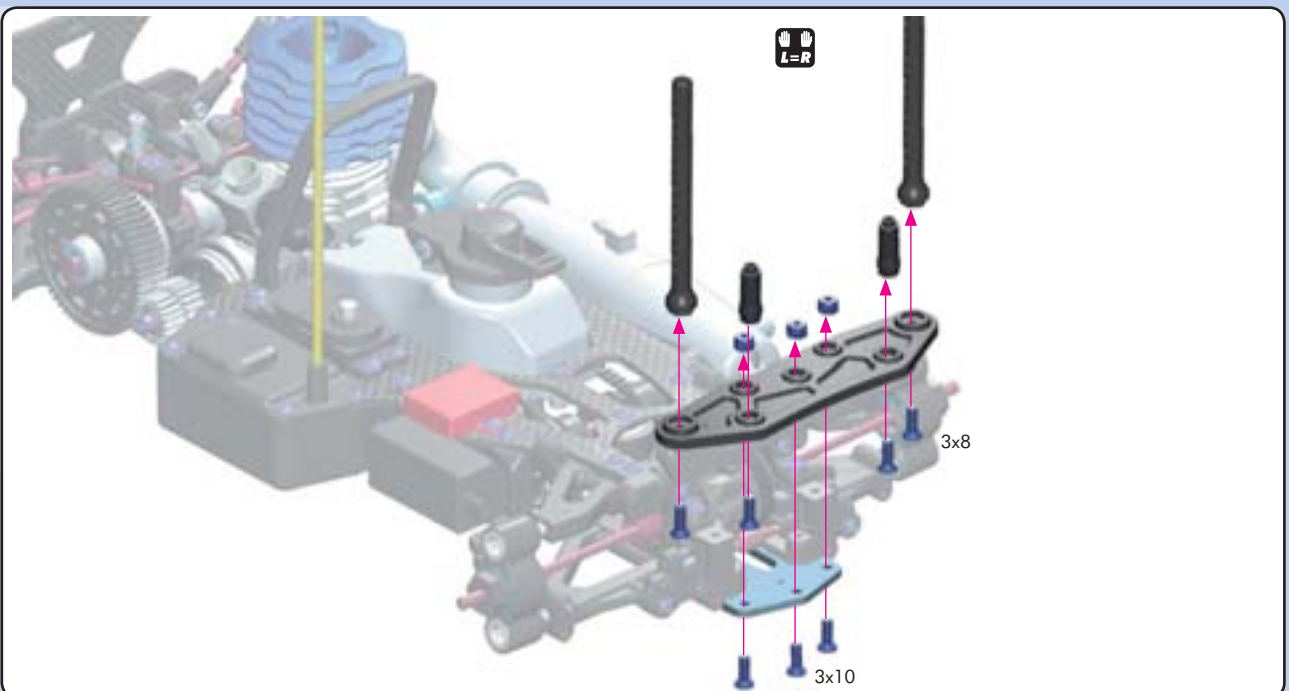
903308
SFH M3x8



903310
SFH M3x10



960030
N M3



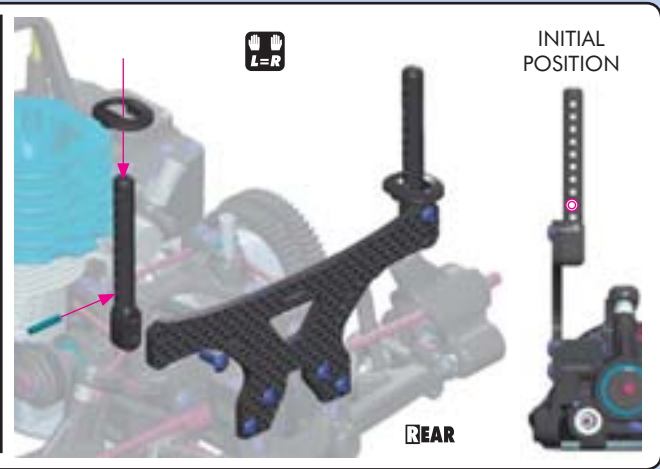
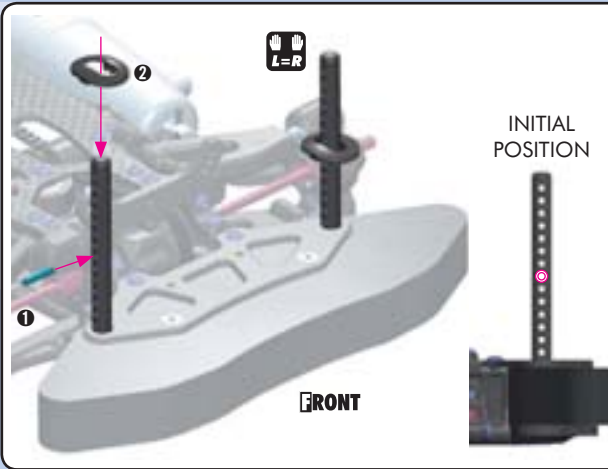
CARB LINKAGE & BODYMOUNTS



