

XRAY T4

1/10 LUXURY
ELECTRIC TOURING CAR



MADE IN
EUROPE

INSTRUCTION
MANUAL

XRAY

BEFORE YOU START

The T4 is a high-competition, high-quality, 1/10-scale 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 T4, 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 T4 is not what you wanted or expected, do not continue any further. Your hobby dealer cannot accept your T4 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
E-mail: xray@rcamerica.com

Failure to follow these instructions will be considered as abuse and/or neglect.

SAFETY PRECAUTIONS

Contains:

LEAD (CAS 7439-92-1) ANTIMONY (CAS 7440-36-0)

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

Contains lead, a listed carcinogen. Lead is harmful if ingested. 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 - 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.

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 addictions 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.

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SYMBOLS USED

Part bags used 	Assemble in the specified order 	Assemble left and right sides the same way 	Pay attention here 	Assemble as many times as specified (here twice) 	Apply thread lock 	Apply CA glue
Apply oil 	Apply grease 	Use pliers 	Ensure smooth non-binding movement 	Tighten screw gently 	CORRECT Overtightened	WRONG The threads are stripped.
						Follow Set-Up Book

TOOLS REQUIRED

HUDY TOOLS: Allen: 1.5mm, 2.0mm, 3.0mm Socket: 5.5mm, 7.0mm 	Combination Pliers (HUDY #189020) 	Side Cutters (HUDY #189010) 	Hobby Knife Scissors (HUDY #188990) 	Turnbuckle Wrench 4mm (HUDY #181040) 	Reamer (HUDY #107600) or (HUDY #107601)
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EQUIPMENT INCLUDED

XRAY Premium Silicone Oil 350cSt (#359235) Oil 700cSt (#359270) 	Graphite Grease (HUDY #106210)
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NOT INCLUDED

	<p>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 current updated version.</p>
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SAMPLE OF OPTIONAL PARTS <table border="1"> <tr> <td>#30XXX</td> <td>OPTION 1</td> </tr> <tr> <td>#30XXX</td> <td>OPTION 2</td> </tr> <tr> <td>#30XXX</td> <td>OPTION 3</td> </tr> </table>	#30XXX	OPTION 1	#30XXX	OPTION 2	#30XXX	OPTION 3	<p>XRAY offers wide range of optional tuning parts which are listed in a table like this. Please refer to the exploded view of each main section to verify which part is included in the kit while all other parts are available only as an optional part and must be purchased separately.</p>
#30XXX	OPTION 1						
#30XXX	OPTION 2						
#30XXX	OPTION 3						

EQUIPMENT REQUIRED

Transmitter 	Receiver 	Steering Servo 	Electric Motor & Pinion Gear and Setscrew 	Bearing Oil (HUDY #106230) 	Speed Controller
190mm Bodyshell 	LiPo Battery 	Lexan Paint™ 	Battery Charger 	Fibre Tape (HUDY #107870) Double-sided Tape 	Wheels & Tires & Inserts

COLOR INDICATIONS

At the beginning of each section is an exploded view of the parts to be assembled. There is also a list of all the parts and part numbers that are related to the assembly of that section.

The part descriptions are color-coded to make it easier for you to identify the source of a part. Here are what the different colors mean:

STYLE A - indicates parts that are included in the bag marked for the section.

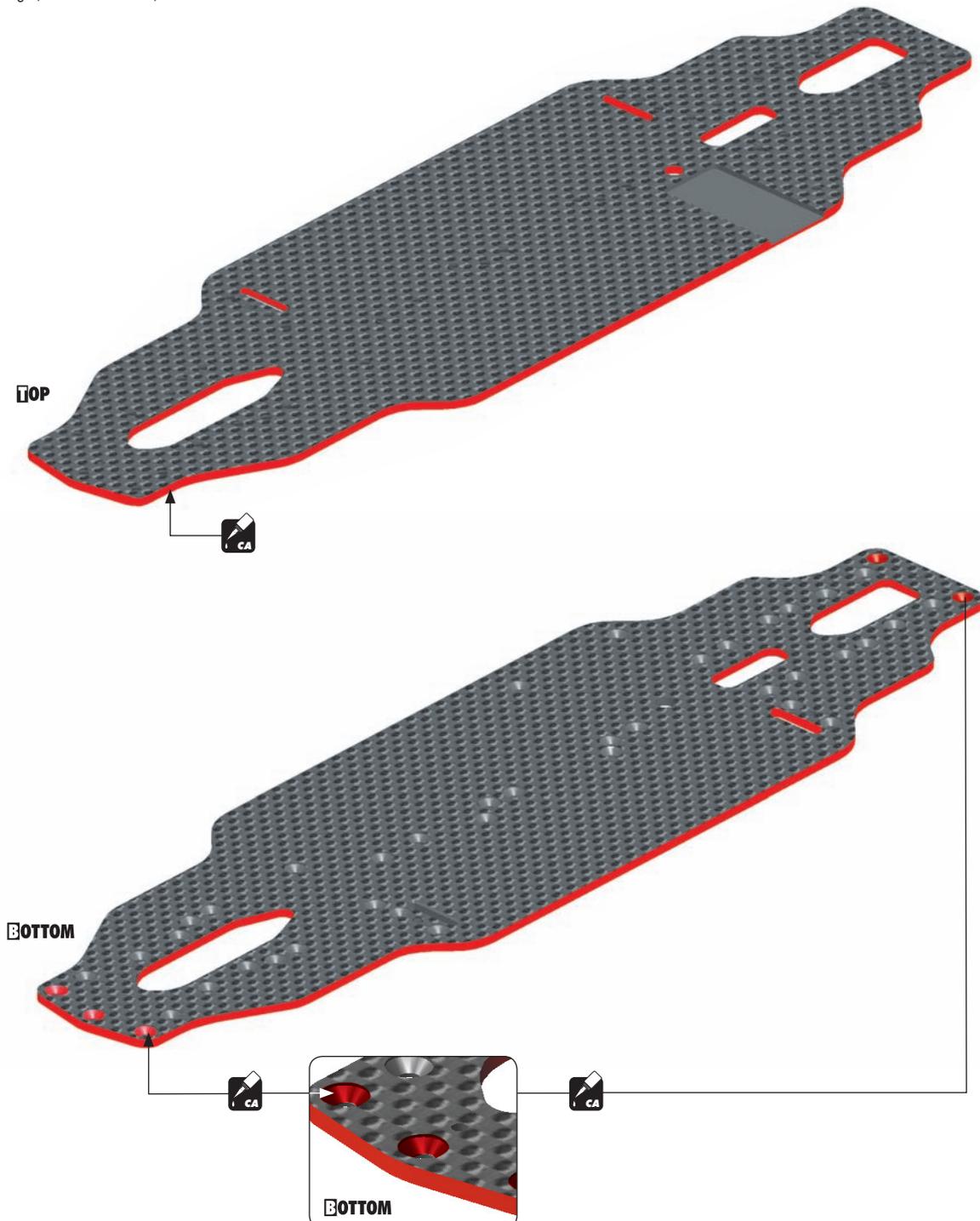
STYLE B - indicates parts that are included in the box.

STYLE C - indicates parts that are already assembled from previous steps.

CHASSIS PREPARATION

To protect and seal edges of graphite parts, sand edges smooth and then apply CA glue.

Do this for: chassis edges, countersunk holes, and shock towers.



Apply only a bit of CA glue.
on the countersunk holes.

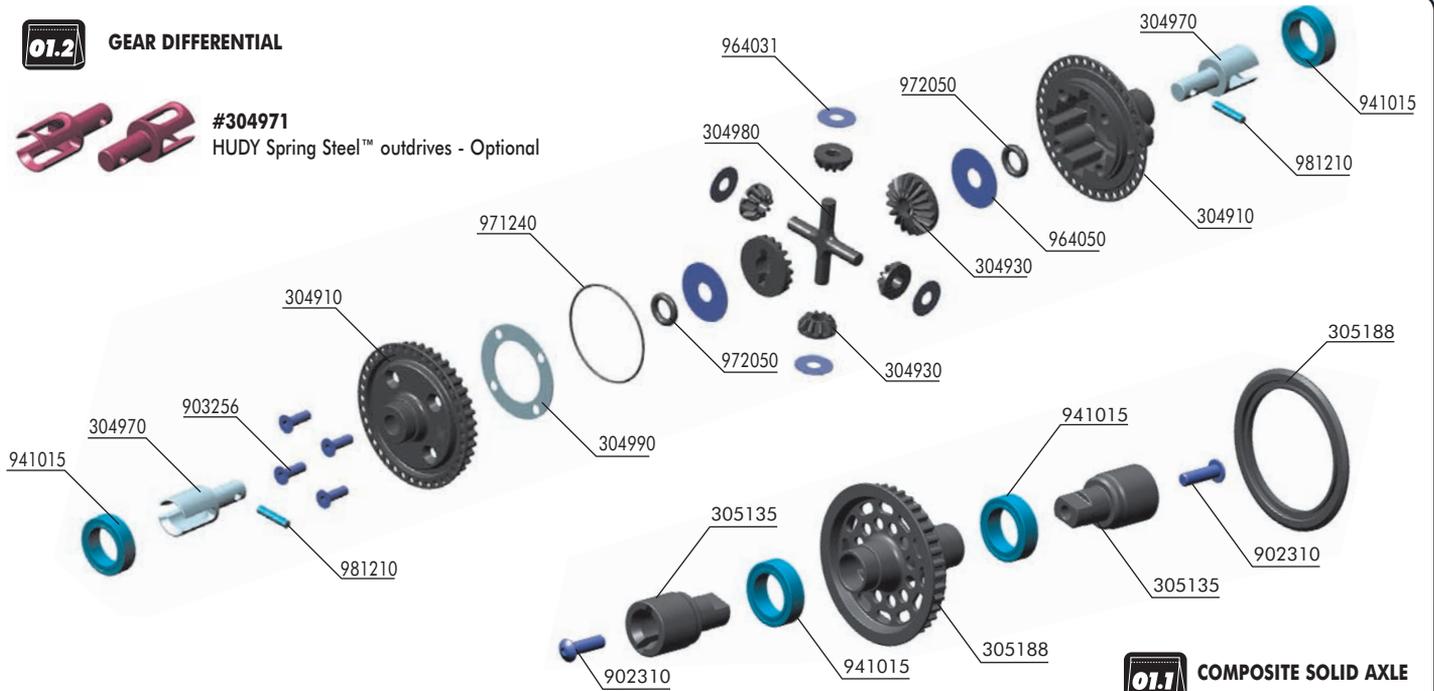
1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

01.2

GEAR DIFFERENTIAL



#304971
HUDY Spring Steel™ outrives - Optional



#305136
ALU SOLID DRIVESHAFT ADAPTERS - Optional



#305137
STEEL SOLID AXLE DRIVESHAFT ADAPTERS - Optional

01.1

COMPOSITE SOLID AXLE

BAG

01.1

01.2

- 30 4900 XRAY GEAR DIFFERENTIAL - SET
- 30 4910 COMPOSITE GEAR DIFF. CASE & COVER
- 30 4930 COMPOSITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)
- 30 4970 ALU GEAR DIFF OUTDRIVE ADAPTER - 7075 T6 (2)
- 30 4980 COMPOSITE GEAR DIFF CROSS PIN
- 30 4990 DIFF GASKET (4)
- 30 5003 ALU BALL DIFFERENTIAL 34T + 38T PULLEY (OPTION)
- 30 5105 XRAY MULTI-DIFF T3/T4 LiPo (OPTION)
- 30 5135 COMPOSITE SOLID AXLE DRIVESHAFT ADAPTERS (2)

- 30 5188 COMPOSITE SOLID AXLE 38T - SET
- 90 2310 HEX SCREW SH M3x10 (10)
- 90 3256 HEX SCREW SFH M2.5x6 (10)
- 94 1015 HIGH-SPEED BALL-BEARING 10x15x4 RUBBER SEALED (2)
- 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)



964050
S 5x15x0.3

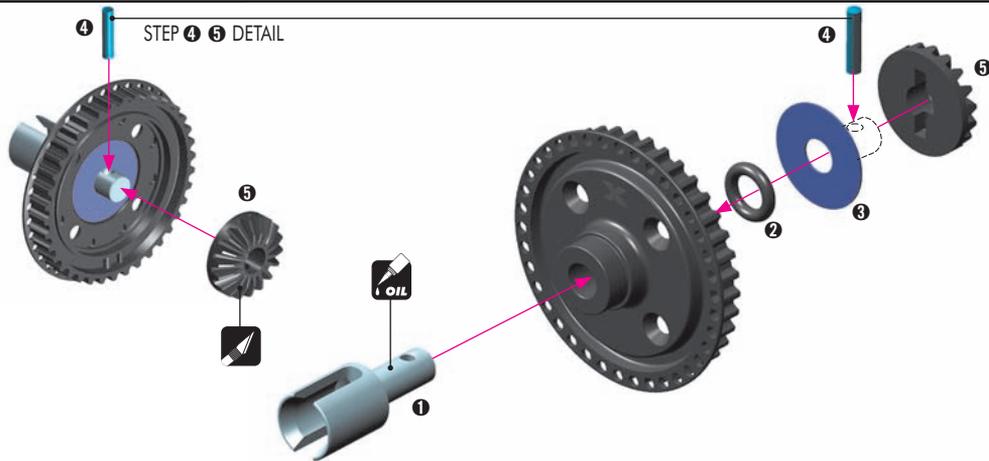


972050
O 5x2



981210
P 2x10

STEP 4 6 DETAIL



964050
S 5x15x0.3

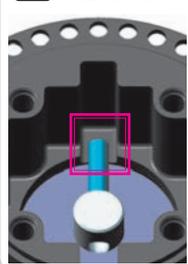


972050
O 5x2



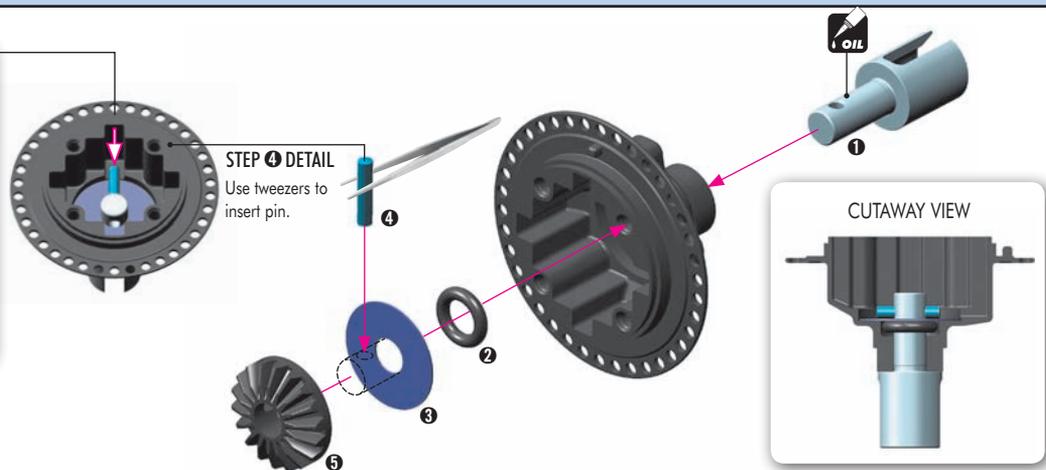
981210
P 2x10

! NOTE ORIENTATION

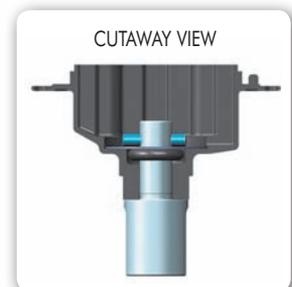


STEP 4 DETAIL

Use tweezers to insert pin.



CUTAWAY VIEW



1. GEAR DIFFERENTIAL & FRONT SOLID AXLE



964031
S 3.5x10x0.2



TIP

Fill differential up to the top of the diff pin. DO NOT fill the diff to the top of the housing.



TO ENSURE YOU HAVE THE SAME AMOUNT OF OIL FROM REBUILD TO REBUILD, DO THE FOLLOWING:



7.90g

#107865
HUDY Ultimate Digital Pocket
Scale 300g±0.01g



9.20g



$$7.9g + 1.3g = 9.2g$$

❶ Put the diff (without oil) on the scale and check the weight (approximately 7.90g)

❷ Slowly pour oil into the diff and watch the weight. Add 1.3g of oil into the diff. The approximate weight of the diff including oil is 9.20g.

TIP

TIPS FOR DIFFERENTIALS

TIP

LOW-TRACTION

600cst (HUDY #106360)
700cst (HUDY #106370)
800cst (HUDY #106380)

NOTE: softer oil increases rear traction, harder oil increases on-power steering.

HIGH-TRACTION

900cst (HUDY #106390)
1000cst (HUDY #106410)
2000cst (HUDY #106420)

TIPS FOR FRONT DIFFERENTIAL

To increase on-power steering and cornering speed, the gear diff can also be used in the front. Note: If you use the gear diff in the front, we recommend using optional #304971 HUDY Spring Steel™ outrives because the stress on the outrives in the front is much higher than in the rear.

USE THESE OILS FOR FRONT DIFFERENTIAL

1,000,000 cst (HUDY #106692)
500,000 cst (HUDY #106650)

To make the front differential tighter, you can use cleaning gum instead of oil. **IMPORTANT!** Using cleaning gum instead of oil in the gear differential can lead to gear breakage because the gears are working under dry conditions.



After disassembling the gear diff the large O-ring may have an increased size and may be more difficult to re-install. We recommend either inserting the old O-ring carefully in the diff cover, or replacing the old O-ring with a new O-ring if the old one cannot be made to fit properly.



903256
SFH M2.5x6

BOTTOM DETAIL



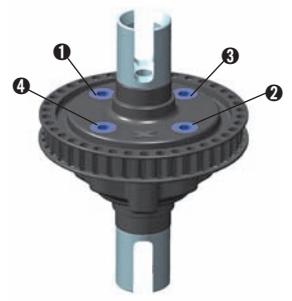
NOTE
ORIENTATION



DETAIL

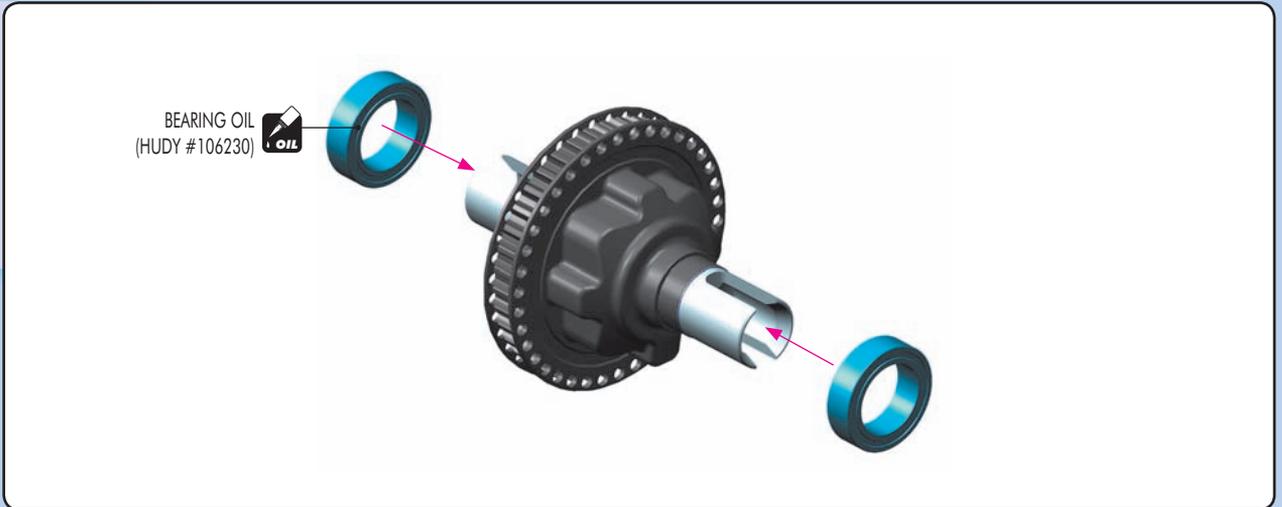


Tighten the screws equally but do NOT tighten them completely.

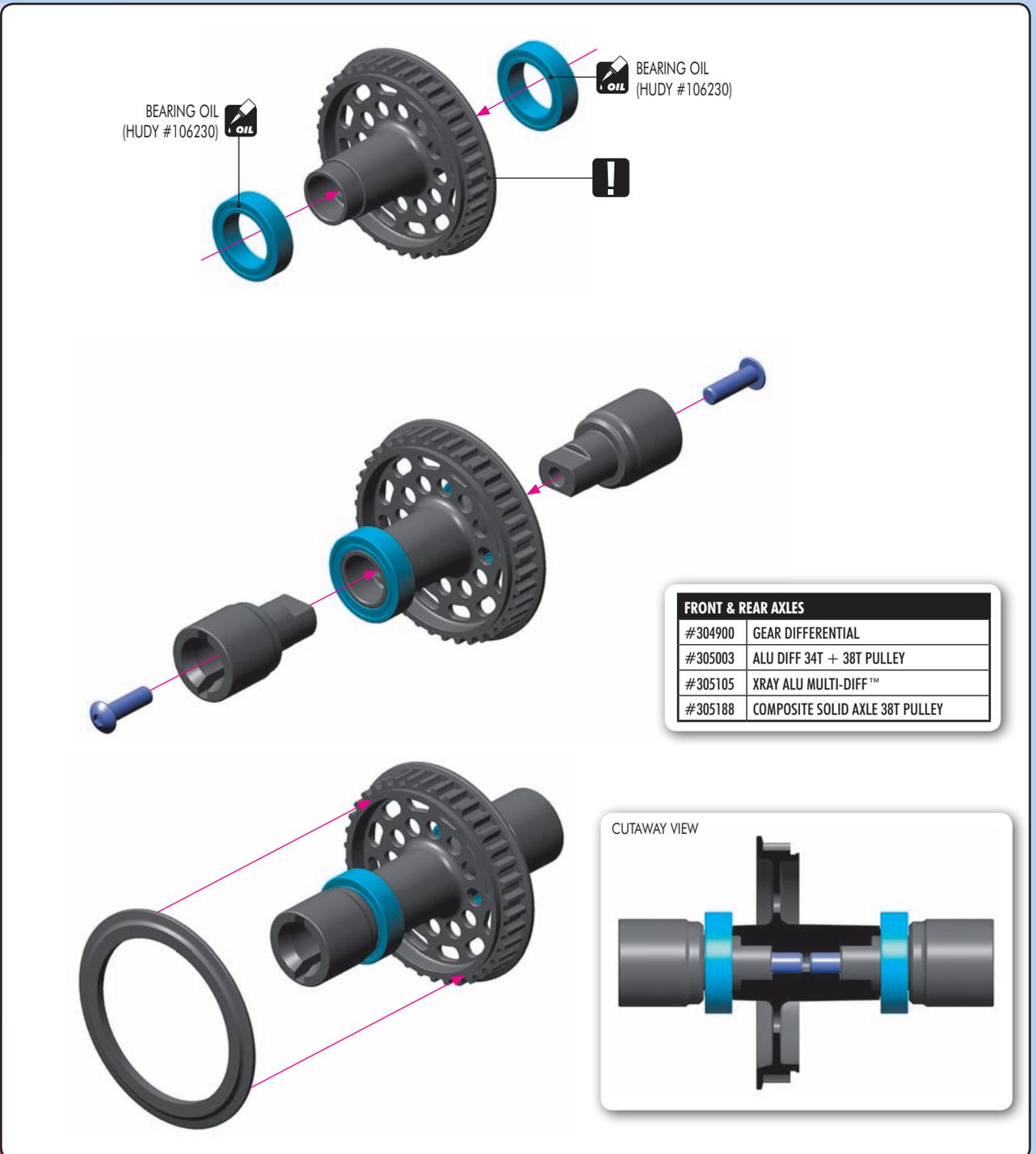


Finish tightening in this order.

