

1/10 LUXURY ELECTRIC TOURING CAR

XRAY T4



INSTRUCTION MANUAL
FOR T4'20 EDITION

BEFORE YOU START

This is a high-competition, high-quality RC 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 XRAY, **YOU MUST** read through all of the operating instructions and instruction manual and fully understand them to get the maximum enjoyment and prevent unnecessary damage.

CUSTOMER SUPPORT

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

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

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

XRAY Europe

K Vystavisku 6992
91101 Trenčín
Slovakia, EUROPE
Phone: 421-32-7401100
Fax: 421-32-7401109
E-mail: info@teamxray.com

XRAY USA

RC America, 2030 Century Center Blvd #15
Irving, TX 75062
USA
Phone: (214) 744-2400
Fax: (214) 744-2401
E-mail: xray@rcamerica.com

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

SAFETY PRECAUTIONS

Contains:

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

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

CAUTION: CANCER HAZARD

Contains lead, a listed carcinogen. Lead is harmful if ingested. Wash thoroughly after using. DO NOT use product while eating, drinking or using tobacco products. May cause chronic effects to gastrointestinal tract, CNS, kidneys, and blood. MAY CAUSE BIRTH DEFECTS.

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

Take appropriate safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation! Please read the instruction manual before building and operating this model and follow all safety precautions. Always keep the instruction manual at hand for quick

reference, even after completing the assembly. Use only genuine and original authentic XRAY parts for maximum performance. Using any third party parts on this model will void guaranty immediately.

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



IMPORTANT NOTES - GENERAL

- This product is not suitable for children under 16 years of age without the direct supervision of a responsible and knowledgeable adult.
- Carefully read all manufacturers warnings and cautions for any parts used in the construction and use of your model.
- Assemble this kit only in places away from the reach of very small children.
- First-time builders and users should seek advice from people who have building experience in order to assemble the model correctly and to allow the model to reach its performance potential.
- Exercise care when using tools and sharp instruments.
- Take care when building, as some parts may have sharp edges.
- Keep small parts out of reach of small children. Children must not be allowed to put any parts in their mouth, or pull vinyl bag over their head.
- Read and follow instructions supplied with paints and/or cement, if used (not included in kit).
- Immediately after using your model, do NOT touch equipment on the model such as the motor and speed controller, because they generate high temperatures. You may seriously burn yourself seriously touching them.
- Follow the operating instructions for the radio equipment at all times.
- Do not put fingers or any objects inside rotating and moving parts, as this may cause damage or serious injury as your finger, hair, clothes, etc. may get caught.
- Be sure that your operating frequency is clear before turning on or running your model, and never share the same frequency with somebody else at the same time. Ensure that others are aware of the operating frequency you are using and when you are using it.
- Use a transmitter designed for ground use with RC cars. Make sure that no one else is using the same frequency as yours in your operating area. Using the same frequency at the same time, whether it is driving, flying or sailing, can cause loss of control of the RC model, resulting in a serious accident.
- Always turn on your transmitter before you turn on the receiver in the car. Always turn off the receiver before turning your transmitter off.
- Keep the wheels of the model off the ground when checking the operation of the radio equipment.
- Disconnect the battery pack before storing your model.
- When learning to operate your model, go to an area that has no obstacles that can damage your model if your model suffers a collision.
- Remove any sand, mud, dirt, grass or water before putting your model away.
- If the model behaves strangely, immediately stop the model, check and clear the problem.
- To prevent any serious personal injury and/or damage to property, be responsible when operating all remote controlled models.
- The model car is not intended for use on public places and roads or areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- Because the model car is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary loss of control, always allow a safety margin in all directions around the model in order to prevent collisions.
- Do not use your model:
 - Near real cars, animals, or people that are unaware that an RC car is being driven.
 - In places where children and people gather
 - In residential districts and parks
 - In limited indoor spaces
 - In wet conditions
 - In the street
 - In areas where loud noises can disturb others, such as hospitals and residential areas.
 - At night or anytime your line of sight to the model may be obstructed or impaired in any way.

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

IMPORTANT NOTES – ELECTRICAL

- Insulate any exposed electrical wiring (using heat shrink tubing or electrical tape) to prevent dangerous short circuits. Take maximum care in wiring, connecting and insulating cables. Make sure cables are always connected securely. Check connectors for if they become loose. And if so, reconnect them securely. Never use 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 to get advice, or contact us via email at info@teamxray.com, or contact the XRAY distributor in your country.

WARRANTY

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

Due to the high performance level of this model car you will need to periodically maintain and replace consumable components. Any and all warranty coverage will not cover replacement of any part or component damaged by neglect, abuse, or improper or unreasonable use. This includes

but is not limited to damage from crashing, chemical and/or water damage, excessive moisture, improper or no maintenance, or user modifications which compromise the integrity of components. Warranty will not cover components that are considered consumable on RC vehicles. XRAY does not pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

Limitations of Liability

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

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

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

QUALITY CERTIFICATE

XRAY MODEL RACING CARS uses only the highest quality materials, the best compounds for molded parts and the most sophisticated manufacturing processes of TQM (Total Quality Management). We guarantee that all parts of a newly-purchased kit are manufactured with the highest regard to quality. However, due to the many factors inherent in model racecar competition, we

cannot guarantee any parts once you start racing the car. Products which have been worn out, abused, neglected or improperly operated will not be covered under warranty.

We wish you enjoyment of this high-quality and high-performance RC car and wish you best success on the track!

In line with our policy of continuous product development, the exact specifications of the kit may vary. In the unlikely event of any problems with your new kit, you should contact the model shop where you purchased it, quoting the part number.

We do reserve all rights to change any specification without prior notice. All rights reserved.