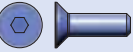
902308
SH M3x8



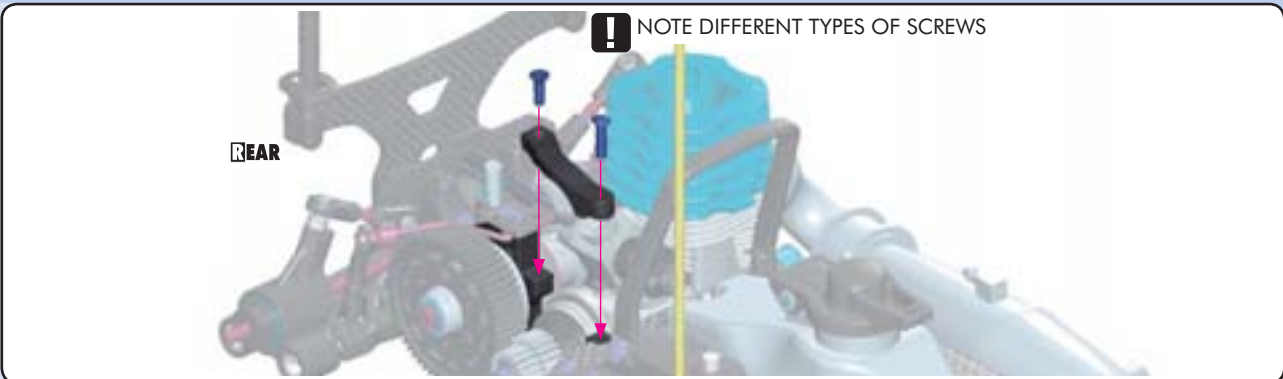
981212
P 2x12



902312
SH M3x12



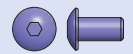
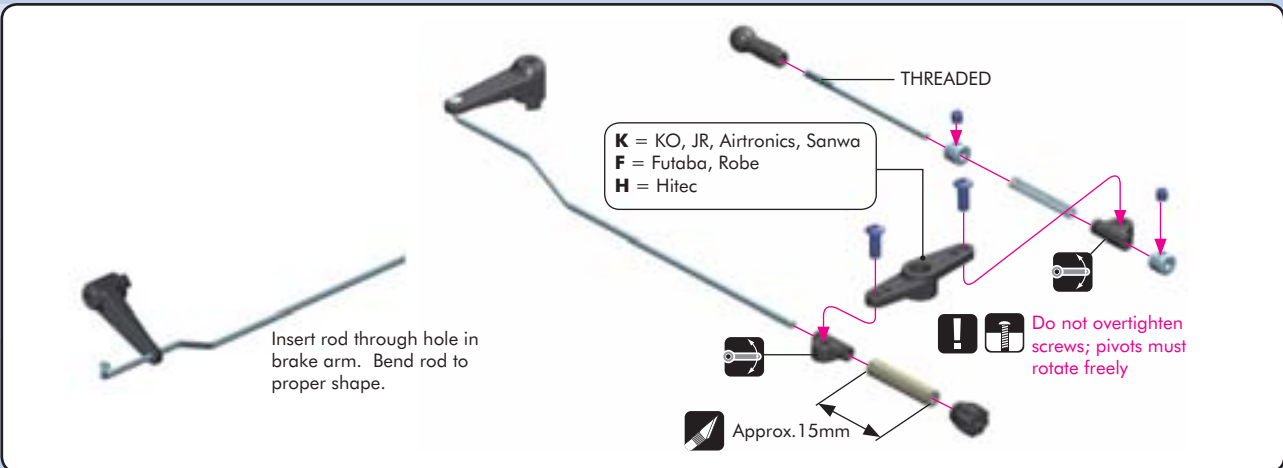
903310
SFH M3x10