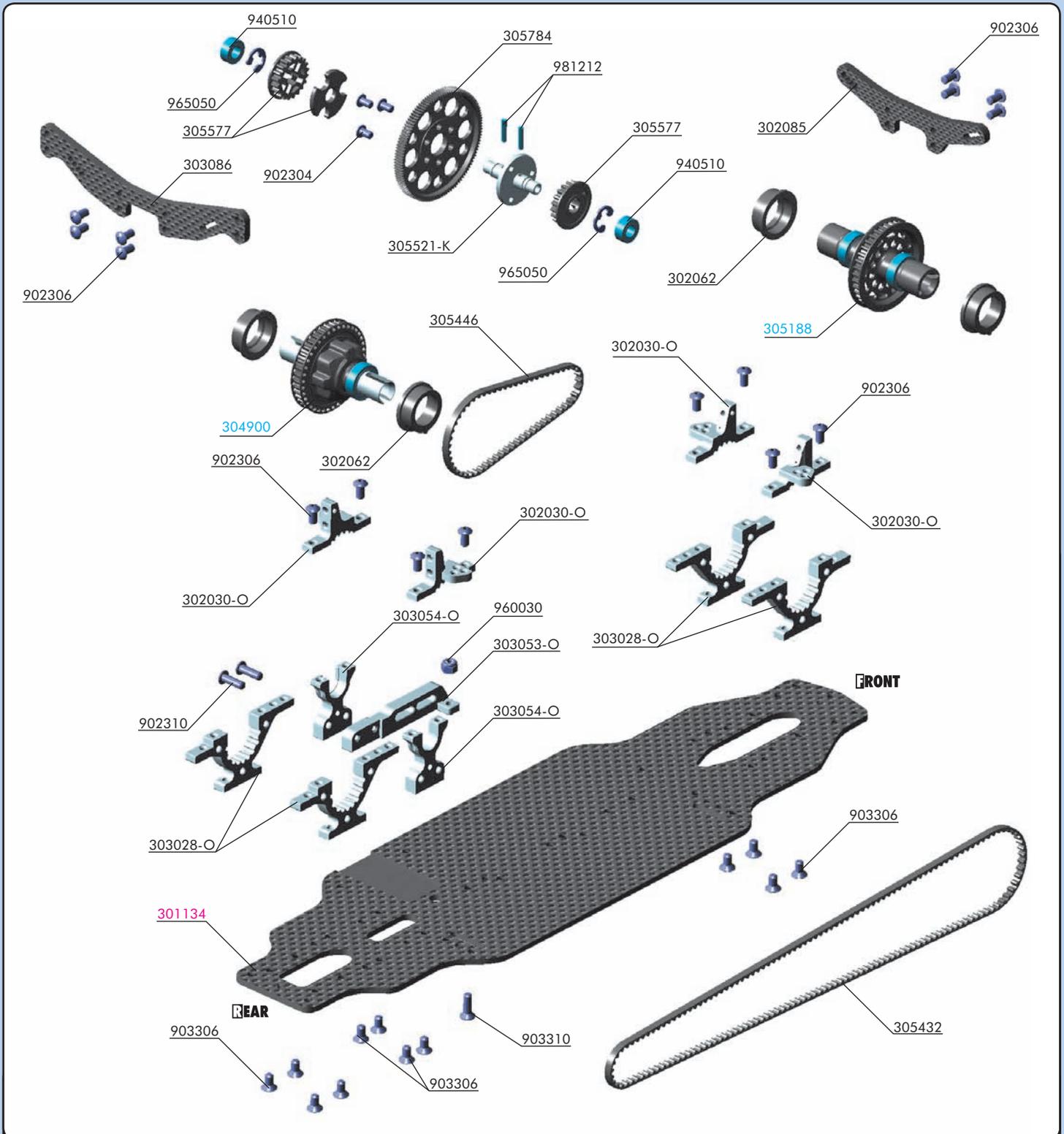
1. GEAR DIFFERENTIAL & FRONT SOLID AXLE



COMPOSITE FRONT SOLID AXLE



2. CENTRAL TRANSMISSION



BAG

02

- 30 2030-O T4 ALU UPPER CLAMP WITH ADJ. ROLL-CENTER (L+R) - ORANGE
- 30 2062 T4 COMPOSITE ADJUSTMENT BALL-BEARING HUB (4)
- 30 2085 T4 SHOCK TOWER FRONT 3.0MM GRAPHITE
- 30 3028-O T4 ALU FRONT/REAR LOWER ADJUSTMENT BULKHEAD - ORANGE
- 30 3053-O T4 ALU MOTOR MOUNT - ORANGE
- 30 3054-O T4 ALU LAYSHAFT BULKHEAD L/R - ORANGE
- 30 3086 T4 SHOCK TOWER REAR 3.0MM GRAPHITE
- 30 5432 HIGH-PERFORMANCE KEVLAR DRIVE BELT FRONT 3 x 513 MM
- 30 5446 HIGH-PERFORMANCE KEVLAR DRIVE BELT REAR 3 x 189 MM
- 30 5521-K ALU SOLID LAYSHAFT - BLACK
- 30 5577 COMPOSITE FIXED PULLEY 20T (2)
- 30 5778 OFFSET SPUR GEAR 78T / 48 (OPTION)
- 30 5781 OFFSET SPUR GEAR 81T / 48 (OPTION)
- 30 5784 SPUR GEAR 84T / 48
- 30 5862 OFFSET SPUR GEAR 92T / 64 (OPTION)
- 30 5866 OFFSET SPUR GEAR 96T / 64 (OPTION)
- 30 5870 OFFSET SPUR GEAR 100T / 64 (OPTION)
- 30 5874 OFFSET SPUR GEAR 104T / 64 (OPTION)
- 30 5876 OFFSET SPUR GEAR 106T / 64 (OPTION)
- 30 5878 OFFSET SPUR GEAR 108T / 64 (OPTION)
- 30 5880 OFFSET SPUR GEAR 110T / 64 (OPTION)
- 30 5882 OFFSET SPUR GEAR 112T / 64 (OPTION)
- 30 5884 OFFSET SPUR GEAR 114T / 64 (OPTION)

- 90 2304 HEX SCREW SH M3x4 - STAINLESS (10)
- 90 2306 HEX SCREW SH M3x6 (10)
- 90 2310 HEX SCREW SH M3x10 (10)
- 90 3306 HEX SCREW SFH M3x6 (10)
- 90 3310 HEX SCREW SFH M3x10 (10)
- 94 0510 HIGH-SPEED BALL-BEARING 5x10x4 RUBBER SEALED (2)
- 96 0030 NUT M3 (10)
- 96 5050 E-CLIP 5 (10)
- 98 1212 PIN 2x12 (10)

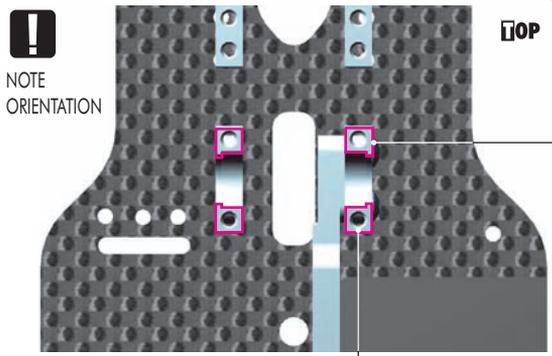
- 30 4900 XRAY GEAR DIFFERENTIAL - SET
- 30 5188 COMPOSITE SOLID AXLE 38T - SET

- 30 1134 T4 CHASSIS 2.2MM GRAPHITE

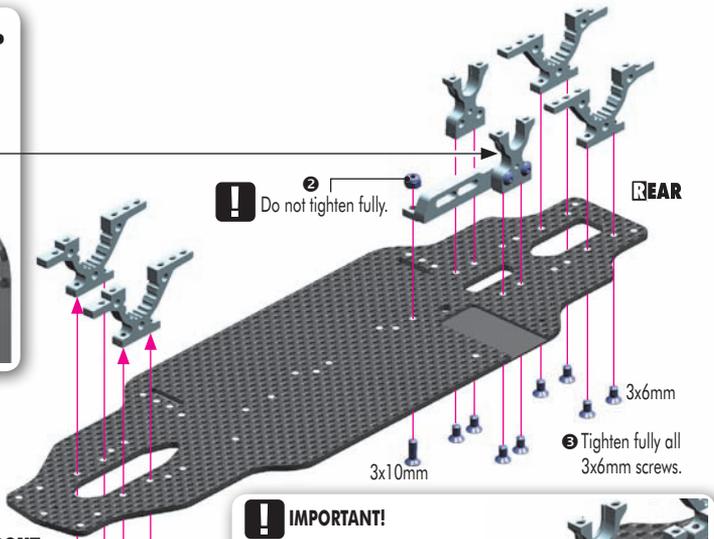
2. CENTRAL TRANSMISSION

-  902310
SH M3x10
-  903306
SFH M3x6
-  903310
SFH M3x10
-  960030
N M3x10

NOTE ORIENTATION



TOP



REAR

Do not tighten fully.

3x6mm

3x10mm

Tighten fully all 3x6mm screws.

FRONT

Do not tighten fully.

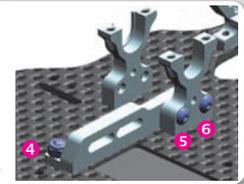
3x6mm

Tighten fully all 3x6mm screws.

IMPORTANT!

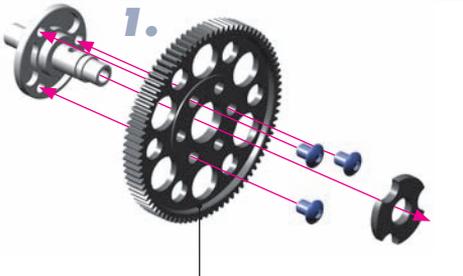
Tighten screws in order indicated.

M3 Nut must always be tightened fully. When tightening the nut, use either pliers or 5.5mm socket tool.

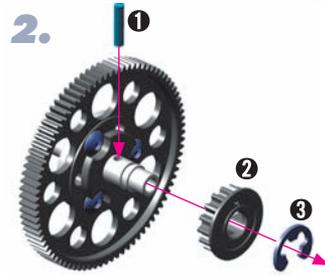


-  902304
SH M3x4
-  965050
CS
-  981212
P 2x12

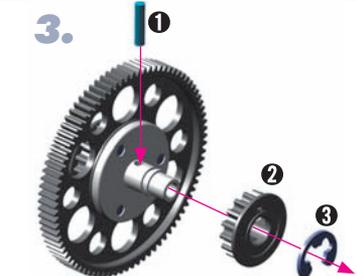
1.



2.



3.



NOTE ORIENTATION

Only when using XRAY OFFSET spur gears.



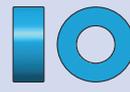
CUTAWAY VIEW

SPUR GEARS 48P	
#305778	OFFSET SPUR GEAR 78T / 48P
#305781	OFFSET SPUR GEAR 81T / 48P
#305784	SPUR GEAR 84T / 48P

SPUR GEARS 64P	
#305862	OFFSET SPUR GEAR 92T / 64P
#305866	OFFSET SPUR GEAR 96T / 64P
#305870	OFFSET SPUR GEAR 100T / 64P
#305874	OFFSET SPUR GEAR 104T / 64P
#305876	OFFSET SPUR GEAR 106T / 64P
#305878	OFFSET SPUR GEAR 108T / 64P
#305880	OFFSET SPUR GEAR 110T / 64P
#305882	OFFSET SPUR GEAR 112T / 64P
#305884	OFFSET SPUR GEAR 114T / 64P

SET-UP BOOK

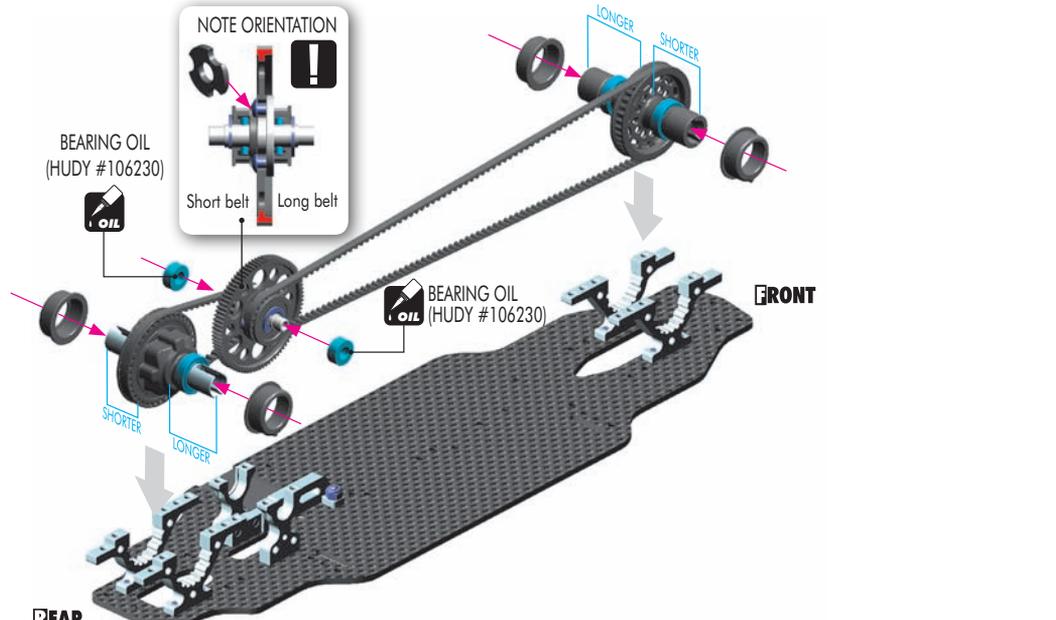
GEARING ADJUSTMENT

-  940510
BB 5x10x4

NOTE ORIENTATION



Short belt Long belt



REAR

LONGER SHORTER

BEARING OIL (HUDY #106230)

BEARING OIL (HUDY #106230)

FRONT

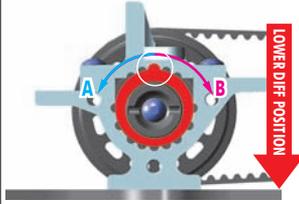
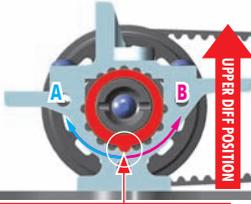
2. CENTRAL TRANSMISSION

FRONT BELT TENSION ADJUSTMENT

Front diff upper position provides more steering but provides less front traction. Recommended for medium - high grip tracks and technical tracks.

Front diff low position provides more front traction but makes the car more push on power. Recommended for low traction track.

FRONT



INITIAL POSITION

PLACE TAB IN THIS BOTTOM NOTCH

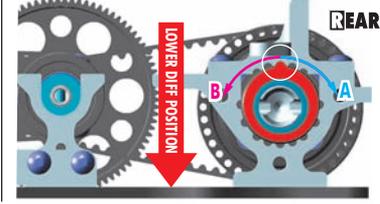
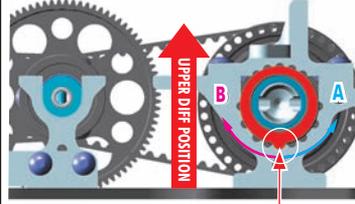
TO LOOSEN FRONT BELT: Rotate both front nylon hubs in arrow direction **A**

TO TIGHTEN FRONT BELT: Rotate both front nylon hubs in arrow direction **B**

REAR BELT TENSION ADJUSTMENT

Rear diff upper position provides more on-power steering but makes the rear slightly more loose. Recommended for medium - high traction tracks.

Rear diff lower position provides more rear traction, mainly on power traction and makes the car more stable in the chicanes, but makes the car push more on power. Recommended for low - medium traction.



INITIAL POSITION

PLACE TAB IN THIS BOTTOM NOTCH

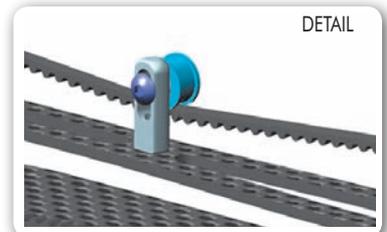
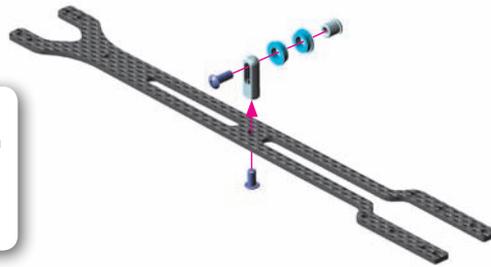
TO LOOSEN REAR BELT: Rotate both rear nylon hubs in arrow direction **A**

TO TIGHTEN REAR BELT: Rotate both rear nylon hubs in arrow direction **B**



OPTIONAL:

#303071 Belt Tensioner may be used when the front belt becomes worn and loose. Belt tensioner is NOT included in the kit and must be purchased separately.