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 view 	Follow Set-up Book

TOOLS REQUIRED

HUDY TOOLS: Allen: 1.5mm Allen: 2.0mm Allen: 3.0mm Socket: 5.5mm Socket: 7.0mm Arm Reamer 3.0mm						Turnbuckle Wrench 4mm (HUDY #181040) Turnbuckle Wrench 3mm (HUDY #181030)
Scissors (HUDY #188990) 	Combination Pliers (HUDY #189020) 	Side Cutters (HUDY #189010) 	Pocket Hobby Knife (HUDY #188981) 	RC Shock-Plier Uni Tool (HUDY #183011) 	Reamer (HUDY #107600) or (HUDY #107601) 	Snap Ring Pliers

ITEMS INCLUDED

Premium Silicone Oil 450cSt (HUDY #106345) 	Premium Silicone Oil 5.000cSt (HUDY #106450)
Graphite Grease (HUDY #106210) 	

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 on our website 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 <table border="1"> <tr> <td>#30XXXX</td> <td>OPTION 1</td> </tr> <tr> <td>#30XXXX</td> <td>OPTION 2</td> </tr> <tr> <td>#30XXXX</td> <td>OPTION 3</td> </tr> </table>	#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.
#30XXXX	OPTION 1						
#30XXXX	OPTION 2						
#30XXXX	OPTION 3						

EQUIPMENT REQUIRED

Transmitter 	Receiver 	Steering Servo 	Electric Motor & Pinion Gear and Setscrew 	Bearing Oil (HUDY #106230) 	Speed Controller
190mm Bodysell 	LiPo Battery 	Lexan™ Paint 	Battery Charger 	Fibre Tape (HUDY #107870) Double-sided Tape (HUDY #107875) 	Wheels & Tires & Inserts (HUDY #803053 C3-28) (HUDY #803062 A1-36)

COLOR INDICATIONS

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

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

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

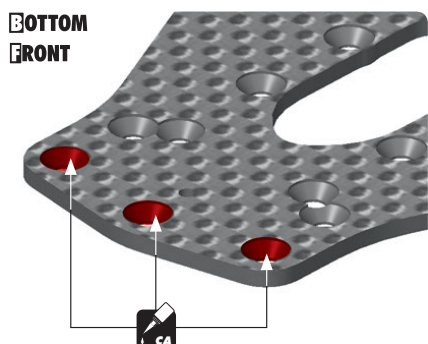
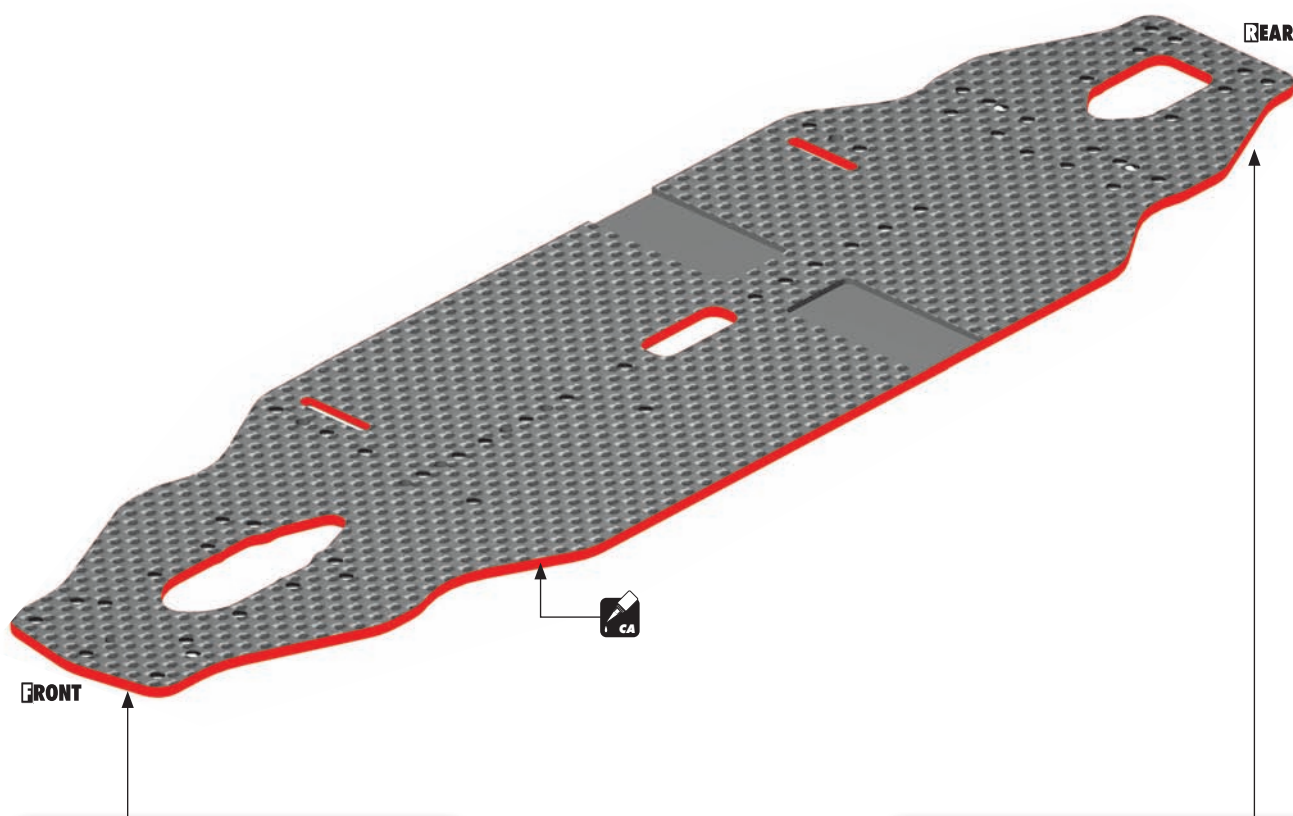
STYLE B - indicates parts that are included in the box.