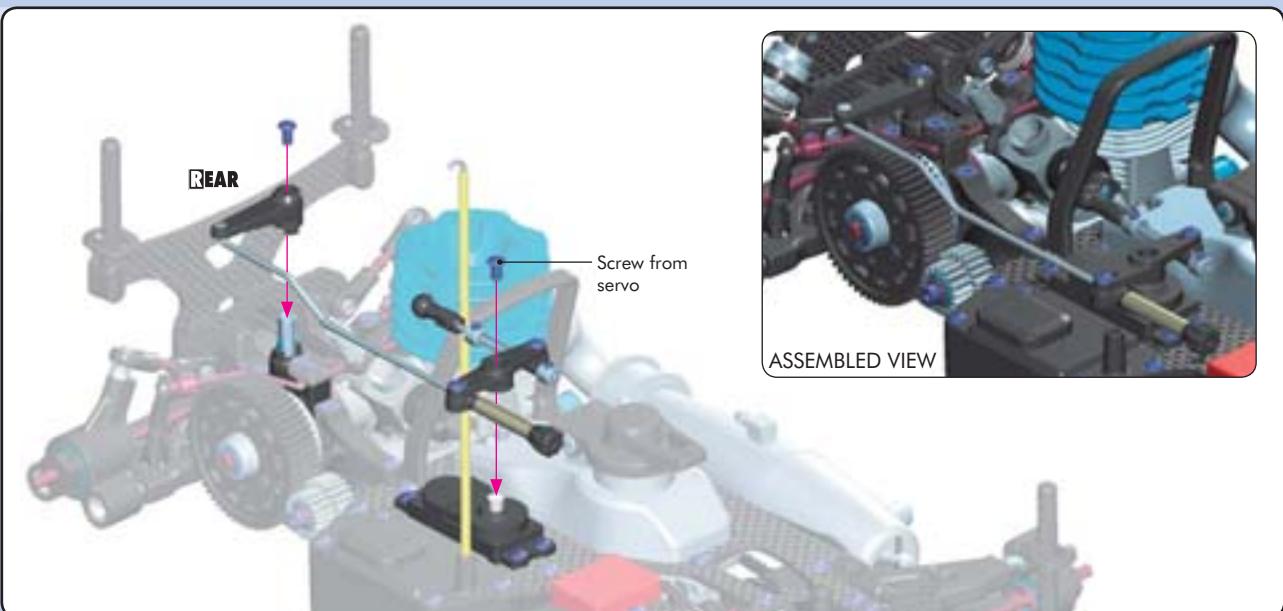
901303
SB M3x3



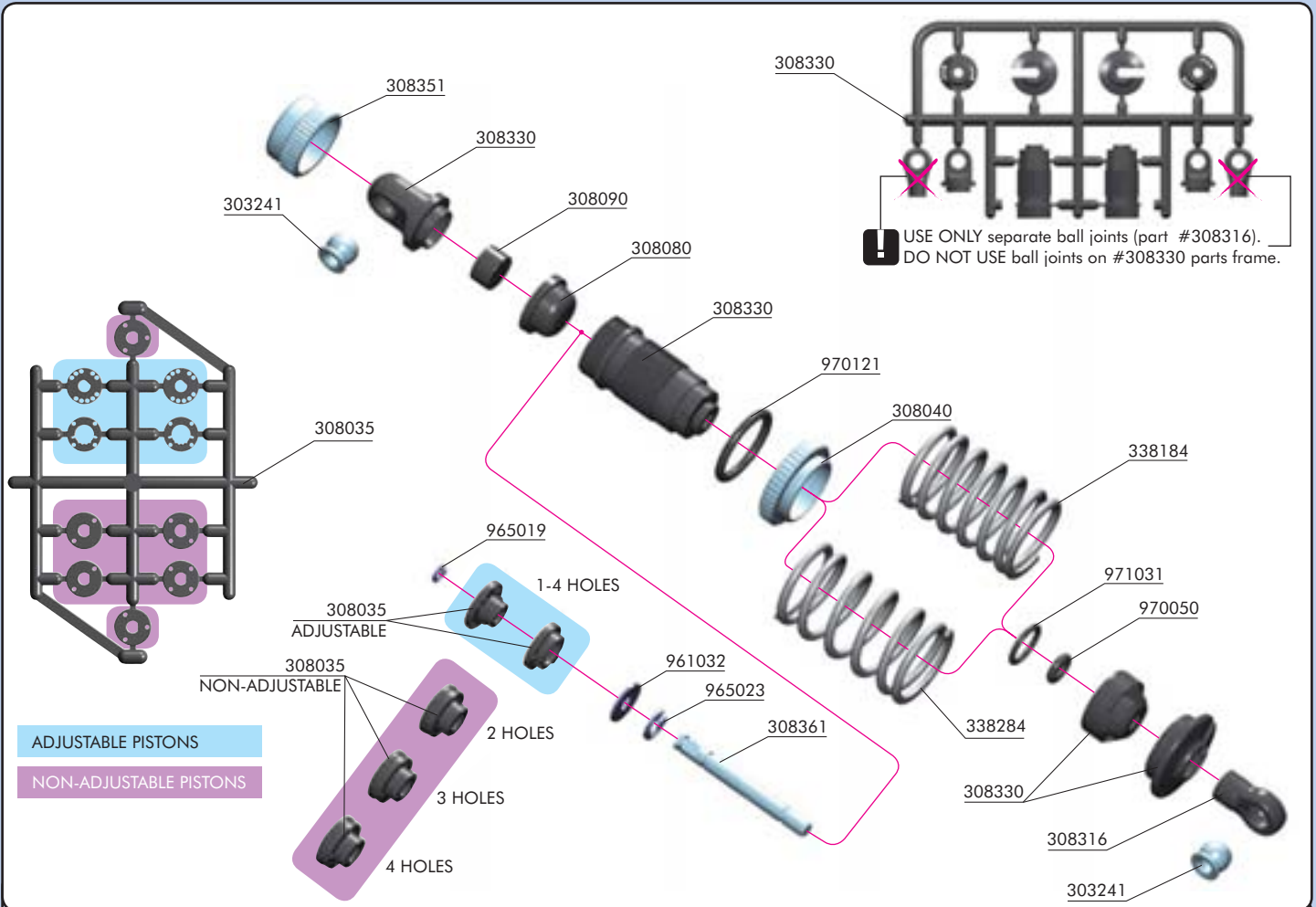
902310
SH M3x10



902306
SH M3x6



10. SHOCK ABSORBERS



BAG

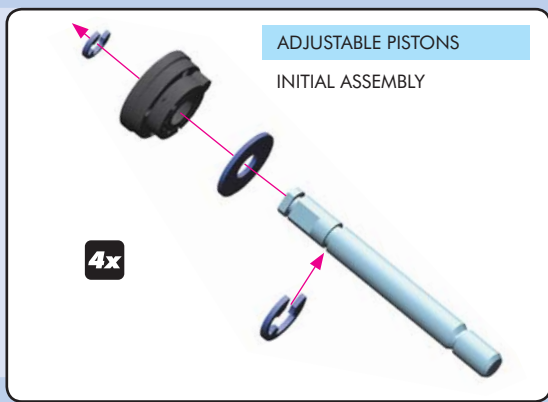
10

- 30 3241 BALL UNIVERSAL 5.8 MM HEX (4)
- 30 8035 COMPOSITE PISTONS ADJUSTABLE + NON-ADJUST. (SET 2+6)
- 30 8040 SHOCK ADJ. NUT ALU + O-RING (4+4)
- 30 8080 SHOCK ABSORBER MEMBRANES (4)
- 30 8090 SHOCK FOAM INSERTS (4)
- 30 8301 XRAY SHOCK ABSORBER-SET 4-STEP (2)
- 30 8316 T2 SHOCK BALL JOINT - OPEN (4)
- 30 8330 T2 COMPOSITE FRAME SHOCK PARTS 4-STEP
- 30 8351 T2 SHOCK CAP-NUT ALU (2)
- 30 8361 T2 HARDENED SHOCK SHAFT (2)
- 30 8380 ADDITIONAL XRAY ULTIMATE RACING SPRINGS (20) - REAR
- 30 8390 XRAY SELECTED ULTIMATE RACING SPRINGS (24) - REAR

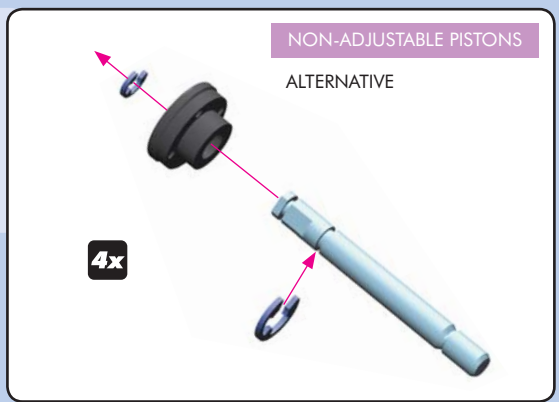
- 30 8396 XRAY SPRING-SET D=1.7 (28 LB) VIOLET - REAR (4)
- 30 8397 XRAY SPRING-SET D=1.8 (33 LB) PURPLE - REAR (4)
- 33 8183 XRAY SPRING-SET D=1.7 (28.5 LB) DARK-BLUE - FRONT (2)
- 33 8184 XRAY SPRING-SET D=1.7 (30.5 LB) VIOLET - FRONT (2)
- 33 8185 XRAY SPRING-SET D=1.8 (33 LB) LIGHT-PURPLE - FRONT (2)
- 33 8186 XRAY SPRING-SET D=1.8 (35.5 LB) PURPLE - FRONT (2)
- 33 8187 XRAY SPRING-SET D=1.8 (38.5 LB) LIGHT-RED - FRONT (2)
- 96 1032 WASHER S 3.2 (10)
- 96 5019 E-CLIP 1.9 (10)
- 96 5023 E-CLIP 2.3 (10)
- 97 0050 O-RING 5x1 (10)
- 97 0121 O-RING 12.1x1.6 (10)
- 97 1031 SILICONE O-RING 3.1x1.6 (10)



- 961032 S3.2
- 965019 C1.9
- 965023 C2.3



- 965019 C1.9
- 965023 C2.3





970121
O 12.1x1.6

4x



SHOCK OIL

CUTAWAY VIEW



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



970050
O 5x1



971031
O 3.1x1.6

4x



SHOCK OIL

OPTIONAL SHOCK TOOL
(HUDY #183010)

4x



INCORRECT X

CORRECT ✓

DETAIL

USE ONLY separate ball-joints (part #308316). DO NOT USE ball joints on nylon parts frame.