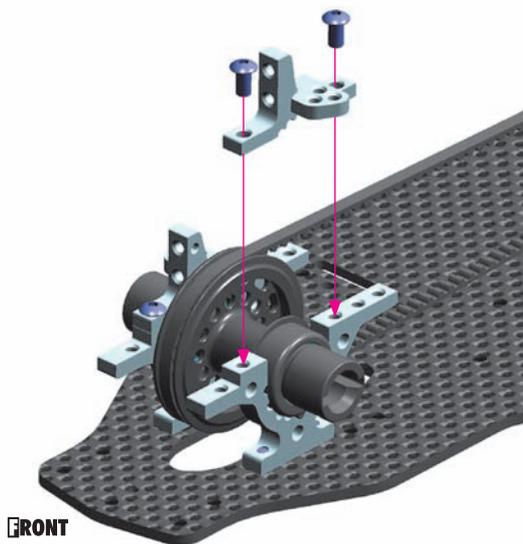


DETAIL



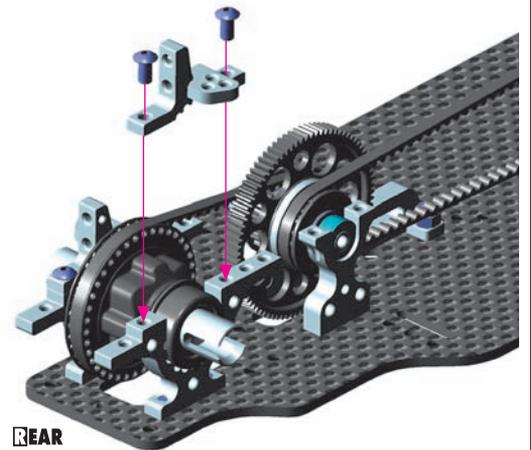
902306
SH M3x6

L=R



FRONT

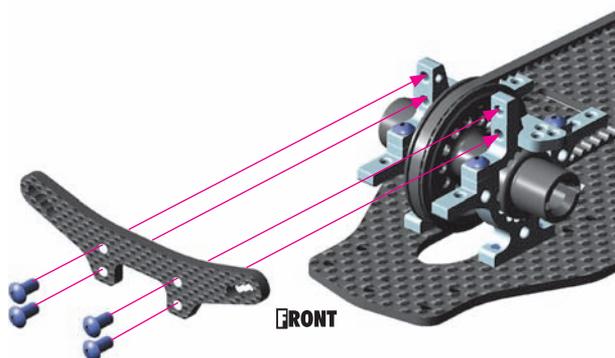
L=R



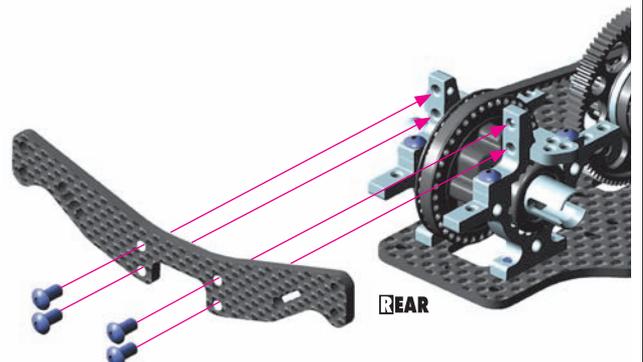
REAR



902306
SH M3x6

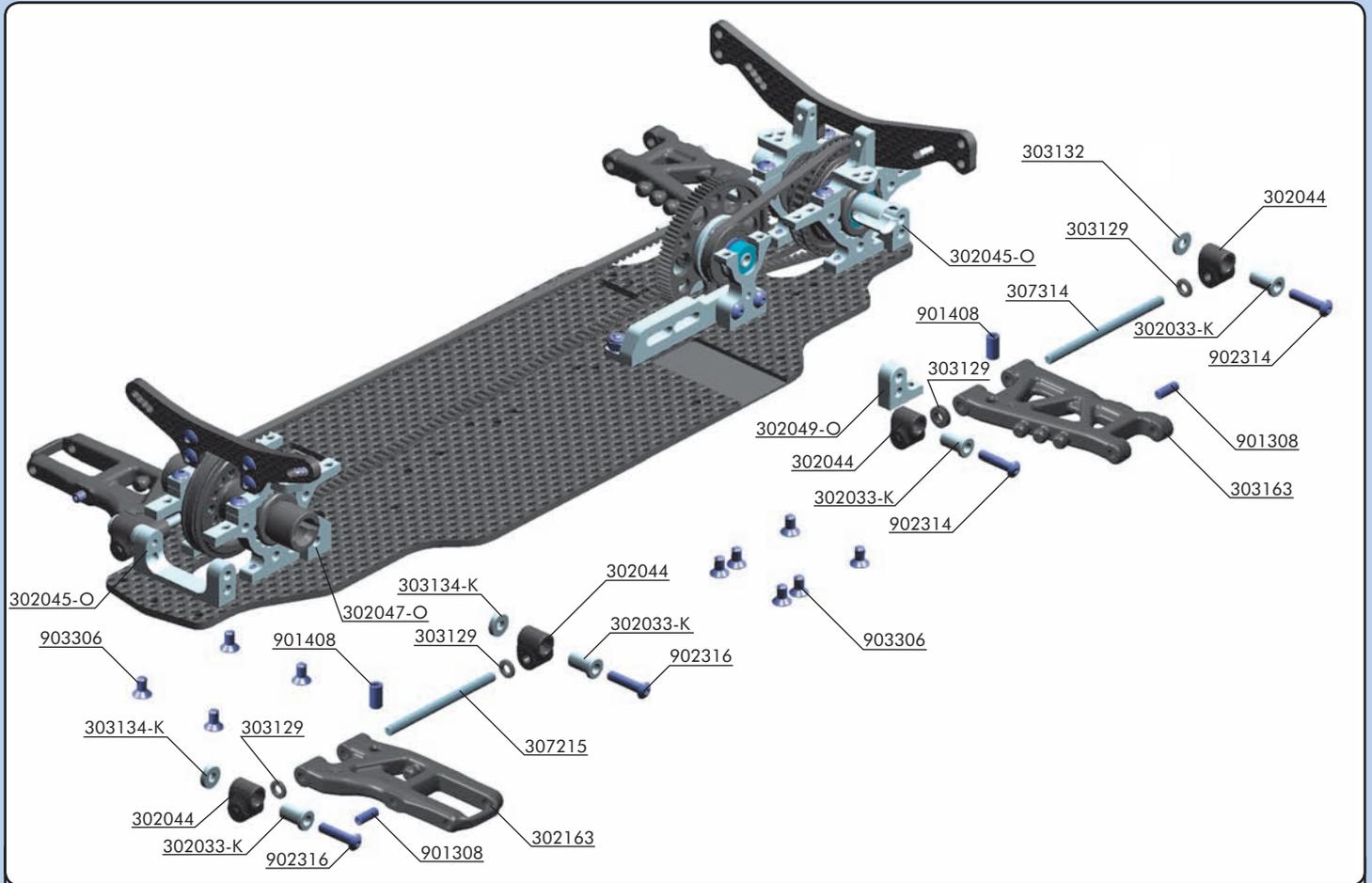


FRONT



REAR

3. FRONT & REAR SUSPENSION



BAG

03

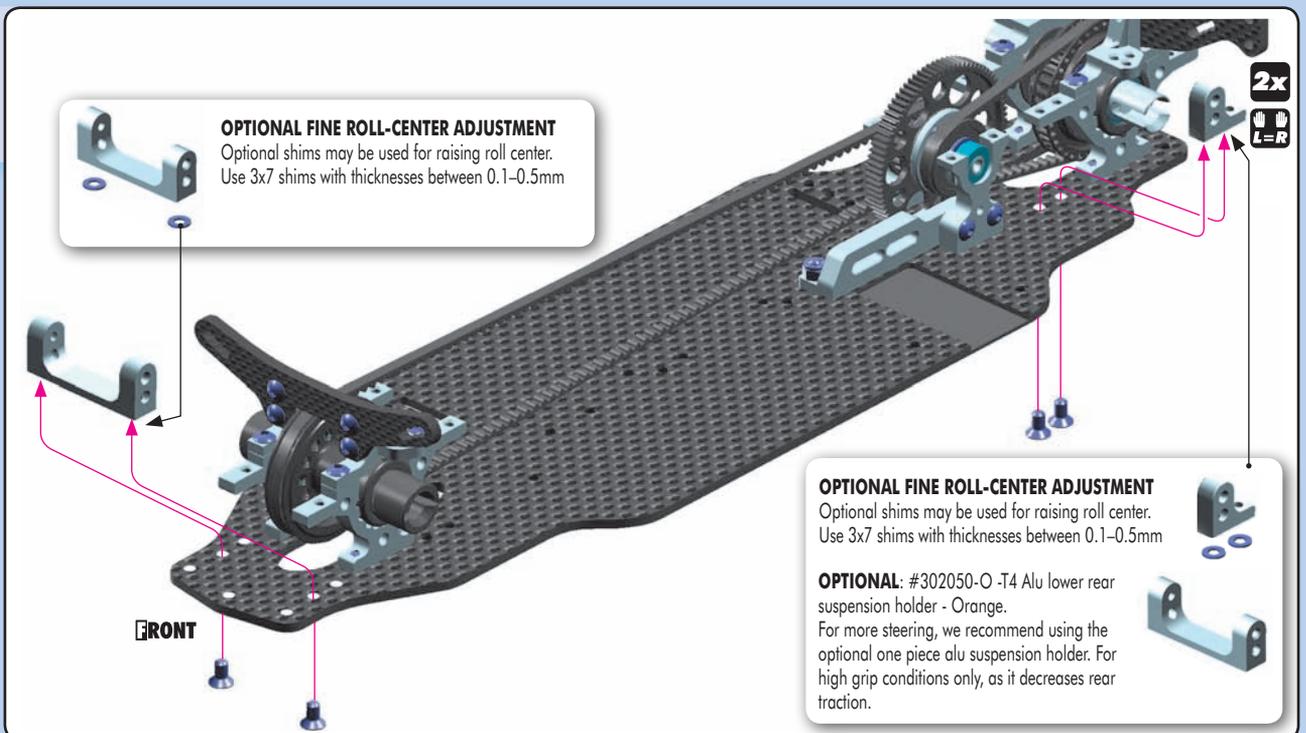
- 30 2033-K ALU NUT FOR SUSPENSION HOLDER - BLACK (2)
- 30 2044 LOWER SUSPENSION HOLDERS (2+2+2)
- 30 2045-O T3 ALU LOWER SUSPENSION BLOCK - ORANGE
- 30 2047-O T3 ALU LOWER FRONT SUSPENSION 1-PIECE HOLDER - ORANGE - V2
- 30 2049-O T4 ALU LOWER SUSPENSION HOLDER - ORANGE
- 30 2163 FRONT SUSPENSION ARM - HARD - 1-HOLE
- 30 2164 FRONT SUSPENSION ARM - EXTRA-HARD - 1-HOLE (OPTION)
- 30 2165 FRONT SUSPENSION ARM - HARD - 2-HOLE (OPTION)
- 30 2166 FRONT SUSPENSION ARM - EXTRA-HARD - 2-HOLE (OPTION)
- 30 2167 FRONT SUSPENSION ARM - GRAPHITE - 1-HOLE (OPTION)
- 30 3129 COMPOSITE SET OF WHEELBASE SHIMS (3x1MM; 1x2MM) (2)
- 30 3132 STEEL SHIM FOR LOWER SUSP. HOLDER 3x7.5x0.75 (10)
- 30 3134-K ALU SHIM FOR LOWER SUSP. HOLDER 3x7.5x1.5 - BLACK (10)
- 30 3163 REAR SUSPENSION ARM - HARD - 1-HOLE - V2

- 30 3164 REAR SUSPENSION ARM - EXTRA-HARD - 1-HOLE - V2 (OPTION)
- 30 3165 REAR SUSPENSION ARM - HARD - 2-HOLE (OPTION)
- 30 3166 REAR SUSPENSION ARM - EXTRA-HARD - 2-HOLE (OPTION)
- 30 3167 REAR SUSPENSION ARM - GRAPHITE - 1-HOLE (OPTION)
- 30 7215 T2 FRONT SUSPENSION PIVOT PIN (2)
- 30 7314 T2'008 REAR SUSPENSION PIVOT PIN (2)

- 90 1308 HEX SCREW SB M3x8 (10)
- 90 1408 HEX SCREW SB M4x8 (10)
- 90 2314 HEX SCREW SH M3x14 (10)
- 90 2316 HEX SCREW SH M3x16 (10)
- 90 3306 HEX SCREW SFH M3x6 (10)



903306
SFH M3x6



OPTIONAL FINE ROLL-CENTER ADJUSTMENT

Optional shims may be used for raising roll center.
Use 3x7 shims with thicknesses between 0.1-0.5mm

OPTIONAL FINE ROLL-CENTER ADJUSTMENT

Optional shims may be used for raising roll center.
Use 3x7 shims with thicknesses between 0.1-0.5mm

OPTIONAL: #302050-O -T4 Alu lower rear suspension holder - Orange.

For more steering, we recommend using the optional one piece alu suspension holder. For high grip conditions only, as it decreases rear traction.

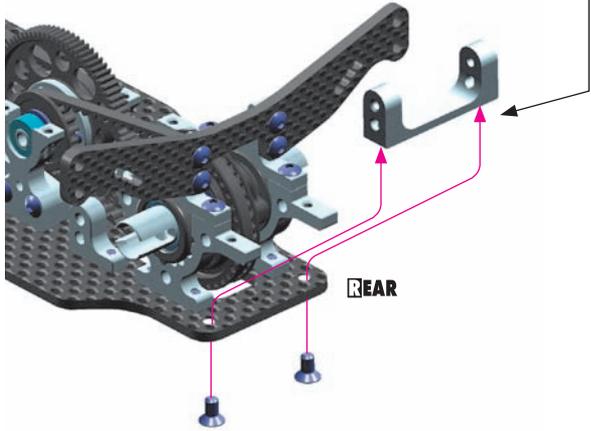
3. FRONT & REAR SUSPENSION



903306
SFH M3x6

OPTIONAL FINE ROLL-CENTER ADJUSTMENT

Optional shims may be used for raising roll center.
Use 3x7 shims with thicknesses between 0.1-0.5mm



REAR

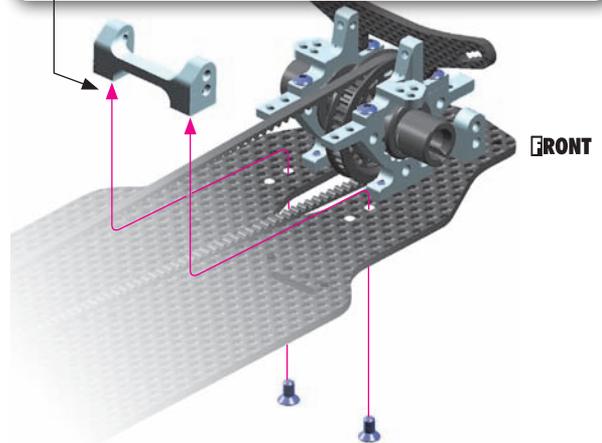


OPTIONAL:

#302049-O - T4 Alu lower suspension holder - Orange.
For more steering on asphalt, we recommend using the optional alu separate suspension holders.

OPTIONAL FINE ROLL-CENTER ADJUSTMENT

Optional shims may be used for raising roll center. Use 3x7 shims with thicknesses between 0.1-0.5mm



FRONT

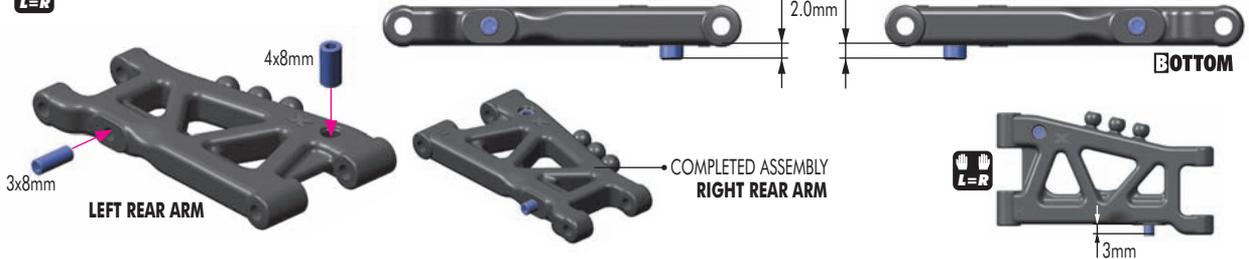


901308
SB M3x8



901408
SB M4x8

REAR ARMS



OPTIONAL 2-HOLE REAR ARMS

Inner position - more rear traction
Outer position - more stable
Use the inner position for initial setting.



REAR ARMS 2-HOLE	
#303165	HARD (H)
#303166	EXTRA-HARD (XH)

REAR ARMS 1-HOLE	
#303163	HARD (H)
#303164	EXTRA-HARD (XH)
#303167	GRAPHITE (G)

HARD ARM
EXTRA HARD ARM
GRAPHITE ARM

- more rear traction (recommended for low and medium-traction)
- more steering (recommended for high-traction)
- more traction and more stable but more fragile (recommended for all kind of conditions)



REAR DOWNSTOP
ADJUSTMENT
REAR ANTI-ROLL BAR

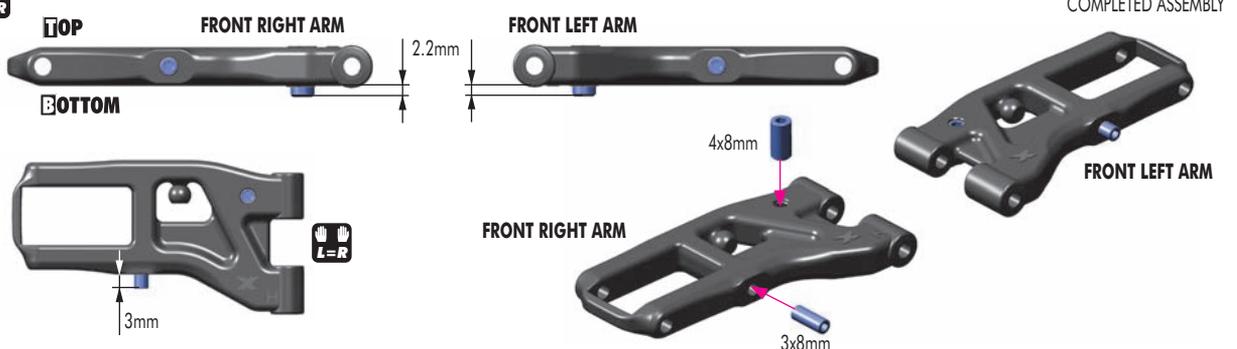


901308
SB M3x8



901408
SB M4x8

FRONT ARMS



FRONT ARMS 1-HOLE	
#302163	HARD (H)
#302164	EXTRA-HARD (XH)
#302167	GRAPHITE (G)

FRONT ARMS 2-HOLE	
#302165	HARD (H)
#302166	EXTRA-HARD (XH)



OPTIONAL 2-HOLE FRONT ARMS

Inner position - more steering
Outer position - more stable
Use the outer position for initial setting.

- HARD ARM** - more steering (recommended for low and medium-traction)
EXTRA HARD ARM - more stable, easier to drive (recommended for high-traction)
GRAPHITE ARM - more traction and more stable but more fragile (recommended for all kind of conditions)



FRONT DOWNSTOP
ADJUSTMENT
FRONT ANTI-ROLL BAR

3. FRONT & REAR SUSPENSION

IO
303129
SHIM 3x6x1

IO
303129
SHIM 3x6x2

IO
303132
SHIM 3x7.5x0.75



902314
SH M3x14



TOE-IN ADJUSTMENT
TRACK-WIDTH ADJUSTMENT
WHEELBASE ADJUSTMENT
ROLL CENTER ADJUSTMENT
SQUAT ADJUSTMENT

L=R

It is extremely important that the arms move freely on the pivot pins. If they do not, use the #107633 HUDY Arm Reamer to slightly resize the holes in the arms.

REAR

STEEL SHIM 3x7.5x0.75mm

THIN COMPOSITE SHIM 3x6x1mm

THICK COMPOSITE SHIM 3x6x2mm

3x14mm

REAR LEFT ARM

DETAIL 0mm

Use these suspension holders for initial assembly

Roll Center Position: **-0.75mm**
(more traction, more on-power push)

Roll Center Position: **0mm**

Roll Center Position: **+0.75mm**
(Increased cornering speed, less traction)

50.5 mm

2x 1:1 L=R

IO
303129
SHIM 3x6x1

IO
303134-K
SHIM 3x7.5x1.5



902316
SH M3x16



TOE-IN ADJUSTMENT
TRACK-WIDTH ADJUSTMENT
WHEELBASE ADJUSTMENT
ROLL CENTER ADJUSTMENT
SQUAT ADJUSTMENT

L=R

It is extremely important that the arms move freely on the pivot pins. If they do not, use the #107633 HUDY Arm Reamer to slightly resize the holes in the arms.

FRONT

THICK ALU SHIM 3 x 7.5 x 1.5mm

THIN COMPOSITE SHIM 3x6x1mm

THIN COMPOSITE SHIM 3x6x1mm

3x16mm

FRONT LEFT ARM

FRONT RIGHT ARM

THICK ALU SHIM 3 x 7.5 x 1.5mm

DETAIL 0mm

Use these suspension holders for initial assembly

Roll Center Position: **-0.75mm**
(more in-camber steering, can cause tire overheating)

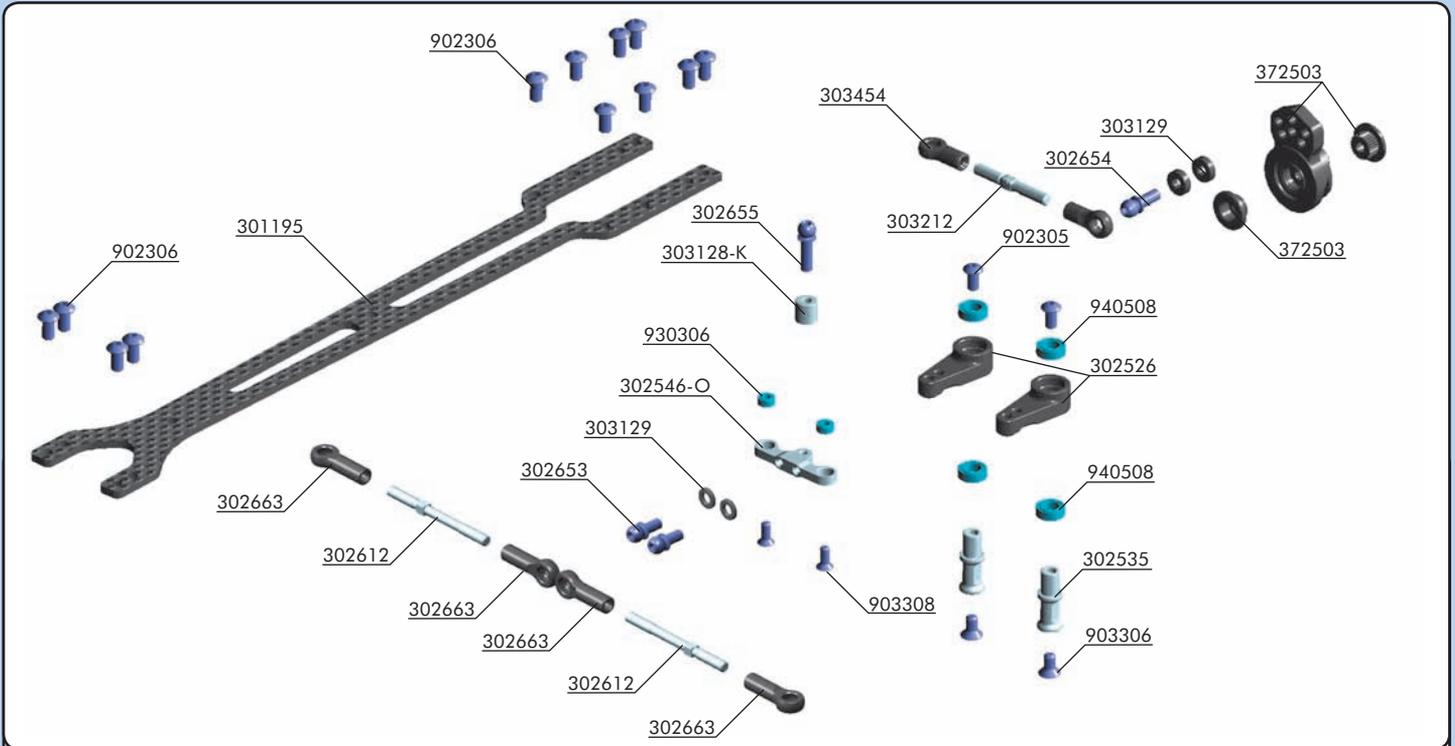
Roll Center Position: **0mm**

Roll Center Position: **+0.75mm**
(less in-camber steering, easier to drive)

47.5 mm

2x 1:1 L=R

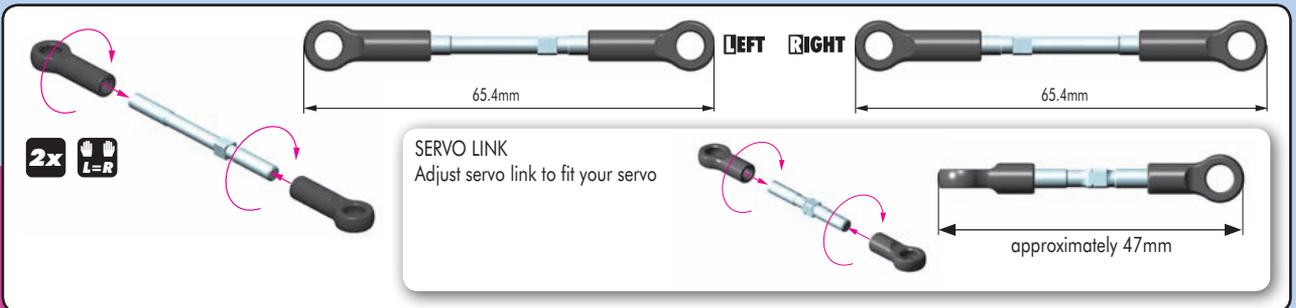
4. STEERING



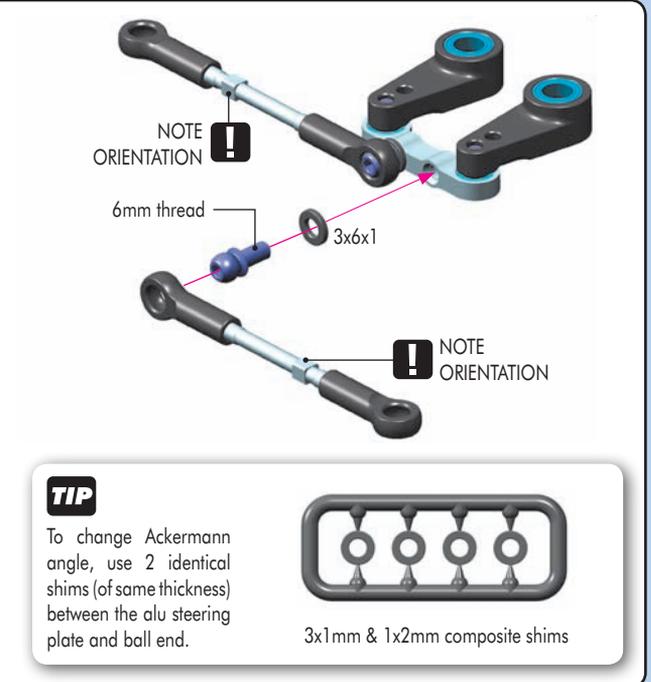
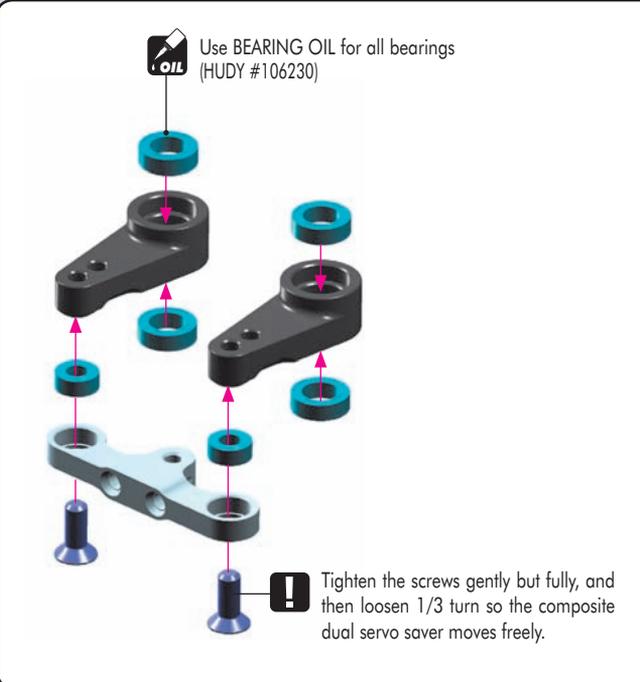
BAG

