

# XPAY

1/10 LUXURY ELECTRIC TOURING CAR 4WD

# T44

# 2017



MADE IN  
EUROPE

car action  
Reader's  
Choice Award

16X  
CAR OF  
THE YEAR

300+  
NATIONAL  
CHAMPION  
TITLES

6X  
DHI CUP  
WINNER

11X  
LAP  
TEN  
WINNER

US 26X  
SNOWBIRD  
NATIONAL  
WINNER

4X  
TITE  
CHAMPION

IIA  
INTERNATIONAL INDOOR  
CHAMPION  
05-06-07-08-09-13

WORLD  
CHAMPION  
IYRCA

WORLD  
CHAMPIONSHIP  
TQ

EUROPEAN  
CHAMPION  
Modified

4X  
EUROPEAN  
CHAMPION  
Stock

7X  
EUROPEAN  
CHAMPION  
Junior

2X WORLD  
VICE-CHAMPION

49X  
USA  
NATIONAL  
CHAMPION

ETS  
EURO TOURING SERIES  
SEASON WINNER  
MODIFIED

5X  
ETS  
EURO TOURING SERIES  
SEASON WINNER  
STOCK

26X  
ETS  
EURO TOURING SERIES  
WINNER

# INSTRUCTION MANUAL



## 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](mailto:info@teamxray.com). Also, please visit our Web site at [www.teamxray.com](http://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](http://www.teamxray.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.



## 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.

the maximum enjoyment and prevent unnecessary damage. Read carefully and fully understand the instructions before beginning assembly.

Make sure you review this entire manual, download and use set-up book from the web, 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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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 - 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 RC 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](http://www.teamxray.com) to get advice, or contact us via email at [info@teamxray.com](mailto: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

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 
Scale 	Apply grease 	Optional parts 	Ensure smooth non-binding movement 	Tighten screw gently 	Completed assembly 	Detail 	Follow Set-Up Book 

## TOOLS REQUIRED

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

<b>Premium Silicone Oil</b> 400cSt (HUDY #106340) 	<b>Premium Silicone Oil</b> 3000cSt (HUDY #106430) 	<b>Graphite Grease</b> (HUDY #106210) 
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## NOT INCLUDED

To ensure that you always have access to the most up-to-date version of the XRAY Set-up Book, XRAY will now be offering only the digital online version at our website at [www.teamxray.com](http://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.

**SAMPLE OF  
OPTIONAL PARTS**

#30XXXX	OPTION 1
#30XXXX	OPTION 2
#30XXXX	OPTION 3

XRAY offers wide range of optional tuning parts which are listed in tables like these. 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.

## EQUIPMENT REQUIRED

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

## 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.

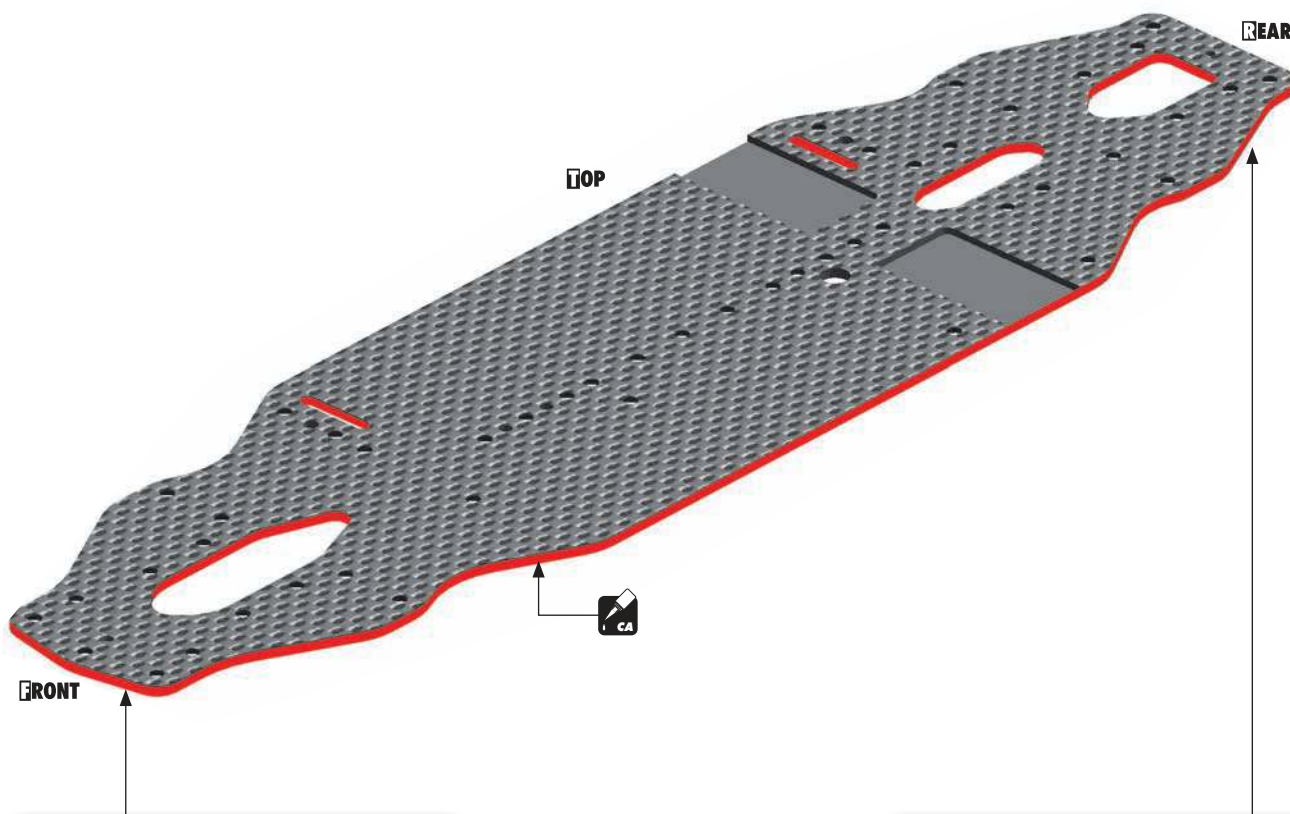
STYLE B - indicates parts that are included in the box.

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

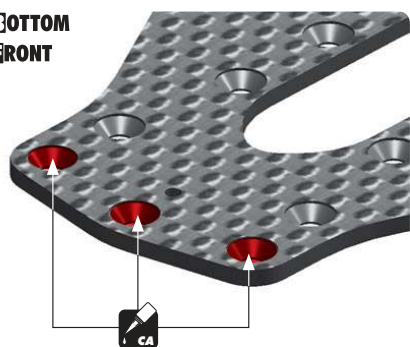
## CHASSIS PREPARATION

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.



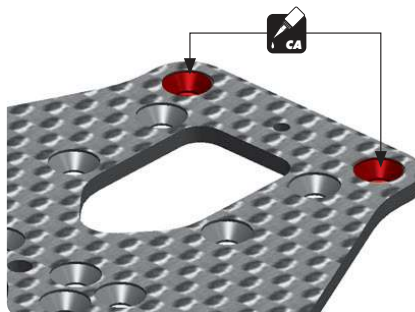
**BOTTOM**  
**FRONT**



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

**BOTTOM**  
**REAR**

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





# 1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

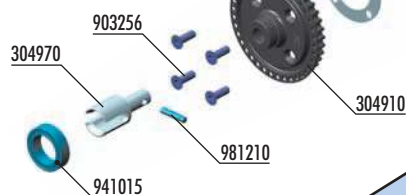


#304932  
GRAPHITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)



01.2

GEAR DIFFERENTIAL



#304971  
HUDY SPRING STEEL™ OUTDRIVES



#305136  
ALU SOLID DRIVESHAFT ADAPTERS



#305137  
STEEL SOLID AXLE DRIVESHAFT ADAPTERS  
HUDY SPRING STEEL™



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 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

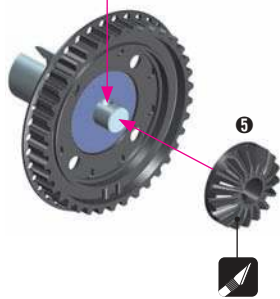


981210  
P 2x10



4

STEP 4 5 DETAIL



#304932  
GRAPHITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)



#304971  
HUDY SPRING STEEL™ OUTDRIVES



964050  
S 5x15x0.3



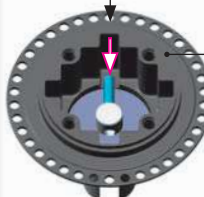
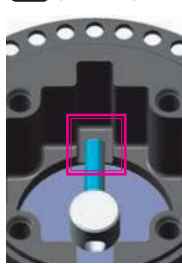
972050  
O 5x2



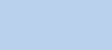
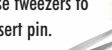
981210  
P 2x10



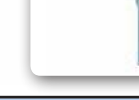
NOTE  
ORIENTATION



STEP 4 DETAIL  
Use tweezers to  
insert pin.



1

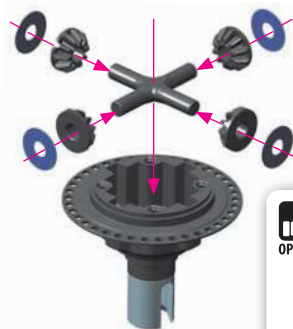


CUTAWAY VIEW

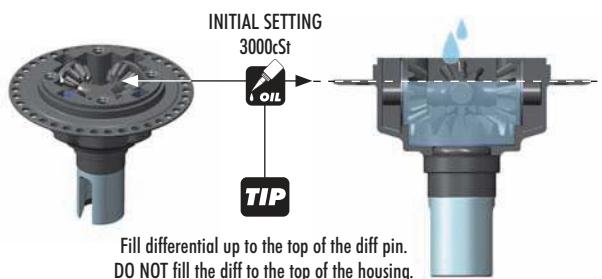


# 1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

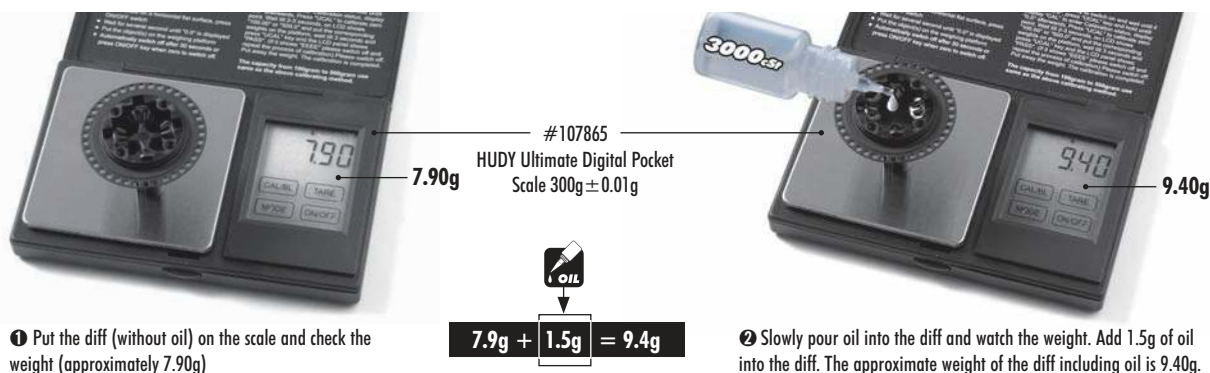
964031  
S 3.5x10x0.2



**OPTION** #304932  
GRAPHITE GEAR DIFF BEVEL &  
SATELLITE GEARS (2+4)



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



**TIP**

## TIPS FOR DIFFERENTIALS

**TIP**

### LOW TRACTION

1000cSt (HUDY #106410)  
2000cSt (HUDY #106420)

### MEDIUM TRACTION

2000cSt (HUDY #106420)  
3000cSt (HUDY #106430)  
5000cSt (HUDY #106450)

### HIGH TRACTION

5000cSt (HUDY #106450)  
6000cSt (HUDY #106460)  
7000cSt (HUDY #106470)  
8000cSt (HUDY #106480)  
9000cSt (HUDY #106490)  
10000cSt (HUDY #106510)

### SUPER-HIGH TRACTION

10000cSt (HUDY #106510)  
15000cSt (HUDY #106515)  
20000cSt (HUDY #106520)

### NOTE

SOFTER oil increases rear traction, HARDER oil increases on-power steering and stability. It is important not to use soft oils in high-traction conditions as this would not increase traction, but would make the car loose as the car would become too twitchy.

However, if the oil is too soft, it could generate the same effect like the car has no traction. Therefore it is very important to choose the correct oil very carefully. We recommend using softer oil first, then try harder oil to better understand the effect on the car's behavior at the track. Choose the oil accordingly.

### TIP 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™ outdrives because the stress on the outdrives in the front is much higher than in the rear.

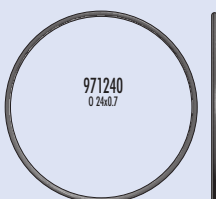
### USE THESE OILS FOR FRONT DIFFERENTIAL

500,000 cSt (HUDY #106650)  
1,000,000 cSt (HUDY #106692)  
2,000,000 cSt (HUDY #106694)

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.



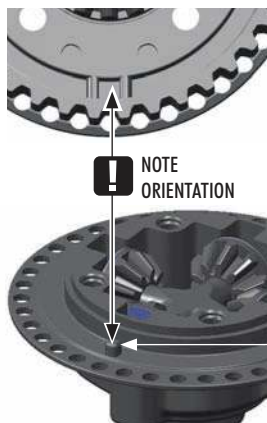
After disassembling the gear diff the large O-ring may have an increased size and may be more difficult to re-install. We recommend either inserting the old O-ring carefully in the diff cover, or replacing the old O-ring with a new O-ring if the old one cannot be made to fit properly.

# 1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

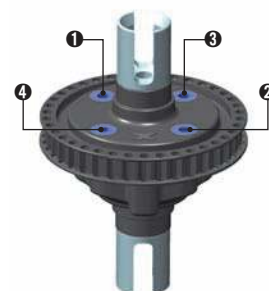


903256  
SFH M2.5x6

**BOTTOM**



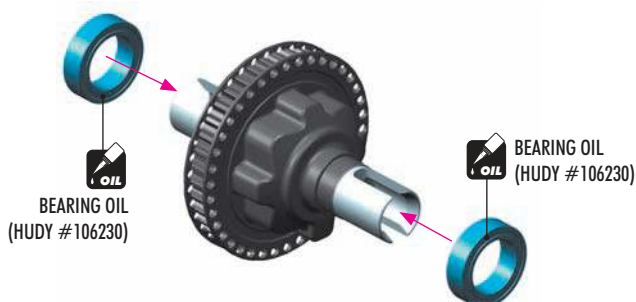
Tighten the screws equally but do NOT tighten them completely.



Finish tightening in this order.



941015  
BB 10x15x4



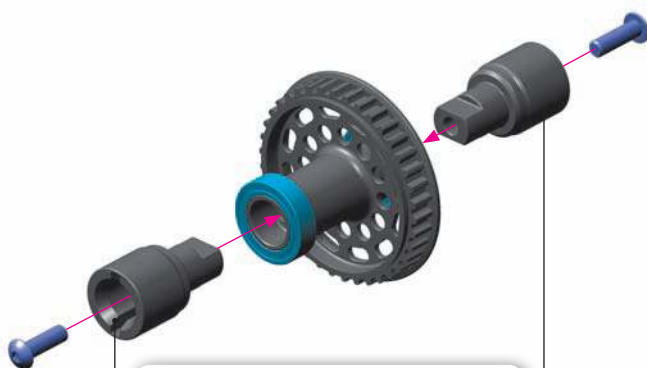
## COMPOSITE FRONT SOLID AXLE



902310  
SFH M3x10



941015  
BB 10x15x4



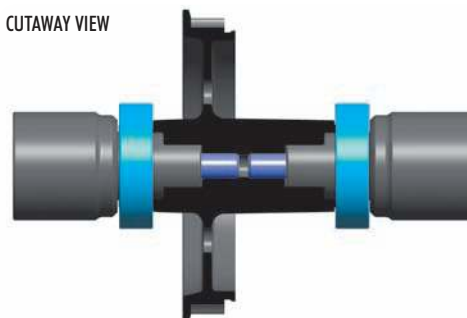
#305137  
**STEEL SOLID AXLE DRIVESHAFT ADAPTERS**  
HUDY SPRING STEEL™



#305136  
**ALU SOLID DRIVESHAFT ADAPTERS**



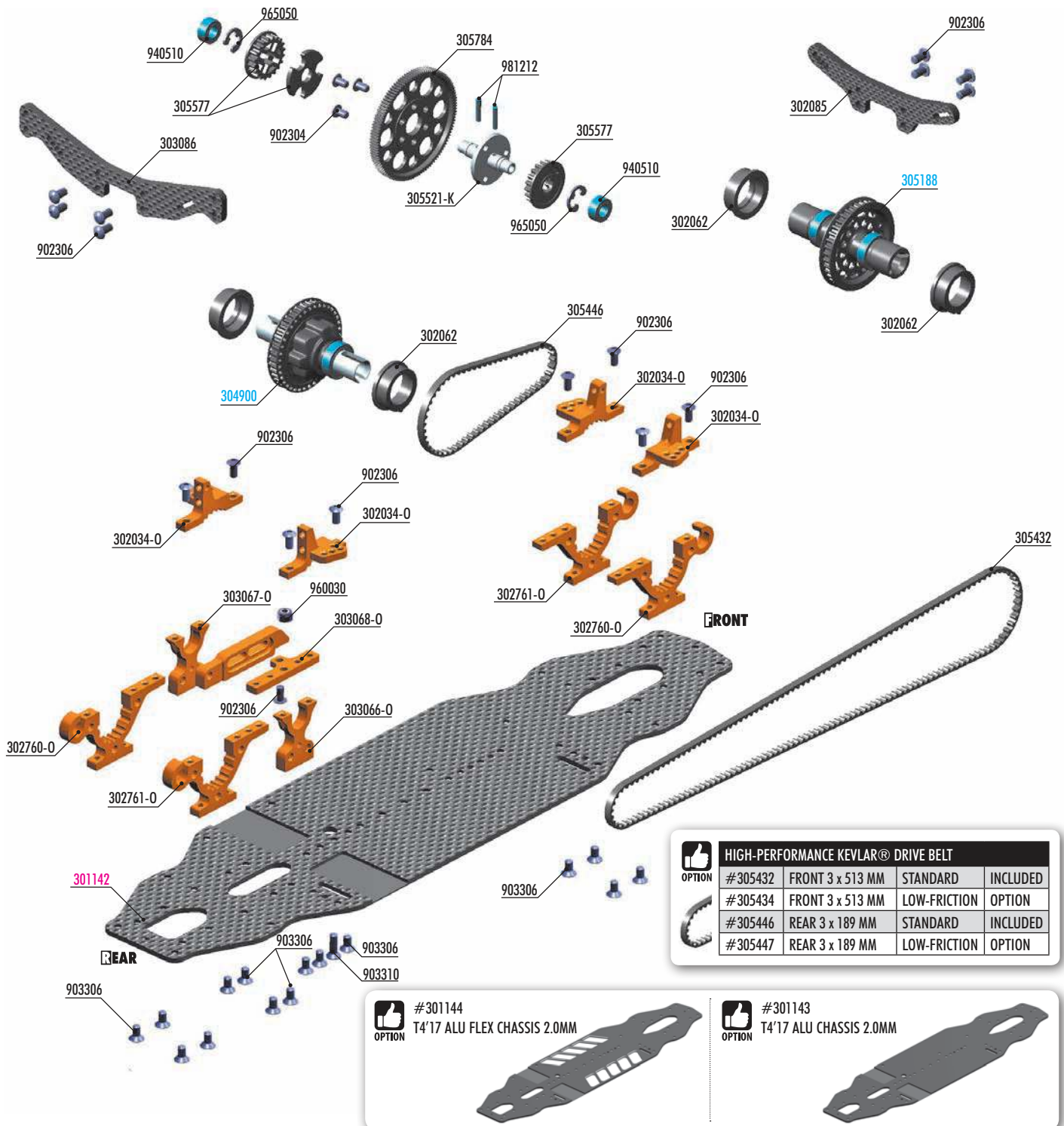
**CUTAWAY VIEW**



FRONT & REAR AXLES



## 2. CENTRAL TRANSMISSION



HIGH-PERFORMANCE KEVLAR® DRIVE BELT			
#305432	FRONT 3 x 513 MM	STANDARD	INCLUDED
#305434	FRONT 3 x 513 MM	LOW-FRICTION	OPTION
#305446	REAR 3 x 189 MM	STANDARD	INCLUDED
#305447	REAR 3 x 189 MM	LOW-FRICTION	OPTION

**#301144**  
T4'17 ALU FLEX CHASSIS 2.0MM

**#301143**  
T4'17 ALU CHASSIS 2.0MM

BAG

02

30 2034-0 T4 ALU UPPER CLAMP WITH 5 ADJ. ROLL-CENTERS (L + R) - ORANGE  
 30 2062 T4 COMPOSITE ADJUSTMENT BALL-BEARING HUB (4)  
 30 2085 T4 SHOCK TOWER FRONT 3.0MM GRAPHITE  
 30 2760-0 T4'15 ALU LOWER ADJUSTMENT BULKHEAD - FRONT R / REAR L - ORANGE  
 30 2761-0 T4'15 ALU LOWER ADJUSTMENT BULKHEAD - FRONT L / REAR R - ORANGE  
 30 3066-0 T4'17 ALU LAYSHAFT BULKHEAD CLOSED RIGHT - ORANGE  
 30 3067-0 T4'17 ALU MOTOR MOUNT - ORANGE  
 30 3068-0 T4'17 ALU MOTOR MOUNT PLATE - 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 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 1142 T4'17 CHASSIS 2.2MM GRAPHITE

## 2. CENTRAL TRANSMISSION

**902306**  
SH M3x6

**903306**  
SFH M3x6

**903310**  
SFH M3x10

**960030**  
N M3

**NOTE ORIENTATION**

**!** Do not tighten fully yet, the nut will be tightened after the motor mount is mounted on the chassis.

**REAR**

**FRONT**

**Do not tighten fully**

**SH M3x6**

**IMPORTANT!**  
Tighten screws in order indicated. M3 nut must always be tightened fully. When tightening the nut, use pliers.