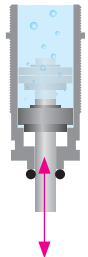
HINT: Pre-thread the ball joint using an M3 screw.
WARNING! Be careful not to pre-thread too far, since the ball joint may split or the plastic threads may strip out

4x



SHOCK FILLING

- 1 Fully extend the piston rod so the piston is at the bottom of the shock body.
- 2 Hold the shock upright and slightly overfill the shock body with shock oil.
- 3 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.
- 4 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 aluminum 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.

SHOCK ABSORBERS

REBOUND ADJUSTMENT

1. RELEASE

2.

3. TIGHTEN

REBOUND CHECK

REBOUND

0%

25%

50%

75%

100%

After the shock is assembled you have to set the Shock Rebound.

- To set the Shock Rebound, release the shock composite lower cap.
- VERY SLOWLY do the following: Fully pull out the shock rod, push it back in fully, and then fully pull it out once more. Repeat this procedure the following number of times to achieve the desired Shock Rebound setting:
 10 times - approximately 75% rebound (high rebound - suggested for very low traction track)
 15 times - approximately 50% rebound (medium rebound - suggested for standard track)
 20 times - approximately 25% rebound (low rebound - suggested for very high traction track)
- After you have set the Rebound Adjustment, re-install the shock lower composite cap.
- Check the Shock Rebound setting by pushing the shock rod fully into the shock body, releasing it, and observing how far the shock rod extends by itself:
 * 25% out of the shock body (low rebound)
 * 50% out of the shock body (medium rebound)
 * 75% out of the shock body (high rebound).
 If the shock rod rebounds too much, return to Step 1 and repeat the procedure.

During the Rebound Adjustment procedure shock oil will leak out of the shock body through the O-ring on the shock rod... this is normal. During the Rebound Adjustment procedure DO NOT open the upper shock cap.

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

Cutaway view of assembled shock absorber

SOFTEST 4 HARDEST 1

3 2

2

1

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.

Damping adjustment:

If you built the adjustable shocks, fully extend the shock rod and turn it slightly to lock the piston in the shock body.

Turning the shock rod fully CCW aligns 4 holes in the pistons (softest damping). Turning the shock rod fully CW aligns 1 hole in the pistons (hardest damping). The shocks have four settings, each of which can be felt by a slight "click".

Set all four shocks initially to position 3 (3 holes open): turn fully CCW, then turn CW by 1 click.

TECH TIP

CHECK NEXT TECH TIP

2x FRONT SHOCKS (SHORTER SPRINGS)

2x REAR SHOCKS (LONGER SPRINGS)

SET-UP BOOK

SHOCK DAMPING ADJUSTMENT

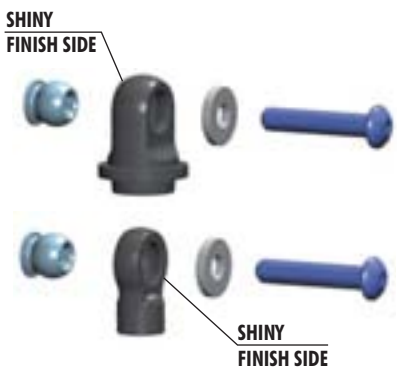
SPRING RATE SELECTION

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.



1

SHINY FINISH SIDE

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

2

SHINY FINISH SIDE

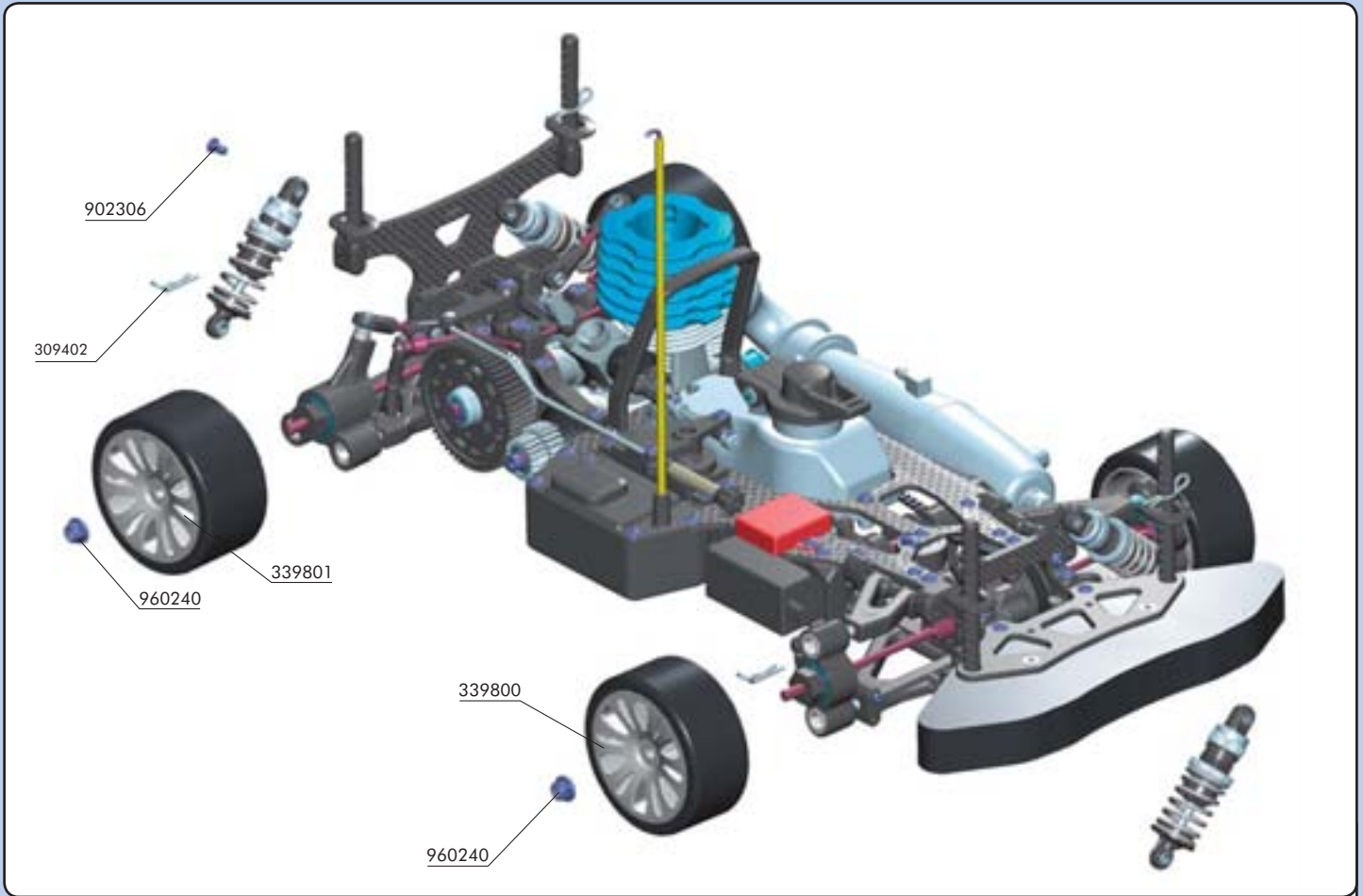
Tighten screw until pivot ball snaps into place