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

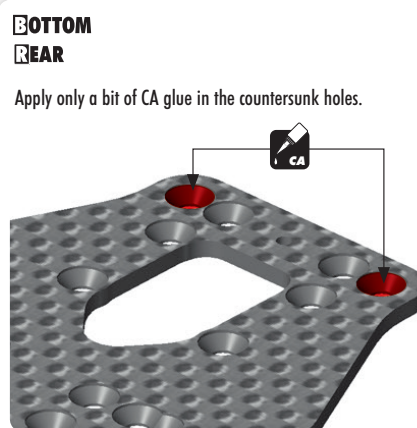
CHASSIS PREPARATION

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

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



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



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

1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

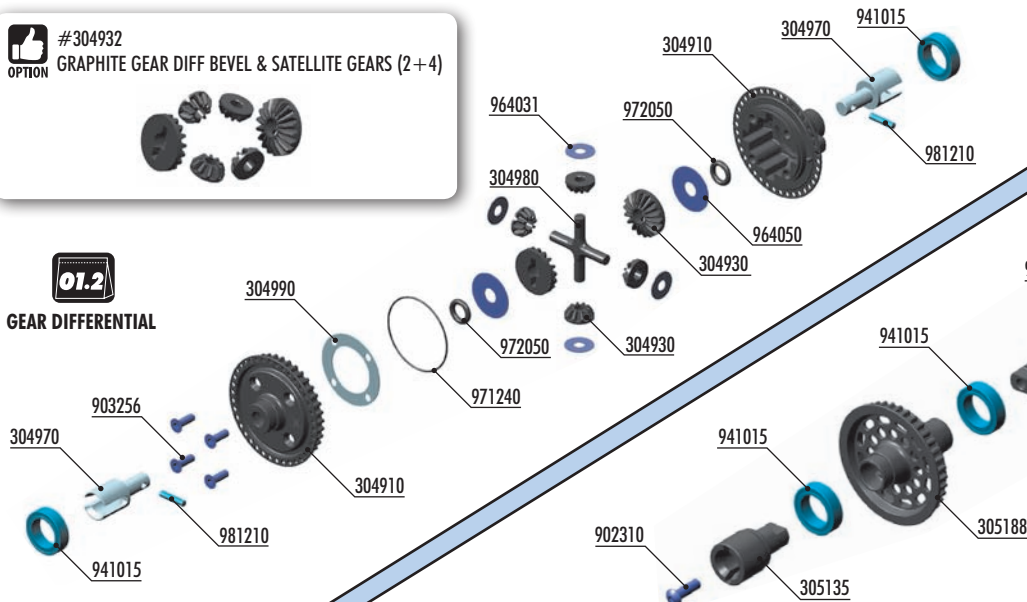
#304932
OPTION GRAPHITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)



#309002
OPTION SET OF CERAMIC BALL-BEARINGS (14)



01.2
GEAR DIFFERENTIAL



#304971
OPTION HUDY SPRING STEEL™ OUTDRIVES



#305136
OPTION ALU SOLID DRIVESHAFT ADAPTERS



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



01.1
COMPOSITE SOLID AXLE

BAG

01.1

01.2

304900 XRAY GEAR DIFFERENTIAL - SET
304910 COMPOSITE GEAR DIFF. CASE & COVER
304930 COMPOSITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)
304970 ALU GEAR DIFF OUTDRIVE ADAPTER - 7075 T6 (2)
304980 COMPOSITE GEAR DIFF CROSS PIN
304990 DIFF GASKET (4)
305135 COMPOSITE SOLID AXLE DRIVESHAFT ADAPTERS (2)
305188 COMPOSITE SOLID AXLE 38T - SET

902310 HEX SCREW SH M3x10 (10)
903256 HEX SCREW SFH M2.5x6 (10)
941015 BALL-BEARING 10x15x4 RUBBER SEALED - OIL (2)
964031 WASHER S 3.5x10x0.2 (10)
964050 WASHER S 5x15x0.3 (10)
971240 SILICONE O-RING 24x0.7 (10)
972050 SILICONE O-RING 5x2 (10)
981210 PIN 2x10 (10)