The front screw improves steering response and in-corner steering. Recommended for medium-high traction tracks.

The back screws generates more traction and makes the car more stable in the chicanes. Recommended for low-medium traction tracks.

**NOTE ORIENTATION**

**!**

**902304**  
SH M3x4

**965050**  
CS

**981212**  
P 2x12

**1.**

**2.**

**3.**

**OPTION**

**OFFSET SPUR GEARS 48P**

#305778	78T / 48P	OPTION
#305781	81T / 48P	OPTION
#305784	84T / 48P	INCLUDED

**OPTION**

**OFFSET SPUR GEARS 64P**

#305860	90T / 64P	OPTION
#305862	92T / 64P	OPTION
#305866	96T / 64P	OPTION
#305870	100T / 64P	OPTION
#305874	104T / 64P	OPTION
#305876	106T / 64P	OPTION
#305878	108T / 64P	OPTION
#305880	110T / 64P	OPTION
#305882	112T / 64P	OPTION
#305884	114T / 64P	OPTION

**NOTE ORIENTATION**

**!** Note orientation only when using XRAY OFFSET spur gears.

**CUTAWAY VIEW**

**940510**  
BB 5x10x4

**NOTE ORIENTATION**

**!**

**BEARING OIL (HUDY #106230)**

**Short belt**

**Long belt**

**LONGER**

**SHORTER**

**FRONT**

**REAR**

**NOTE ORIENTATION**

**!**

**REAR**



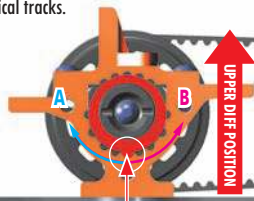
## 2. CENTRAL TRANSMISSION

### FRONT BELT TENSION ADJUSTMENT

Front diff **UPPER** position provides **more steering**, but **less front traction**.

Recommended for **medium-high** traction tracks and technical tracks.

**FRONT**



#### INITIAL POSITION FOR CARPET

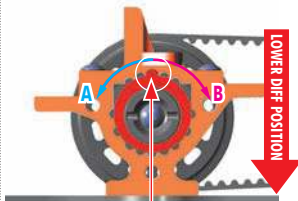
Place tab in this **BOTTOM** NOTCH

**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**

Front diff **LOWER** position provides **more front traction**, but makes the car **push more on power**.

Recommended for **low-traction** tracks.



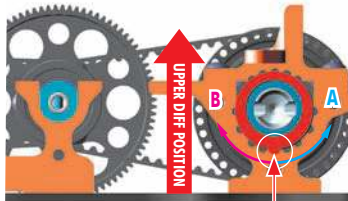
#### INITIAL POSITION FOR ASPHALT

Place tab in this **TOP** NOTCH

### 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.



#### INITIAL POSITION FOR CARPET

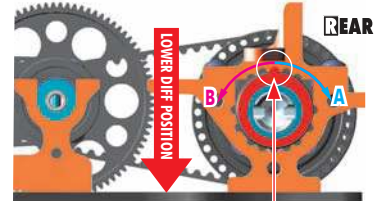
Place tab in this **BOTTOM** NOTCH

**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**

Rear diff **LOWER** position provides **more rear traction** (mainly on-power), makes the car **more stable in chicanes**, but makes the car **push on-power**.

Recommended for **low-medium** traction tracks.

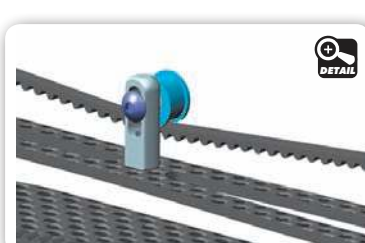
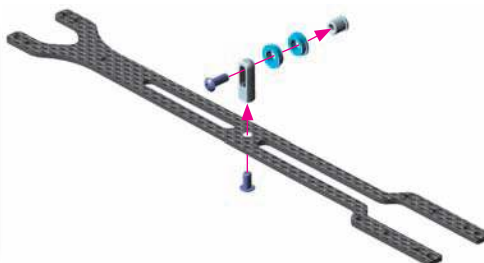


#### INITIAL POSITION FOR ASPHALT

Place tab in this **TOP** NOTCH

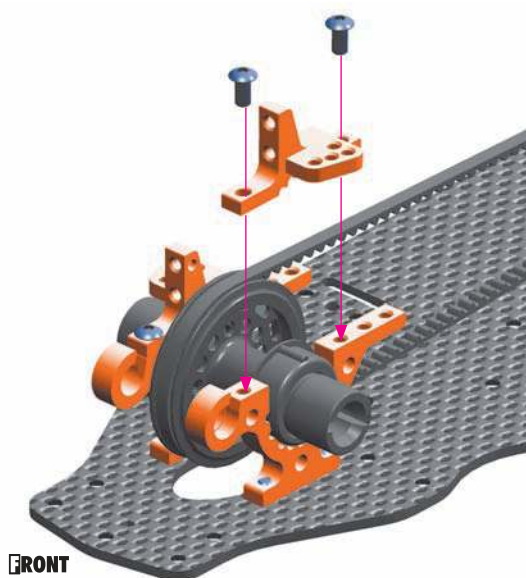
### #303071 Belt Tensioner

May be used when the front belt becomes worn and loose. Belt tensioner is **NOT** included in the kit and must be purchased separately.



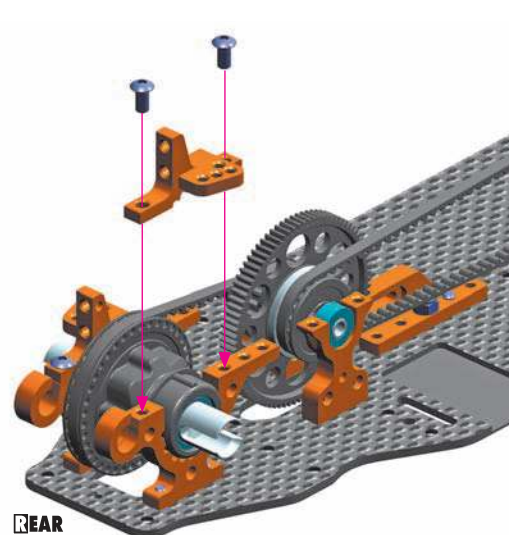
902306  
SH M3x6

 **L=R**



**FRONT**

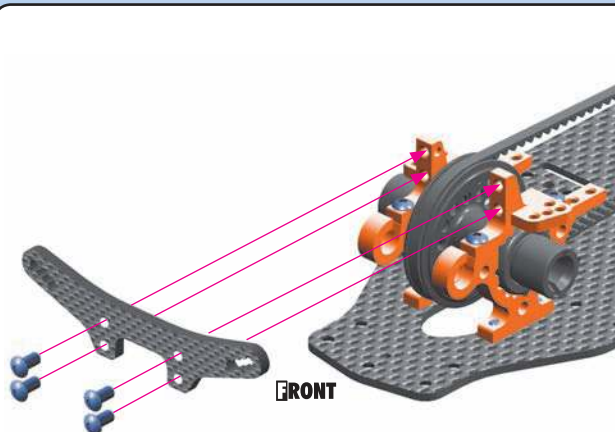
 **L=R**



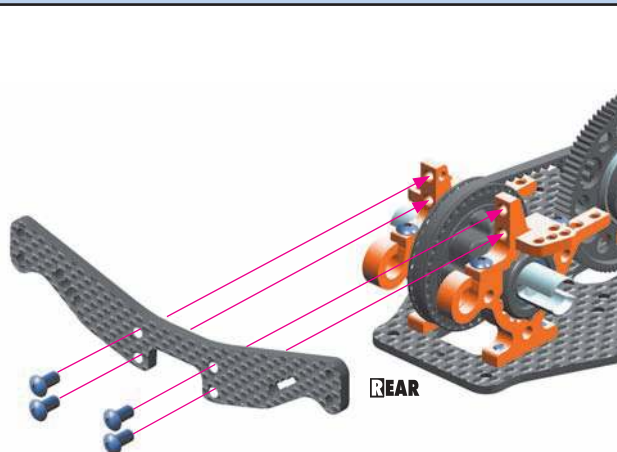
**REAR**



902306  
SH M3x6



**FRONT**



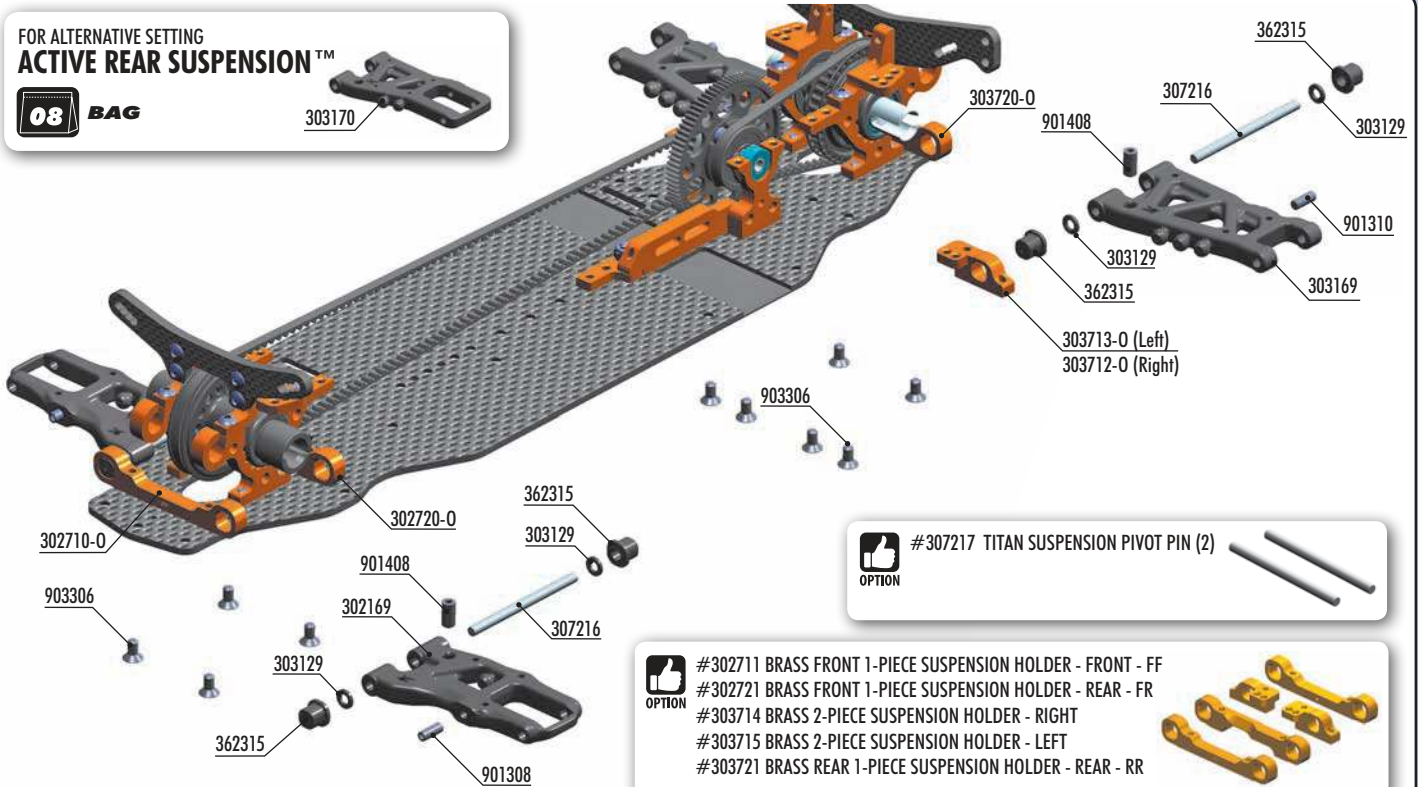
**REAR**



### 3. FRONT & REAR SUSPENSION

#### FOR ALTERNATIVE SETTING ACTIVE REAR SUSPENSION™

**08 BAG**



#307217 TITAN SUSPENSION PIVOT PIN (2)



#302711 BRASS FRONT 1-PIECE SUSPENSION HOLDER - FRONT - FF  
#302721 BRASS FRONT 1-PIECE SUSPENSION HOLDER - REAR - FR  
#303714 BRASS 2-PIECE SUSPENSION HOLDER - RIGHT  
#303715 BRASS 2-PIECE SUSPENSION HOLDER - LEFT  
#303721 BRASS REAR 1-PIECE SUSPENSION HOLDER - REAR - RR

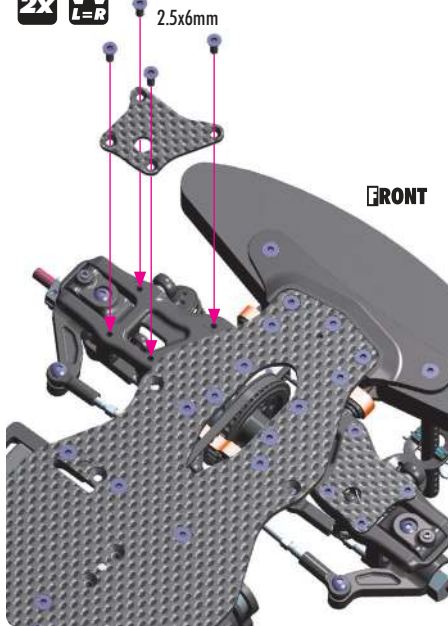


For better stability and to make the car easier to drive, optional #302190 and #303190 graphite stiffeners may be used on the suspension arms. Using only 4 screws, each graphite stiffener can be installed or removed which would completely change the characteristics of the car. Stiffeners may be used independently at front and/or rear. **IMPORTANT!** Install/remove stiffeners equally on left & right sides.

#30 2190

GRAPHITE FRONT LOWER ARM PLATE 1.6MM (2)

**2x** **L=R**

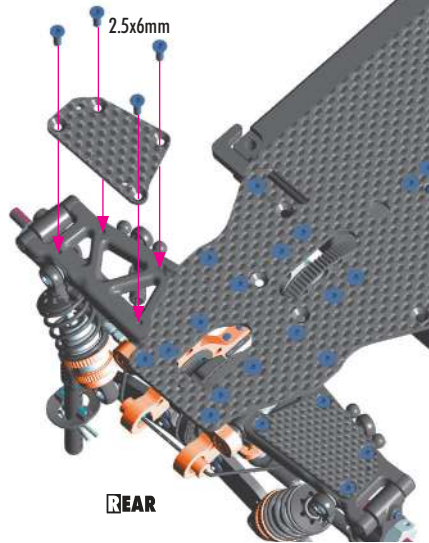


#30 3190

GRAPHITE REAR LOWER ARM PLATE 1.6MM (2)

**2x** **L=R**

#### STANDARD REAR SUSPENSION

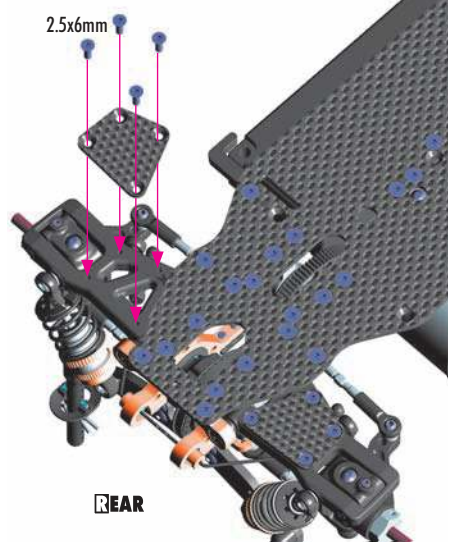


#30 3192

ARS GRAPHITE REAR LOWER ARM PLATE 1.6MM (2)

**2x** **L=R**

#### ACTIVE REAR SUSPENSION™



**BAG**

**03**

30 2168 FRONT SUSPENSION ARM - HARD - 1-HOLE (OPTION)  
30 2169 FRONT SUSPENSION ARM - GRAPHITE - 1-HOLE  
30 2190 GRAPHITE FRONT LOWER ARM PLATE 1.6MM (2) (OPTION)  
30 2710-0 ALU FRONT LOWER 1-PIECE SUSPENSION HOLDER - FRONT - FF  
30 2720-0 ALU FRONT LOWER 1-PIECE SUSPENSION HOLDER - REAR - FR  
30 3129 COMPOSITE SET OF WHEELBASE SHIMS (3x1MM; 1x2MM) (2)  
30 3168 REAR SUSPENSION ARM - HARD - 1-HOLE (OPTION)  
30 3169 REAR SUSPENSION ARM - GRAPHITE - 1-HOLE  
30 3170 ARS - ACTIVE REAR SUSPENSION ARM - HARD - 1-HOLE  
30 3171 ARS - ACTIVE REAR SUSPENSION ARM - GRAPHITE - 1-HOLE (OPTION)  
30 3190 GRAPHITE REAR LOWER ARM PLATE 1.6MM (2) (OPTION)

30 3192 ARS GRAPHITE REAR LOWER ARM PLATE 1.6MM (2) (OPTION)  
303712-0 ALU LOWER 2-PIECE SUSPENSION HOLDER - RIGHT  
303713-0 ALU LOWER 2-PIECE SUSPENSION HOLDER - LEFT  
30 3711-0 ALU REAR LOWER 1-PIECE SUSPENSION HOLDER - FRONT - RF (OPTION)  
30 3720-0 ALU REAR LOWER 1-PIECE SUSPENSION HOLDER - REAR - RR  
30 7216 SUSPENSION PIVOT PIN (2)  
36 2315 ECCENTRIC BUSHING SET (2)  
90 1308 HEX SCREW SB M3x8 (10)  
90 1310 HEX SCREW SB M3x10 (10)  
90 1408 HEX SCREW SB M4x8 (10)  
90 3306 HEX SCREW SFH M3x6 (10)