04

30 1195	T4 UPPER DECK 2.0MM GRAPHITE	30 3129	COMPOSITE SET OF SHIMS (3x1MM; 1x2MM) (2)
30 2525	ALU DUAL SERVO SAVER ARM + BALL-BEARINGS (2) (OPTION)	30 3212	ALU ADJ. TURNBUCKLE L/R 26 MM - SWISS 7075 T6 (2)
30 2526	COMPOSITE DUAL SERVO SAVER ARM	30 3454	BALL JOINT 4.9MM - OPEN (4)
30 2535	ALU STEERING POST FOR DUAL SERVO SAVER (2)	37 2503	COMPOSITE SERVO SAVER - X-STIFF - SET - V2
30 2546-O	T4 ALU STEERING PLATE 8MM FOR DUAL SERVO SAVER - ORANGE	90 2305	HEX SCREW SH M3x5 (10)
30 2612	ALU ADJ. TURNBUCKLE M3 L/R 39 MM - SWISS 7075 T6 (2)	90 2306	HEX SCREW SH M3x6 (10)
30 2653	BALL END 4.9MM WITH THREAD 6MM (2)	90 3306	HEX SCREW SFH M3x6 (10)
30 2654	BALL END 4.9MM WITH THREAD 8MM (2)	90 3308	HEX SCREW SFH M3x8 (10)
30 2655	BALL END 4.9MM WITH THREAD 10MM (2)	93 0306	BALL-BEARING 3x6x2.5 (2)
30 2663	COMPOSITE BALL JOINT 5 MM - OPEN - V2 (8)	94 0508	HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEALED (2)
30 3128-K	ALU SHIM 3x6x6.0MM - BLACK (10)		



- 10**
303129
SHIM 3x6x1
- 903308**
SFH M3x8
- 930306**
BB 3x6
- 940508**
BB 5x8



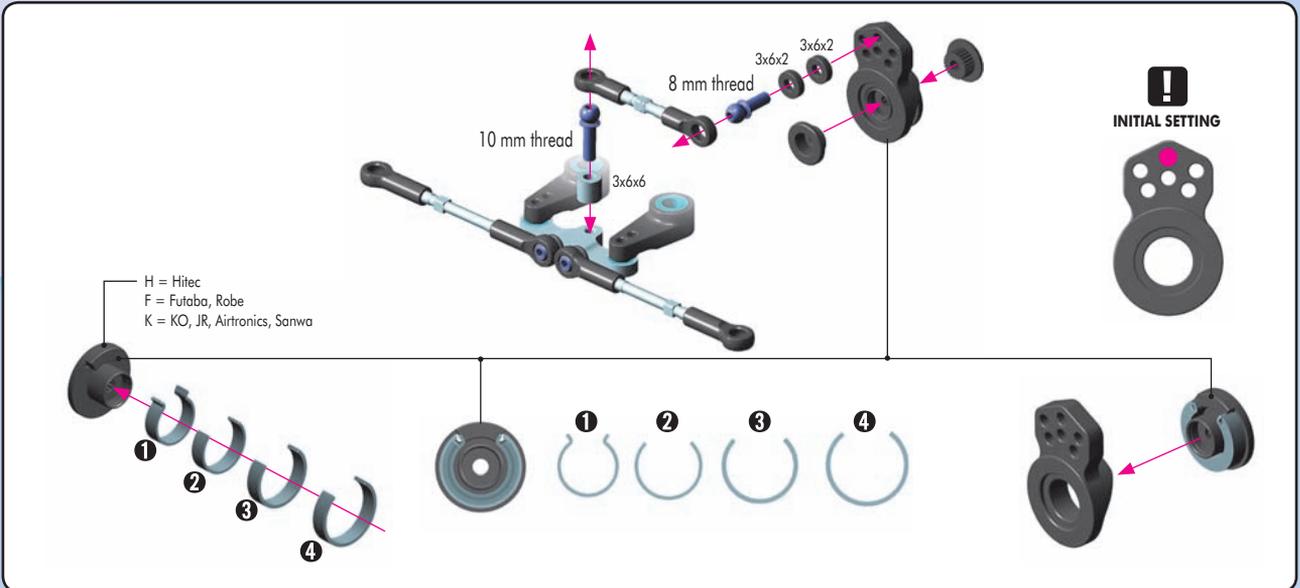
4. STEERING

IO

303129
SHIM 3x6x2



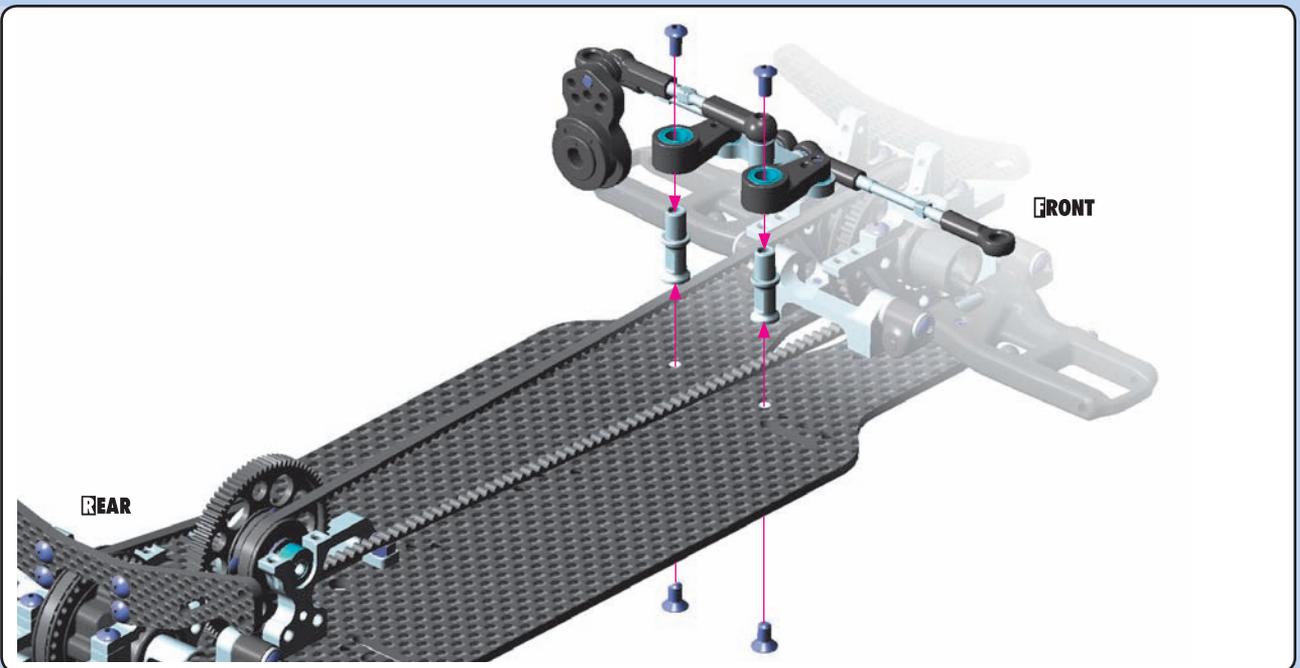
303128-K
SHIM 3x6x6



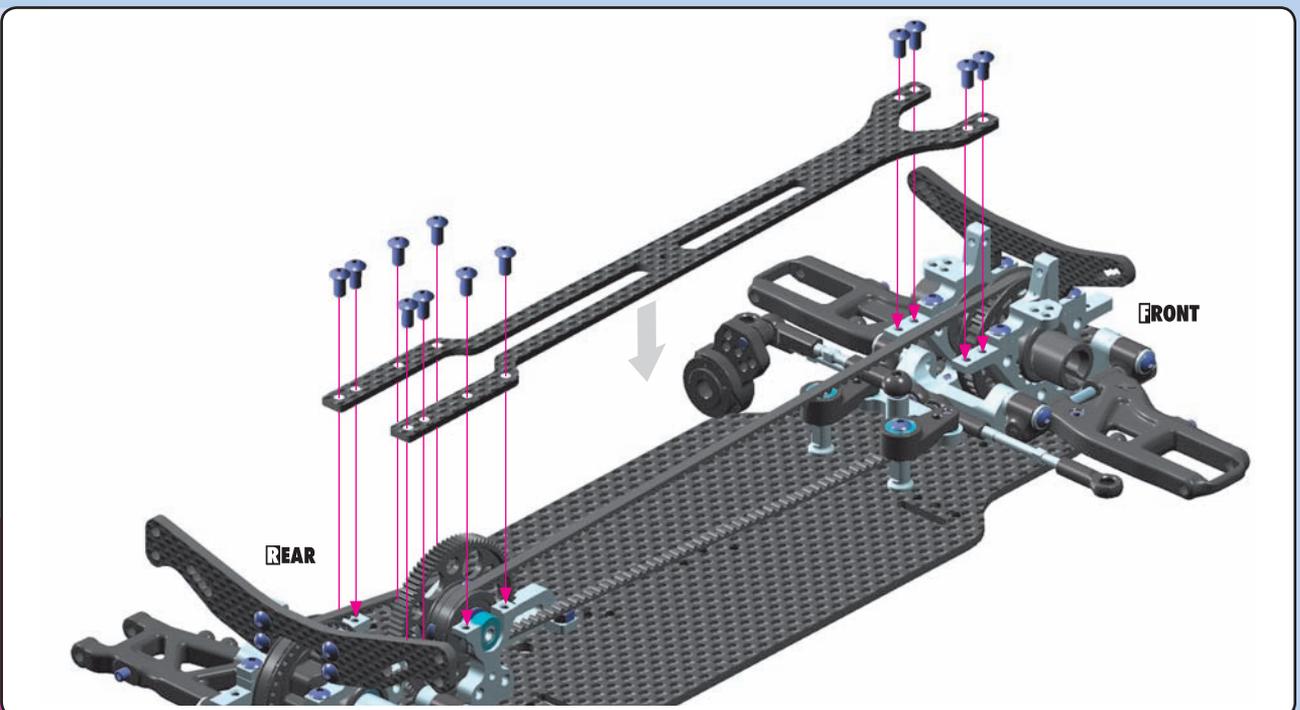
902305
SH M3x5



903306
SFH M3x6

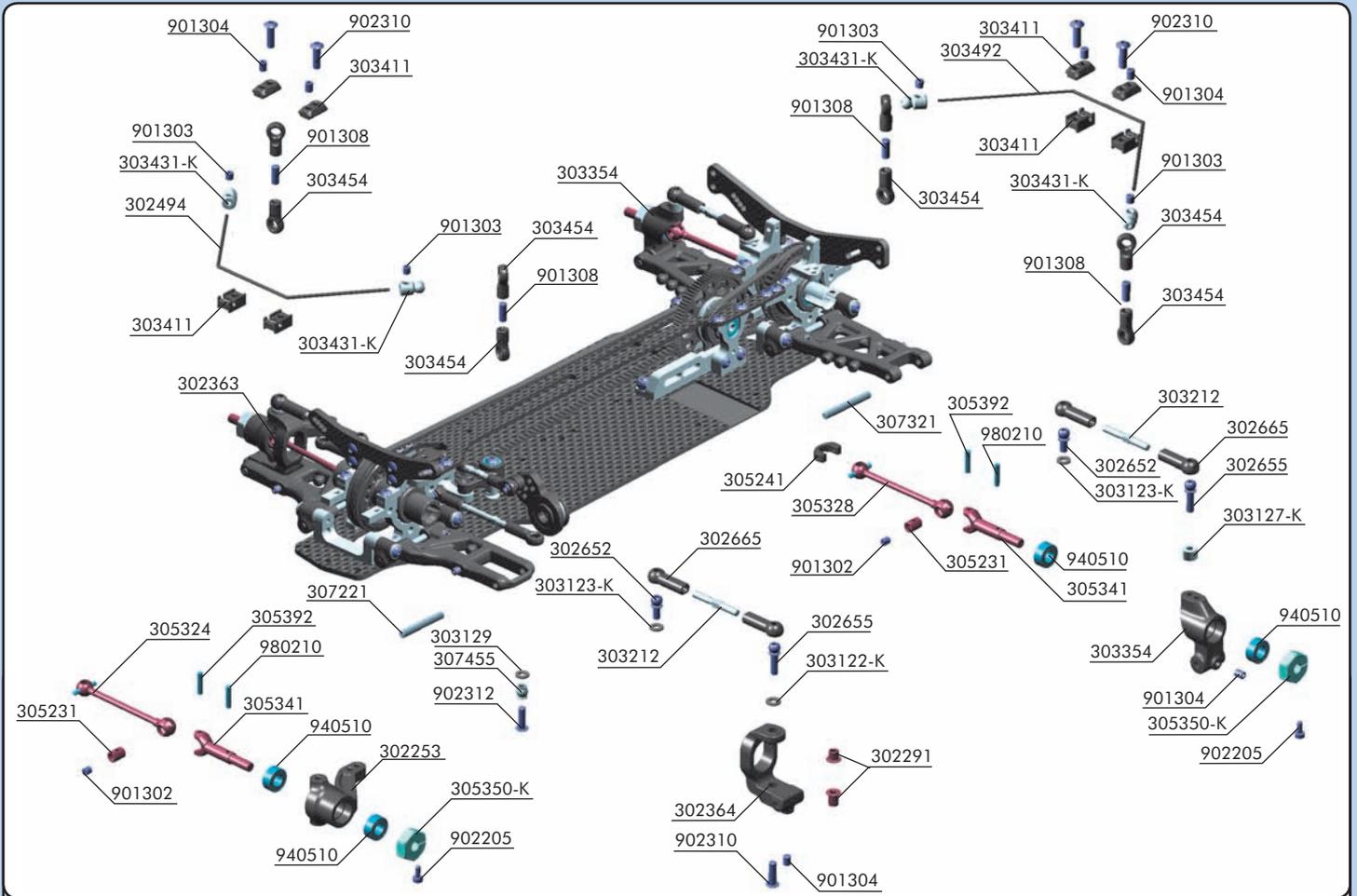


902306
SH M3x6



ACKERMANN ADJUSTMENT
STEERING THROW SYMMETRY
CHASSIS FLEX SETTING
TOP DECK FLEX SETTING

5. FRONT & REAR TRANSMISSION



BAG

05

- 30 2252 COMPOSITE STEERING BLOCK - MEDIUM - V2 (OPTION)
- 30 2253 COMPOSITE STEERING BLOCK - HARD
- 30 2291 STEEL STEERING BUSHING (2+2)
- 30 2363 COMPOSITE C-HUB RIGHT - 4° DEG. - MEDIUM
- 30 2364 COMPOSITE C-HUB LEFT - 4° DEG. - MEDIUM
- 30 2373 COMPOSITE C-HUB RIGHT - 4° DEG. - HARD (OPTION)
- 30 2374 COMPOSITE C-HUB LEFT - 4° DEG. - HARD (OPTION)
- 30 2494 T4 ANTI-ROLL BAR FRONT 1.4 MM
- 30 2652 BALL END 4.9MM WITH THREAD 4MM (2)
- 30 2655 BALL END 4.9MM WITH THREAD 10MM (2)
- 30 2665 COMPOSITE BALL JOINT 4.9MM - CLOSED WITH HOLE (4)
- 30 3122-K ALU SHIM 3x6x1.0MM - BLACK (10)
- 30 3123-K ALU SHIM 3x6x2.0MM - BLACK (10)
- 30 3127-K ALU SHIM 3x6x4.0MM - BLACK (10)
- 30 3129 COMPOSITE SET OF SHIMS (3x1MM; 1x2MM) (2)
- 30 3210 TURNBUCKLE M3 L/R 26 MM - SPRING STEEL™ (2) (OPTION)
- 30 3212 ALU ADJ. TURNBUCKLE M3 L/R 26 MM - SWISS 7075 T6 (2)
- 30 3354 COMPOSITE UPRIGHT 0° OUTBOARD TOE-IN - HARD
- 30 3353 UPRIGHT 1° OUTBOARD TOE-IN - RIGHT - HARD (OPTION)
- 30 3363 UPRIGHT 1° OUTBOARD TOE-IN - LEFT - HARD (OPTION)
- 30 3411 COMPOSITE ANTI-ROLL BAR HOLDERS - V2
- 30 3431-K ALU 5 MM BALL END - BLACK (2)
- 30 3454 BALL JOINT 5 MM - OPEN (4)
- 30 3492 T4 ANTI-ROLL BAR REAR 1.2 MM

- 30 5231 DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
- 30 5241 DRIVE SHAFT REPLACEMENT PLASTIC CAP 3.5 MM (4)
- 30 5323 DRIVE SHAFT 50MM - HUDY SPRING STEEL™ (OPTION)
- 30 5324 DRIVE SHAFT 52MM - HUDY SPRING STEEL™
- 30 5325 EQUALIZED CORNERING SPEED (ECS) DRIVE SHAFT 50MM (OPTION)
- 30 5326 ALU DRIVE SHAFT SWISS 7075 T6 - HARDCOATED - 52MM (OPTION)
- 30 5327 EQUALIZED CORNERING SPEED (ECS) DRIVE SHAFT 52MM (OPTION)
- 30 5328 ALU DRIVE SHAFT SWISS 7075 T6 - HARDCOATED - 50MM
- 30 5341 DRIVE AXLE - LIGHTWEIGHT - HUDY SPRING STEEL™
- 30 5350-K ALU WHEEL HUB - BLACK (2)
- 30 5392 DRIVE SHAFT PIN 2 x 10 WITH FLAT SPOT (2)
- 30 7221 FRONT ARM PIVOT PIN (2)
- 30 7321 REAR ARM PIVOT PIN (2)
- 30 7455 PIVOT BALL 4.9 MM DOUBLE BEVEL SHOULDERS (10)
- 90 1302 HEX SCREW SB M3x2.5 (10)
- 90 1303 HEX SCREW SB M3x3 (10)
- 90 1304 HEX SCREW SB M3x4 (10)
- 90 1308 HEX SCREW SB M3x8 (10)
- 90 2205 HEX SCREW SH M2x5 (10)
- 90 2310 HEX SCREW SH M3x10 (10)
- 90 2312 HEX SCREW SH M3x12 (10)
- 94 0510 HIGH-SPEED BALL-BEARING 5x10x4 RUBBER SEALED (2)
- 98 0210 PIN 2x10 (10)



901302
SB M3x2.5



305392
P 2x10

4x



For easy and comfortable installation of the #305241 plastic caps use pliers as shown.

5

TIP

DO NOT OVERTIGHTEN

THREAD LOCK



GRAPHITE GREASE (HUDY #106210)



DETAIL STEP 3 4

ECS DRIVE SHAFTS - OPTIONAL



ECS shafts are available optionally in both 50mm and 52mm lengths. The ECS drive shafts were developed to decrease front wheel vibration when racing with a solid front axle, thus providing a much smoother and quieter ride and increased steering.

IMPORTANT!

DO NOT use the plastic caps with composite solid axle included in the kits.

3.5mm plastic caps are for use ONLY with GEAR diffs, ALU ball diffs, or the XRAY Multi-Diff™.

ONLY FOR REAR

DRIVE SHAFTS

#305323	50MM - STEEL
#305324	52MM - STEEL
#305325	50MM - ECS
#305326	52MM - ALU
#305327	52MM - ECS
#305328	50MM - ALU

Longer drive shafts (52mm) make the car easier to drive because they give more traction and better stability, mainly in chicanes. However, the car will understeer more than with shorter (50mm) shafts which give a lot of steering and impart aggression to the car.

Both left & right shafts should ALWAYS be the same length at one end of the car (front or rear).

52mm shafts are recommended for carpet and large asphalt tracks. 50mm shafts are recommended for small-medium tight asphalt tracks.