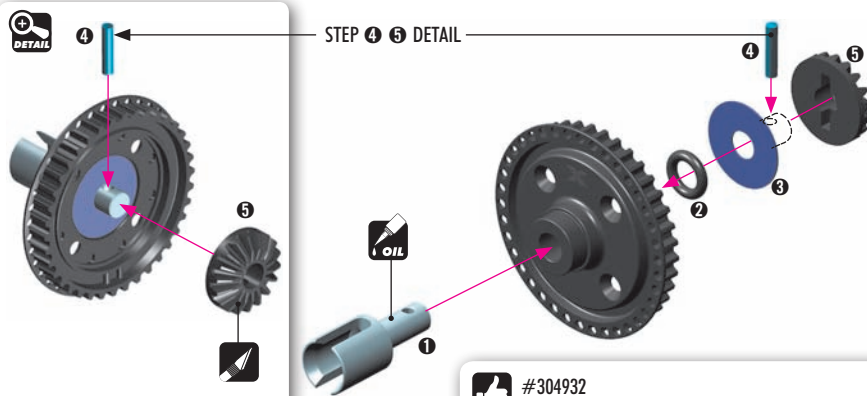
964050
S 5x15x0.3



972050
O 5x2



981210
P 2x10



#304971
OPTION HUDY SPRING STEEL™ OUTDRIVES



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



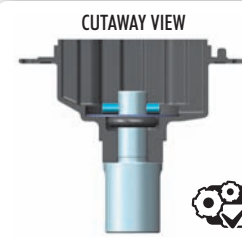
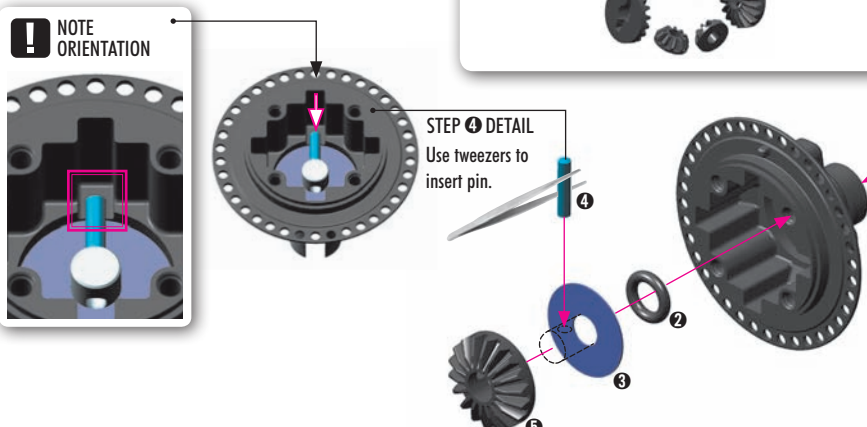
964050
S 5x15x0.3



972050
O 5x2

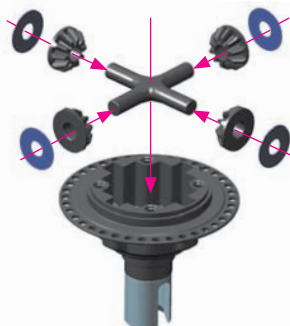


981210
P 2x10

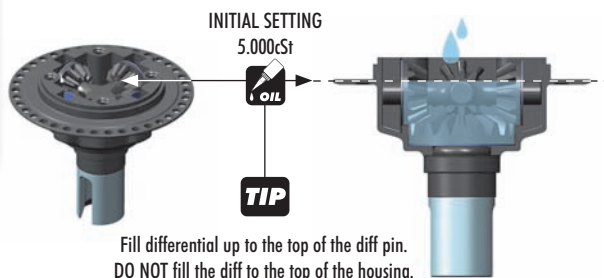


1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

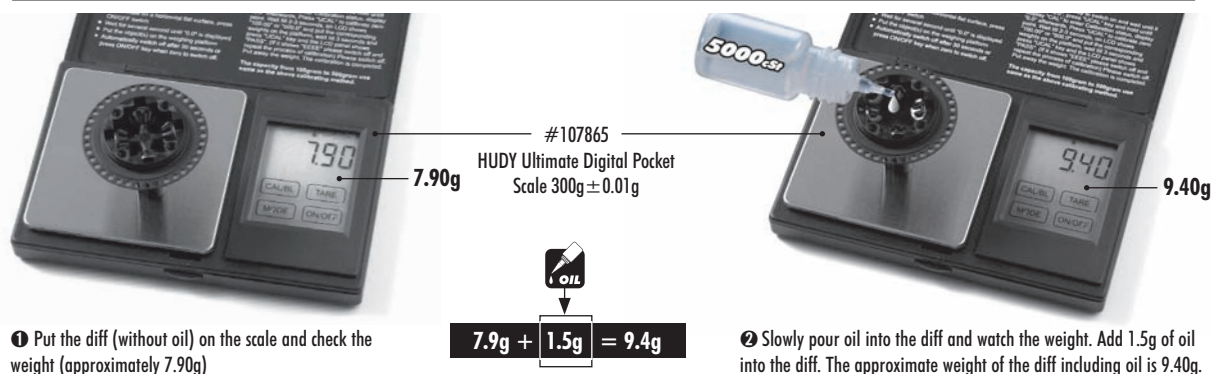
964031
S 3.5x10x0.2



#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

1.000cSt (HUDY #106410)
2.000cSt (HUDY #106420)

MEDIUM TRACTION

2.000cSt (HUDY #106420)
3.000cSt (HUDY #106430)
4.000cSt (HUDY #106440)
5.000cSt (HUDY #106450)

HIGH TRACTION

5.000cSt (HUDY #106450)
6.000cSt (HUDY #106460)
7.000cSt (HUDY #106470)
8.000cSt (HUDY #106480)
9.000cSt (HUDY #106490)
10.000cSt (HUDY #106510)

SUPER-HIGH TRACTION

10.000cSt (HUDY #106510)
15.000cSt (HUDY #106515)
20.000cSt (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.



#104002
HUDY AIR VAC – VACUUM PUMP

TIP

To make sure that all the air is removed from the diff oil, we recommend using the HUDY Air Vac.



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.

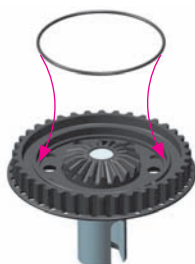
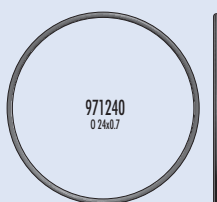
USE THESE OILS FOR FRONT DIFFERENTIAL

500.000cSt (HUDY #106650)
1 000.000cSt (HUDY #106692)
2 000.000cSt (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.



!

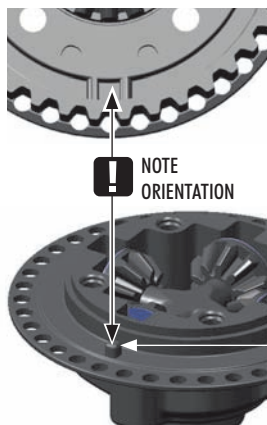
After disassembling the gear diff the large O-ring may have an increased size and may be more difficult to re-install. We recommend either inserting the old O-ring carefully in the diff cover, or replacing the old O-ring with a new O-ring if the old one cannot be made to fit properly.