### 3. FRONT & REAR SUSPENSION



901310  
SB M3x10



901408  
SB M4x8

#### 2x REAR ARMS

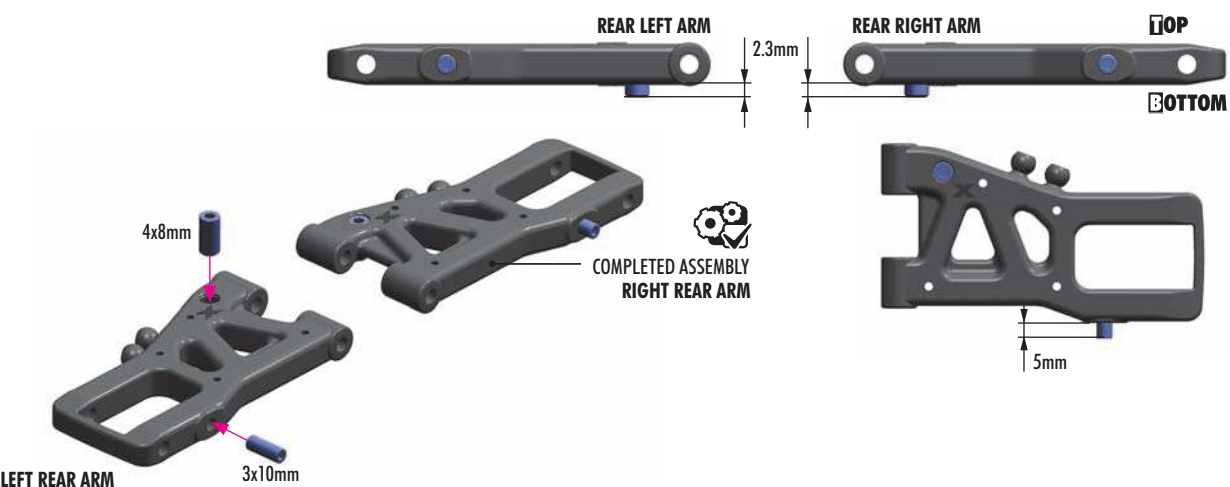
##### STANDARD REAR SUSPENSION

INITIAL SETTING



REAR ARMS			
#303168	STANDARD	HARD	OPTION
#303169	STANDARD	GRAPHITE	INCLUDED
#303170	ARS	HARD	INCLUDED
#303171	ARS	GRAPHITE	OPTION

#### 2x ACTIVE REAR SUSPENSION™



REAR DOWNSTOP  
ADJUSTMENT

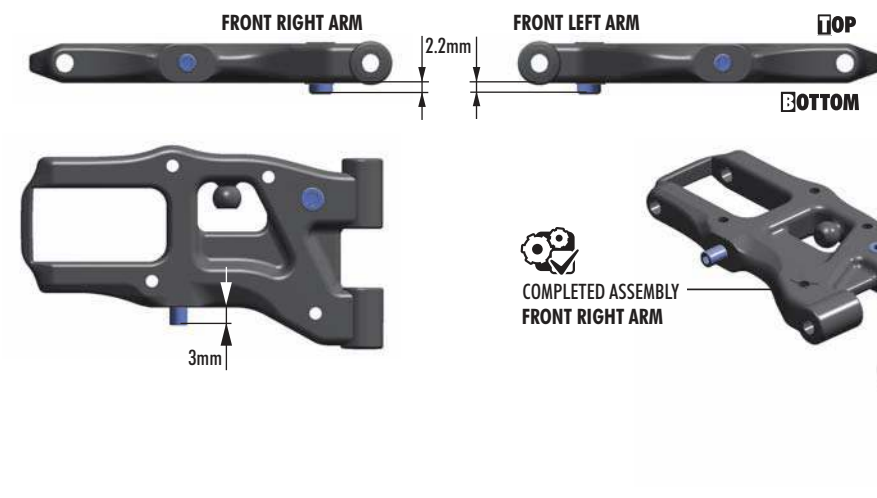


901308  
SB M3x8



901408  
SB M4x8

#### 2x FRONT ARMS

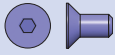


FRONT ARMS		
#302168	HARD	OPTION
#302169	GRAPHITE	INCLUDED

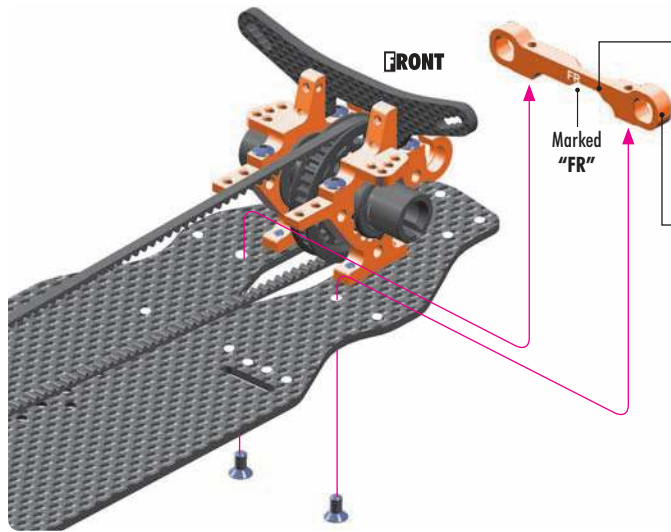


FRONT DOWNSTOP  
ADJUSTMENT

### 3. FRONT & REAR SUSPENSION



903306  
SFH M3x6



**NOTE ORIENTATION**



**#303710-0 ALU LOWER 2-PIECE SUSPENSION HOLDER**

**OPTION** For more steering, we recommend using the optional alu separate suspension holders.



**#30721 BRASS FRONT 1-PIECE SUSPENSION HOLDER - REAR - FR**

**OPTION**



303129  
SHIM 3x6x1



903306  
SFH M3x6

**#303711-0 ALU REAR LOWER 1-PIECE SUSPENSION HOLDER**

Marked "RF"



For more steering, we recommend using the optional 1-piece alu suspension holder. Use for high-grip conditions only; it decreases rear traction.

**IMPORTANT**

When using ARS suspension, the alu rear lower 1 piece suspension holder must be used together with #302201 alu brace post for ARS 3x5x9mm (2).

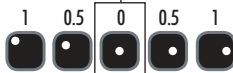


It is extremely important that the arms move freely on the pivot pins. If they do not, use the #107633 HUDY Arm Reamer to slightly resize the holes in the arms.

**NOTE ORIENTATION**



INITIAL SETTING



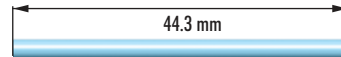
Composite eccentric bushings

**ALTERNATIVE STANDARD REAR SUSPENSION**  
INITIAL SETTING

**ALTERNATIVE ACTIVE REAR SUSPENSION™**



**#303714 BRASS 2-PIECE SUSPENSION HOLDER - RIGHT**  
**#303715 BRASS 2-PIECE SUSPENSION HOLDER - LEFT**  
**#303721 BRASS REAR 1-PIECE SUSPENSION HOLDER - REAR - RR**

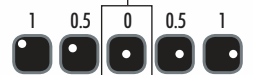


**2x 1:1 L=R**

**#307217 TITAN SUSPENSION PIVOT PIN (2)**

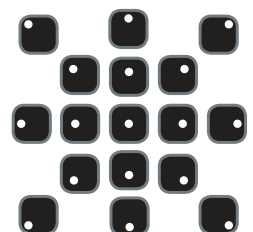


INITIAL SETTING



Composite eccentric bushings

All possible mounting alternatives of eccentric bushings



**ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.**

**Middle position = 0.5 mm or 0.5° from center** **Outer position = 1 mm or 1° from center**

The XRAY rear alu lower suspension holders provide even greater range of adjustment for the rear suspension. Using different combinations of eccentric bushings, fine adjustment of rear squat, rear toe-in, rear roll center, and rear track-width can be obtained. For more information about the influence of rear squat, rear toe-in, rear roll center and rear track-width on car handling, please refer to HUDY Set-up Book (#209100).



TOE-IN  
TRACK-WIDTH  
WHEELBASE  
ROLL CENTER  
ANTI-SQUAT  
PRO-SQUAT



### 3. FRONT & REAR SUSPENSION

10

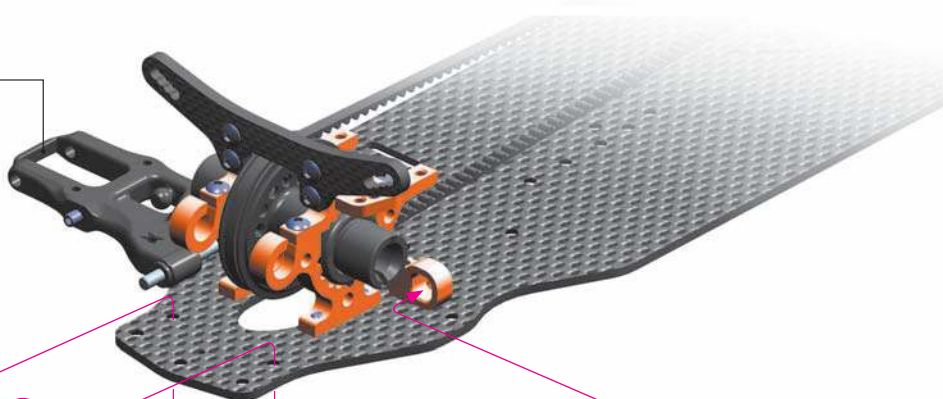
303129  
SHIM 3x6x1



903306  
SFH M3x6



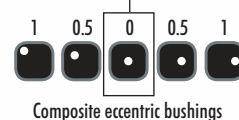
It is extremely important that the arms move freely on the pivot pins. If they do not, use the #107633 HUDY Arm Reamer to slightly resize the holes in the arms.



FRONT

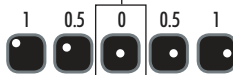
3x6x1 mm

INITIAL SETTING



Composite eccentric bushings

INITIAL SETTING

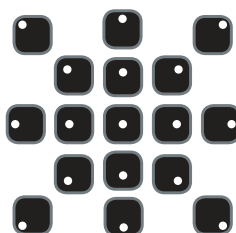


Composite eccentric bushings



2x 1:1 L=R

All possible mounting alternatives of eccentric bushings



#307217 TITAN SUSPENSION PIVOT PIN (2)  
OPTION



ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.

Middle position = 0.5 mm or 0.5° from center

Outer position = 1 mm or 1° from center

The XRAY front alu lower suspension holders provide even greater range of adjustment for the front suspension. Using different combinations of eccentric bushings, fine adjustment of front anti-squat, front kick-up, front toe-in, front roll center, and front track-width can be obtained. For more information about the influence of front anti-dive, front kick-up, front toe-in, front roll center and front track-width on car handling, please refer to HUDY Set-up Book (#209100).



#302711

BRASS FRONT LOWER 1-PIECE SUSPENSION HOLDER - FRONT - FF



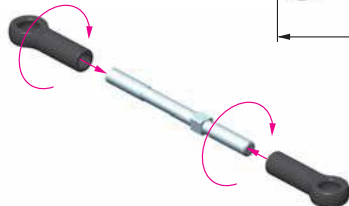
TOE-IN  
TRACK-WIDTH  
WHEELBASE  
ROLL CENTER  
ANTI-DIVE  
KICK-UP

[illegible]

04

- |           |  |
|-----------|--|
| 30 1196   | T4 UPPER DECK 1.6MM GRAPHITE - V2 (OPTION)                   |
| 30 1198   | T4 UPPER DECK 2.0MM GRAPHITE                                 |
| 30 2525   | ALU DUAL SERVO SAVER ARM + BALL-BEARINGS (2) (OPTION)        |
| 30 2526   | COMPOSITE DUAL SERVO SAVER ARM                               |
| 30 2535   | ALU STEERING POST FOR DUAL SERVO SAVER (2)                   |
| 30 2536   | ALU STEERING POST FOR FLOATING SERVO SAVER (2)               |
| 30 2547-0 | T4/T4 ALU STEERING PLATE 8.5MM FOR DUAL SERVO SAVER - ORANGE |
| 30 2612   | ALU ADJ. TURNBUCKLE M3 L/R 39 MM - SWISS 7075 T6 (2)         |
| 30 2663   | COMPOSITE BALL JOINT 5 MM - OPEN - V2 (8)                    |
| 30 3122-0 | ALU SHIM 3x6x1.0MM - ORANGE (10)                             |
| 30 3128-K | ALU SHIM 3x6x0.0MM - BLACK (10)                              |
| 30 3129   | COMPOSITE SET OF SHIMS (3x1mm; 1x2mm) (2)                    |
| 30 3212   | ALU ADJ. TURNBUCKLE L/R 26 MM - SWISS 7075 T6 (2)            |

- |         |   |
|---------|---|
| 30 3454 | BALL JOINT 4.9MM - OPEN (4)                     |
| 36 2650 | BALL END 4.9MM WITH THREAD 6MM (2)              |
| 36 2651 | BALL END 4.9MM WITH THREAD 8MM (2)              |
| 36 2652 | BALL END 4.9MM WITH THREAD 10MM (2)             |
| 37 2503 | COMPOSITE SERVO SAVER - X-STIFF - SET - V2      |
| 90 2305 | HEX SCREW SH M3x5 (10)                          |
| 90 2306 | HEX SCREW SH M3x6 (10)                          |
| 90 3306 | HEX SCREW SFH M3x6 (10)                         |
| 90 3308 | HEX SCREW SFH M3x8 (10)                         |
| 93 0306 | BALL-BEARING 3x6x2.5 (2)                        |
| 94 0508 | HIGH-SPEED BALL-BEARING 5x8x2.5 RUBBER SEAL (2) |



**LEFT**   **RIGHT**



**SERVO LINK**  
Adjust servo link to fit your servo



10

303129  
SHIM 3x6x1



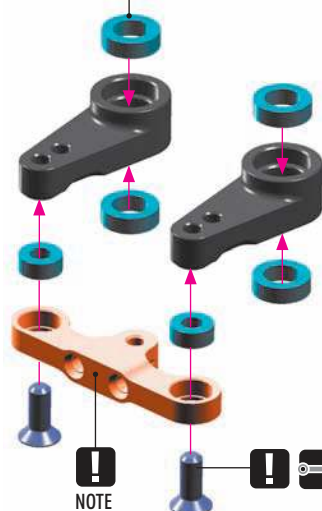
903308  
SFH M3x8

930306  
BB 3x6x2 5

940508  
BB 5y8y2 5



Use bearing oil for all bearings  
(HUDY #106230)



NOTE  
ORIENTATION



#302525  
ALU DUAL SERVO SAVER ARM

We recommend using the aluminum dual servo saver arms when better steering response is needed. Also recommended for asphalt tracks.

Tighten the screws gently but fully, and then loosen 1/3 turn so the composite dual servo saver moves freely.

NOTE  
ORIENTATION

INITIAL SETTING (3x6x1mm)

—— 6mm THREAD

**NOTE**  
**ORIENTATION**



**TIP**

To change Ackermann angle, use 2 identical shims (of same thickness) between the alu steering plate and ball ends.



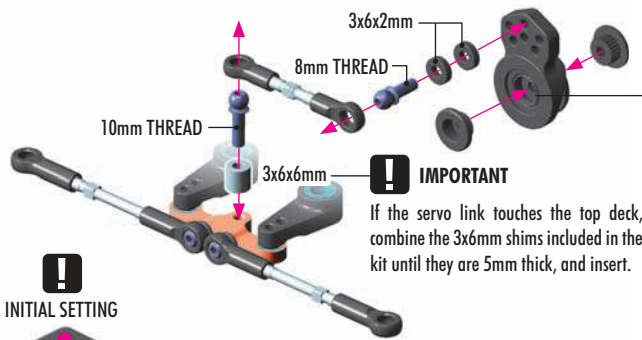
3x1mm &amp; 1x2mm composite shims

**IO**

303129  
SHIM 3x6x2



303128-K  
SHIM 3x6x6



H = Hitec (24T)  
F = Futaba, Robo (25T)  
K = KO, JR, Airtronics, Sanwa (23T)



OPTION

## HUDY ALU SERVO HORNS

#293491	KO, JR, Sanwa, Airtr. - OFFSET - 23T
#293492	Hitec - OFFSET - 24T
#293493	Futaba - OFFSET - 25T

#293501	KO, JR, Sanwa, Airtronics - 23T
#293502	Hitec - 24T
#293503	Futaba - 25T

For more in-corner steering and better steering response, aluminum servo horns may be used.

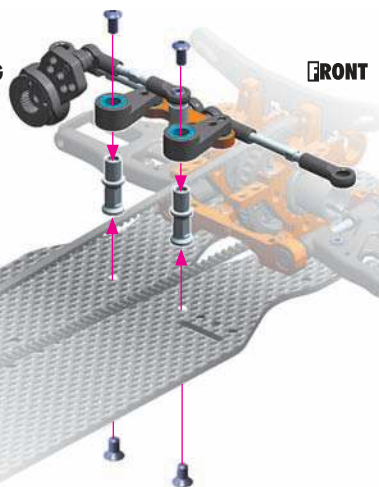
### IMPORTANT!

When the aluminum horn is used, the steering servo saver is not used. This increases the risk of breaking the servo in serious crashes.

## ALTERNATIVE 1

### STANDARD STEERING ARM MOUNTING (INITIAL SETTING)

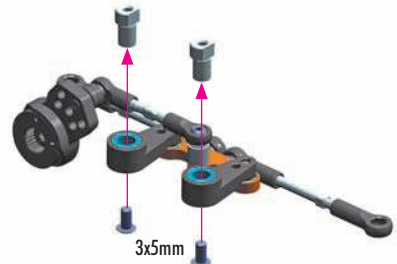
Standard steering mounting system provides maximum steering response and makes the car more precise.



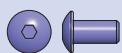
## ALTERNATIVE 2

### FLOATING STEERING ARM MOUNTING

Floating steering mounting system makes the car easier to drive over curbs and on bumpy tracks. Helps prevent oversteer.



**NOTE:** The floating steering arms are mounted on the graphite servo holder in the Final Assembly page 33/step 1.



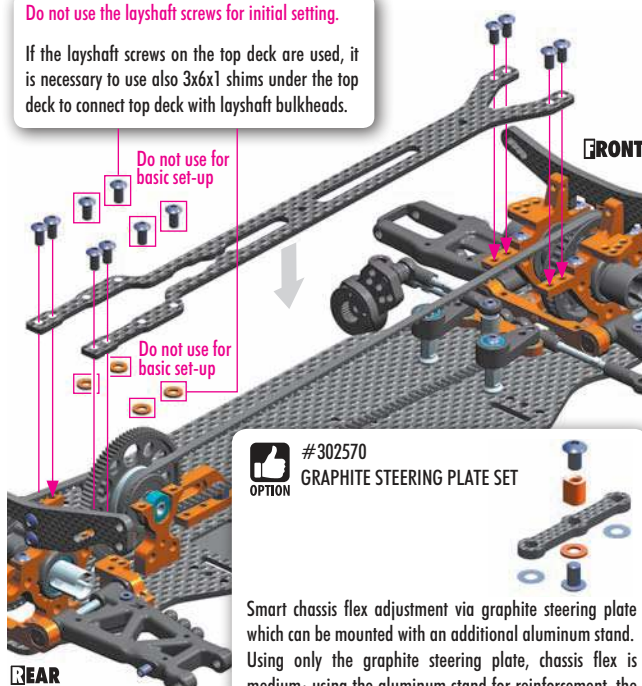
902306  
SH M3x6



303122-0  
SHIM 3x6x1

Do not use the layshaft screws for initial setting.

If the layshaft screws on the top deck are used, it is necessary to use also 3x6x1 shims under the top deck to connect top deck with layshaft bulkheads.