5. FRONT & REAR TRANSMISSION

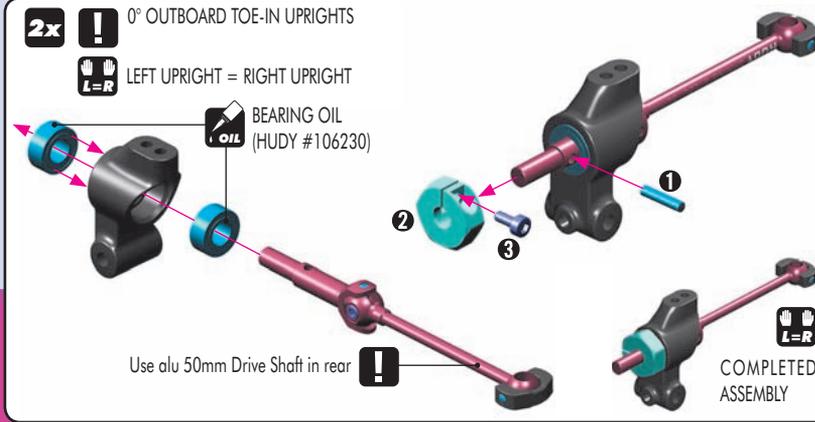
902205
SH M2x5

940510
BB 5x10x4

980210
P 2x10

SET-UP BOOK

REAR TOE-IN ADJUSTMENT



UPRIGHTS	
#303351	1° - R - MEDIUM - 2-HOLE
#303352	0° - R/L - MEDIUM - 2-HOLE
#303353	1° - R - HARD - 2-HOLE
#303354	0° - R/L - HARD - 2-HOLE
#303361	1° - L - MEDIUM - 2-HOLE
#303362	0° - R/L - MEDIUM - 1-HOLE
#303363	1° - L - HARD - 2-HOLE
#303364	0° - R/L - HARD - 1-HOLE
#303358	ALU 1° - R/L - 4-HOLE
#303359	ALU 2° - R/L - 4-HOLE

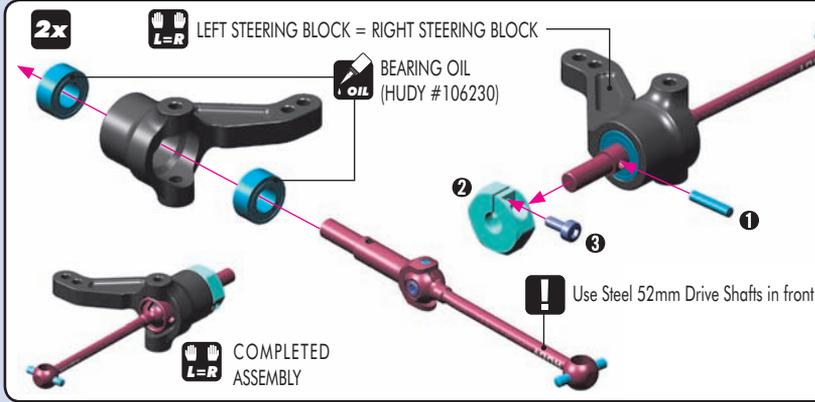
902205
SH M2x5

940510
BB 5x10x4

980210
P 2x10

SET-UP BOOK

REAR TOE-IN ADJUSTMENT



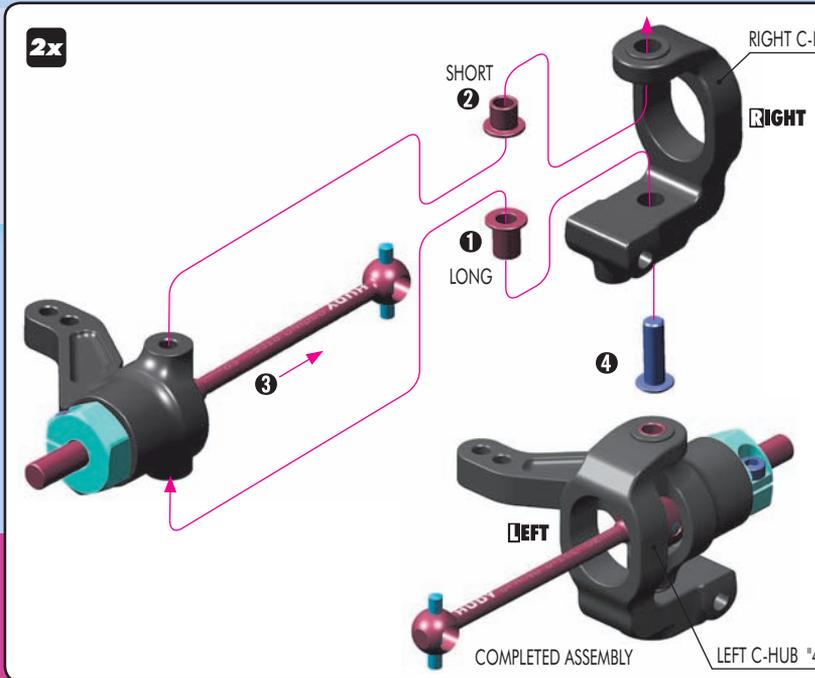
STEERING BLOCKS	
#302252	MEDIUM
#302253	HARD
#302256	ALU

WHEEL HUBS	
#305350	ALU - OFFSET 0 MM
#305351	ALU - OFFSET -0.75 MM
#305352	ALU - OFFSET +0.75 MM
#305353	ALU - OFFSET +1.5 MM

902310
SH M3x10

SET-UP BOOK

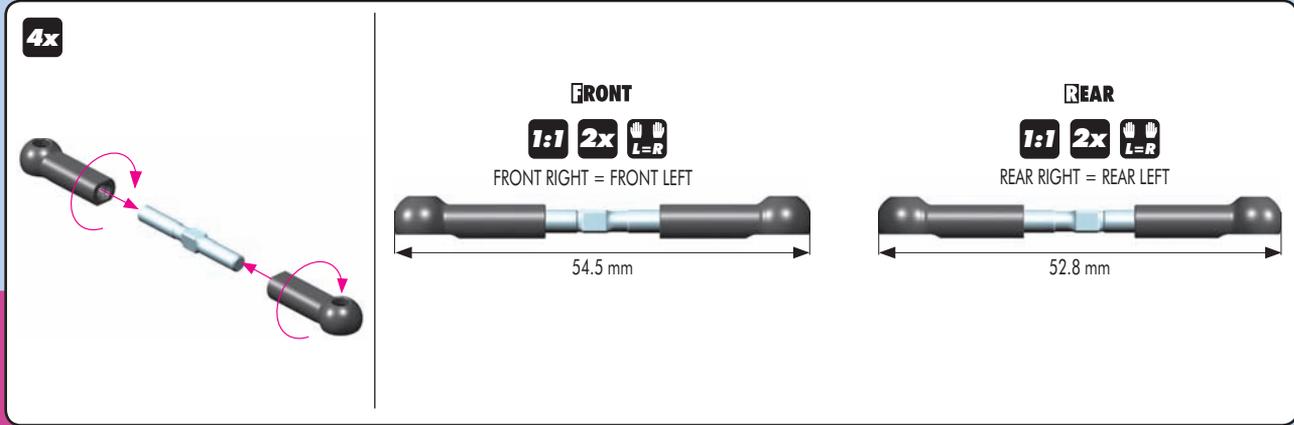
CASTER ADJUSTMENT



C-HUBS	
#302334	ALU 0° - R + L
#302335	ALU 2° - RIGHT
#302336	ALU 2° - LEFT
#302337	ALU 4° - RIGHT
#302338	ALU 4° - LEFT
#302339	ALU 6° - RIGHT
#302340	ALU 6° - LEFT
#302361	2° - RIGHT - MEDIUM
#302362	2° - LEFT - MEDIUM
#302363	4° - RIGHT - MEDIUM
#302364	4° - LEFT - MEDIUM
#302365	6° - RIGHT - MEDIUM
#302366	6° - LEFT - MEDIUM
#302371	2° - RIGHT - HARD
#302372	2° - LEFT - HARD
#302373	4° - RIGHT - HARD
#302374	4° - LEFT - HARD
#302375	6° - RIGHT - HARD
#302376	6° - LEFT - HARD

SET-UP BOOK

CAMBER ADJUSTMENT



5. FRONT & REAR TRANSMISSION



303123-K
SHIM 3x6x2



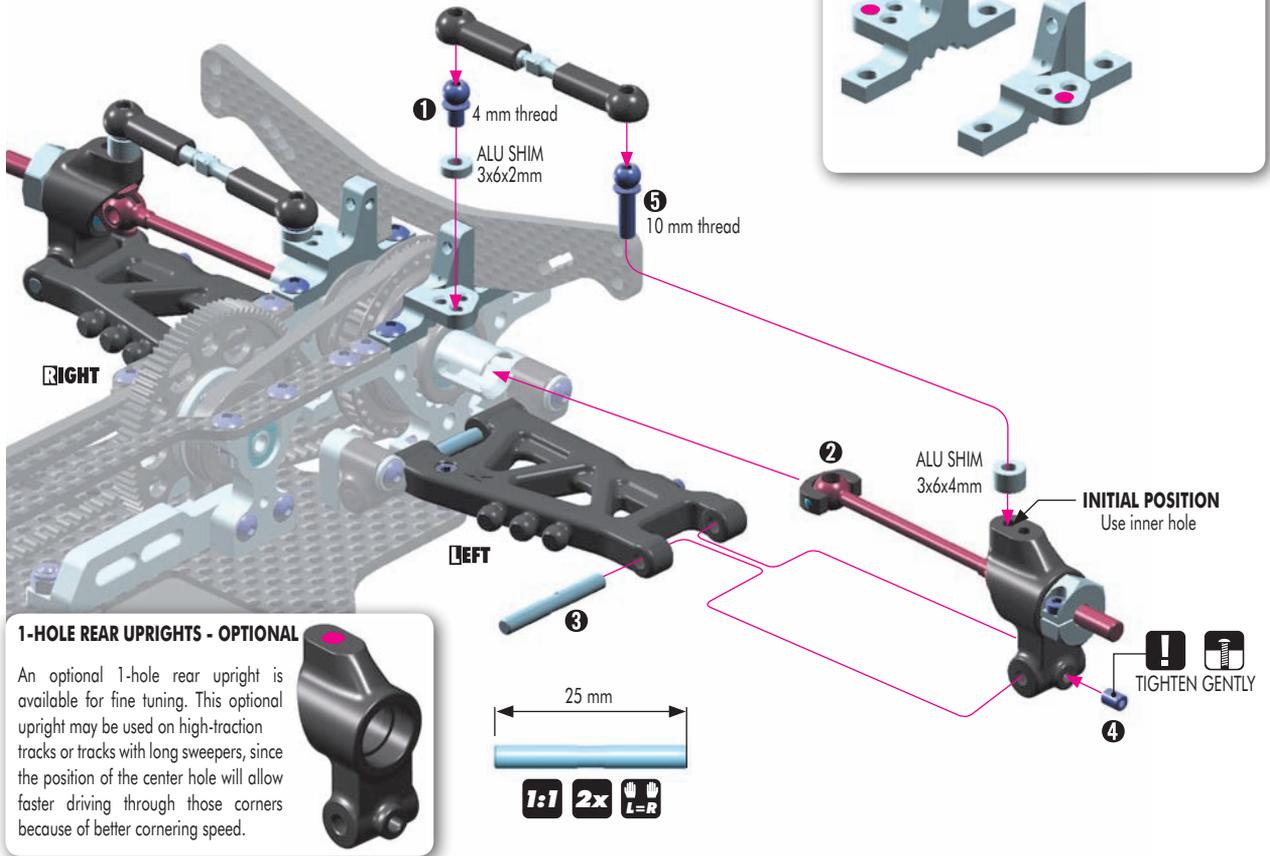
303127-K
SHIM 3x6x4



901304
SB M3x4



LEFT UPRIGHT = RIGHT UPRIGHT



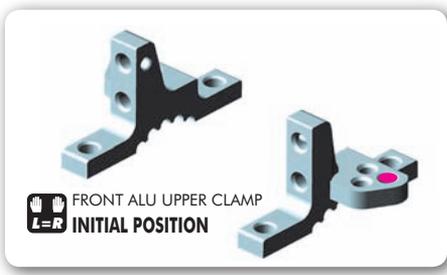
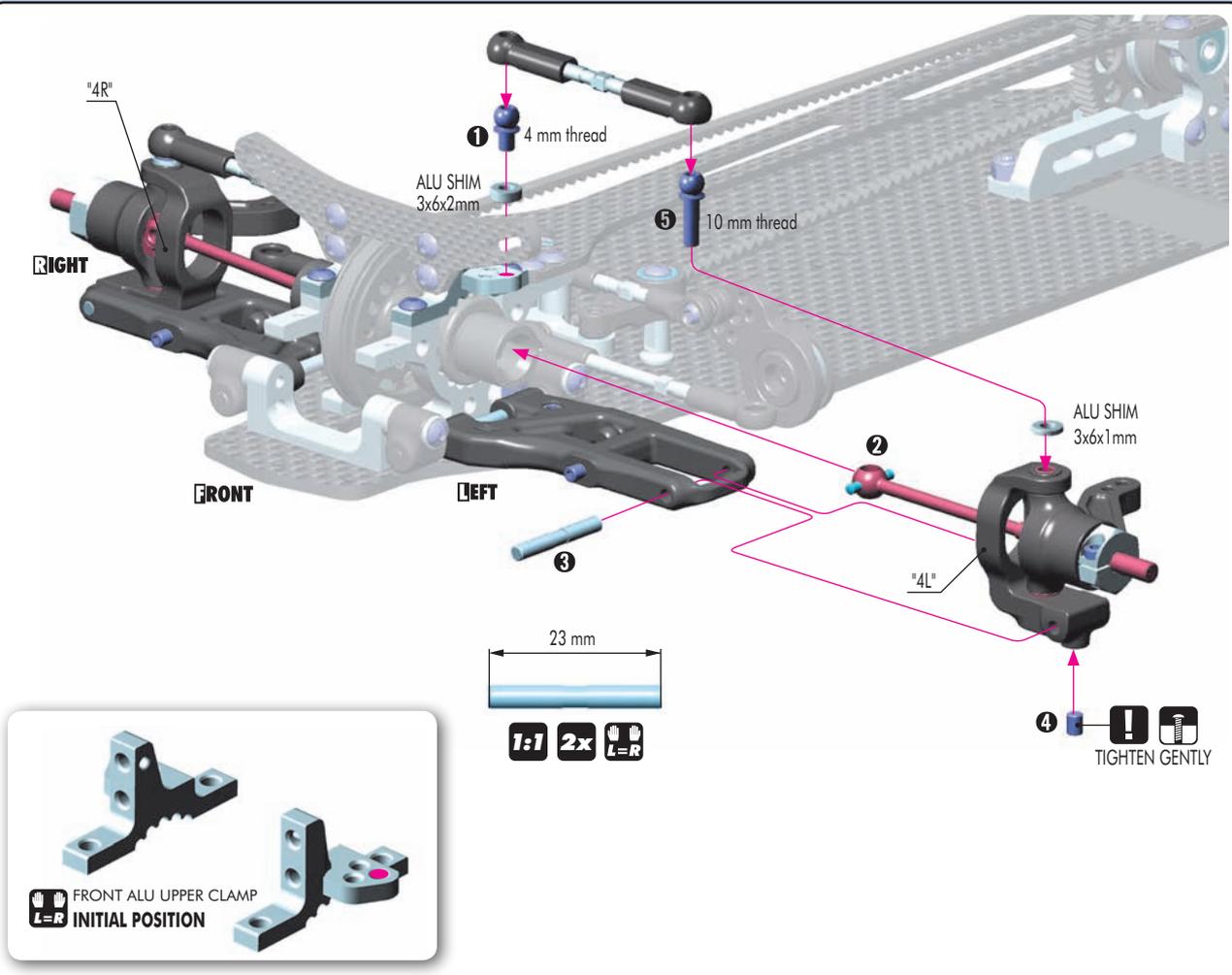
303122-K
SHIM 3x6x1



303123-K
SHIM 3x6x2



901304
SB M3x4



5. FRONT & REAR TRANSMISSION



303129
SHIM 3x6x1



307455
PB 5mm



902312
SH M3x12

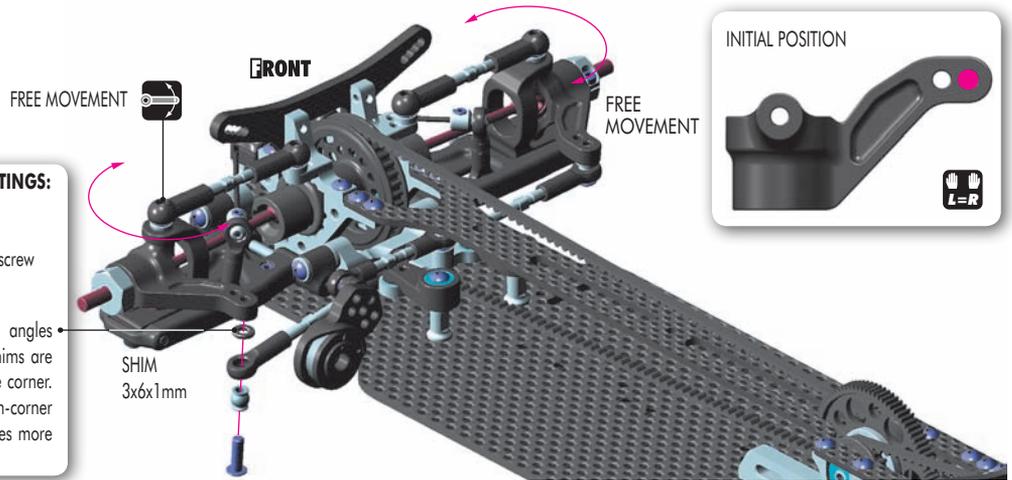


ACKERMANN ADJUSTMENT

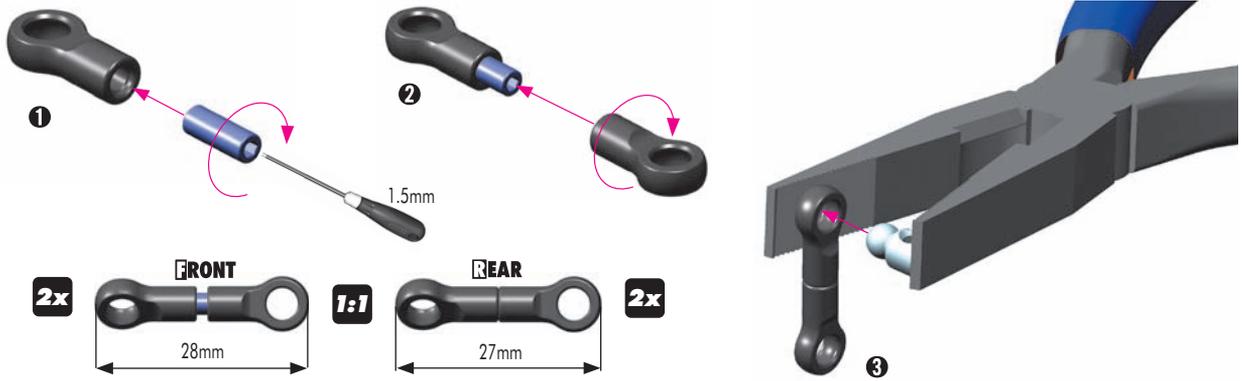
RECOMMENDED BUMPSTEER SETTINGS:

- Carpet** - 1 mm thick shim
- Asphalt** - 4 mm thick shims (longer screw must be used)

The number of shims changes the angles of the steering linkage. When no shims are used, the car is easy to drive into the corner. As the number of shims is increased, in-corner steering increases but the car becomes more difficult to drive.



901308
SB M3x8

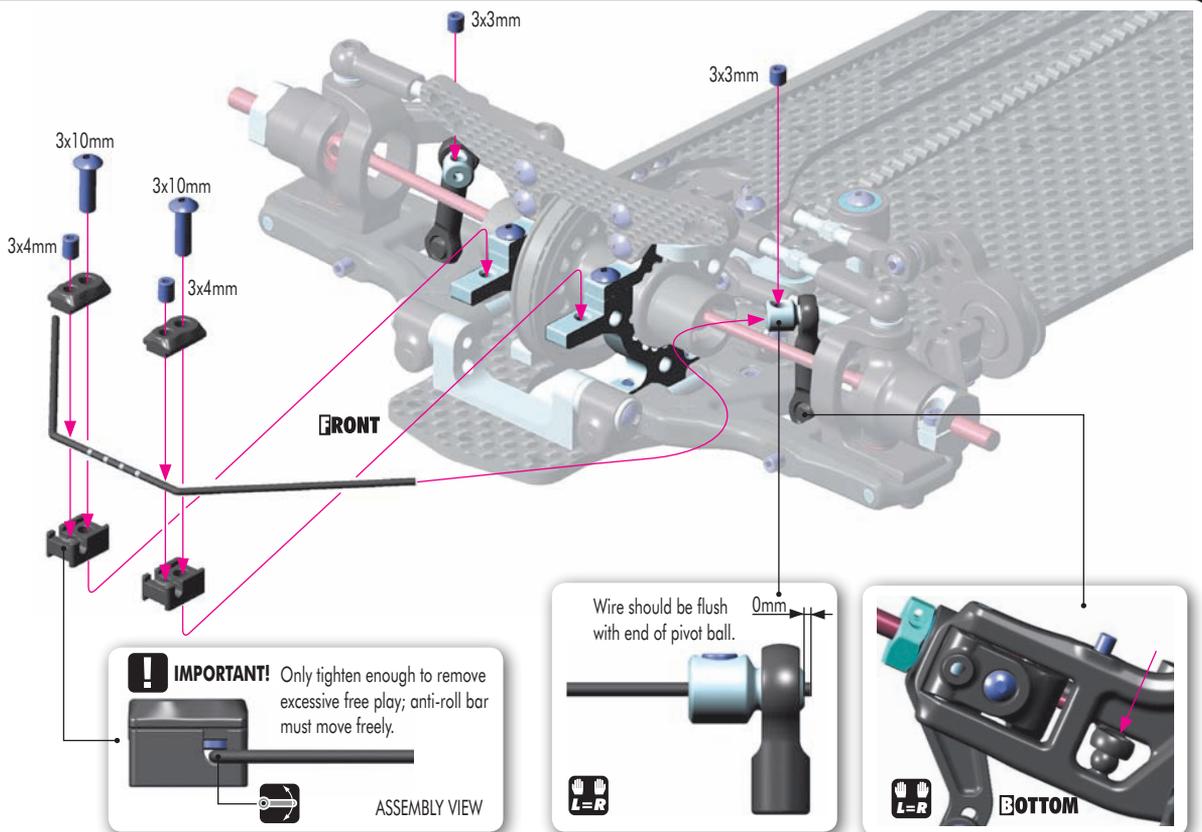


901303
SB M3x3

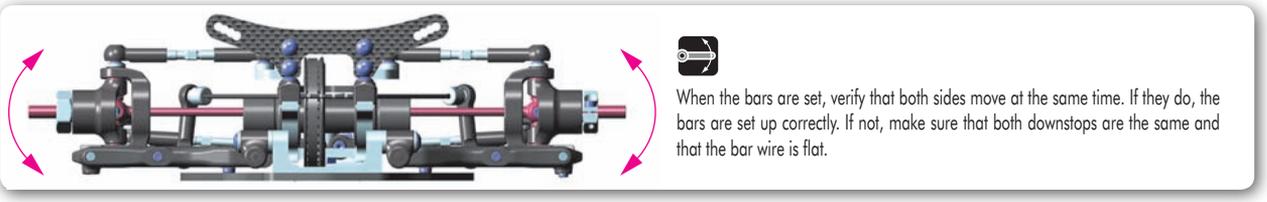
901304
SB M3x4



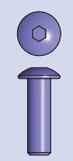
902310
SH M3x10

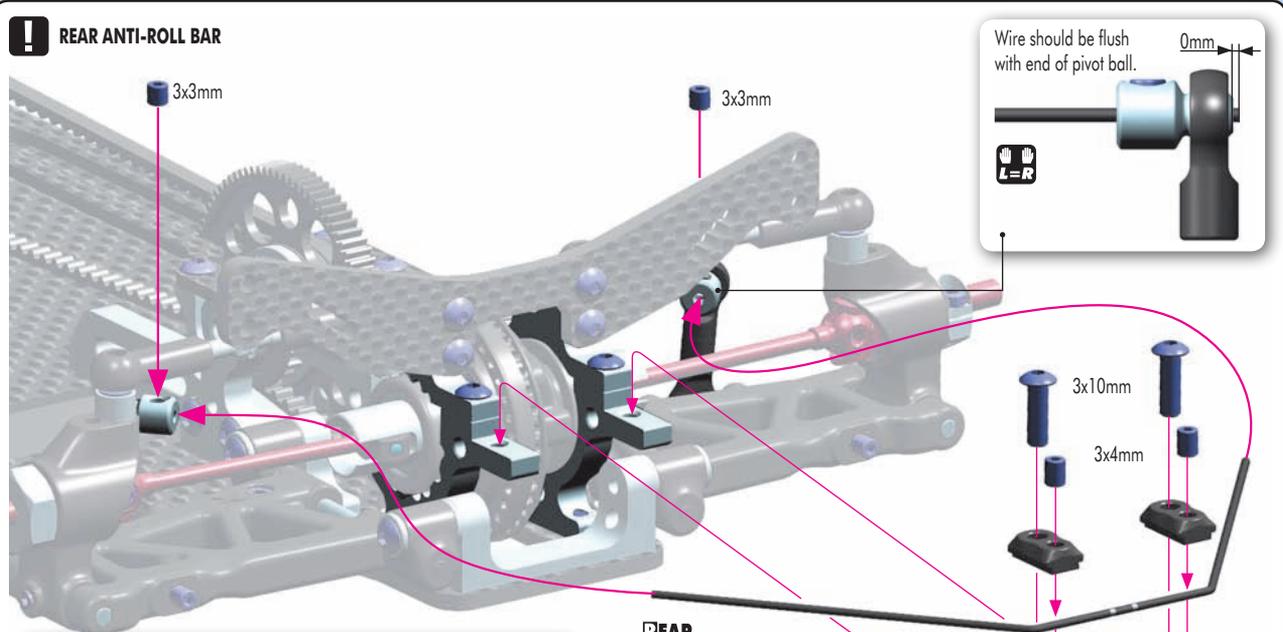


ANTI-ROLL BARS ADJUSTMENT



5. FRONT & REAR TRANSMISSION

-  901303
SB M3x3
-  901304
SB M3x4
-  902310
SH M3x10



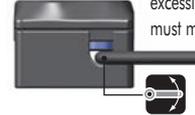
Initial position = **MIDDLE** ball

Use the **INNER** ball on low-traction tracks (mainly low-traction carpet tracks). The car will have more traction & more steering, but will be more difficult to drive because the car will roll more.