1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

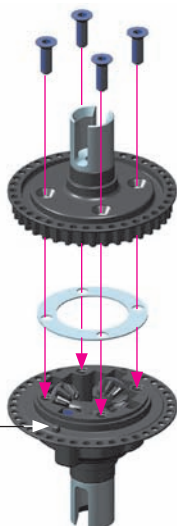


903256
SFH M2.5x6

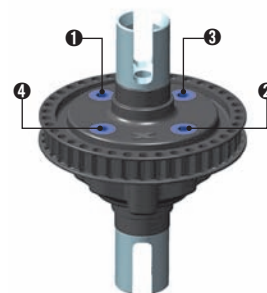
BOTTOM



**NOTE
ORIENTATION**



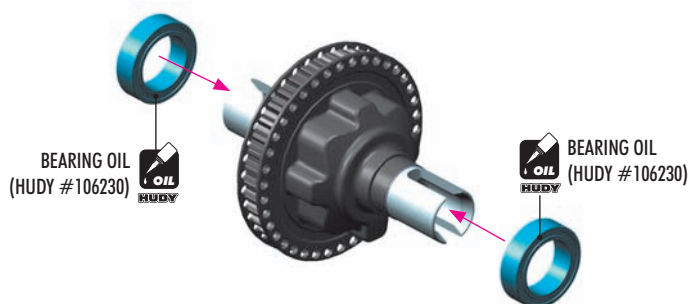
Tighten the screws equally but do NOT tighten them completely.



Finish tightening in this order.