#302570  
GRAPHITE STEERING PLATE SET

Smart chassis flex adjustment via graphite steering plate which can be mounted with an additional aluminum stand. Using only the graphite steering plate, chassis flex is medium; using the aluminum stand for reinforcement, the flex becomes stiffer. Stiffer flex results in more aggressive handling and increased steering.



OPTION

#301196  
T4 GRAPHITE UPPER DECK 1.6MM - V2

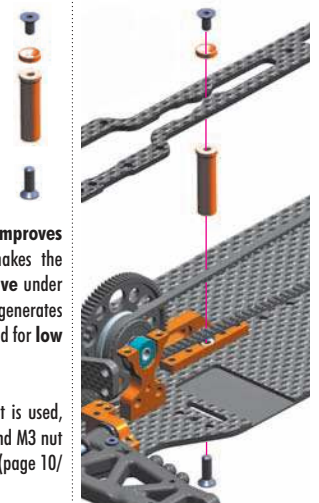


We recommend using optional 1.6mm top deck for super-low traction conditions as it provides more overall traction and steering.



OPTION

#306516-0  
T4 ALU TOP DECK MOUNT - ORANGE



Optional alu top deck mount improves forward and rear traction and makes the car more stable and easier to drive under low-traction conditions, however generates more on-power push. Recommended for low and medium traction conditions.

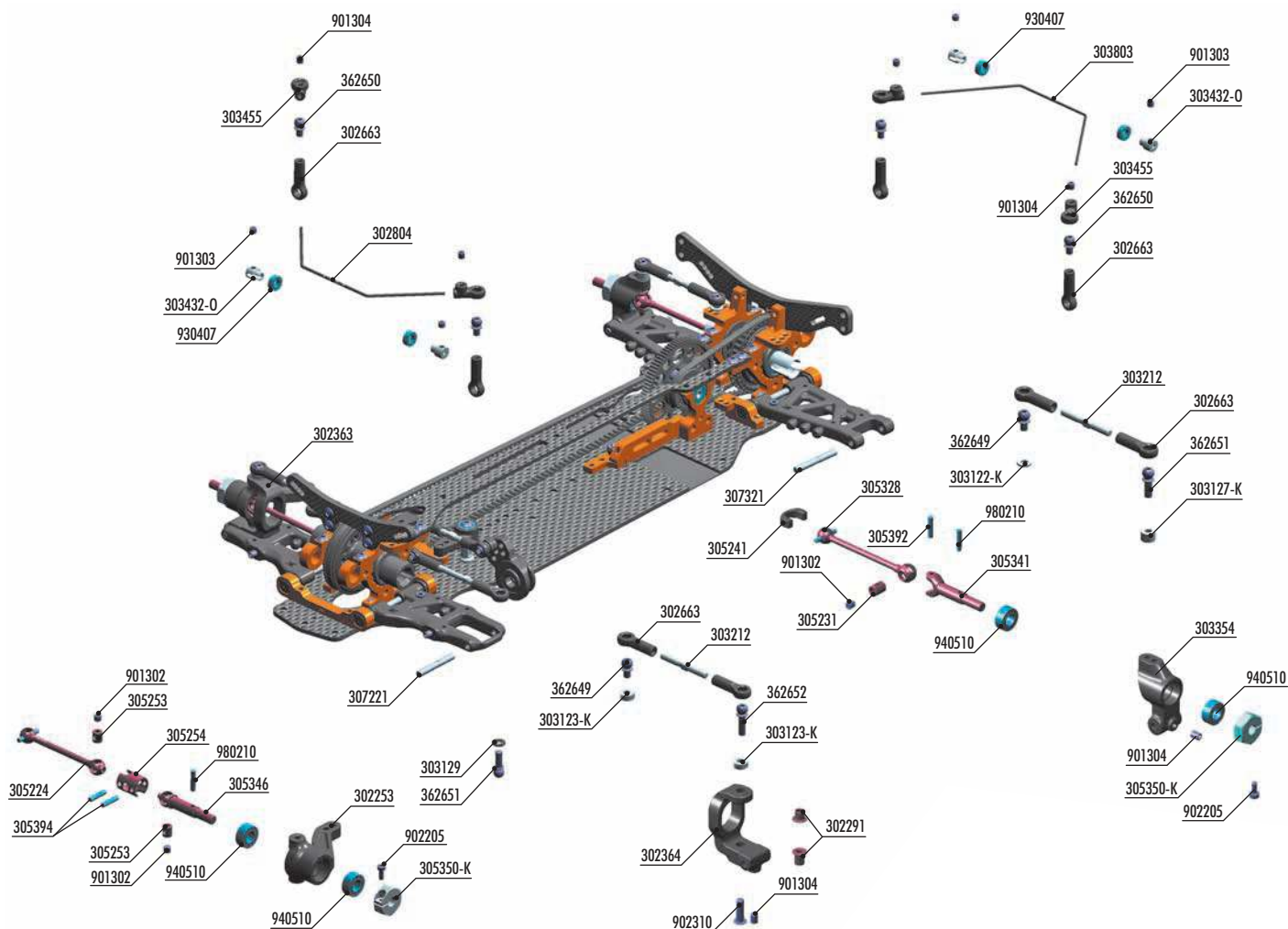
When the aluminum top deck mount is used, the screws from layshaft bulkheads and M3 nut from motor holder must be removed (page 10/step 1).

SET-UP BOOK

CHASSIS FLEX SETTING  
TOP DECK SETTING



# 5. FRONT & REAR TRANSMISSION



#305242  
DRIVE SHAFT REPLACEMENT CAP 3.5MM -  
ORANGE - STRONG (4)



#307222 TITAN FRONT ARM PIVOT PIN (2)  
#307322 TITAN REAR ARM PIVOT PIN (2)



FOR ALTERNATIVE SETTING

**ACTIVE REAR SUSPENSION™**

**BAG**



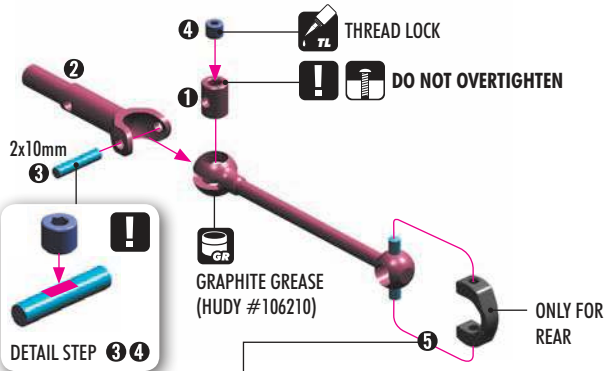
**BAG**



30 2253	COMPOSITE STEERING BLOCK - HARD	30 5328	ALU DRIVE SHAFT SWISS 7075 T6 - HARDCOATED - 50MM
30 2291	STEEL STEERING BUSHING (2+2)	30 5332	ECS ES (ES) DRIVE SHAFT 52MM - HUDY SPRING STEEL™ - SET
30 2363	COMPOSITE C-HUB RIGHT - 4° DEG. - MEDIUM - V2	30 5333	ECS ES (ES) DRIVE SHAFT 50MM - HUDY SPRING STEEL™ - SET (OPTION)
30 2364	COMPOSITE C-HUB LEFT - 4° DEG. - MEDIUM - V2	30 5346	ECS DRIVE AXLE FOR 2MM PIN - HUDY SPRING STEEL™
30 2369	COMPOSITE C-HUB RIGHT - 0° DEG. - HARD	30 5394	ECS DRIVE SHAFT PIN 2 x 9 WITH FLAT SPOT (2)
30 2370	COMPOSITE C-HUB LEFT - 0° DEG. - HARD	30 5341	DRIVE AXLE - LIGHTWEIGHT - HUDY SPRING STEEL™
30 2663	COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8)	30 5350-K	ALU WHEEL HUB - BLACK (2)
30 2804	ANTI-ROLL BAR FOR BALL BEARINGS - FRONT 1.4 MM	30 5392	DRIVE SHAFT PIN 2 x 10 WITH FLAT SPOT (2)
30 3122-K	ALU SHIM 3x6x1.0MM - BLACK (10)	30 7221	FRONT ARM PIVOT PIN (2)
30 3123-K	ALU SHIM 3x6x2.0MM - BLACK (10)	30 7321	REAR ARM PIVOT PIN (2)
30 3127-K	ALU SHIM 3x6x4.0MM - BLACK (10)	36 2649	BALL END 4.9MM WITH THREAD 5MM (2)
30 3129	COMPOSITE SET OF SHIMS (3x1MM; 1x2MM) (2)	36 2650	BALL END 4.9MM WITH THREAD 6MM (2)
30 3210	TURNBUCKLE M3 L/R 26 MM - SPRING STEEL™ (2) (OPTION)	36 2651	BALL END 4.9MM WITH THREAD 8MM (2)
30 3212	ALU ADJ. TURNBUCKLE M3 L/R 26 MM - SWISS 7075 T6 (2)	36 2652	BALL END 4.9MM WITH THREAD 10MM (2)
30 3354	COMPOSITE UPRIGHT 0° OUTBOARD TOE-IN - HARD		
30 3432-0	ALU ANTI-ROLL BAR BUSHING - ORANGE (2)	90 1302	HEX SCREW SB M3x2.5 (10)
30 3455	COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9 MM (4)	90 1303	HEX SCREW SB M3x3 (10)
30 3803	ANTI-ROLL BAR FOR BALL BEARINGS - REAR 1.3 MM	90 1304	HEX SCREW SB M3x4 (10)
30 5231	DRIVE SHAFT COUPLING - HUDY SPRING STEEL™	90 2205	HEX SCREW SH M2x5 (10)
30 5241	DRIVE SHAFT REPLACEMENT CAP 3.5 MM (4)	90 2310	HEX SCREW SH M3x10 (10)
30 5242	DRIVE SHAFT REPLACEMENT CAP 3.5 MM - ORANGE - STRONG (4) (OPTION)	93 0407	BALL-BEARING 4x7x2.5 (2)
30 5224	ECS (ES) DRIVE SHAFT 52MM FOR 2MM PIN - HUDY SPRING STEEL™ (1)	94 0510	HIGH-SPEED BALL-BEARING 5x10x4 RUBBER SEALED (2)
30 5253	ECS DRIVE SHAFT COUPLING FOR 2MM PIN - HUDY SPRING STEEL™	98 0210	PIN 2x10 (10)
30 5254	ECS (ES) DRIVE SHAFT CASE FOR 2MM PIN - HUDY SPRING STEEL™		

# 5. FRONT & REAR TRANSMISSION

## 2x REAR TRANSMISSION



**#305242**  
DRIVE SHAFT REPLACEMENT CAP 3.5MM  
ORANGE - STRONG (4)

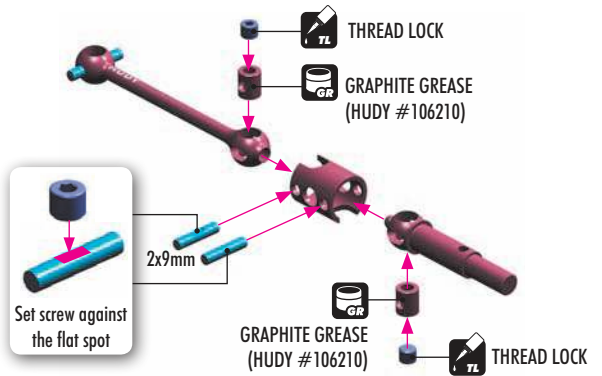


Longer drive shafts (52mm) make the car easier to drive because they give more traction and better stability, mainly in chicanes. However, the car will understeer more than with shorter (50mm) shafts which give a lot of steering and make the car more aggressive.

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.

## 2x FRONT TRANSMISSION



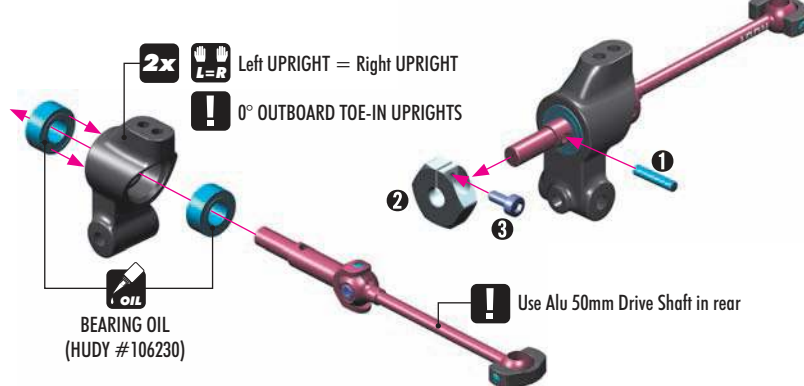
### ECS DRIVE SHAFTS

ECS drive shafts are available in both 50mm (optionally) 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.

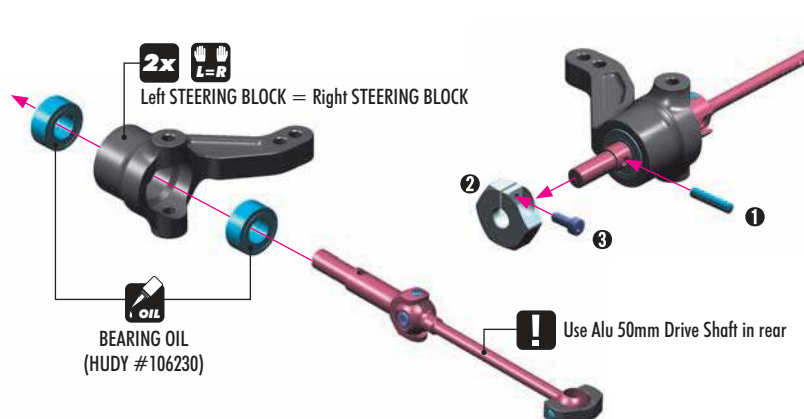
OPTION	DRIVE SHAFTS
#305323	50MM - STEEL
#305324	52MM - STEEL
#305326	52MM - ALU
#305328	50MM - ALU
#305332	52MM - ECS
#305333	50MM - ECS

## REAR TRANSMISSION

### ALTERNATIVE STANDARD REAR SUSPENSION INITIAL SETTING



### ALTERNATIVE ACTIVE REAR SUSPENSION™



## T4 OPTIONAL PARTS

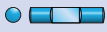
INCLUDED	UPRIGHTS
#303351	1° - R MEDIUM (2-HOLE)
#303352	0° - R/L MEDIUM (2-HOLE)
#303353	1° - R HARD (2-HOLE)
#303354	0° - R/L HARD (2-HOLE)
#303360	0° - R/L GRAPHITE (2-HOLE)
#303361	1° - L MEDIUM (2-HOLE)
#303362	0° - R/L MEDIUM (1-HOLE)
#303363	1° - L HARD (2-HOLE)
#303364	0° - R/L HARD (1-HOLE)
#303358	ALU 1° - R/L (4-HOLE)
#303359	ALU 2° - R/L (4-HOLE)

INCLUDED	WHEEL HUBS
#305350-K	ALU - OFFSET (0 mm)
#305351	ALU - OFFSET (-0.75 mm)
#305352	ALU - OFFSET (+0.75 mm)
#305353	ALU - OFFSET (+1.5 mm)

INCLUDED	STEERING BLOCKS
#302252	MEDIUM
#302253	HARD
#302254	GRAPHITE
#302256	ALU



901302  
SB M3x2.5



305392  
P 2x10



305394  
P 2x9



902205  
SH M2x5



940510  
BB 5x10x4



980210  
P 2x10

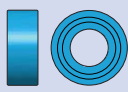


REAR TOE-IN  
TRACK-WIDTH

# 5. FRONT & REAR TRANSMISSION



902205  
SH M2x5



940510  
BB 5x10x4

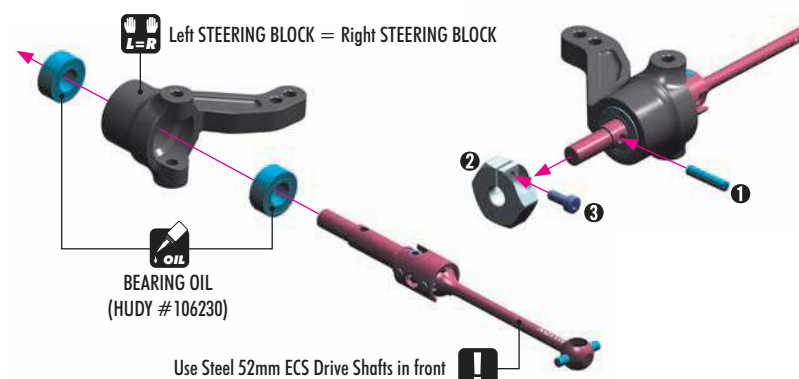


980210  
P 2x10



REAR TOE-IN  
TRACK-WIDTH

## 2x FRONT TRANSMISSION



## T4 OPTIONAL PARTS

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

STEERING BLOCKS		
INCLUDED		
#302252	MEDIUM	
#302253	HARD	
#302254	GRAPHITE	
#302256	ALU	

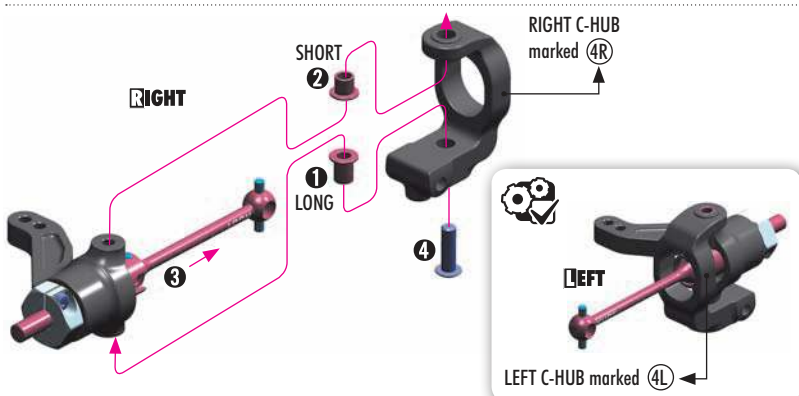


902310  
SH M3x10

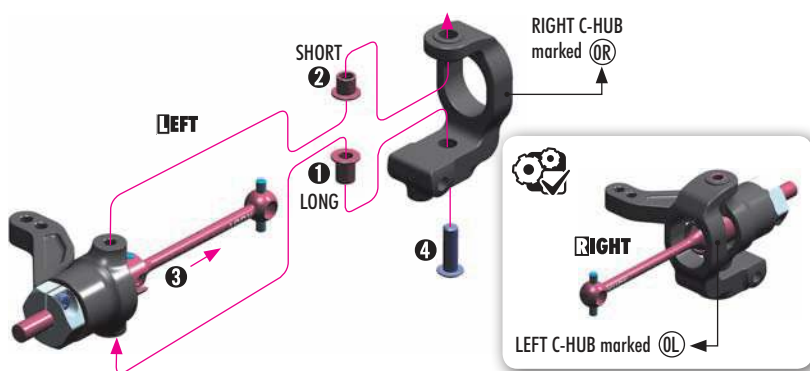


CASTER ADJUSTMENT

## 2x FRONT TRANSMISSION

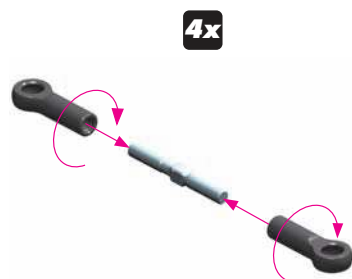


## 2x ACTIVE REAR SUSPENSION™



C-HUBS FRONT TRANSMISSION		
#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	
#302383	4° - RIGHT - GRAPHITE	
#302384	4° - LEFT - GRAPHITE	