3

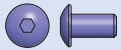
Ensure pivot balls move freely

4

Remove screw and shim

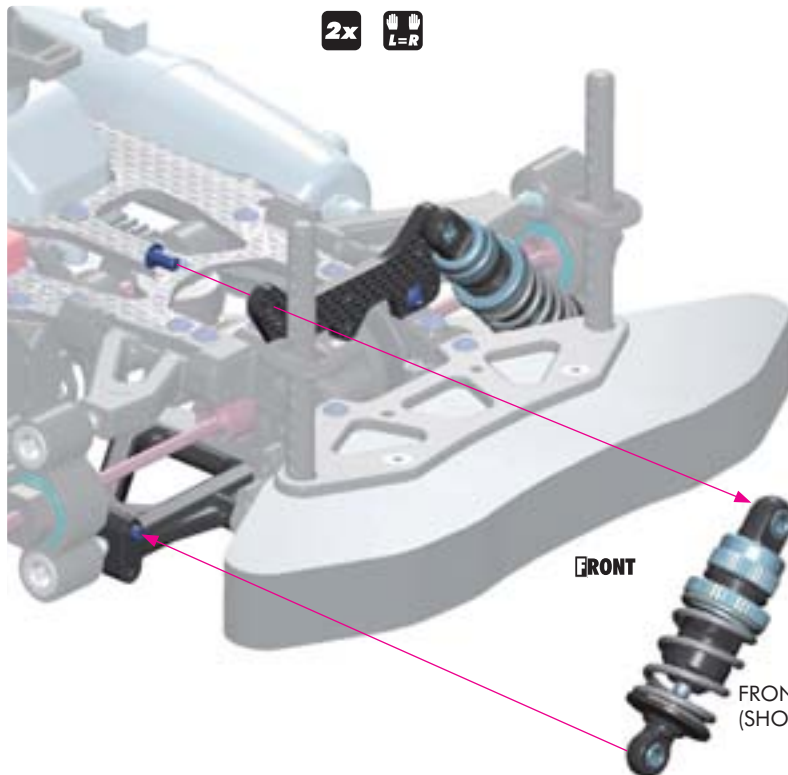


- 30 9402 BODY CLIP FOR 6MM BODY POST (4)
- 33 9800 FRONT WHEELS STARBURST - WHITE (2)
- 33 9801 REAR WHEELS STARBURST - WHITE (2)
- 90 2306 HEX SCREW SH M3x6 (10)
- 96 0240 NUT M4 WITH SERRATED FLANGE (10)



902306
SH M3x6

2x L-R



INITIAL POSITION

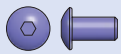


FRONT

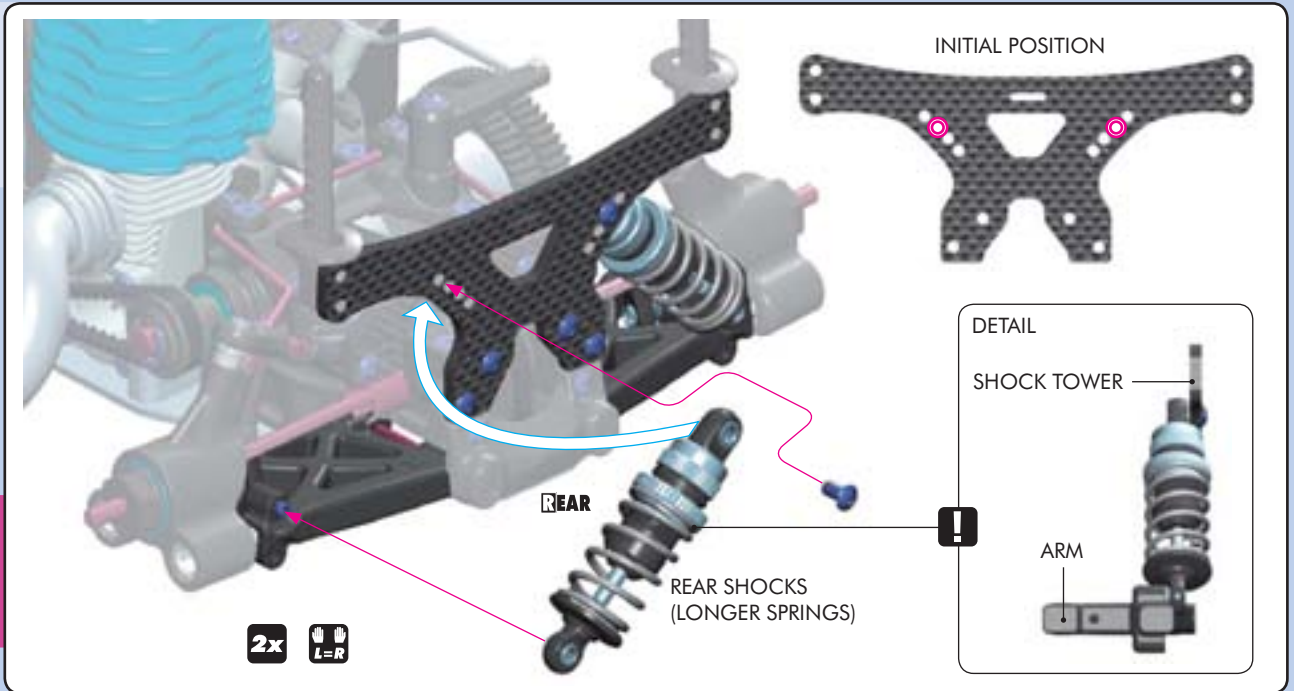
FRONT SHOCKS
(SHORTER SPRINGS)