941015
BB 10x15x4



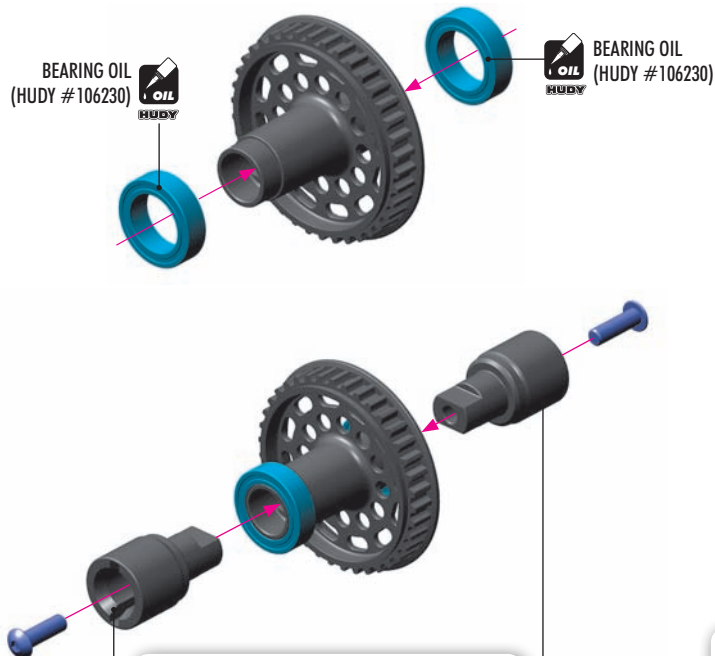
COMPOSITE FRONT SOLID AXLE



902310
SH M3x10



941015
BB 10x15x4



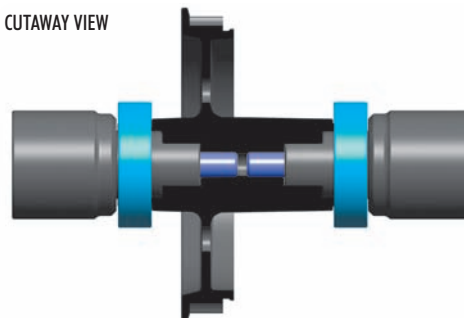
#305137
STEEL SOLID AXLE DRIVESHAFT ADAPTERS
HUDY SPRING STEEL™



#305136
ALU SOLID DRIVESHAFT ADAPTERS

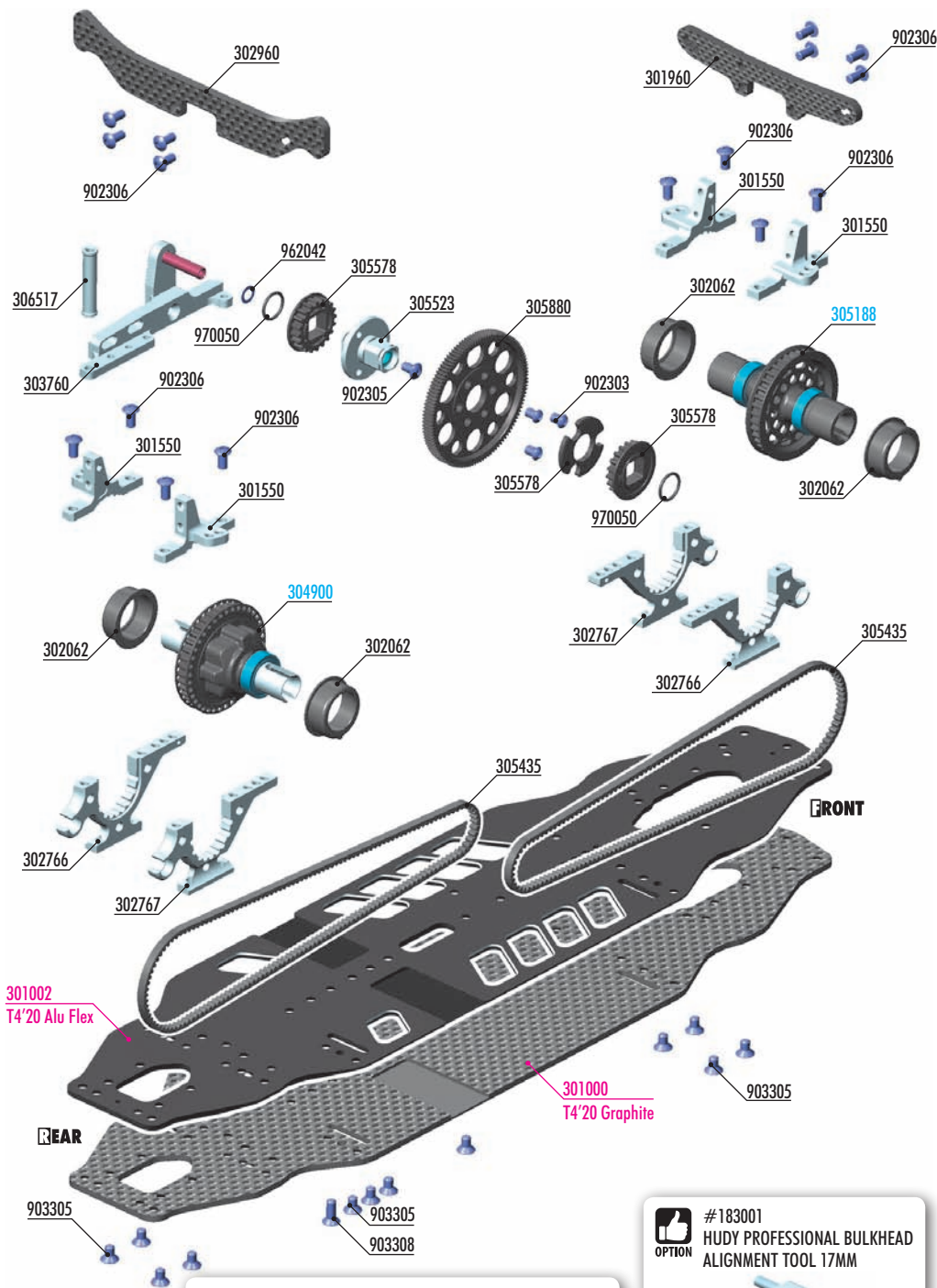


CUTAWAY VIEW



FRONT & REAR AXLES

2. CENTRAL TRANSMISSION



OFFSET SPUR GEARS 48P

#305772	72T / 48P	OPTION
#305776	76T / 48P	OPTION
#305778	78T / 48P	OPTION
#305779	79T / 48P	OPTION
#305781	81T / 48P	OPTION
#305784	84T / 48P	OPTION
#305784-O	84T / 48P	OPTION



OFFSET SPUR GEARS 64P

#305860	90T / 64P	OPTION
#305862	92T / 64P	OPTION
#305866	96T / 64P	OPTION
#305866-O	96T / 64P	OPTION
#305869	99T / 64P	OPTION
#305870	100T / 64P	OPTION
#305870-O	100T / 64P	OPTION
#305874	104T / 64P	OPTION
#305876	106T / 64P	OPTION
#305878	108T / 64P	OPTION
#305880	110T / 64P	INCLUDED
#305880-O	110T / 64P	OPTION
#305882	112T / 64P	OPTION
#305884	114T / 64P	OPTION



#305578-0
FIXED PULLEY 20T - GRAPHITE (2)



#302063
ALU ADJUSTMENT BALL-BEARING HUB (2)



#301001
T4'20 ALU SOLID CHASSIS 2.0mm



#183001
HUDY PROFESSIONAL BULKHEAD
ALIGNMENT TOOL 17MM



#305436
HIGH-PERFORMANCE DRIVE BELT LOW-FRICTION 3x351MM



301550 T4'20 ALU UPPER CLAMP WITH 2 ADJ. ROLL-CENTERS (L+R)
301960 T4'20 ULP GRAPHITE SHOCK TOWER FRONT 3.0MM
302062 T4 COMPOSITE ADJUSTMENT BALL-BEARING HUB (4)
302766 T4'20 ALU LOWER ADJUSTMENT BULKHEAD - FRONT R / REAR L
302767 T4'20 ALU LOWER ADJUSTMENT BULKHEAD - FRONT L / REAR R
302960 T4'20 ULP GRAPHITE SHOCK TOWER REAR 3.0MM
303760 T4'20 ALU MOTOR MOUNT
305435 HIGH-PERFORMANCE DRIVE BELT 3x351MM
305523 ALU SOLID LAYSHAFT WITH BEARINGS
305578 FIXED PULLEY FOR LAYSHAFT WITH BEARINGS 20T (2)
305880 OFFSET SPUR GEAR 110T / 64
306517 T4'20 ALU TOP DECK MOUNT

902303 HEX SCREW SH M3x4 SMALL HEAD - STAINLESS (10)
902305 HEX SCREW SH M3x5 (10)

902306 HEX SCREW SH M3x6 (10)
903305 HEX SCREW SFH M3x5 (10)
903308 HEX SCREW SFH M3x8 (10)
962042 WASHER S 4x6x0.1 (10)
970050 O-RING 5x1 (10)

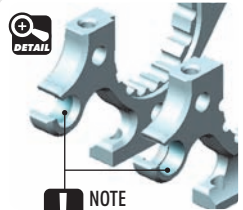
304900 XRAY GEAR DIFFERENTIAL - SET
305188 COMPOSITE SOLID AXLE 38T - SET

301000 T4'20 GRAPHITE CHASSIS 2.2MM
301002 T4'20 ALU FLEX CHASSIS 2.0MM - SWISS 7075 T6

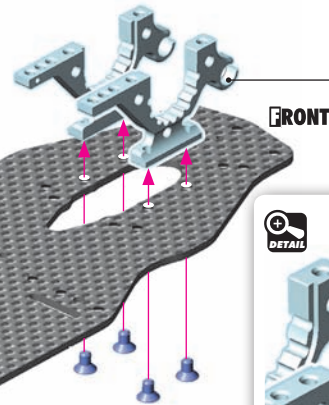
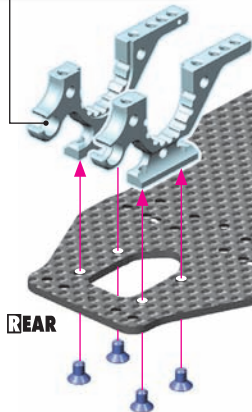
2. CENTRAL TRANSMISSION