C-HUBS ACTIVE REAR TRANSMISSION		
#302334	ALU 0°	
#302359	0° - RIGHT - MEDIUM	
#302360	0° - LEFT - MEDIUM	
#302369	0° - RIGHT - HARD	
#302370	0° - LEFT - HARD	
#302379	0° - RIGHT - GRAPHITE	
#302380	0° - LEFT - GRAPHITE	



FRONT  
2x  
L=R  
FRONT LEFT = FRONT RIGHT



REAR

2x  
L=R  
REAR LEFT = REAR RIGHT



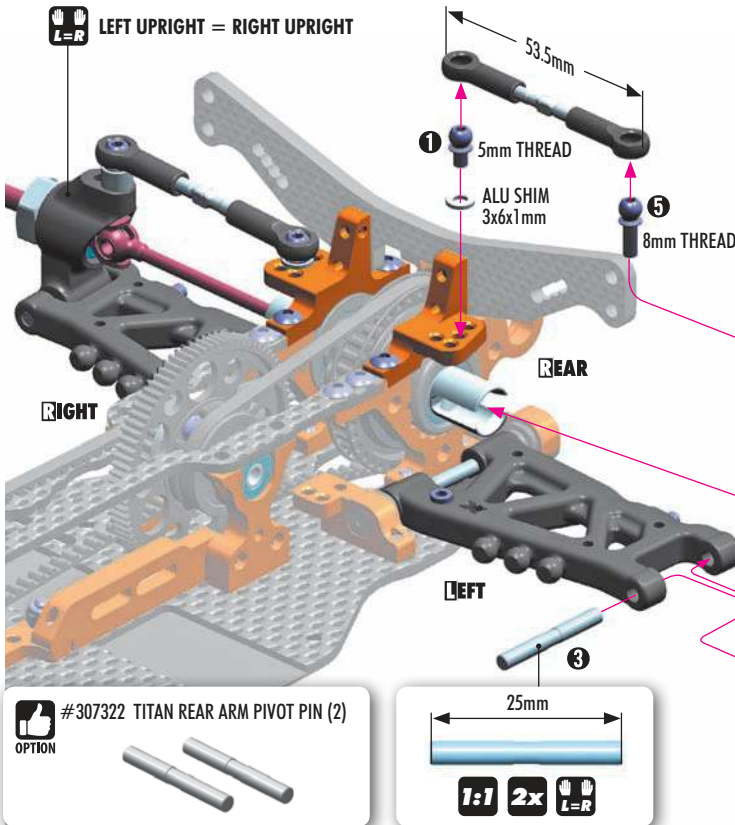
CAMBER ADJUSTMENT



# 5. FRONT & REAR TRANSMISSION

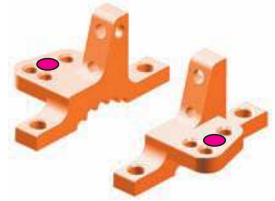
## REAR TRANSMISSION

### ALTERNATIVE STANDARD REAR SUSPENSION INITIAL SETTING



**L=R 2x**

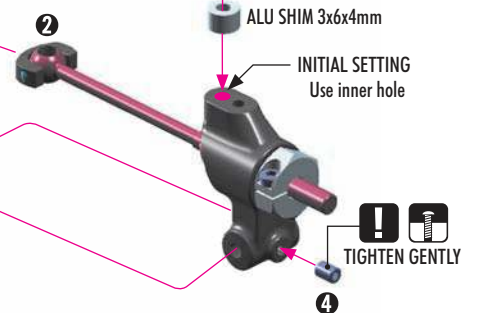
INITIAL SETTING



**OPTION**

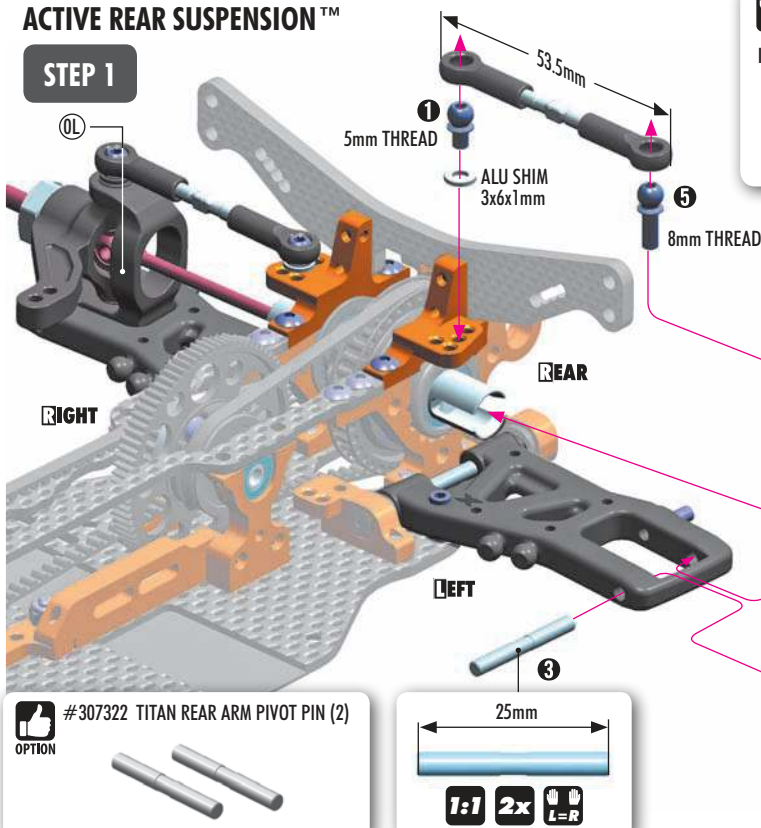
1-HOLE REAR UPRIGHTS (See page 19)

An optional 1-hole rear upright is available for fine tuning. This optional upright may be used on high-traction tracks or tracks with long sweepers, since the position of the center hole will allow faster driving through those corners because of better cornering speed.



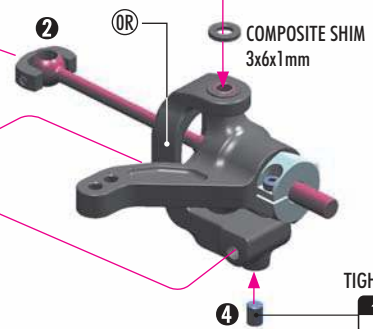
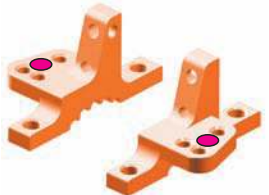
### ALTERNATIVE ACTIVE REAR SUSPENSION™

**STEP 1**



**L=R 2x**

INITIAL SETTING



303122-K  
SHIM 3x6x1



303127-K  
SHIM 3x6x4



901304  
SB M3x4



303122-K  
SHIM 3x6x1



303129  
SHIM 3x6x1



901304  
SB M3x4



ROLL CENTER  
CAMBER

# 5. FRONT & REAR TRANSMISSION

10

303129  
SHIM 3x6x1



903306  
SFH M3x6

## 2x L=R REAR TRANSMISSION

### ALTERNATIVE ACTIVE REAR SUSPENSION™

#### STEP 2

#### INITIAL SETTING



**! IMPORTANT**  
ALWAYS USE ONLY THIS POSITION

#### ! IMPORTANT



The angle of the ARS linkage – which is made by adding/removing shims on the steering block and ARS post mount – changes the toe-in characteristics of the rear tires under rolling effect; when the car is pressed the toe-in can either increase or decrease.

Check the toe-in change on your set-up system when the car is in neutral position and when is pressed down. For more information see the HUDY Set-up Book.

5mm THREAD  
COMPOSITE SHIM 3x6x1mm  
Do not use for basic set-up

COMPOSITE SHIM 3x6x1mm  
Do not use for basic set-up

6mm THREAD

57mm

RIGHT

REAR

LEFT



INITIAL SETTING

2x

L=R

REAR LEFT = REAR RIGHT



57mm

SET-UP BOOK

ACTIVE TOE-IN

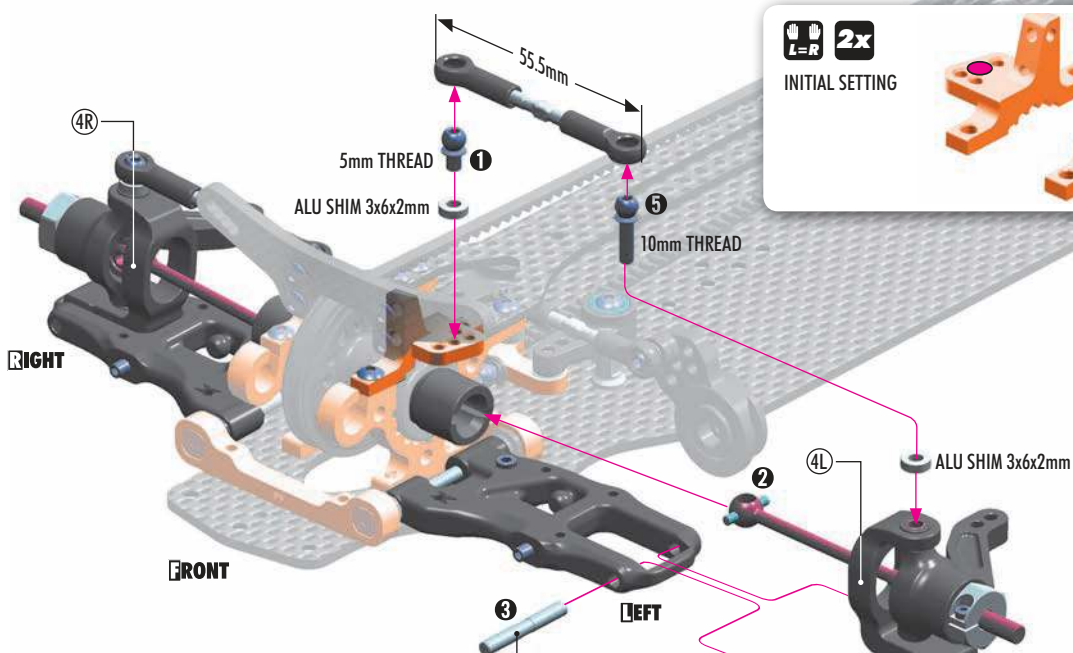
10

303123-K  
SHIM 3x6x2



901304  
SB M3x4

## 2x L=R FRONT TRANSMISSION



4R

5mm THREAD

ALU SHIM 3x6x2mm

55.5mm

1

5

10mm THREAD

RIGHT

FRONT

LEFT

3

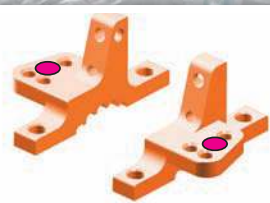
23mm

1:1

2x

L=R

INITIAL SETTING



**#307222 TITAN FRONT ARM PIVOT PIN (2)**  
OPTION



23mm

4

**! TIGHTEN GENTLY**

SET-UP BOOK

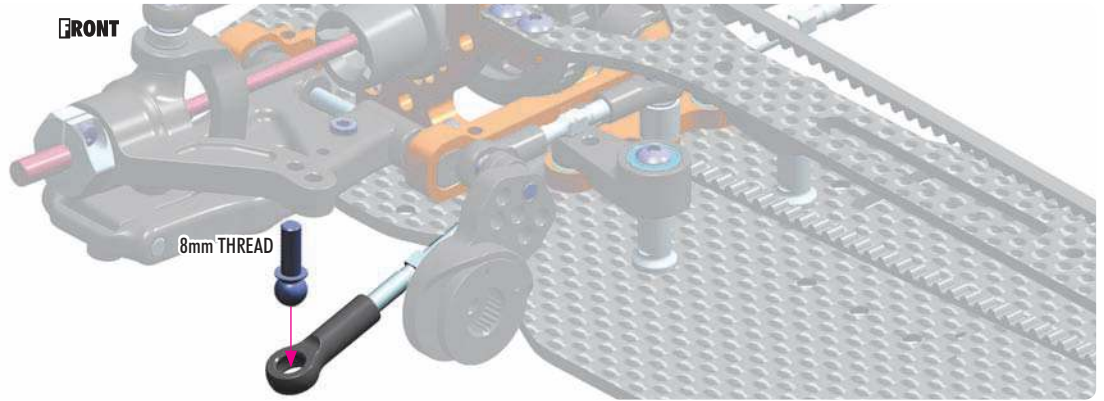
ROLL-CENTER

XRAY

## 5. FRONT & REAR TRANSMISSION

2x L=R

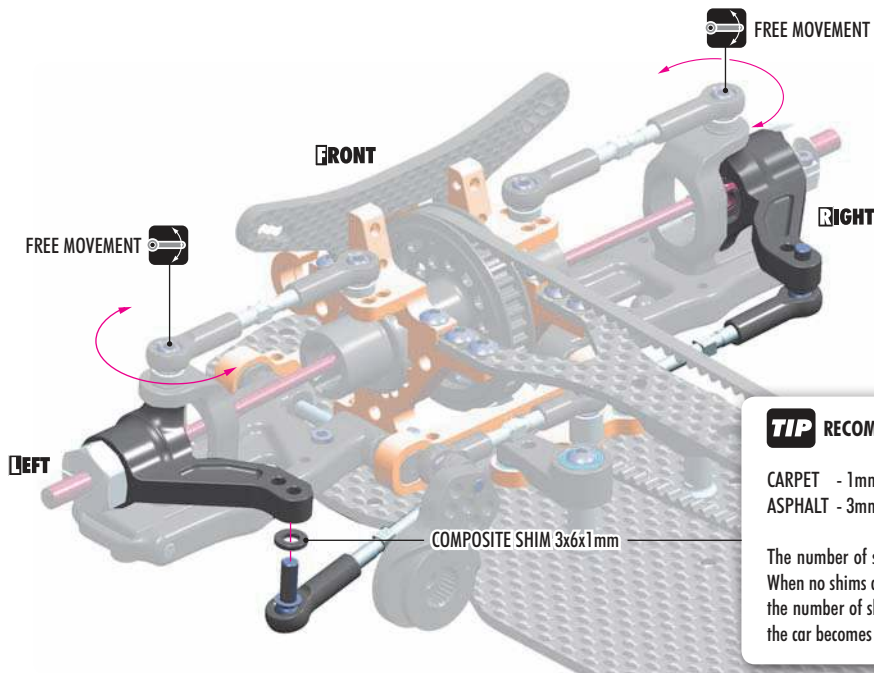
FRONT



10  
303129  
SHIM 3x6x1

L=R

### FRONT TRANSMISSION



INITIAL SETTING



#### TIP RECOMMENDED BUMPSTEER SETTINGS:

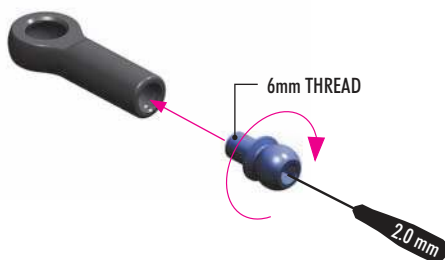
CARPET - 1mm thick shim  
ASPHALT - 3mm thick shims

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.

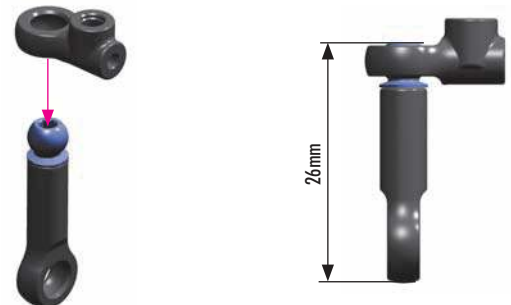


ACKERMANN  
BUMPSTEER

4x



4x



930407  
BB 4x7x2.5

2x



OPTION

#### REAR ANTI-ROLL BARS

#303801	REAR 1.1 MM
#303802	REAR 1.2 MM
#303803	REAR 1.3 MM
#303804	REAR 1.4 MM
#303805	REAR 1.5 MM
#303806	REAR 1.6 MM

INCLUDED

OPTION

#### FRONT ANTI-ROLL BARS

#302802	FRONT 1.2 MM
#302803	FRONT 1.3 MM
#302804	FRONT 1.4 MM
#302805	FRONT 1.5 MM
#302806	FRONT 1.6 MM

INCLUDED

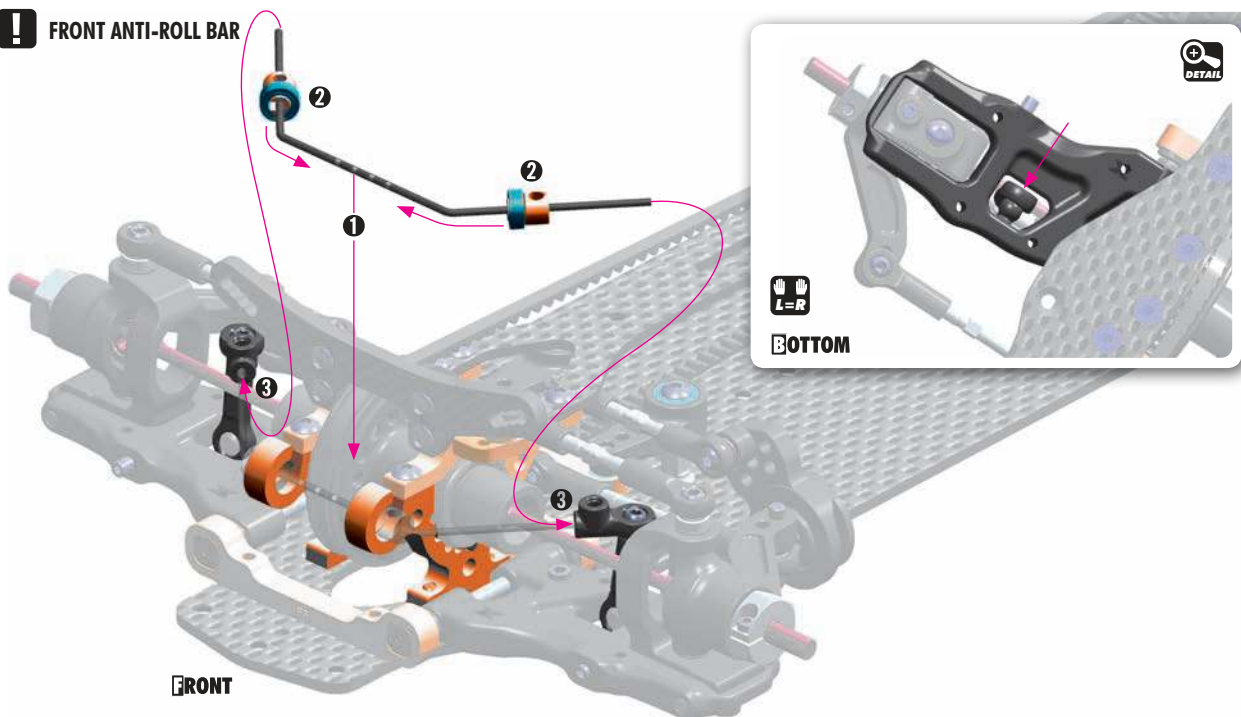
BEARING OIL  
(HUDY #106230)