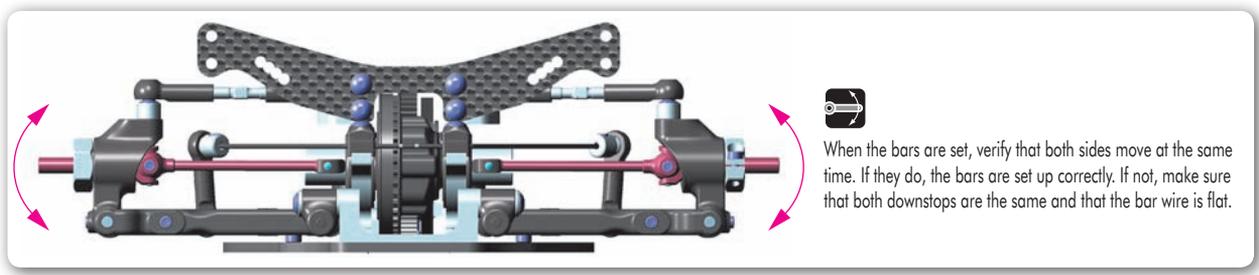
Use the **MIDDLE** ball on low- to medium-traction tracks (asphalt, carpet). The car will have a little less rear traction and the car will roll a little less which will make it easier to drive with more cornering speed.

Use the **OUTER** ball on high-traction tracks (mainly high-traction asphalt tracks). The car will roll even less which will allow the use of more throttle in the corners, however the car will have less traction.

IMPORTANT! Only tighten enough to remove excessive free play; anti-roll bar must move freely.



ASSEMBLY VIEW

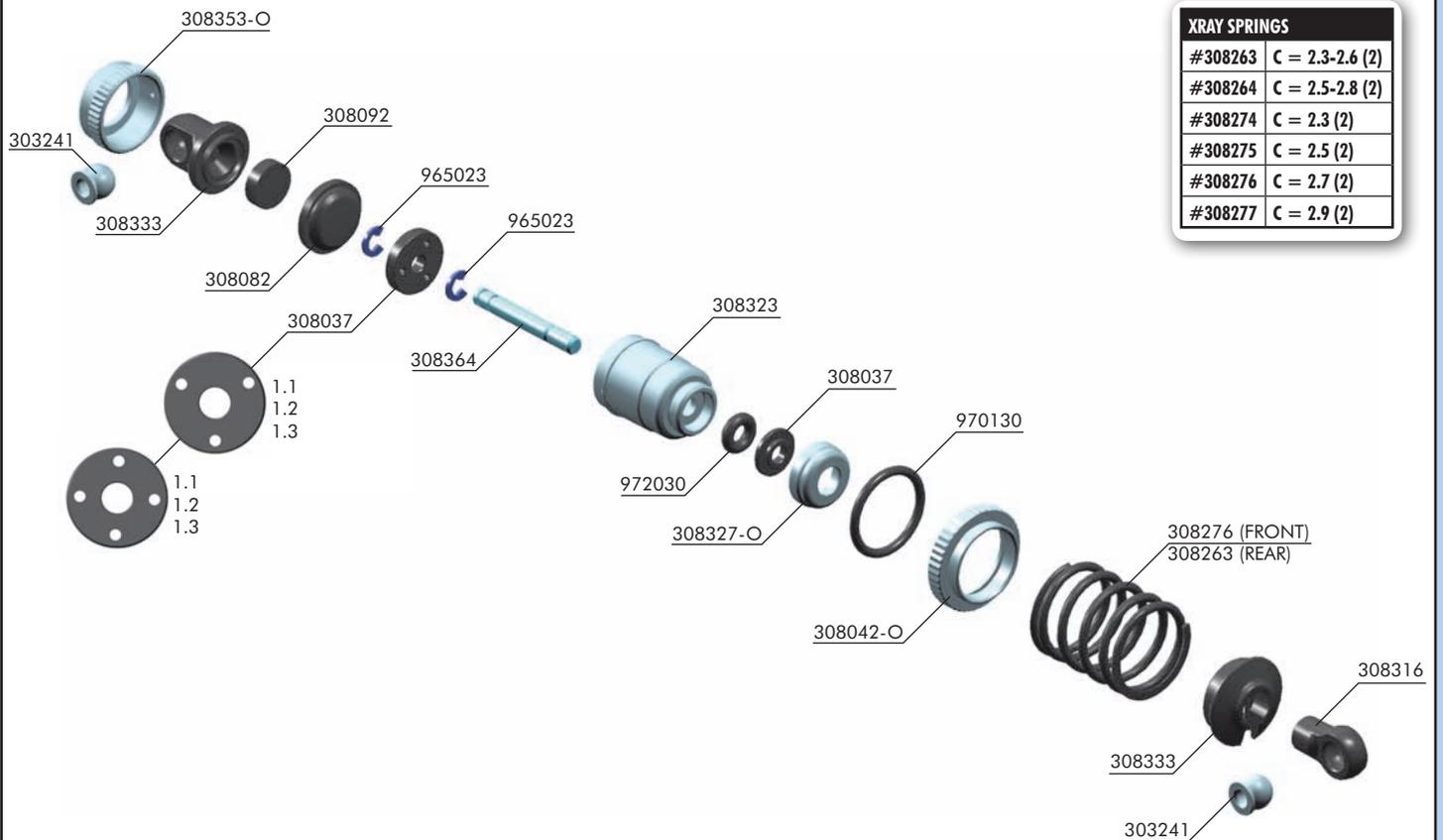


FRONT ANTI-ROLL BARS	
#302492	FRONT 1.2 MM
#202493	FRONT 1.3 MM
#302494	FRONT 1.4 MM
#302495	FRONT 1.5 MM
#302496	FRONT 1.6 MM



REAR ANTI-ROLL BARS	
#303490	REAR 1.0 MM
#303491	REAR 1.1 MM
#303492	REAR 1.2 MM
#203493	REAR 1.3 MM
#303494	REAR 1.4 MM
#303495	REAR 1.5 MM

6. SHOCK ABSORBERS



XRAY SPRINGS	
#308263	C = 2.3-2.6 (2)
#308264	C = 2.5-2.8 (2)
#308274	C = 2.3 (2)
#308275	C = 2.5 (2)
#308276	C = 2.7 (2)
#308277	C = 2.9 (2)

BAG

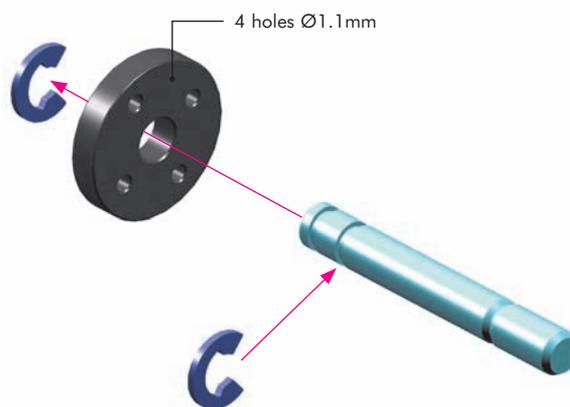
06

- | | | | |
|-----------|--|---------|----------------------------|
| 30 3241 | BALL UNIVERSAL 5.8 MM HEX (4) | 30 8263 | XRAY SPRING-SET C=2.3-2.6 |
| 30 8037 | COMPOSITE PISTONS 4-HOLE 1.0-1.2MM, 3-HOLE 1.0-1.2MM | 30 8276 | XRAY SPRING-SET C=2.7 |
| 30 8042-O | T4 ALU SHOCK ADJUSTABLE NUT - ORANGE (2) | 96 5023 | E-CLIP 2.3 (10) |
| 30 8082 | T4 SHOCK ABSORBER MEMBRANE (4) | 97 0130 | O-RING 13 x 1.5 (10) |
| 30 8092 | T4 SHOCK FOAM INSERTS (4) | 97 2030 | SILICONE O-RING 3 x 2 (10) |
| 30 8307-O | XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2) | | |
| 30 8316 | SHOCK BALL JOINT - OPEN (4) | | |
| 30 8323 | T4 ALU XRAY SHOCK BODY (2) | | |
| 30 8327-O | ALU CAP FOR XRAY SHOCK BODY - ORANGE | | |
| 30 8333 | T4 COMPOSITE SHOCK PARTS FOR ALU SHOCKS | | |
| 30 8353-O | T4 ALU SHOCK CAP-NUT WITH VENT HOLE - ORANGE (2) | | |
| 30 8364 | T4 HARDENED SHOCK SHAFT FOR ALU SHOCKS (2) | | |



965023
C2.3

4x



6. SHOCK ABSORBERS

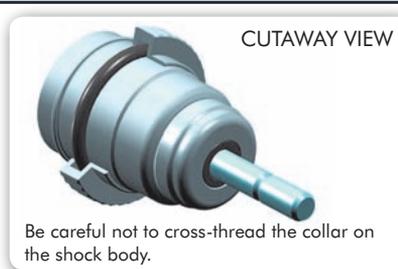
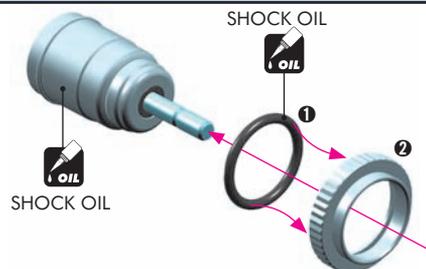
972030
Ø 3x2

4x

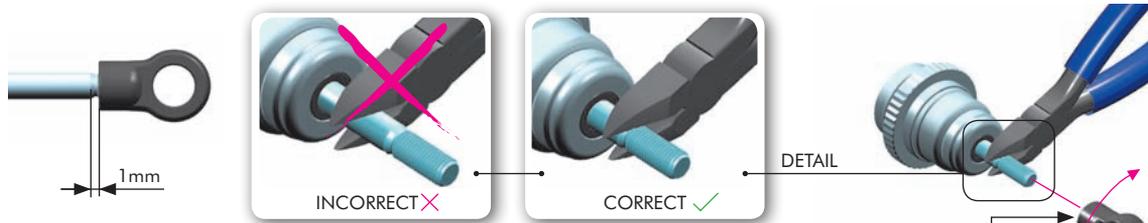


970130
Ø 13x1.5

4x



4x



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 to allow oil into all cavities within the shock body.
- 4 Extend 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.
- 5 Add shock oil as necessary.



4x



CUTAWAY VIEW



After you insert the membrane, ensure that it is fully seated inside the alu cap.

4x



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

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 OILS

#106310	100cSt	#106345	450cSt
#106315	150cSt	#106350	500cSt
#106320	200cSt	#106355	550cSt
#106325	250cSt	#106360	600cSt
#106330	300cSt	#106370	700cSt
#106335	350cSt	#106380	800cSt
#106340	400cSt	#106390	900cSt
		#106410	1000cSt
		#106420	2000cSt

SET-UP BOOK
SHOCK DAMPING
EFFECTS OF SHOCK DAMPING

6. SHOCK ABSORBERS

REBOUND ADJUSTMENT

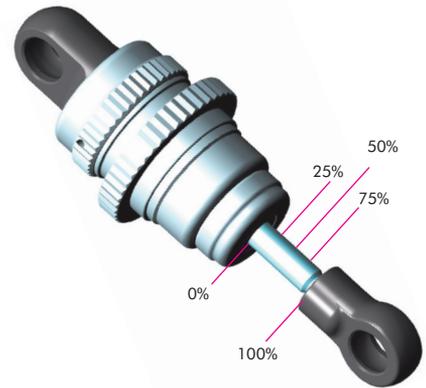
RELEASE
2-3 turns



TIGHTEN
FULLY



REBOUND CHECK



After the shock is assembled you have to set the shock rebound.

- 1 Release the shock cap by 2-3 turns.
- 2 Push the shock shaft fully up. For the first time the extra oil will release through the hole in the alu cap-nut.
- 3 Tighten the shock cap. 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

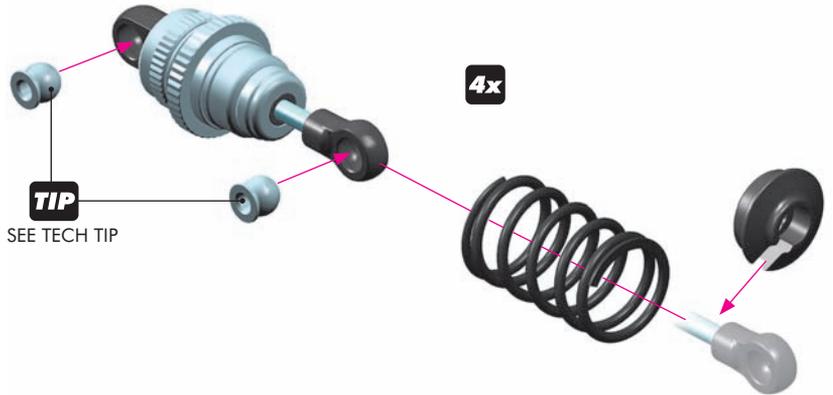
It is very important to push the shock shaft into the shock body slowly otherwise air can come into the shock body which would create bubbles.

- 100% rebound - do not do step 2 and 3
- 75% rebound - repeat step 2 and 3 until the shock shaft will push out 75% of its length
- 50% rebound - repeat step 2 and 3 until the shock shaft will push out 50% of its length
- 25% rebound - repeat step 2 and 3 until the shock shaft will push out 25% of its length
- 0% rebound - repeat step 2 and 3 until the shock shaft will push out 0% of its length

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

SHOCK 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.

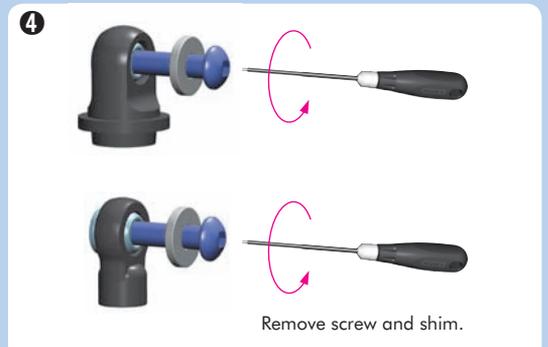
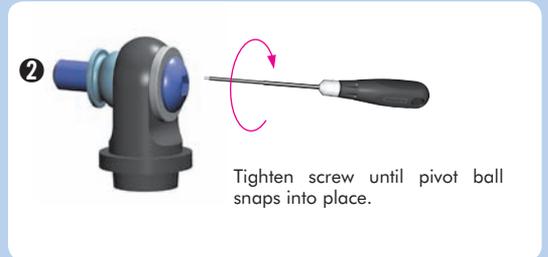
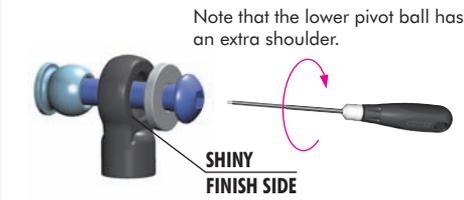
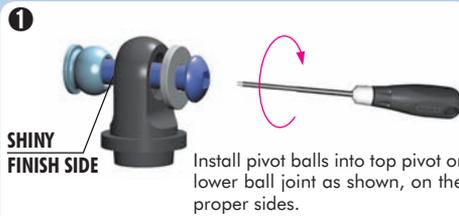
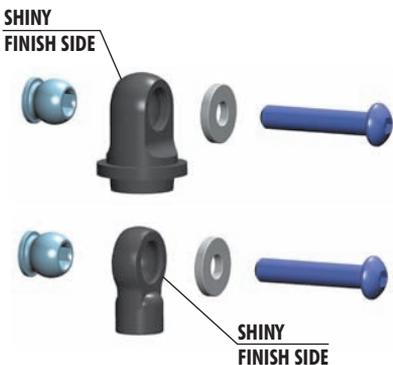


TECH TIP

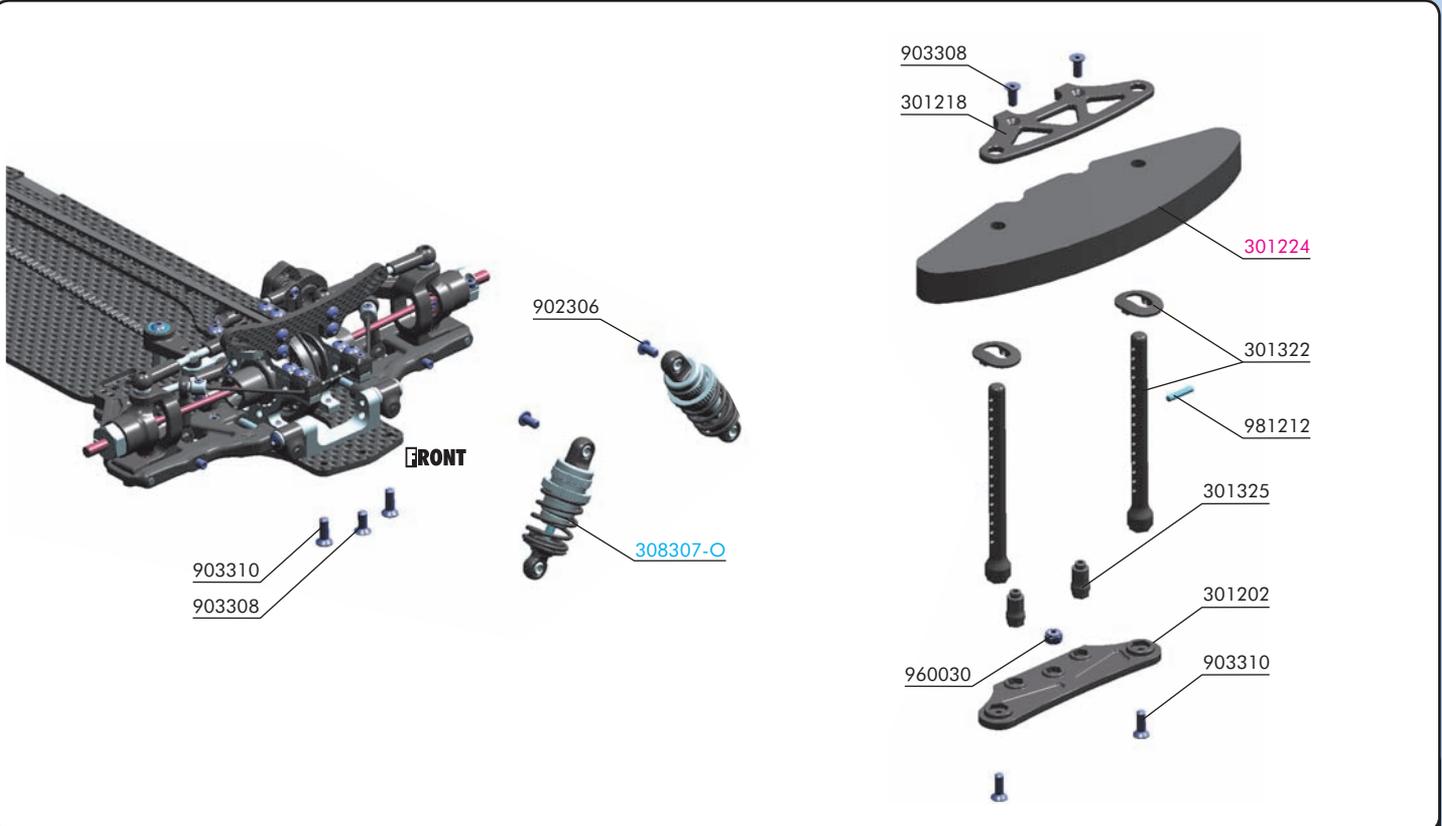
Follow this tech tip to properly install pivot balls into the top pivot and bottom ball joint.

- 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.