FINAL ASSEMBLY



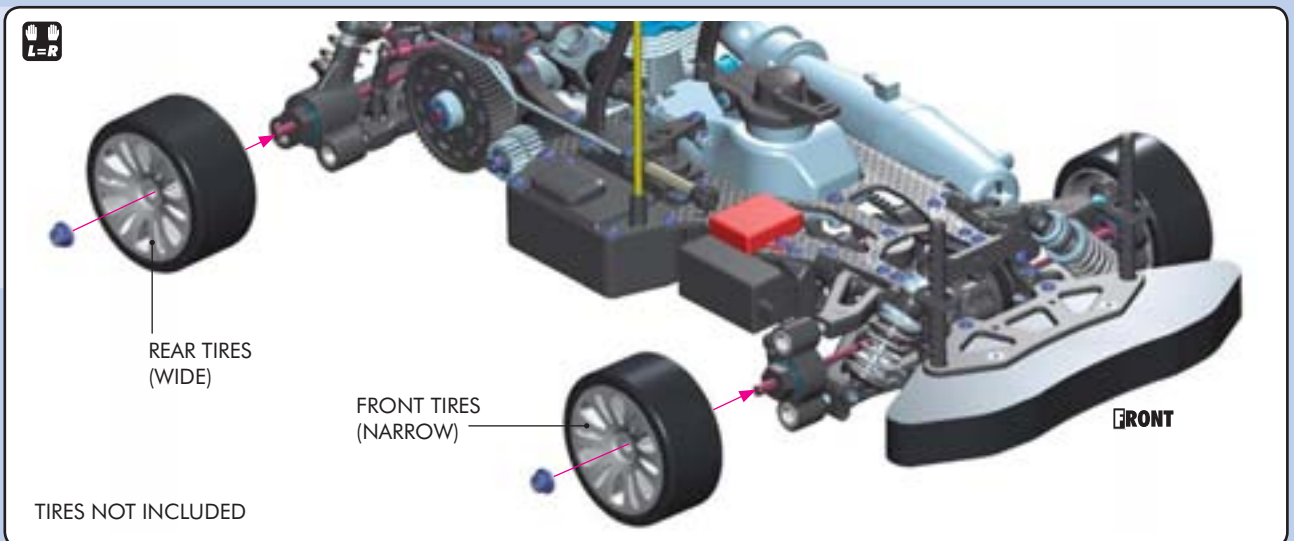
902306
SH M3x6



2x



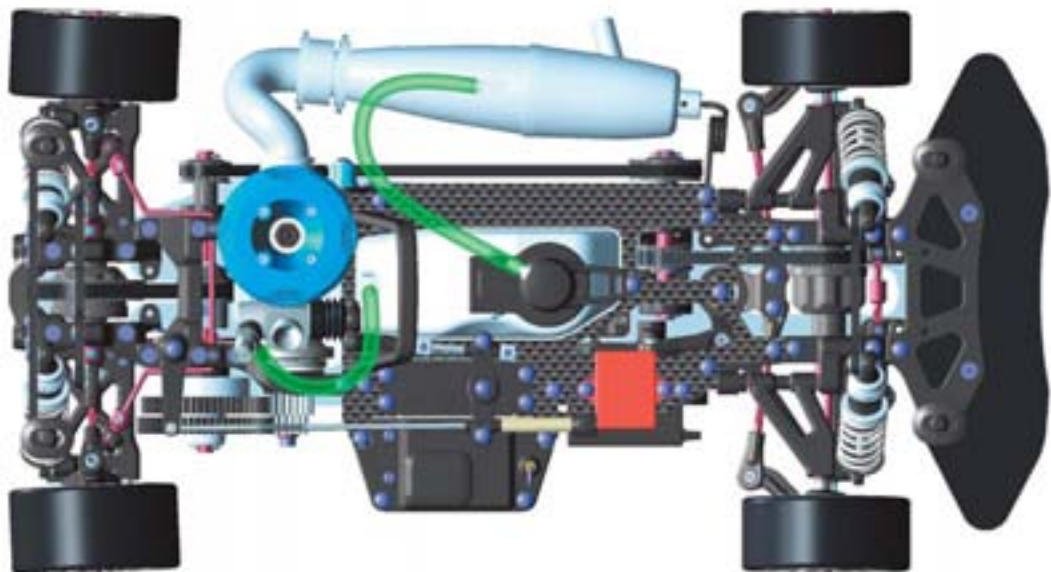
960240
N M4



TIRES NOT INCLUDED

Cut 2 pieces of silicone tubing and install as follows:

- pressure line - between exhaust pipe and fuel tank cap
- fuel line - between fuel tank and carburetor



CARB LINKAGE ADJUSTMENT

NEUTRAL (IDLE)



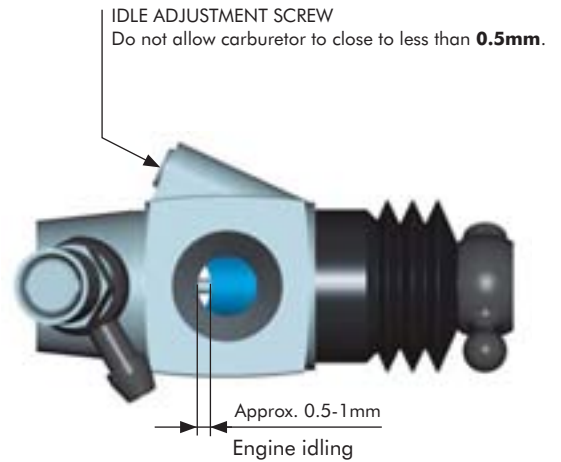
Approx. 0.5mm

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

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

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.



IDLE ADJUSTMENT SCREW

Do not allow carburetor to close to less than **0.5mm**.