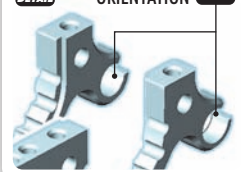
903305
SFH M3x5



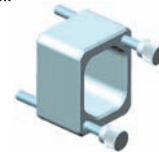
NOTE ORIENTATION



NOTE ORIENTATION

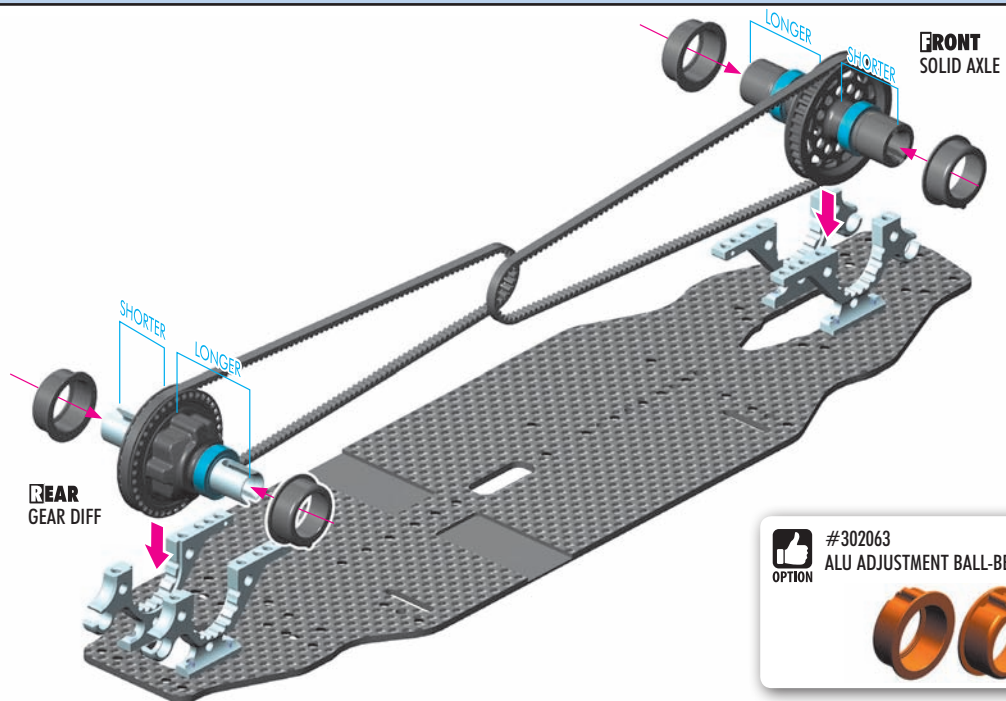


#183001
HUDY PROFESSIONAL BULKHEAD ALIGNMENT TOOL 17MM



To align the bulkheads straight, we suggest using the HUDY Professional Bulkhead Alignment tool.

See page 12, step 4



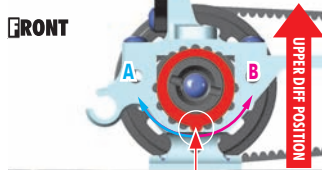
#302063
ALU ADJUSTMENT BALL-BEARING HUB (2)



FRONT BELT TENSION ADJUSTMENT

Front diff **UPPER** position - tab in bottom notch - provides **more steering**, but **less front traction**

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



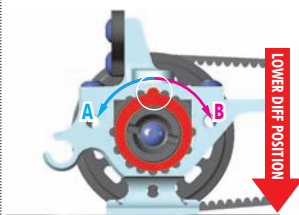
INITIAL POSITION FOR CARPET/ASPHALT
Place tab in this **BOTTOM NOTCH**

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 - tab in top notch - provides **more front traction**, but makes the car **push on-power**.

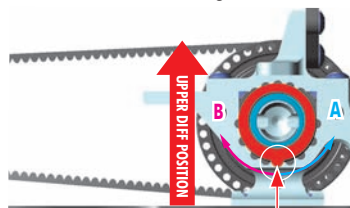
Recommended for **low-traction** tracks.



REAR BELT TENSION ADJUSTMENT

Rear diff **UPPER** position - tab in bottom notch - provides **more on-power steering**, but makes the rear slightly more loose.

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



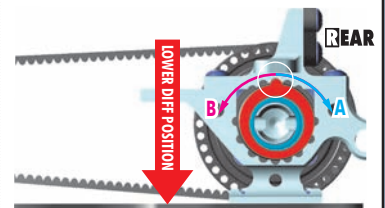
INITIAL POSITION FOR CARPET/ASPHALT
Place tab in this **BOTTOM NOTCH**

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 - tab in top notch - 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.



2. CENTRAL TRANSMISSION



902304
SH M3x4

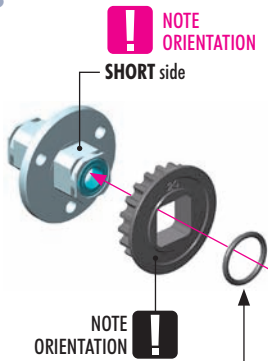


970050
O 5x1



966081
CH-CLIP 8

1.



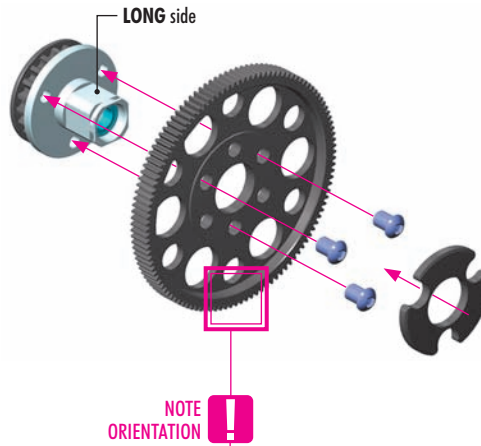
#966081 CH-CLIP 8 (10)
INCLUDED IN THE LAST AID BAG

Another alternative to secure the pulley on the layshaft is to use the Clip which is included in the "Last Aid" Bag. To mount the clip on the layshaft, you have to use special Snap Ring Pliers.