7. FRONT & REAR ASSEMBLY



BAG

07

- 30 1202 COMPOSITE BUMPER
- 30 1218 COMPOSITE UPPER HOLDER FOR BUMPER
- 30 1322 FRONT BODY MOUNT SET
- 30 1325 T4 COMPOSITE BRACE FOR BUMPER - LOW (2)

- 90 2306 HEX SCREW SH M3x6 (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)

- 30 1224 T4 FOAM BUMPER
- 30 8307-O XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)



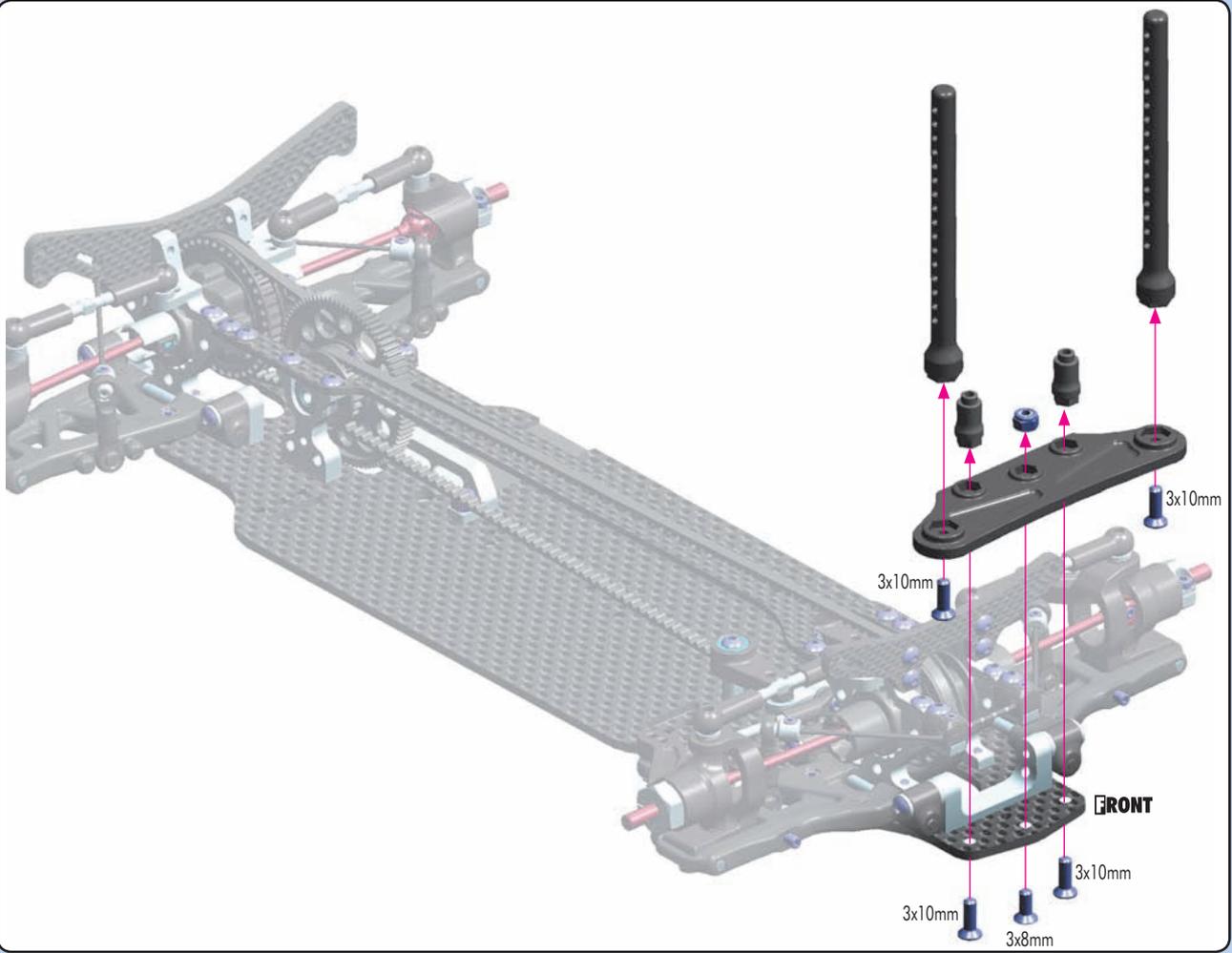
903308
SFH M3x8



903310
SFH M3x10

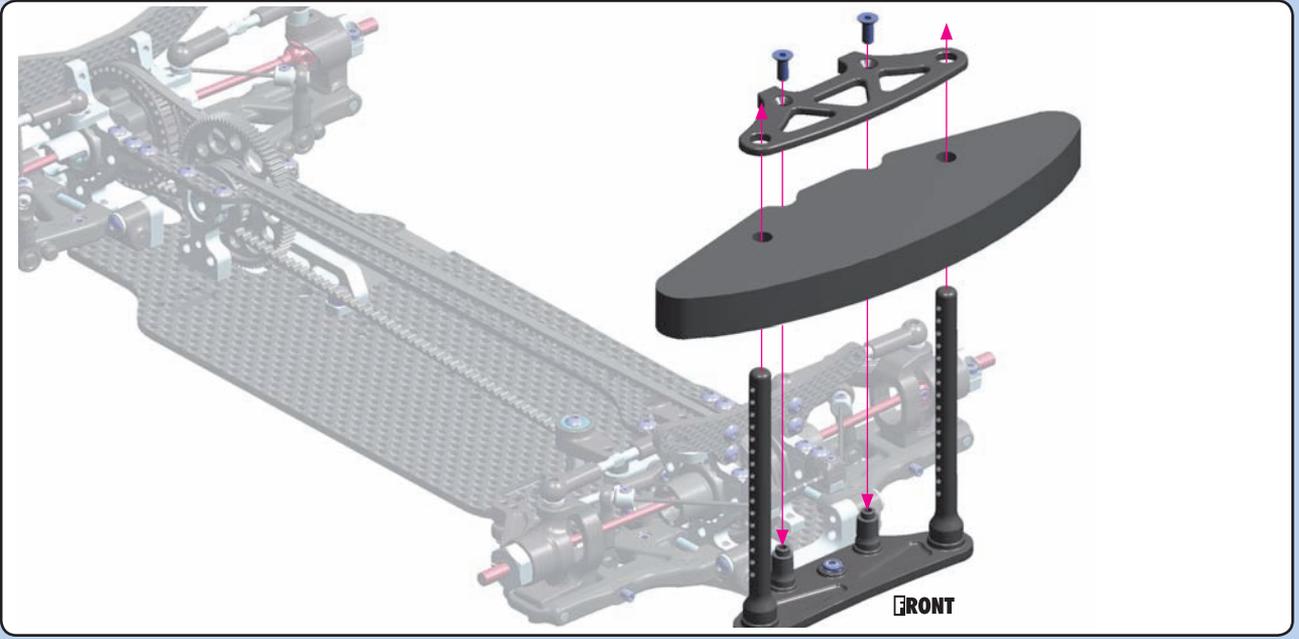


960030
N M3x10

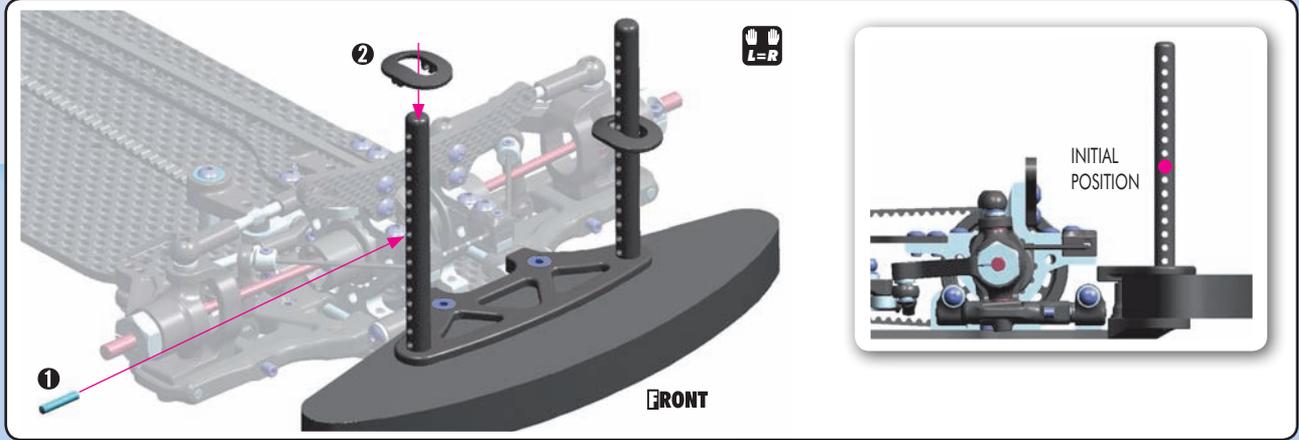


7. FRONT & REAR ASSEMBLY

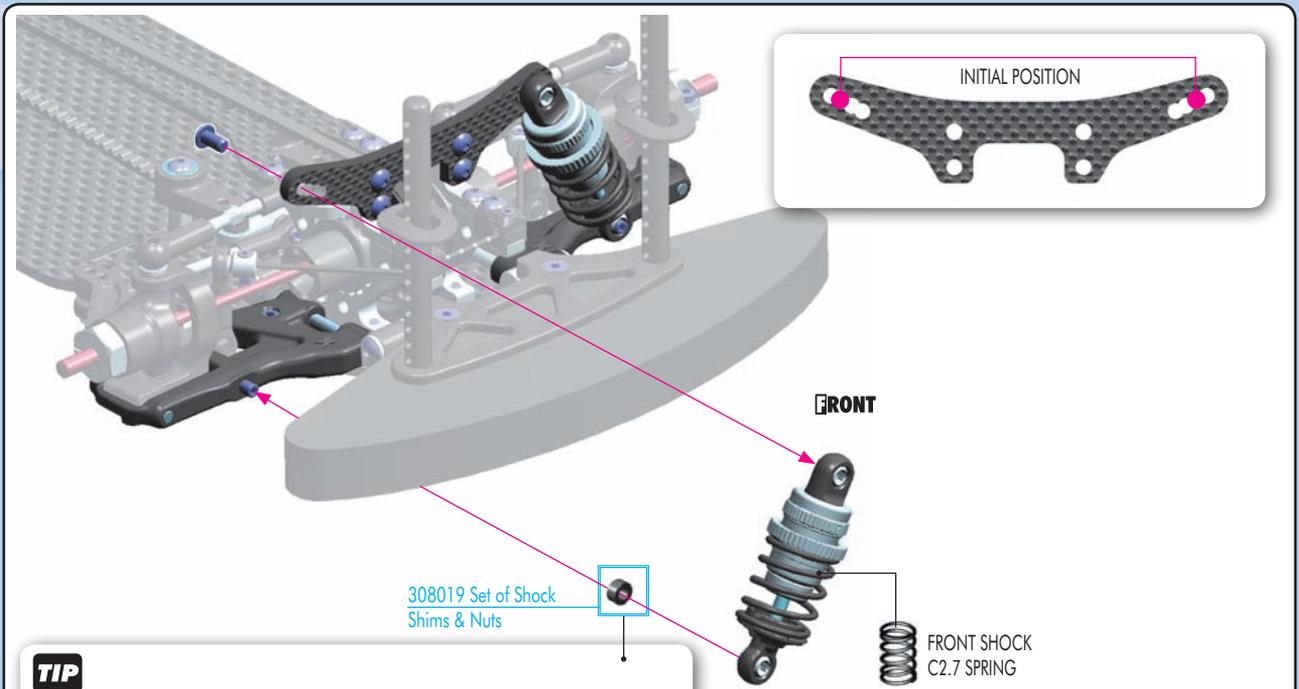
903308
SFH M3x8



981212
P 2x12



902306
SFH M3x6



308019 Set of Shock Shims & Nuts

FRONT SHOCK C2.7 SPRING

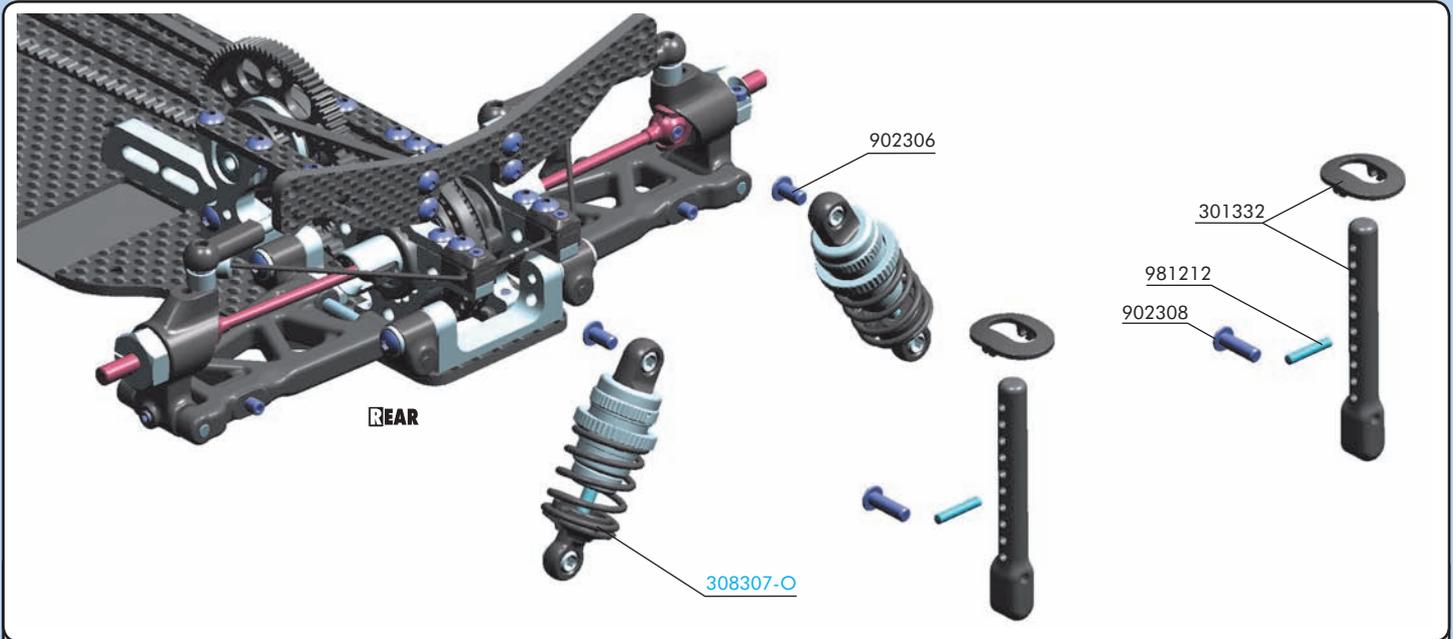
TIP
To make the car more stable and easier to drive, move the front shocks forward. Stability increases mainly in chicanes. Note that the car will have less steering into corners.

- Upper mount (shock tower): Add a plastic nut and use a longer screw 3x8mm (NOT INCLUDED) to move the upper end of the shock away from the shock tower.
- Lower mount (lower arm): Add shims and use a longer setscrew 3x10mm (NOT INCLUDED) on the lower arms to move the lower end of the shock away from the arm.

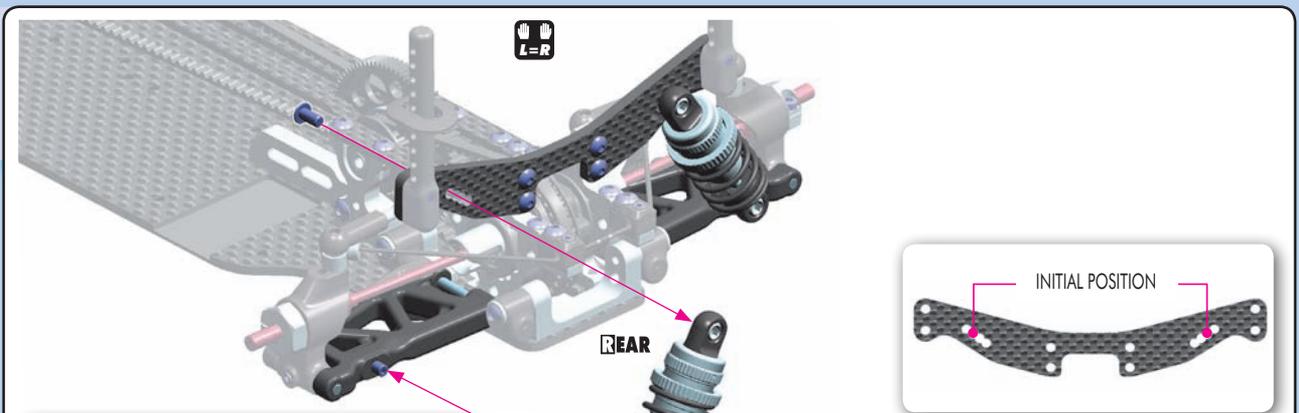
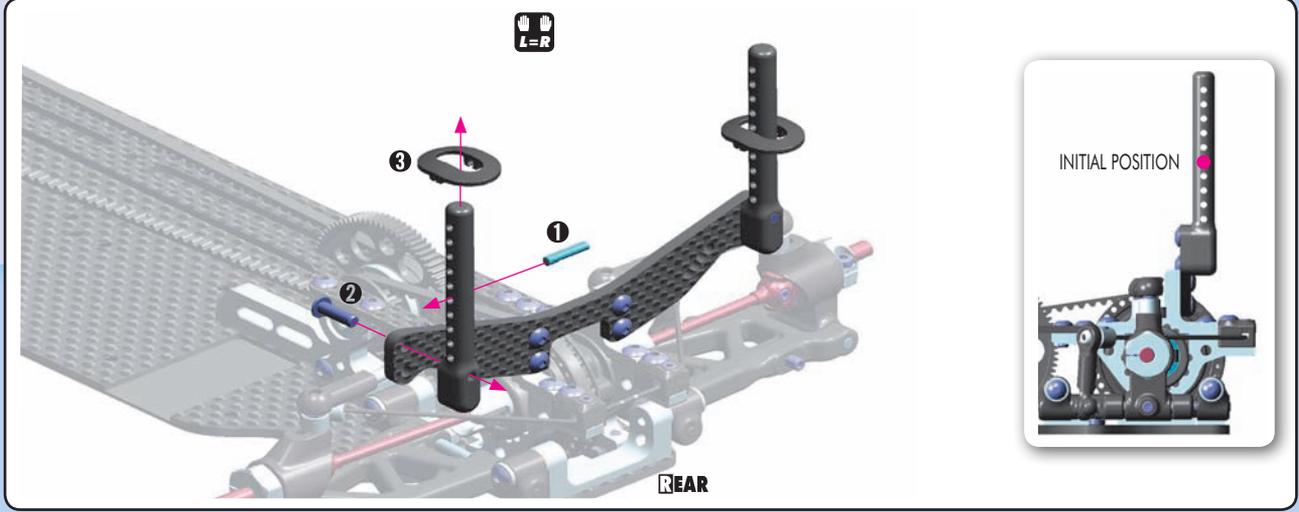


SHOCK POSITION ADJUSTMENT
RIDE HEIGHT ADJUSTMENT
DROOP ADJUSTMENT

7. FRONT & REAR ASSEMBLY



BAG 	30 1332	REAR BODY MOUNT SET	98 1212	PIN 2x12 (10)
	90 2306	HEX SCREW SH M3x6 (10)	30 8307-O	XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)
	90 2308	HEX SCREW SH M3x8 (10)		



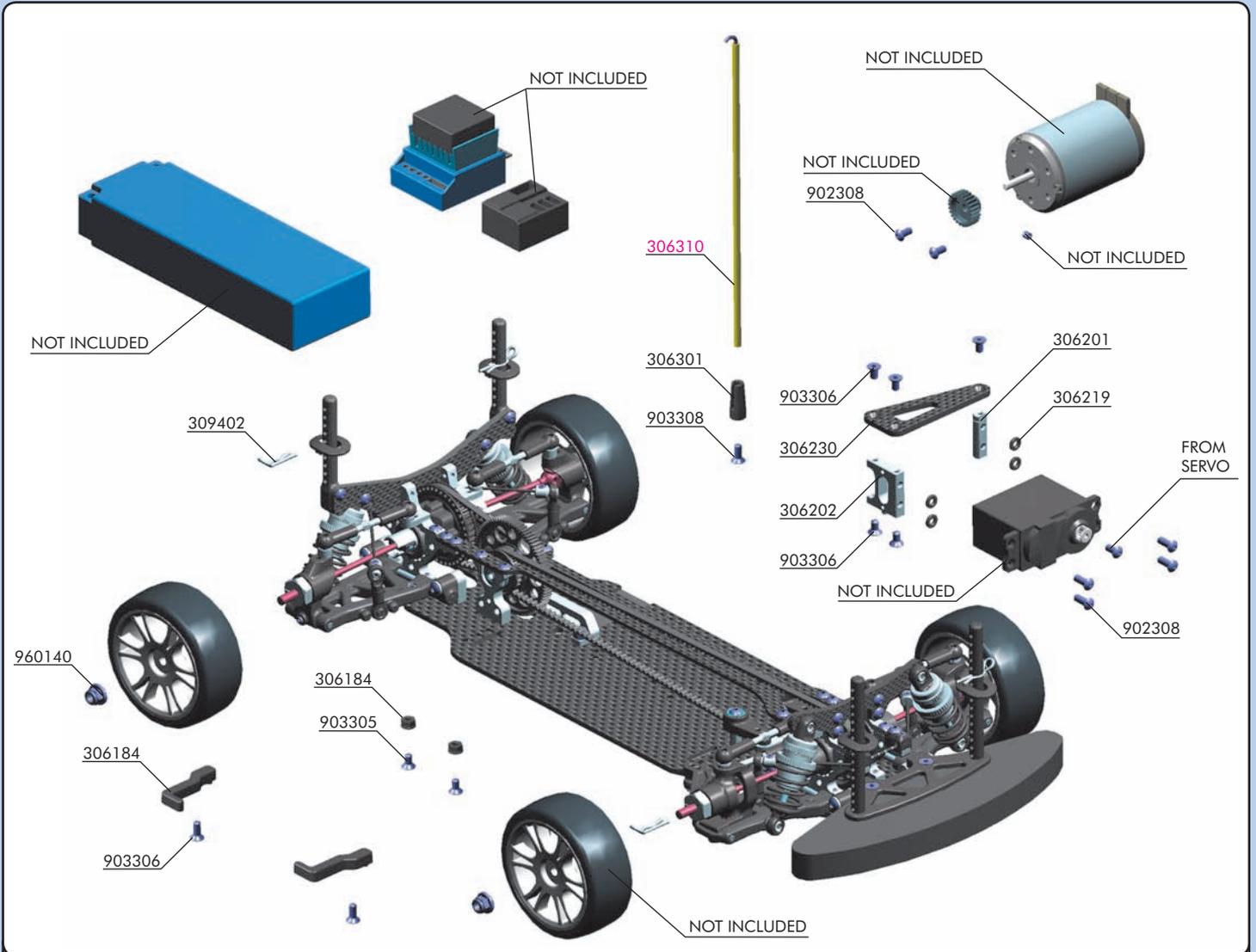
TIP
 To make the car more stable and easier to drive, move the rear shocks rearward. Stability increases mainly in chicanes. Note that the car will have less steering into corners.

- Upper mount (shock tower): Add a plastic nut and use a longer screw 3x8mm (NOT INCLUDED) to space the upper end of the shock away from the shock tower.
- Lower mount (lower arm): Add shims and use a longer setscrew 3x10mm (NOT INCLUDED) on the lower arms to space the lower end of the shock away from the arm.

308019 Set of Shock Shims & Nuts
 REAR SHOCK C2.3-2.6 SPRING



7. FINAL ASSEMBLY



BAG

07

305912~306000 NARROW PINION GEAR ALU HARD COATED (OPTION)
 30 6163-K GRAPHITE BATTERY STRAP 6-CELL (SET) - BLACK (OPTION)
 30 6184 LONG COMPOSITE LIPO BATTERY BACKSTOP (1+1)
 30 6186 ALU LIPO BATTERY BACKSTOP (F+R) (OPTION)
 30 6201 ALU SERVO MOUNT - LONG
 30 6202 T4 ALU SERVO MOUNT
 30 6219 COMPOSITE SET OF SERVO SHIMS (4)
 30 6301 ANTENNA MOUNT - THIN
 30 6230 T4 GRAPHITE SERVO HOLDER 2.5MM
 30 9402 BODY CLIP FOR 6MM BODY POST (4)

90 2308 HEX SCREW SH M3x8 (10)
 90 3305 HEX SCREW SFH M3x5 (10)
 90 3306 HEX SCREW SFH M3x6 (10)
 90 3308 HEX SCREW SFH M3x8 (10)
 96 0140 NUT M4 WITH FLANGE (10)

306310 ANTENNA (2)

IO

306219 SHIM 3x6x1

IO

306219 SHIM 3x6x2

IO

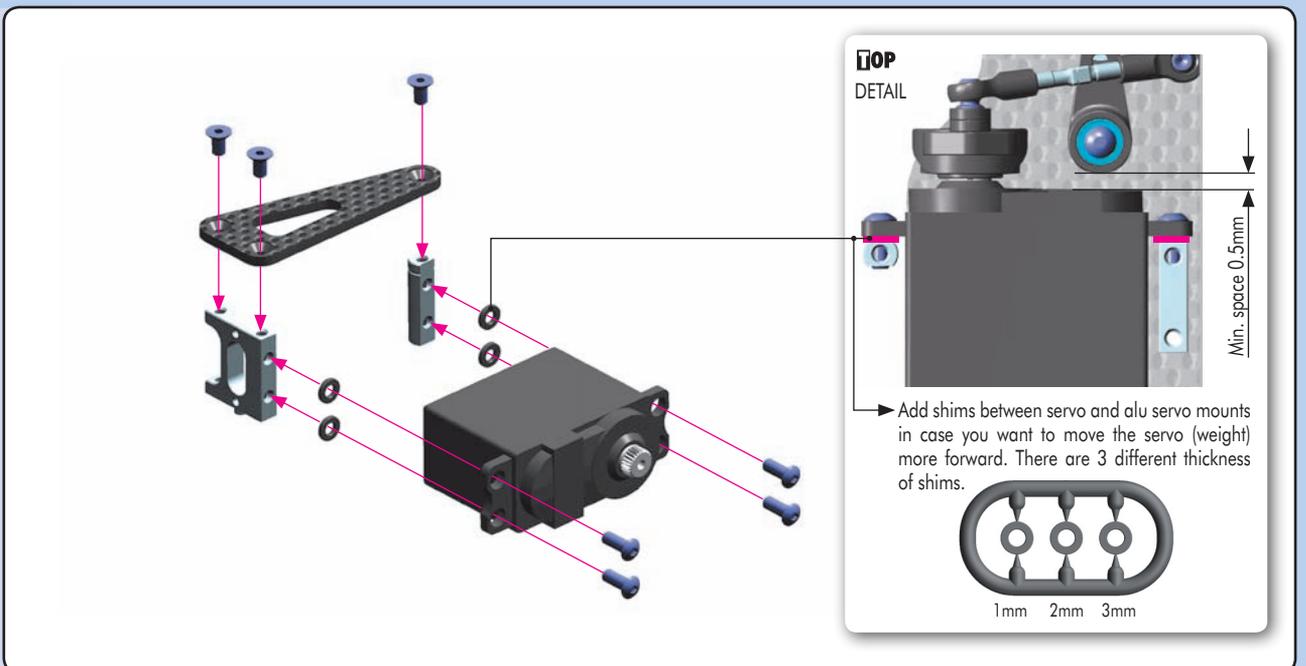
306219 SHIM 3x6x3



902308 SH M3x8



903306 SFH M3x6

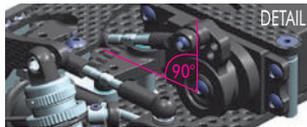


7. FINAL ASSEMBLY



903306
SFH M3x6

For improved weight balance and for more space for electronics, we recommend using a narrow, light servo.