Approx. 0.5-1mm

Engine idling

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



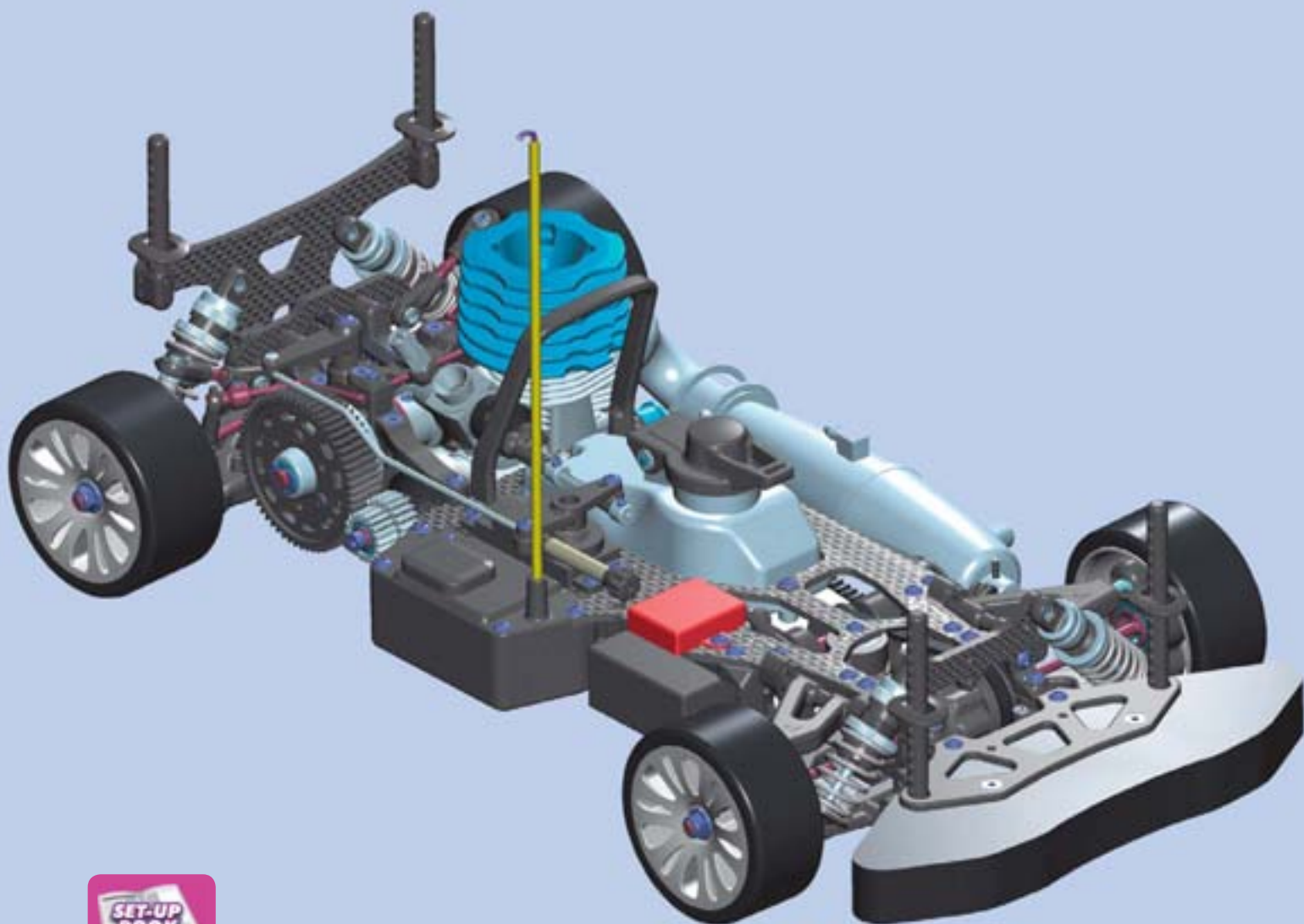
BRAKE ADJUSTING COLLAR

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.



FINAL ASSEMBLY VIEW



PLEASE REFER TO THE NT1 SET-UP BOOK FOR
INFORMATION ABOUT PROPER SETUP OF
YOUR NT1

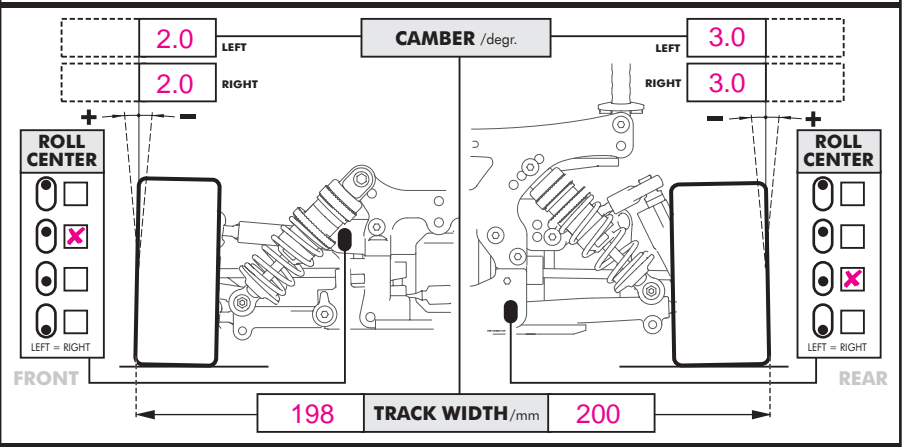
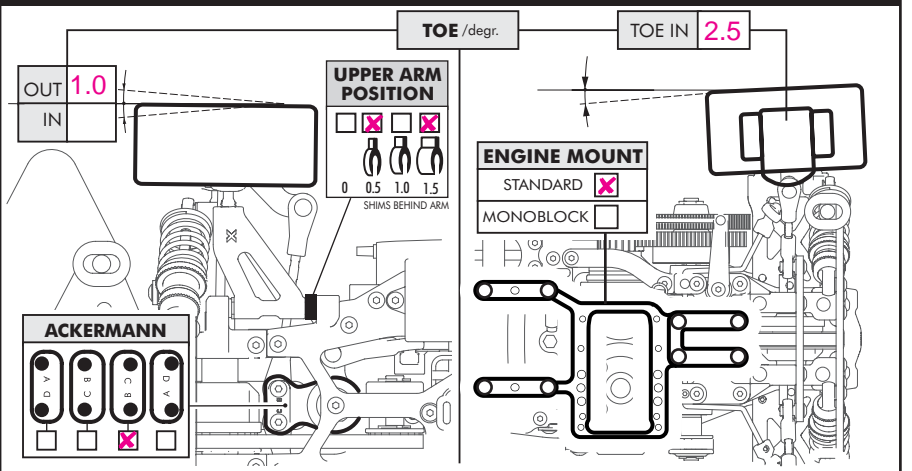
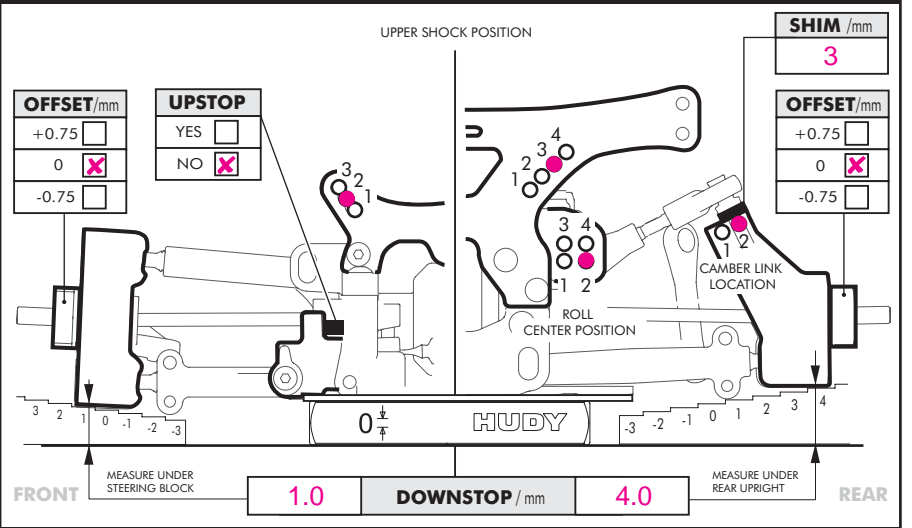
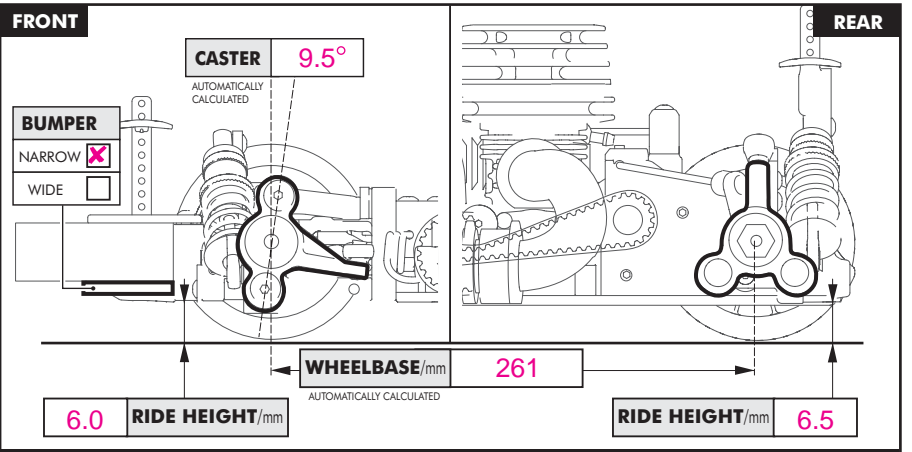
XRAY NT1