## 5. FRONT & REAR TRANSMISSION

### ! FRONT ANTI-ROLL BAR

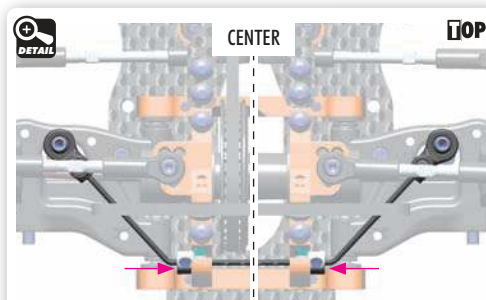
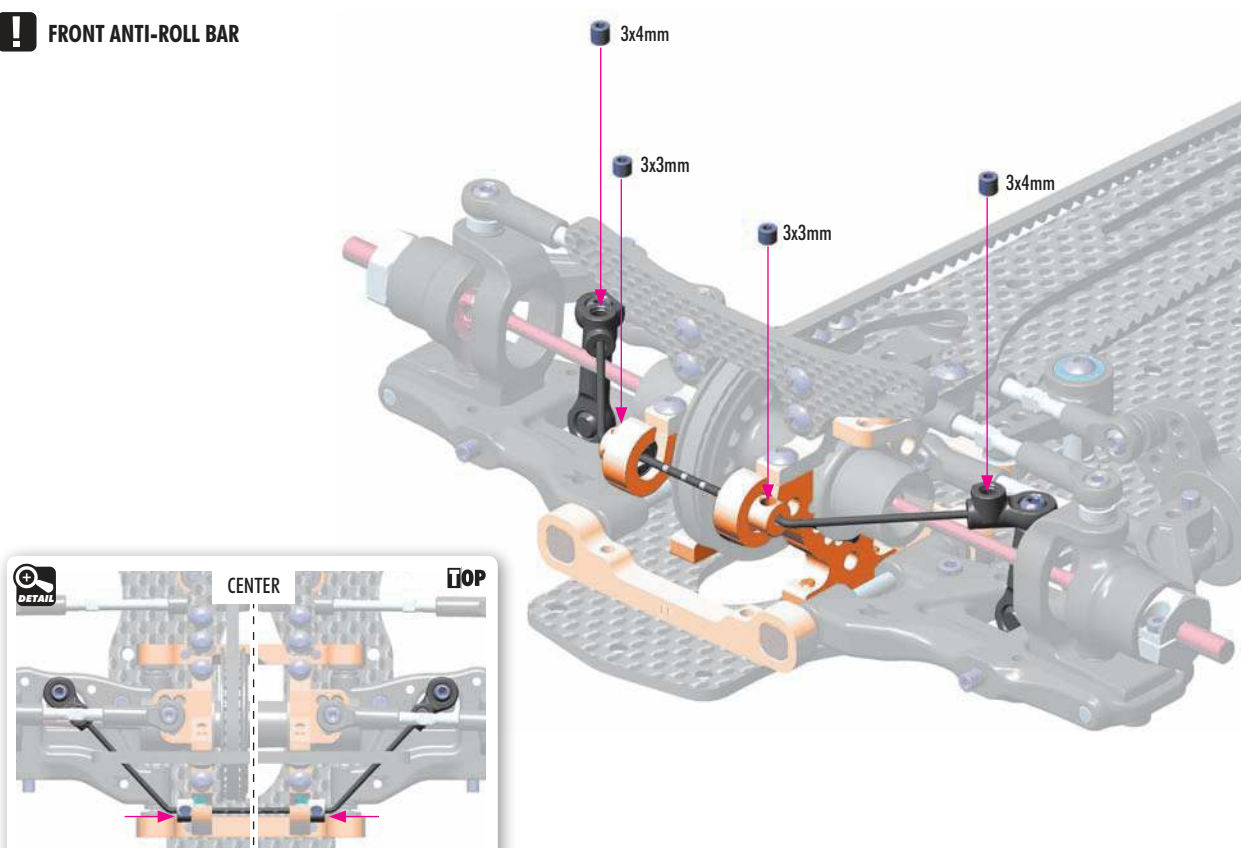


ANTI-ROLL BARS

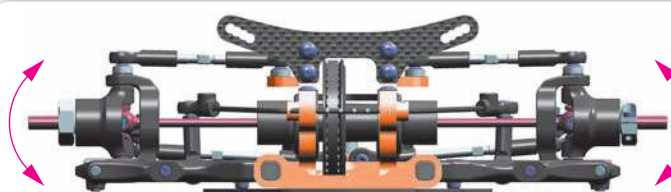
901303  
SB M3x3

901304  
SB M3x4

### ! FRONT ANTI-ROLL BAR



**FRONT**  
Set the bar into the center, remove the play in the bushings, and tighten the setscrews fully.



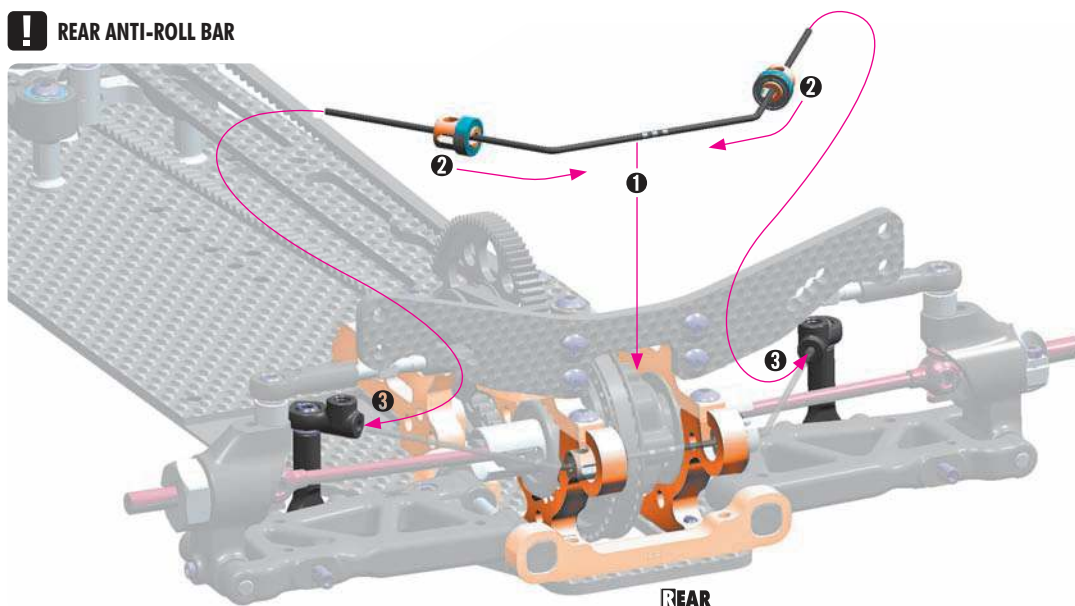
When the bars are set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same and that the bar wire is flat.



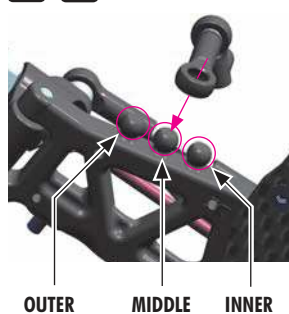
If the sides still does not move at the same time, adjust the length of the bar holders.

# 5. FRONT & REAR TRANSMISSION

## ! REAR ANTI-ROLL BAR



2x INITIAL POSITION



### STANDARD SUSPENSION

INITIAL SETTING = MIDDLE BALL

Use the **INNER** ball on low-traction tracks (mainly low-traction carpet tracks). The car will have more traction and 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.

### ACTIVE REAR SUSPENSION™

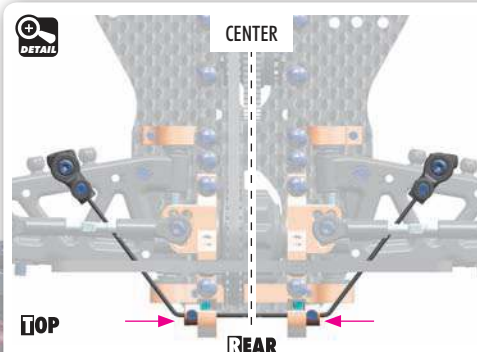
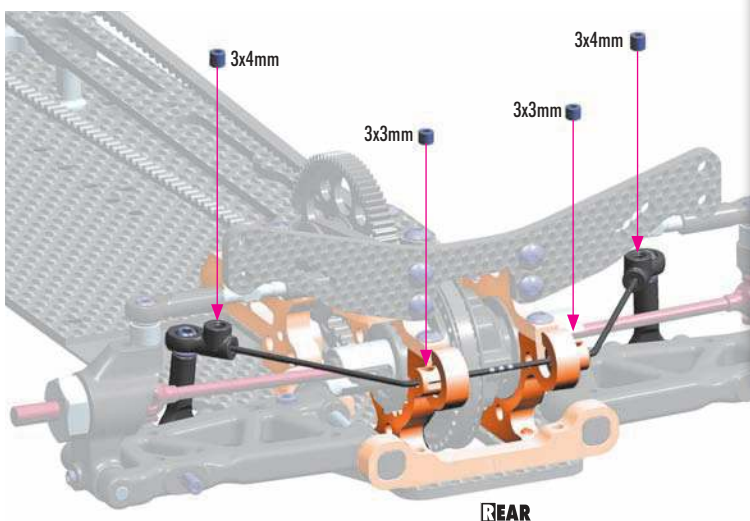
ARS arm has only two balls which are identical as inner & middle balls on the standard rear arm.



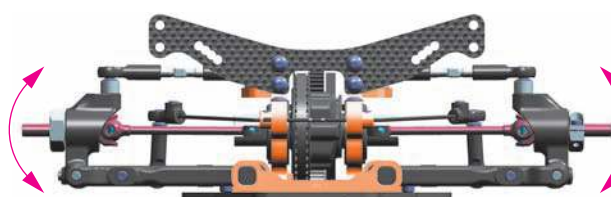
901303  
SB M3x3

901304  
SB M3x4

## ! REAR ANTI-ROLL BAR



Set the bar into the center, remove the play in the bushings, and tighten the setscrews fully.

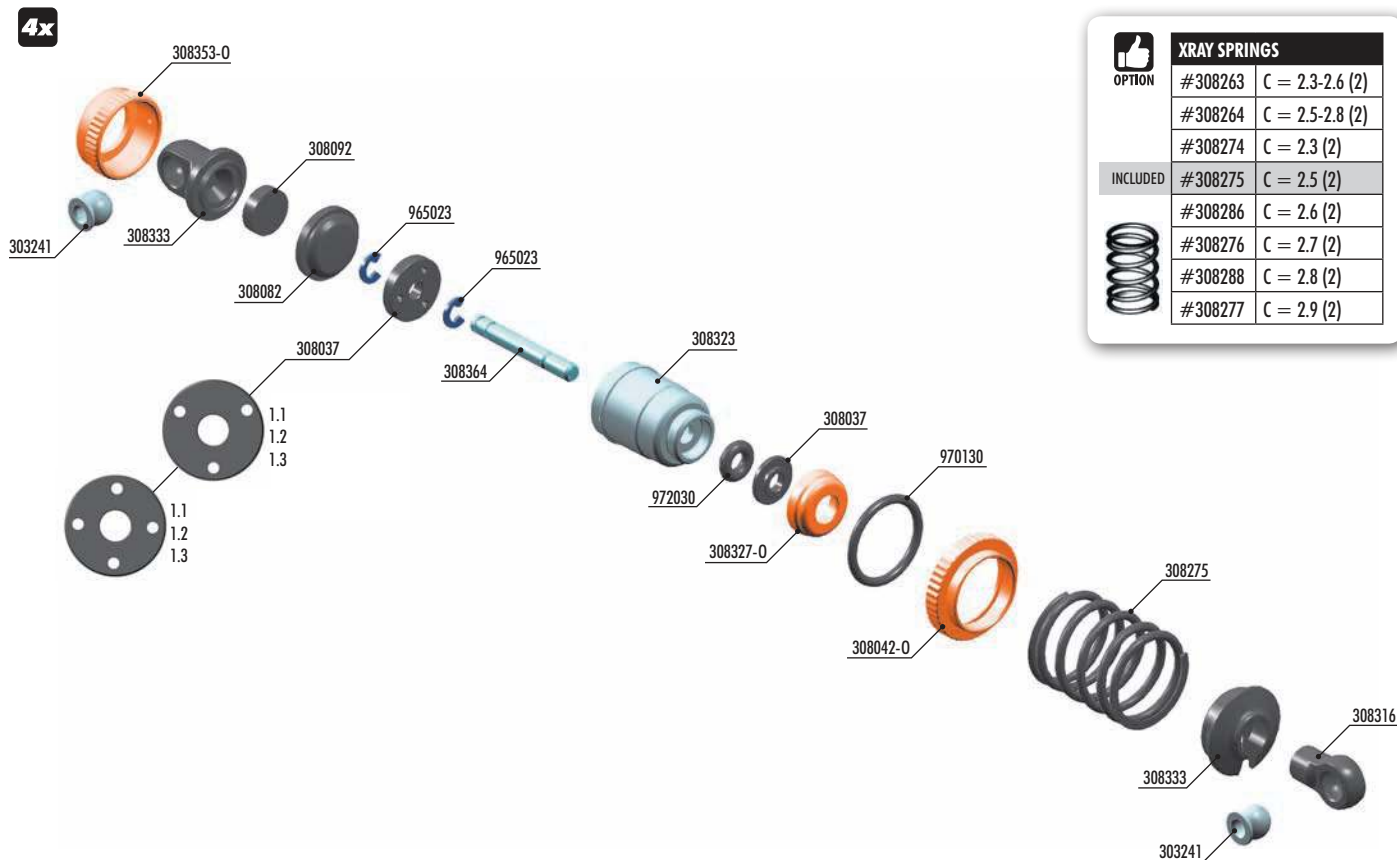


When the bars are set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same and that the bar wire is flat.



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

## 6. SHOCK ABSORBERS



### XRAY SPRINGS

OPTION	#308263	C = 2.3-2.6 (2)
	#308264	C = 2.5-2.8 (2)
	#308274	C = 2.3 (2)
	#308275	C = 2.5 (2)
INCLUDED	#308286	C = 2.6 (2)
	#308276	C = 2.7 (2)
	#308288	C = 2.8 (2)
	#308277	C = 2.9 (2)



### #308039 ALU PROGRESSIVE SHOCK SYSTEM - SET (2)

Progressive shock system for touring cars for improved traction and steering characteristics. Shock insert has 3 triangle cuts and is used with piston without holes. The hardness of the shock is influenced not by the holes in the piston, but rather by the insert.



### #308031-0 ALU XRAY SHOCK SPRING RETAINING COLLAR - ORANGE (4)



### BAG

06

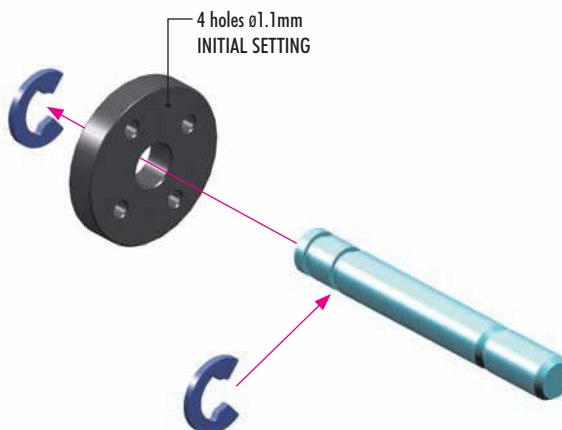
- 30 3241 BALL UNIVERSAL 5.8 MM HEX (4)
- 30 8037 COMPOSITE PISTONS 4-HOLE 1.0-1.2MM, 3-HOLE 1.0-1.2MM
- 30 8042-0 T4 ALU SHOCK ADJUSTABLE NUT - ORANGE (2)
- 30 8082 T4 SHOCK ABSORBER MEMBRANE (4)
- 30 8092 T4 SHOCK FOAM INSERTS (4)
- 30 8307-0 XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)
- 30 8316 SHOCK BALL JOINT - OPEN (4)
- 30 8323 T4 ALU XRAY SHOCK BODY (2)
- 30 8327-0 ALU CAP FOR XRAY SHOCK BODY - ORANGE

- 30 8333 T4 COMPOSITE SHOCK PARTS FOR ALU SHOCKS
- 30 8353-0 T4 ALU SHOCK CAP-NUT WITH VENT HOLE - ORANGE (2)
- 30 8364 T4 HARDENED SHOCK SHAFT FOR ALU SHOCKS (2)
- 30 8275 XRAY SPRING-SET C=2.5

- 96 5023 E-CLIP 2.3 (10)
- 97 0130 O-RING 13 x 1.5 (10)
- 97 2030 SILICONE O-RING 3 x 2 (10)

965023  
C2.3

4x

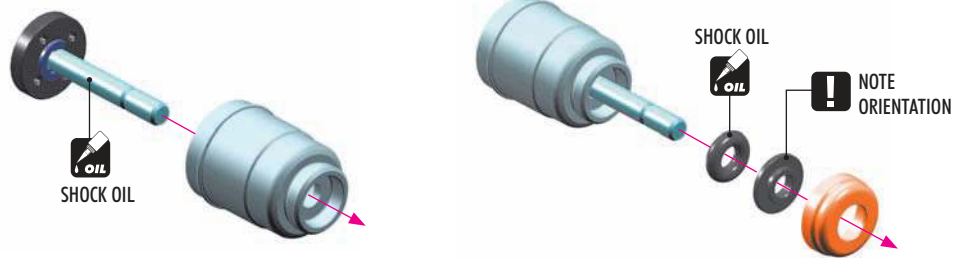




## 6. SHOCK ABSORBERS

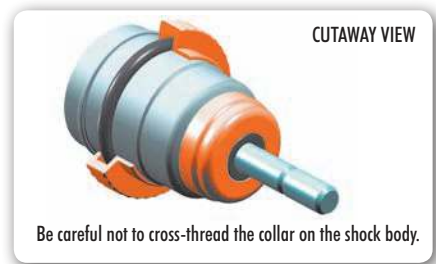
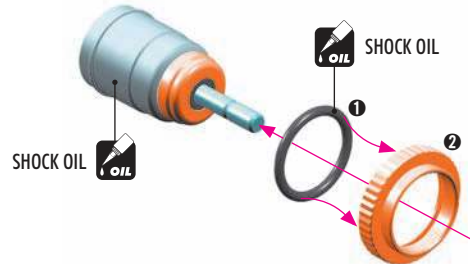
972030  
0 3x2

4x

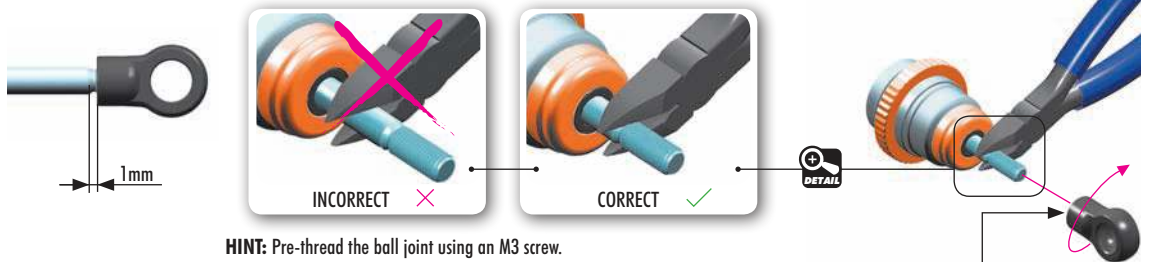


970130  
0 13x1.5

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

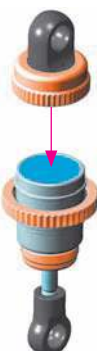


### CUTAWAY VIEW



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.