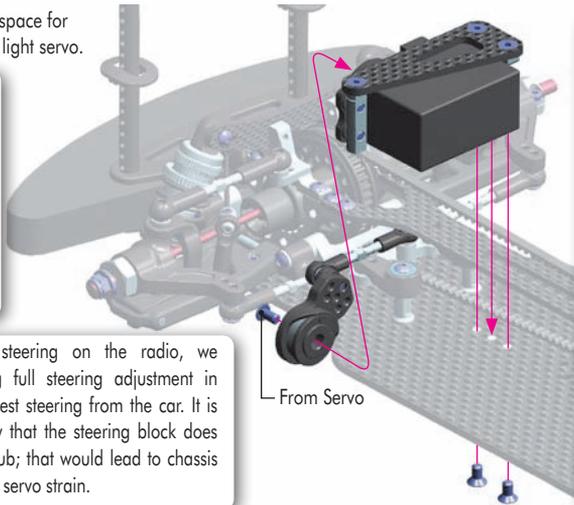


Attach servo arm to servo output shaft using screw from servo. Servo saver must be perpendicular to chassis when servo is in neutral.

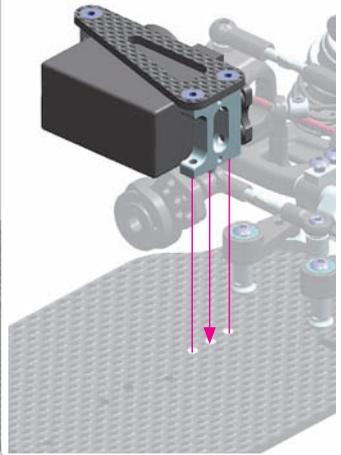
! IMPORTANT!



When adjusting steering on the radio, we recommend using full steering adjustment in order to get the best steering from the car. It is important to verify that the steering block does not touch the C-hub; that would lead to chassis tweak due to extra servo strain.



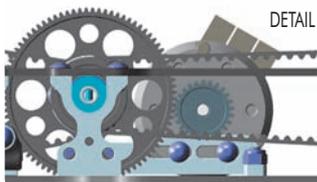
DETAIL



902308
SFH M3x8

Adjust the motor so the pinion meshes with the spur gear properly. Make sure the gear mesh is not too tight.

There should be a small amount of play between the teeth of the pinion gear and the spur gear.



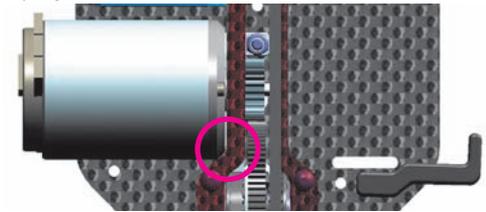
DETAIL

Recommended: 3x2.5mm set screw (#901302) (NOT INCLUDED)



MOTOR (NOT INCLUDED)

Some motors do not have a chamfer on the motor housing. If your motor does not have a chamfer on the housing and you want to use a small pinion, the motor may touch the top deck. Use a moto-tool with grinding bit or file to remove material from the top-deck; this will allow the motor to be moved closer to the spur gear.



TIP

For tightening and loosening the pinion set screw, use the indicated chassis hole.



GEARING ADJUSTMENT



903308
SFH M3x8

Feed the receiver wire into the antenna tube

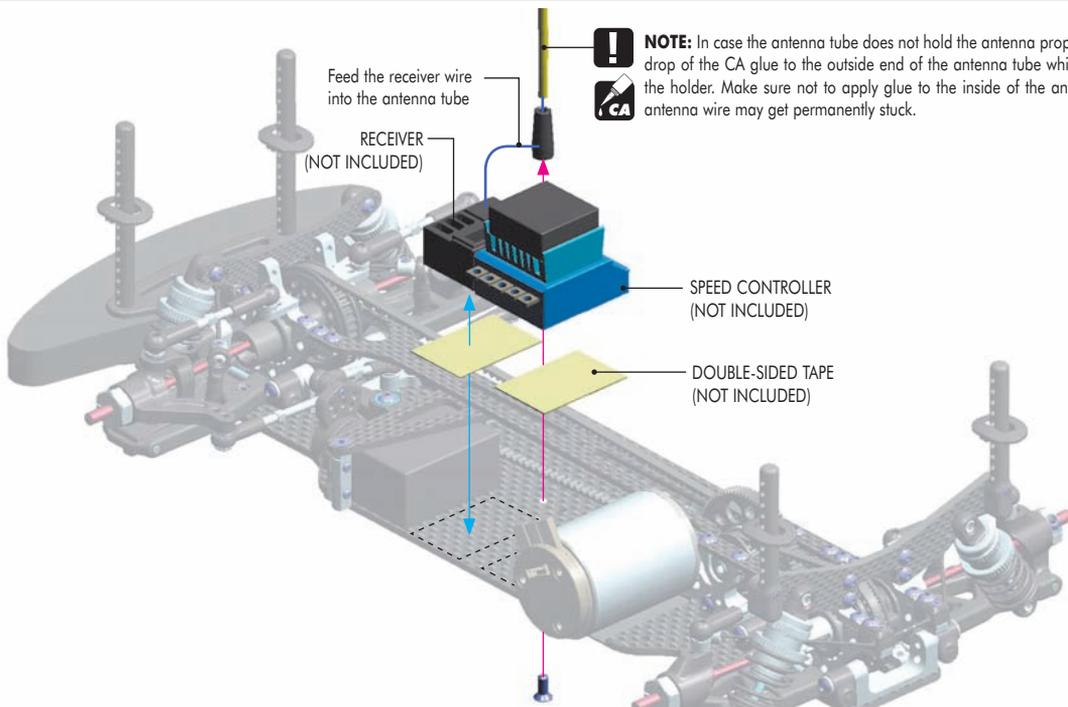
RECEIVER (NOT INCLUDED)



NOTE: In case the antenna tube does not hold the antenna properly, apply a small drop of the CA glue to the outside end of the antenna tube while inserting it into the holder. Make sure not to apply glue to the inside of the antenna tube, or the antenna wire may get permanently stuck.

SPEED CONTROLLER (NOT INCLUDED)

DOUBLE-SIDED TAPE (NOT INCLUDED)



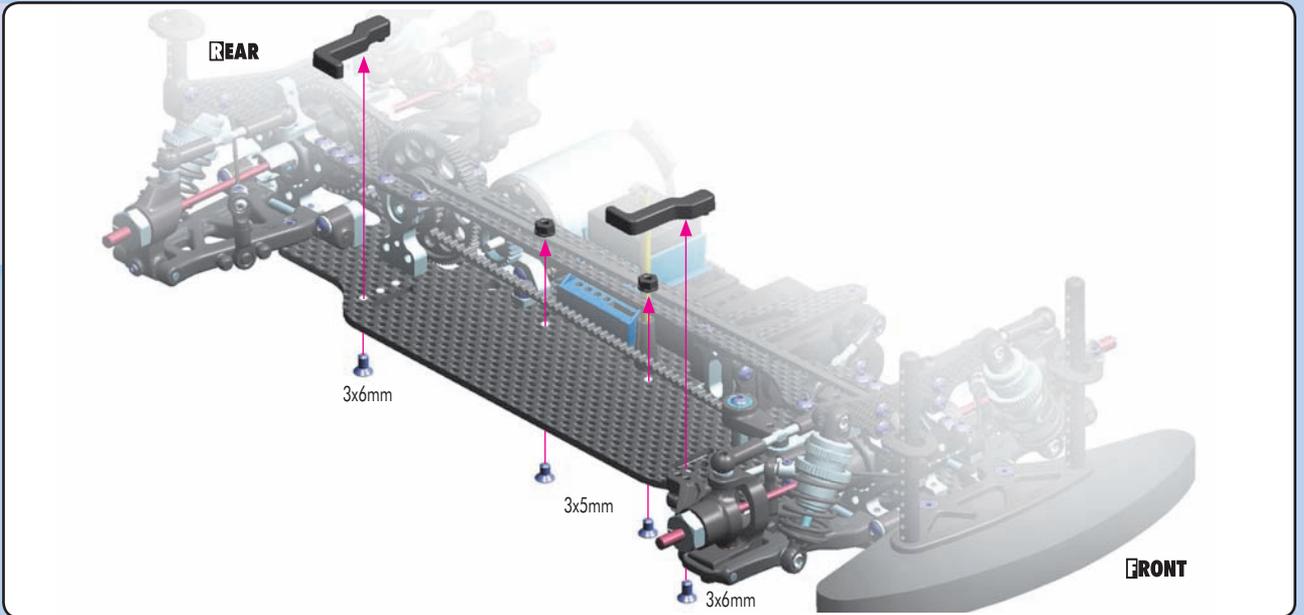
7. FINAL ASSEMBLY



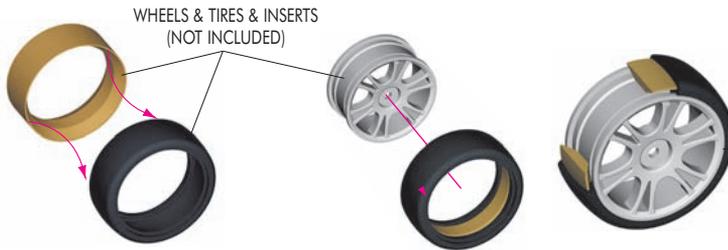
903305
SFH M3x5



903306
SFH M3x6

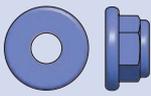


4x

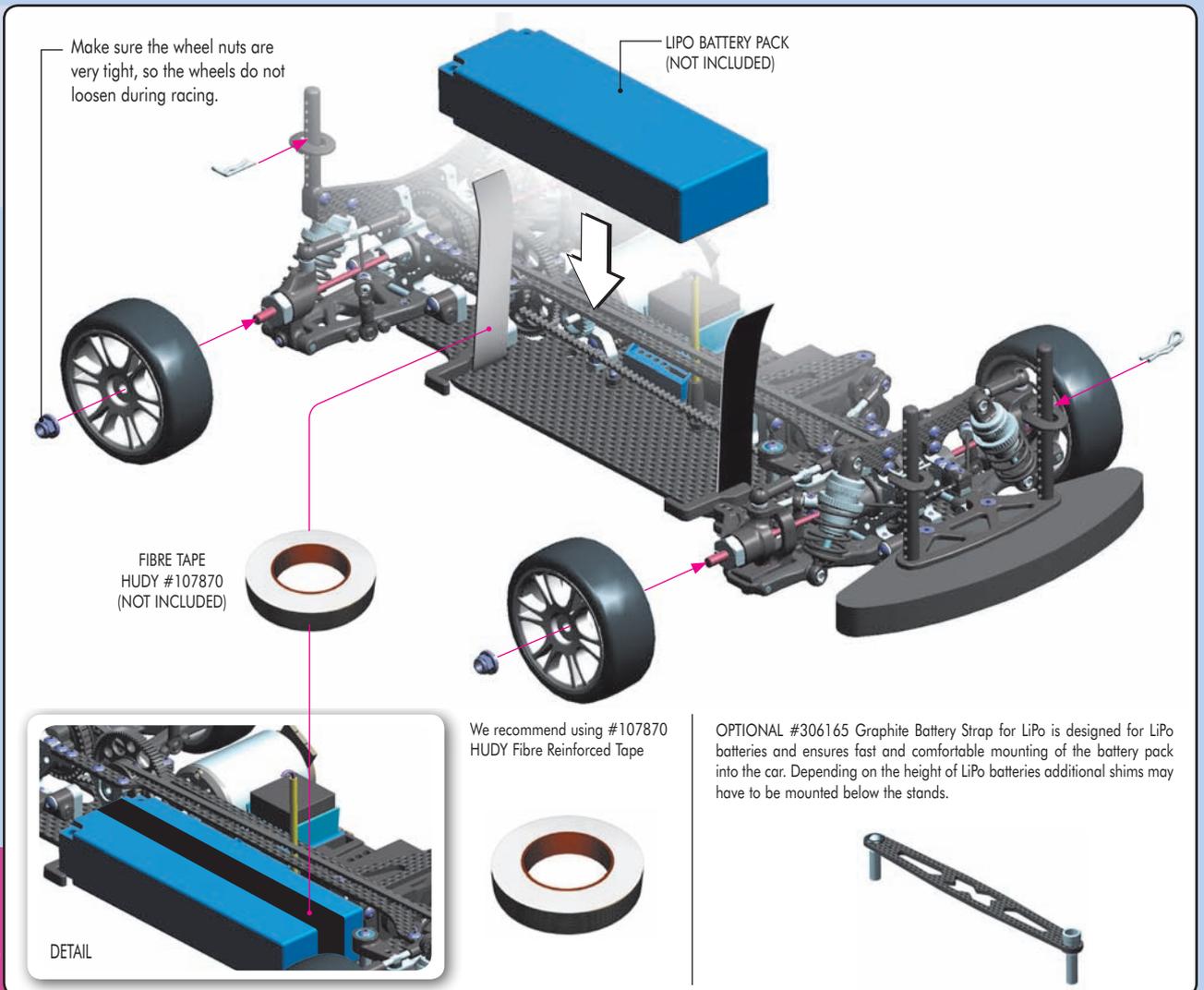


WARNING!

Follow the adhesive manufacturer's instructions for proper use and safety. Wear proper eye and hand protection.



960140
N M4



SET-UP SHEET

XRAY T4

RACE			
TRACK			
NAME			
CITY / COUNTRY			
CONTACT			

DATE	TEMPERATURE / °F or °C	AIR	TRACK
QUALIFYING POSITION	BEST LAPTIME /sec	FINAL POSITION	RACE LENGTH /minutes

TRACK CONDITION	<input type="checkbox"/> CARPET	<input type="checkbox"/> ASPHALT
	<input type="checkbox"/> TECHNICAL	<input type="checkbox"/> MIXED
TRACTION	<input type="checkbox"/> LOW	<input type="checkbox"/> MEDIUM
	<input type="checkbox"/> HIGH	

FRONT		REAR	
TRANSMISSION			
SOLID AXLE	<input type="checkbox"/> YES	BALL DIFFERENTIAL	<input type="checkbox"/> YES
SOLID ONE WAY DIFF.	<input type="checkbox"/> YES		
ONE WAY DIFFERENTIAL	<input type="checkbox"/> YES		
GEAR DIFFERENTIAL	<input type="checkbox"/> YES	GEAR DIFFERENTIAL	<input type="checkbox"/> YES
OIL		OIL	/Cst
PINION / T		SPUR GEAR / T	
FINAL DRIVE RATIO		ROLLOUT	

FRONT		REAR	
XRAY SPRINGS			
	OIL / CST		
	LENGTH /mm		
	PRELOAD /mm		
	REBOUND %		

<input type="checkbox"/> YES	<input type="checkbox"/> NO	FOAM INSERTS	<input type="checkbox"/> YES	<input type="checkbox"/> NO
<input type="checkbox"/> YES	<input type="checkbox"/> NO	O-RING ON SHAFT	<input type="checkbox"/> YES	<input type="checkbox"/> NO

<input type="checkbox"/> 3 HOLES	PISTONS	<input type="checkbox"/> 3 HOLES	
<input type="checkbox"/> 4 HOLES		1.0mm	<input type="checkbox"/> 4 HOLES
		1.1mm	
	1.2mm		
	OTHERS		

THICKNESS/mm	ANTI-ROLL BAR	THICKNESS/mm
--------------	---------------	--------------

TIRES	
	INSERTS
	ADDITIVE
	ADDITIVE TIMING

FRONT LEFT	FRONT RIGHT	REAR LEFT	REAR RIGHT
TREATED AREA			

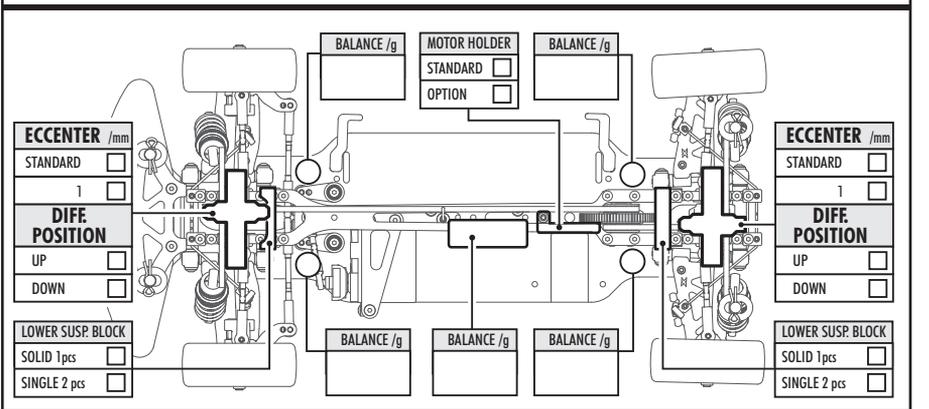
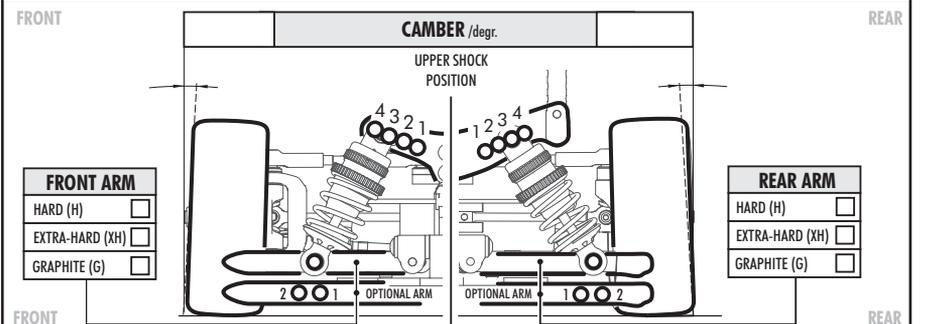
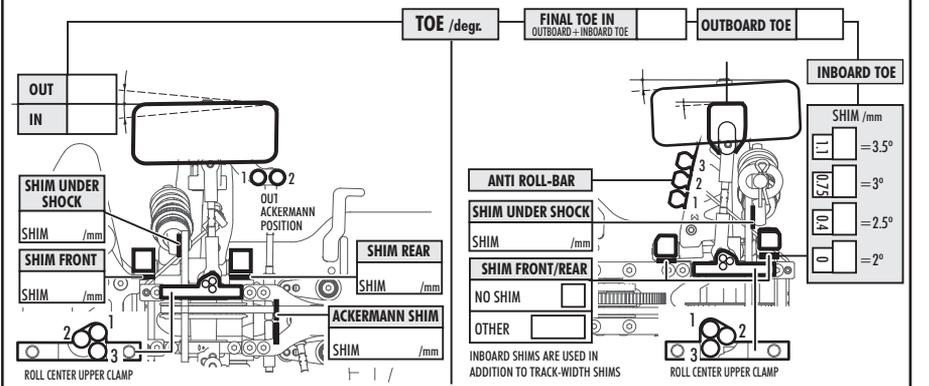
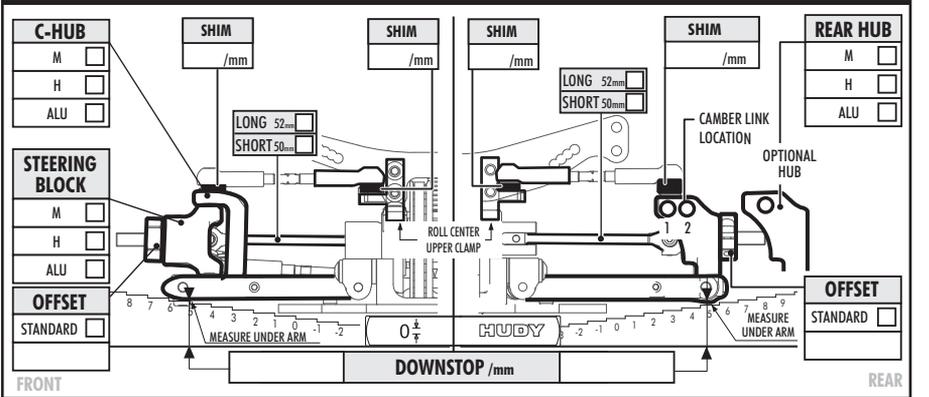
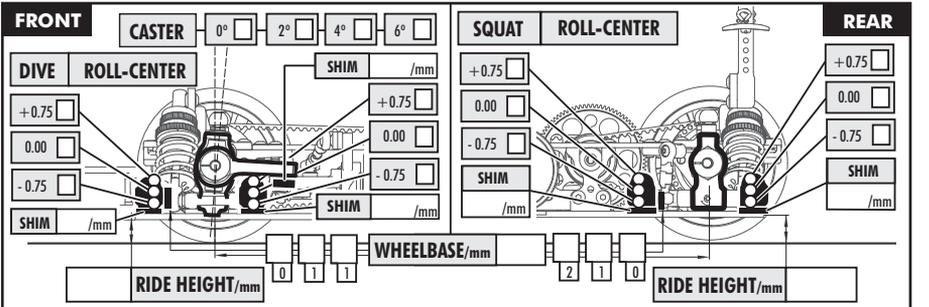
WHEELS			
S	M	H	HARDNESS
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H

MOTOR	TIMING
ROTOR	ARMATURE

ESC	BATTERIES
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BODY	WING
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● - APPLIED S-SOFT M-MEDIUM H-HARD



COMMENTS

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