1/10 LUXURY NITRO TOURING

SET-UP SHEET

XRAY NT1

RACE	BASIC SET-UP			
TRACK				
NAME				
CITY / COUNTRY				
CONTACT				
DATE		TEMPERATURE / °F or °C	AIR	TRACK
QUALIFYING POSITION	BEST LAPTIME / sec	FINAL POSITION	LAPS	RACE LENGTH / minutes
TRACK CONDITION	<input type="checkbox"/> SMOOTH	<input type="checkbox"/> MEDIUM	<input type="checkbox"/> BUMPY	
	<input type="checkbox"/> TECHNICAL	<input type="checkbox"/> MIXED	<input type="checkbox"/> FAST	
TRACTION	<input type="checkbox"/> LOW	<input type="checkbox"/> MEDIUM	<input type="checkbox"/> HIGH	
FRONT	DIFF	REAR		
80 K	GEAR DIFF. OIL/cSt (K)	60 K		
ONE WAY DIFFERENTIAL	<input type="checkbox"/> YES			
SOLID ONE WAY DIFF.	<input type="checkbox"/> YES			
SOLID AXLE	<input type="checkbox"/> YES	SOLID AXLE	<input type="checkbox"/> YES	
BALL DIFFERENTIAL				
GEARING				
PINION	1ST 15 <input type="checkbox"/> 16 <input checked="" type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/>	SPUR	1ST 57 <input type="checkbox"/> 58 <input type="checkbox"/> 59 <input checked="" type="checkbox"/> 60 <input type="checkbox"/>	
	2ND 20 <input type="checkbox"/> 21 <input checked="" type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/>		2ND 53 <input type="checkbox"/> 54 <input checked="" type="checkbox"/> 55 <input type="checkbox"/>	
PULLEY	25 <input checked="" type="checkbox"/> 26 <input type="checkbox"/>	RATIO 1ST	RATIO 2ND	
FRONT	SHOCKS	REAR		
600	SPRING	600		
50	OIL / cSt	50		
KIT	REBOUND %	KIT		
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	MEMBRANE	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
<input checked="" type="checkbox"/> PLASTIC <input type="checkbox"/> ALU	FOAM INSERTS	<input checked="" type="checkbox"/> PLASTIC <input type="checkbox"/> ALU		
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SHOCK BODY	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
	ADJUSTABLE PISTONS	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
	HOLE IN PISTON /mm			
<input type="checkbox"/> OPENED <input checked="" type="checkbox"/> CLOSED	HOLES IN PISTON			
FRONT	ANTI-ROLL BAR	REAR		
<input checked="" type="checkbox"/> 0° <input type="checkbox"/> 30° <input type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> 90°	<input type="checkbox"/> 0° <input type="checkbox"/> 30° <input type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> 90°	<input type="checkbox"/> 0° <input type="checkbox"/> 30° <input type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> 90°		
NO <input type="checkbox"/>	WIRE /mm	2.0		
		0		
FRONT	TIRES	REAR		
LEFT	RIGHT	LEFT	RIGHT	
38	38	40	40	
59	59	61	61	
	MANUFACTURER			
	SHORE / deg°			
	DIAMETER / mm			
	5 MIN. WEAR /mm			
	RUBBER TIRES			
	INSERT			
ENGINE				
ENGINE				
CARB. DIA /mm	HEAD SHIM /mm	PLUG		
MUFFLER	FUEL			
CLUTCH / BRAKE				
FLYWHEEL	<input checked="" type="checkbox"/> STANDARD	OTHER		
CLUTCH FLYWEIGHTS	<input checked="" type="checkbox"/> STANDARD	OTHER		
CLUTCH SHOE	<input checked="" type="checkbox"/> WHITE <input type="checkbox"/> YELLOW	CLUTCH SPRING	<input checked="" type="checkbox"/> STANDARD	
CLEARANCE /mm	0.7	ADJ. NUT /mm		
BRAKE PAD	<input checked="" type="checkbox"/> STANDARD	OTHER		
BRAKE SETTING %				
BODY	STRATUS 3			
WING HEIGHT	WING POSITION	WING ANGLE		



COMMENTS

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