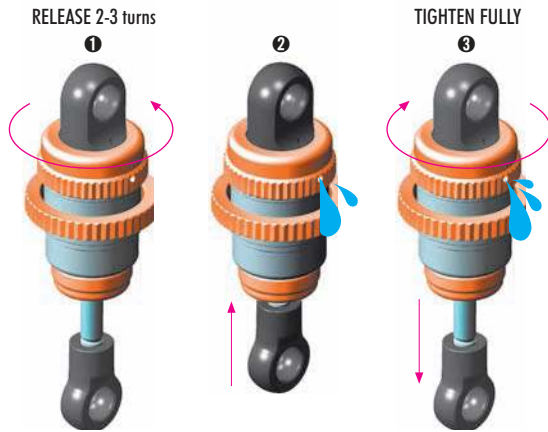
### SHOCK OILS

#106310	100cSt	#106355	550cSt
#106315	150cSt	#106360	600cSt
#106320	200cSt	#106365	650cSt
#106325	250cSt	#106370	700cSt
#106330	300cSt	#106375	750cSt
#106335	350cSt	#106380	800cSt
#106340	400cSt	#106390	900cSt
#106345	450cSt	#106410	1000cSt
#106350	500cSt	#106420	2000cSt

SET-UP BOOK  
SHOCK DAMPING

## 6. SHOCK ABSORBERS

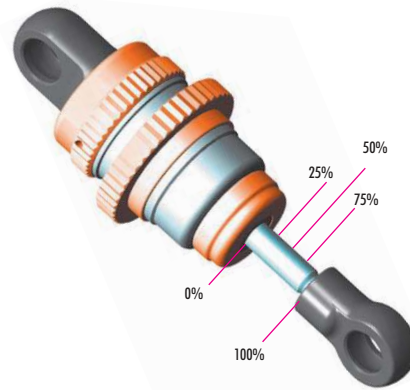
### REBOUND ADJUSTMENT



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 cup. When tightening the shock cap, extra oil will again release through the hole in the alu cap - nut. When tightening, the shock shaft will push out from the shock body.

### REBOUND CHECK



### 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.

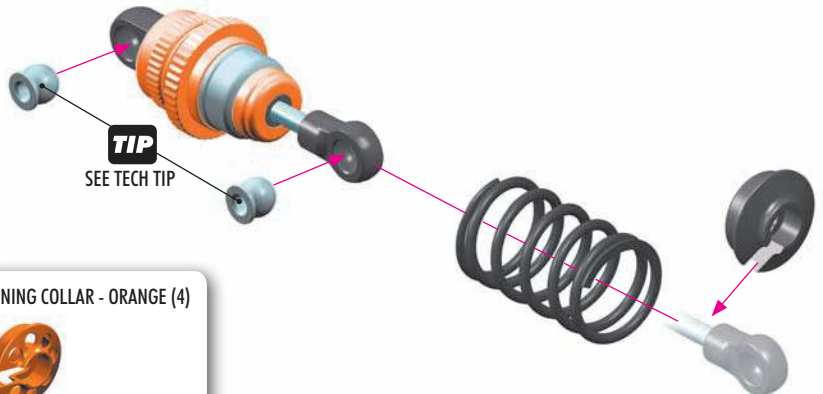
- |      |   |
|------|---|
| 100% | rebound - do not do step 2 and 3  |
| 75%  | rebound - repeat step 2 and 3 until the shock shaft will push out 75% of its length |
| 50%  | rebound - repeat step 2 and 3 until the shock shaft will push out 50% of its length |
| 25%  | rebound - repeat step 2 and 3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

4x

### 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.



#308031-0 ALU XRAY SHOCK SPRING RETAINING COLLAR - ORANGE (4)

OPTION



## TECH TIP

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

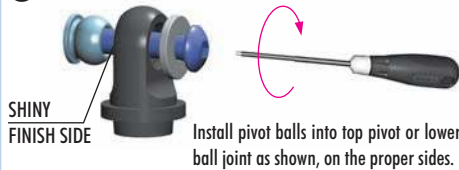
- Parts Needed:
- M3x16 SH screw
  - M3 shim

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.

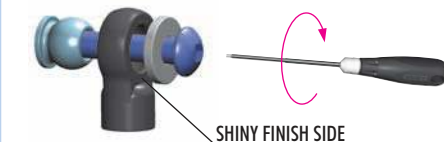
SHINY FINISH SIDE



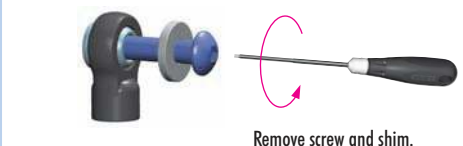
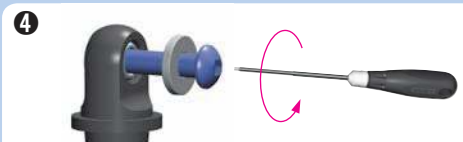
1



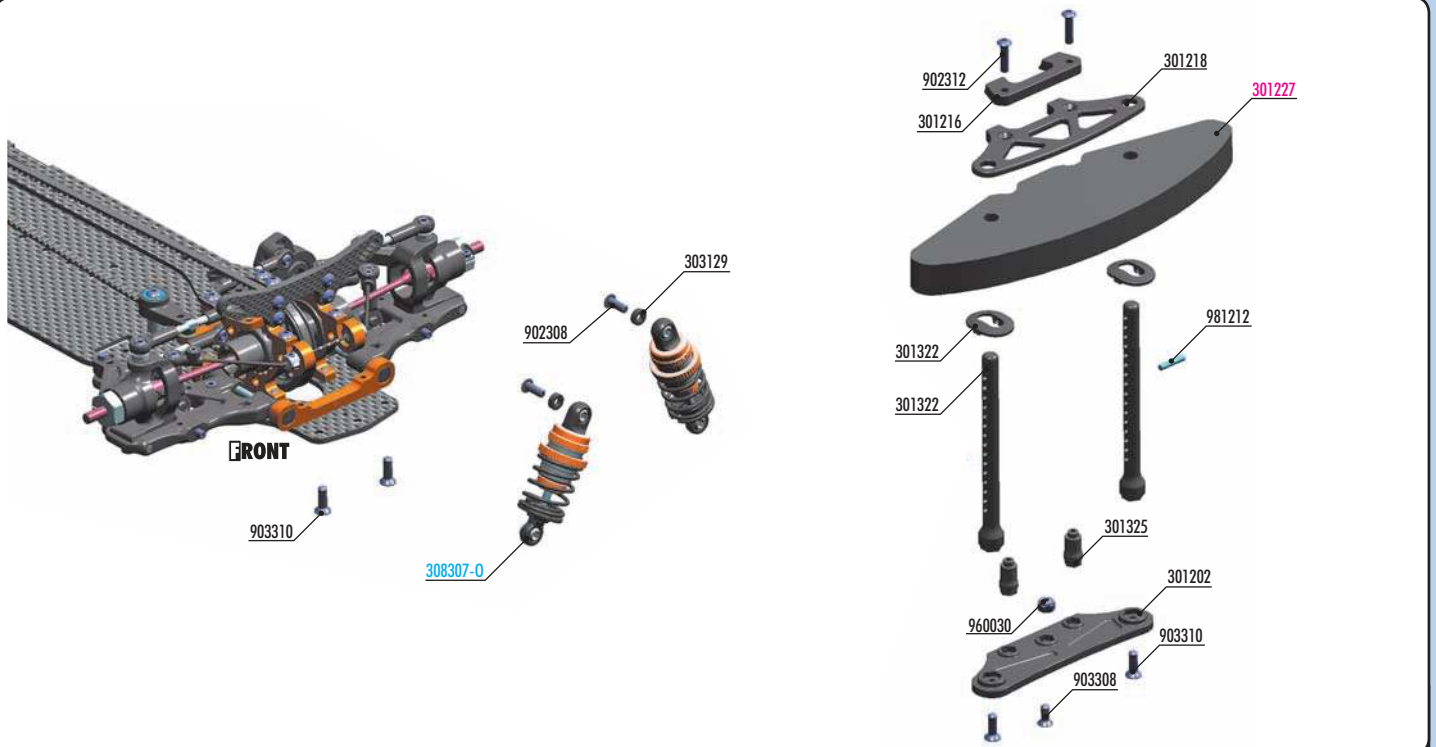
Note that the lower pivot ball has an extra shoulder.



3



## 7. FRONT & REAR ASSEMBLY



BAG

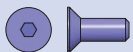
07

- 30 1202 COMPOSITE BUMPER
- 30 1213 GRAPHITE BUMPER UPPER HOLDER 2.5MM (OPTION)
- 30 1216 COMPOSITE BUMPER UPPER HOLDER BRACE
- 30 1218 COMPOSITE UPPER HOLDER FOR BUMPER
- 30 1322 FRONT BODY MOUNT SET
- 30 1323 FRONT BODY MOUNT SET + 1MM HEIGHT (OPTION)
- 30 1324 FRONT BODY MOUNT SET + 2MM HEIGHT (OPTION)
- 30 1325 T4 COMPOSITE BRACE FOR BUMPER - LOW (2)
- 30 3129 COMPOSITE SET OF WHEELBASE SHIMS (3x1MM; 1x2MM) (2)

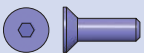
- 90 2308 HEX SCREW SH M3x8 (10)
- 90 2312 HEX SCREW SH M3x12 (10)
- 90 3308 HEX SCREW SFH M3x8 (10)
- 90 3310 HEX SCREW SFH M3x10 (10)
- 96 0030 NUT M3 (10)
- 98 1212 PIN 2x12 (10)

30 1227 T4 FOAM BUMER - LIGHT & STRONG

30 8307-0 XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)



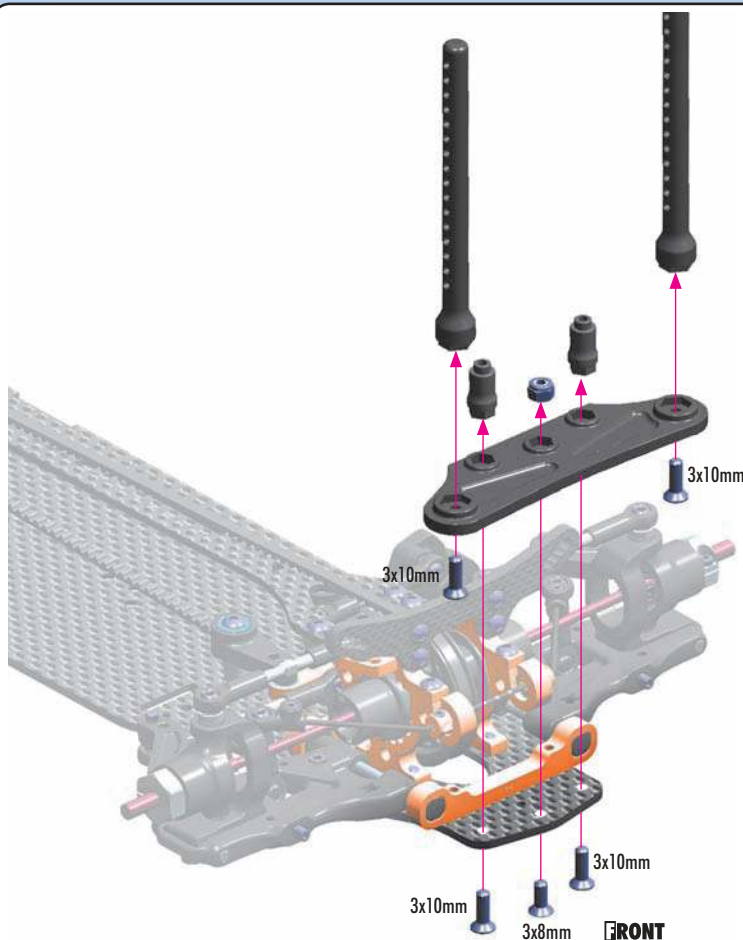
903308  
SFH M3x8



903310  
SFH M3x10



960030  
N M3



#301203

IMPACT ABSORBING FRONT BUMPER

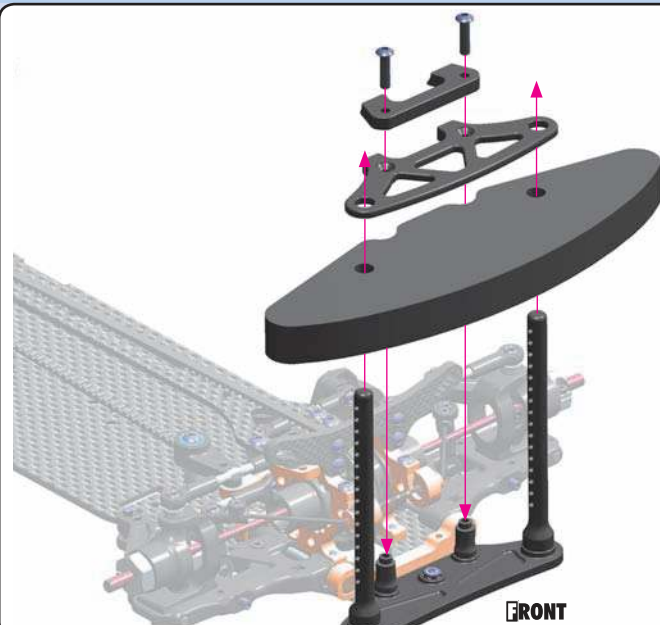




## 7. FRONT & REAR ASSEMBLY



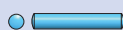
902312  
SH M3x12



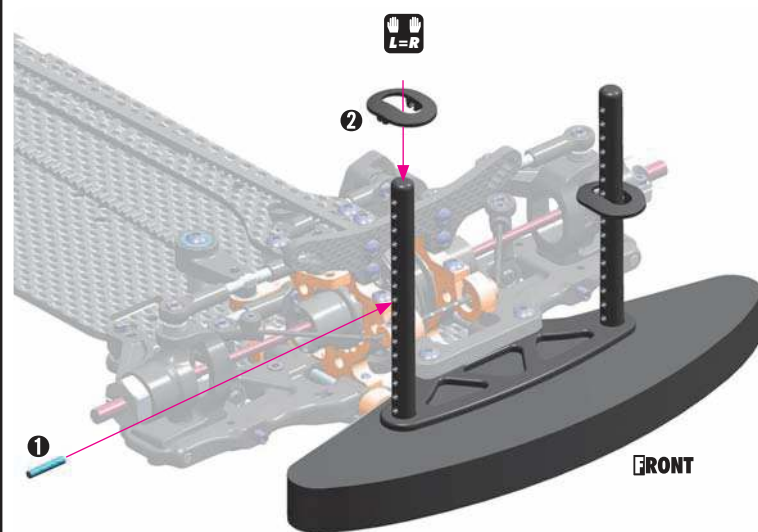
FRONT



#301226  
T4 FOAM BUMPER - HARD



981212  
P 2x12



FRONT



#301351-0 ALU ADJUSTABLE BODY POST STOP (2)



Very handy, easily externally adjustable body post from Swiss 7075 T6 aluminum. Allows for adjustment of body height by 3mm without needing to change the position on the body post.



FRONT BODY MOUNT SET

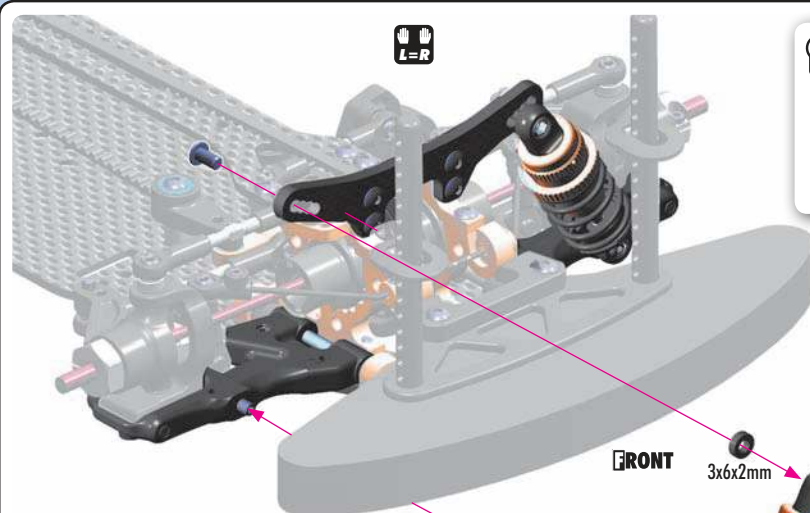
#	Thickness	Status
#301322	0mm	INCLUDED
#301323	+1mm	OPTION
#301324	+2mm	OPTION



902308  
SH M3x8



303129  
SHIM 3x6x2



FRONT

3x6x2mm



INITIAL SETTING

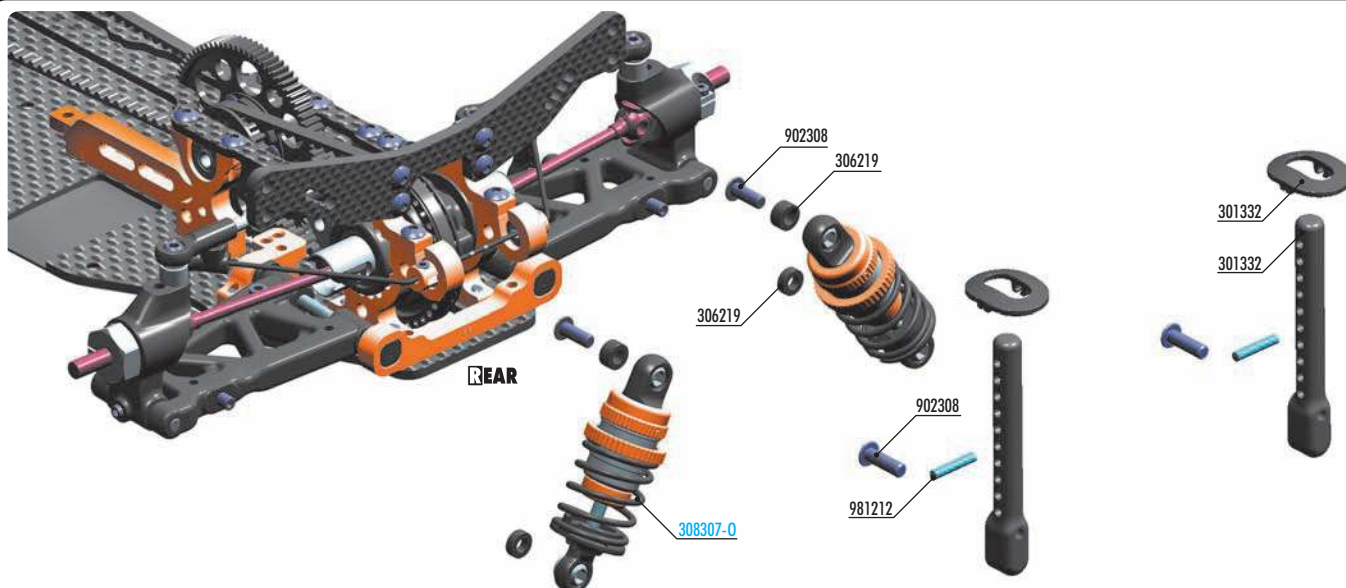


SHOCK POSITION  
RIDE HEIGHT  
DROOP

FRONT SHOCK  
C2.5 SPRING



## 7. FRONT & REAR ASSEMBLY



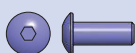
**BAG**

**07**

30 1332 REAR BODY MOUNT SET  
30 1333 REAR BODY MOUNT SET +1MM HEIGHT (OPTION)  
30 1334 REAR BODY MOUNT SET +2MM HEIGHT (OPTION)  
30 6219 COMPOSITE SET OF SERVO SHIMS (4)

90 2308 HEX SCREW SH M3x8 (10)  
98 1212 PIN 2x12 (10)

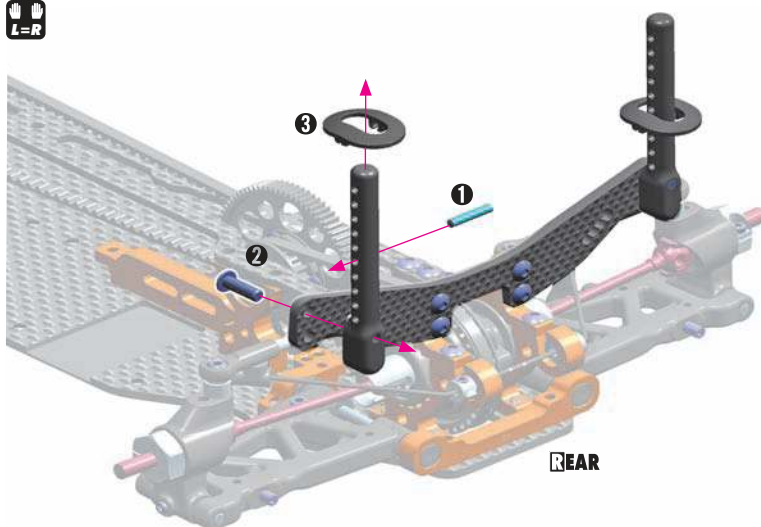
30 8307-0 XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)



902308  
SH M3x8



981212  
P 2x12



#301351-0 ALU ADJUSTABLE BODY POST STOP (2)



Very handy, easily externally adjustable body post from Swiss 7075 T6 aluminum. Allows for adjustment of body height by 3mm without needing to change the position on the body post.



REAR BODY MOUNT SET

#	Height	Status
#301332	0mm	INCLUDED
#301333	+1mm	OPTION
#301334	+2mm	OPTION



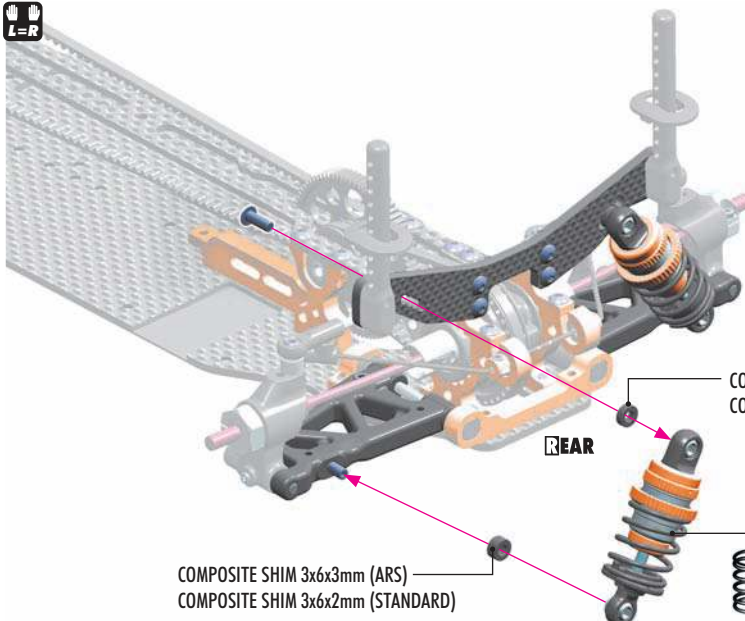
902308  
SH M3x8



306219  
SHIM 3x6x2



306219  
SHIM 3x6x3



INITIAL SETTING



COMPOSITE SHIM 3x6x2mm (ARS)  
COMPOSITE SHIM 3x6x3mm (STANDARD)

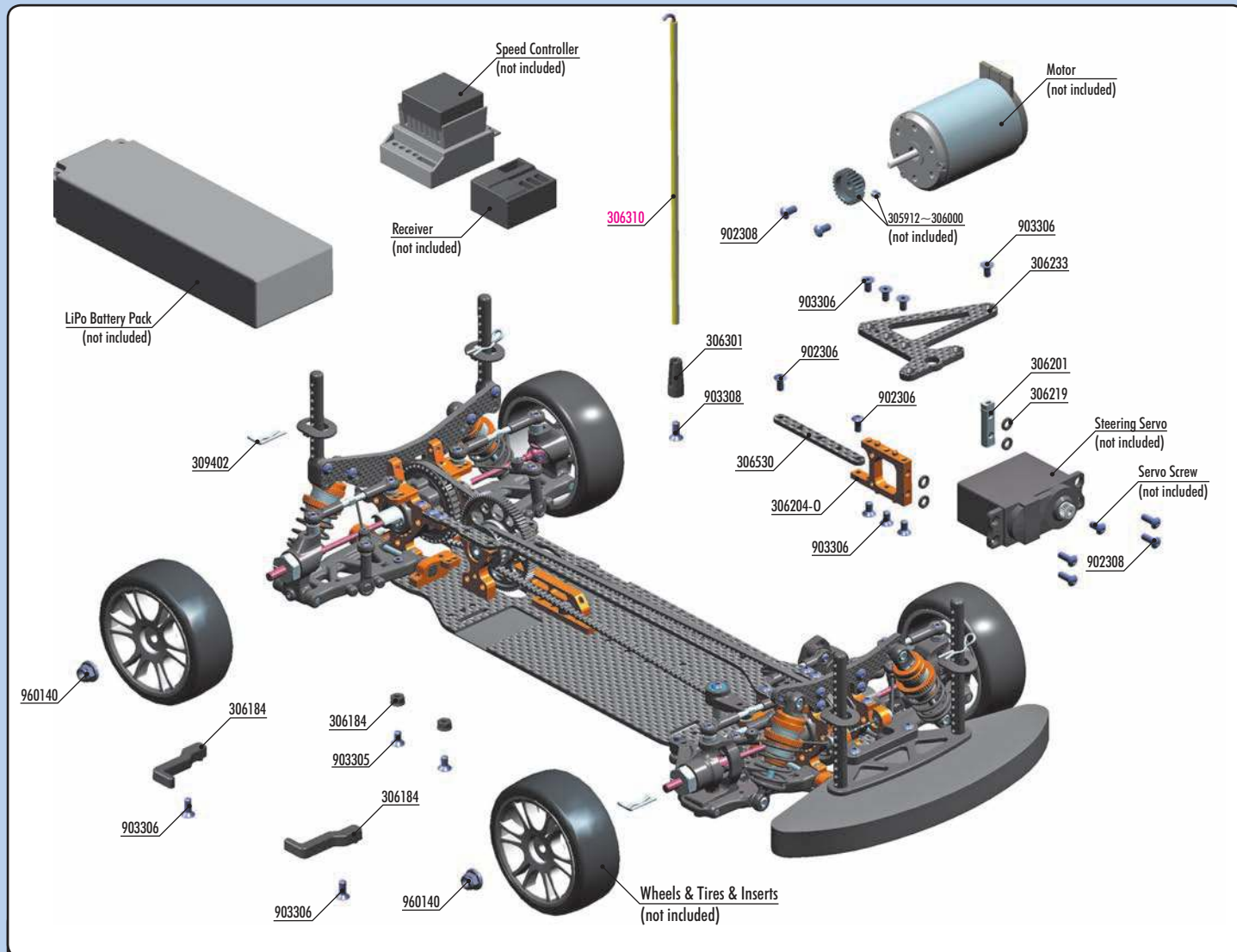
COMPOSITE SHIM 3x6x3mm (ARS)  
COMPOSITE SHIM 3x6x2mm (STANDARD)

REAR SHOCK  
C2.5 SPRING

**SET-UP BOOK**

SHOCK POSITION  
RIDE HEIGHT  
DROOP

## 7. FINAL ASSEMBLY



**BAG**

**07**

30 3061 LIPO CHASSIS GRAPHITE MOTOR GUARD (OPTION)  
 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 6188 T4 GRAPHITE ADJUSTABLE BATTERY HOLDER (OPTION)  
 30 6191 T4 GRAPHITE + ALU FULLY ADJUSTABLE BATTERY HOLDER (OPTION)  
 30 6201 ALU SERVO MOUNT - LONG  
 30 6204-0 T4'17 ALU SERVO MOUNT - ORANGE  
 30 6219 COMPOSITE SET OF SERVO SHIMS (4)  
 30 6301 ANTENNA MOUNT - THIN

30 6233 T4'17 GRAPHITE FLOATINGG SERVO HOLDER 3.0MM  
 30 6530 T4'17 GRAPHITE CHASSIS STIFFENER 2.0MM  
 30 9402 BODY CLIP FOR 6MM BODY POST (4)  
 90 2306 HEX SCREW SH M3x6 (10)  
 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)

30 6310

ANTENNA (2)

**10**

306219  
SHIM 3x6x1

**10**

306219  
SHIM 3x6x2

**10**

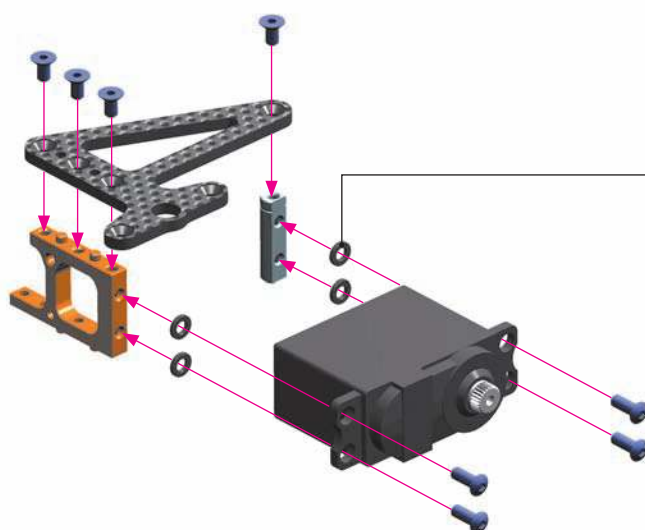
306219  
SHIM 3x6x3



902308  
SH M3x8



903306  
SFH M3x6



Min. space 0.5mm

► Add shims between servo and alu servo mounts in case you want to move the servo (weight) more forward. There are 3 different thickness of shims.



**TOP**

1mm 2mm 3mm

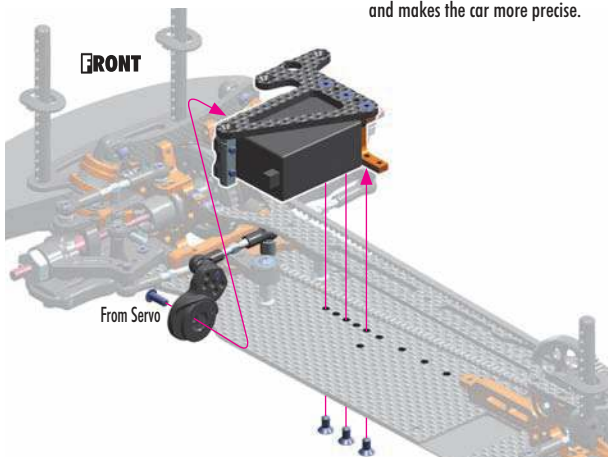




## ALTERNATIVE 1

## STANDARD STEERING ARM MOUNTING (INITIAL SETTING)

Standard steering mounting system provides maximum steering response and makes the car more precise.



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

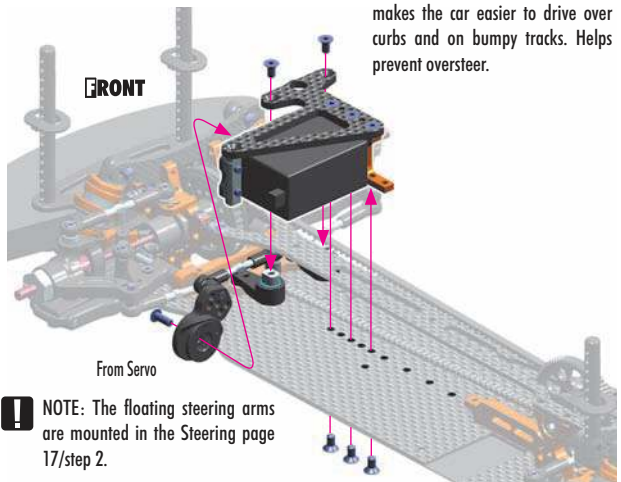


When adjusting steering on the radio, we recommend using full steering adjustment in order to get the best steering from the car. It is important to verify that the steering block does not touch the C-hub; that would lead to chassis tweak due to extra servo strain.

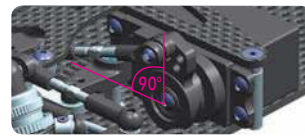
## ALTERNATIVE 2

## FLOATING STEERING ARM MOUNTING

Floating steering mounting system makes the car easier to drive over curbs and on bumpy tracks. Helps prevent oversteer.



**NOTE:** The floating steering arms are mounted in the Steering page 17/step 2.



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

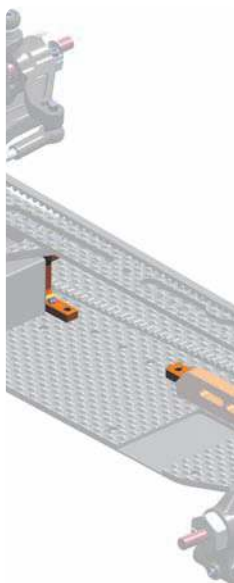


## INLINE FLEX CHASSIS ADJUSTMENT

The inline chassis flex adjustment has a direct effect on the steering characteristics of the car. The more stiff the inline chassis flex is, better steering response and more in-corner steering is generated.

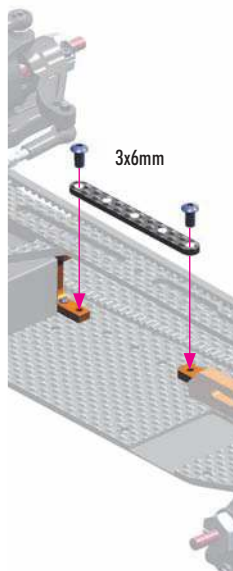
1

## INITIAL SETTING



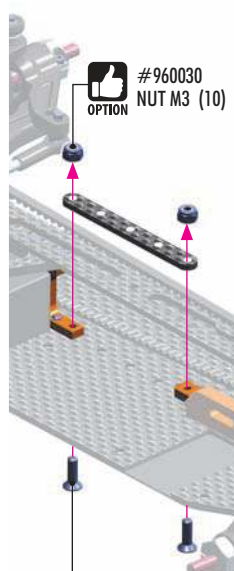
## 2

Attach the graphite reinforcement plate from the top so the chassis stays independent from inline chassis flex.



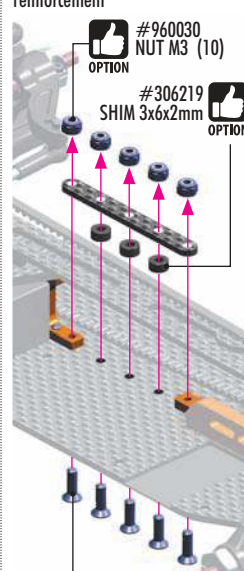
## 3

Attach the graphite reinforcement plate from the bottom so the chassis is now part of the inline chassis flex.




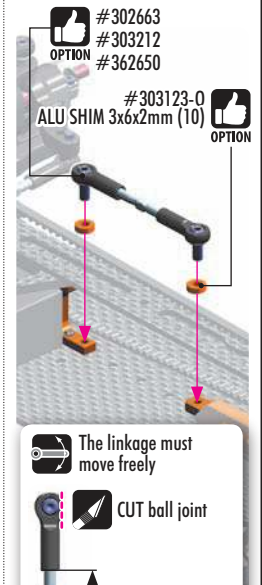
## 4

Attach the graphite reinforcement plate from the bottom so the chassis is now part of the inline chassis flex and use also extra holes between the servo holder and motor mount for even extra reinforcement



## 5

Use the linkage - mounted from the top - for inline chassis reinforcement. By using the linkage, the chassis stays stiff in the inline direction, but flexes to the sides.

 The linkage must move freely CUT ball joint

18mm

 CUT ball joint

The ball joints must be modified (cutted) in order to prevent ball joints touching the belt.



## 7. FINAL ASSEMBLY

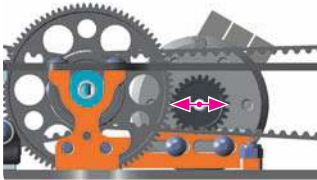


902308  
SH M3x8



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.



#303061  
LiPo Chassis Graphite Motor Guard



GEARING ADJUSTMENT

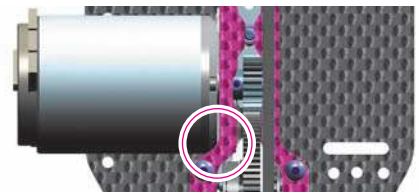
3x2.5mm set screw (#901302)  
(not included)



Motor & Pinion  
(not included)



**TIP** 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.



903308  
SFH M3x8



**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.

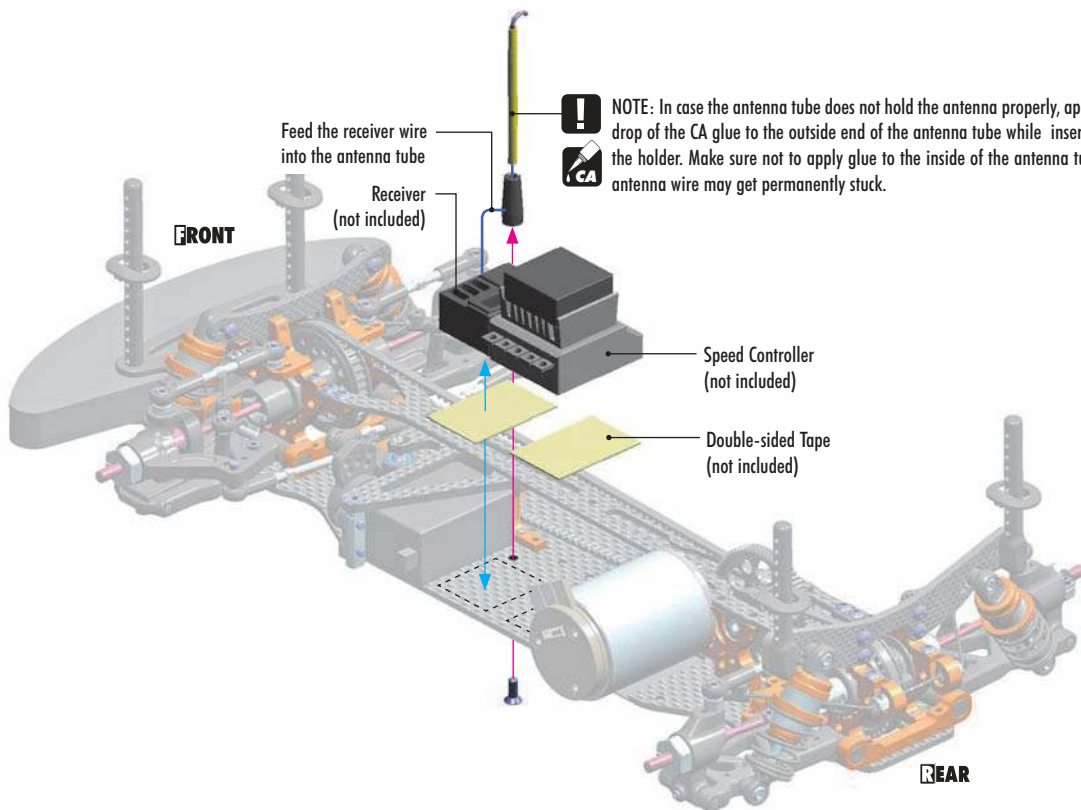
Feed the receiver wire into the antenna tube

Receiver  
(not included)

FRONT

Speed Controller  
(not included)

Double-sided Tape  
(not included)



REAR





903306  
SFH M3x6

**REAR**

**!** The composite battery backstops can be used only when no brace is used (page 33 / step 2)

**TIP** Using the optional stand and shims with screw allows adjustment of battery position, which has a direct influence on balance.

**#306186**  
**ALU LIPO BATTERY BACKSTOPS (F + R)**

**OPTION**

**#306191**  
**T4 GRAPHITE + ALU FULLY ADJUSTABLE BATTERY HOLDER**

**OPTION**

**4x**



960140  
N M4

LiPo Battery Pack (not included)

Make sure the wheel nuts are very tight, so the wheels do not loosen during operation.

We recommend using #107870 HUDY Fibre Reinforced Tape (not included)

**#306165**  
**GRAPHITE BATTERY STRAP**

**OPTION**

Designed for LiPo batteries and ensures quick & easy mounting of the battery pack into the car. Depending on the LiPo battery height, additional shims may have to be mounted below the stands.



**[www.teamxray.com](http://www.teamxray.com)**

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**XRAY USA**

RC AMERICA, 2030 Century Center Blvd #15, Irving, TX 75062, USA  
PHONE: 214-744-2400, FAX: 214-744-2401, [xray@rcamerica.com](mailto:xray@rcamerica.com)