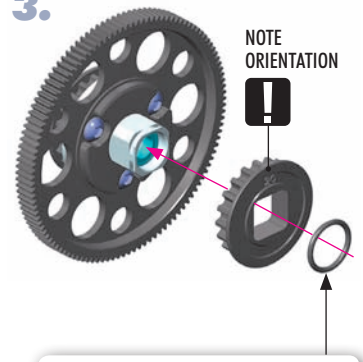
Snap Ring Pliers

2.



NOTE ORIENTATION

3.



#966081 CH-CLIP 8 (10)
INCLUDED IN THE LAST AID BAG

Another alternative to secure the pulley on the layshaft is to use the Clip which is included in the "Last Aid" Bag. To mount the clip on the layshaft, you have to use special Snap Ring Pliers.



Snap Ring Pliers



OPTION

OFFSET SPUR GEARS 48P		
#305772	72T	OPTION
#305776	76T	OPTION
#305778	78T	OPTION
#305779	79T	OPTION
#305781	81T	OPTION
#305784	84T	OPTION
#305784-0	84T	OPTION

OFFSET SPUR GEARS 64P		
#305860	90T	OPTION
#305862	92T	OPTION
#305866	96T	OPTION
#305866-0	96T	OPTION
#305869	99T	OPTION
#305870	100T	OPTION
#305870-0	100T	OPTION
#305874	104T	OPTION
#305876	106T	OPTION
#305878	108T	OPTION
#305880	110T	INCLUDED
#305880-0	110T	OPTION
#305882	112T	OPTION
#305884	114T	OPTION

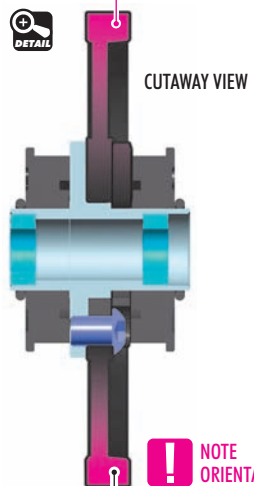


OPTION

#305578-0
FIXED PULLEY 20T
GRAPHITE (2)



DETAIL



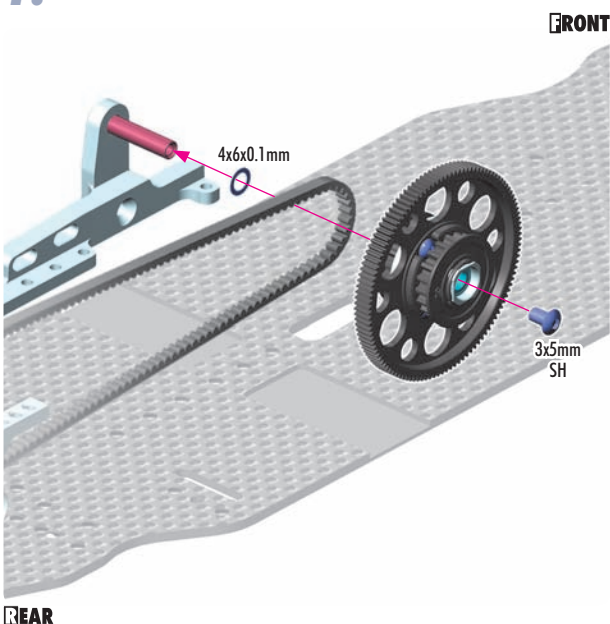
CUTAWAY VIEW

NOTE ORIENTATION

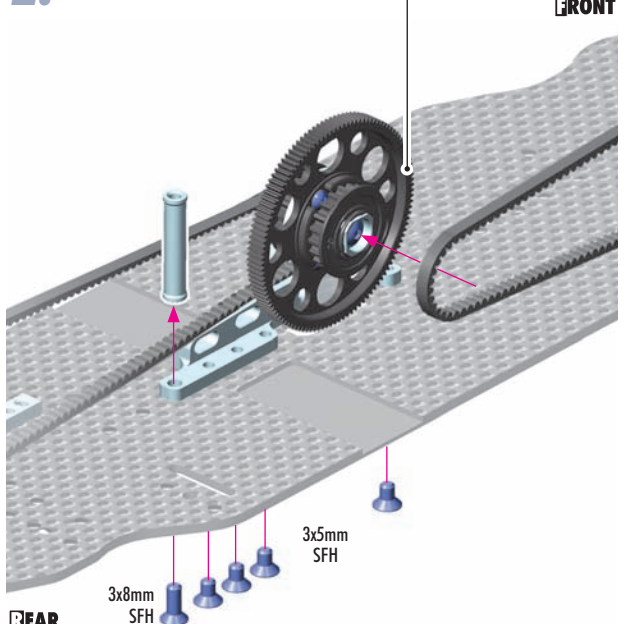


GEARING ADJUSTMENT

1.



2.



2. CENTRAL TRANSMISSION



902306
SH M3x6



DO NOT TIGHTEN FULLY



FRONT



DO NOT TIGHTEN FULLY



REAR



902306
SH M3x6

DO NOT TIGHTEN FULLY

FRONT

DO NOT TIGHTEN FULLY

REAR

FINISH TIGHTENING IN THIS ORDER.

1 Bulkhead screws (4)
FULLY TIGHTEN

2 Shock tower screws (4)
FULLY TIGHTEN

FRONT

FINISH TIGHTENING IN THIS ORDER.

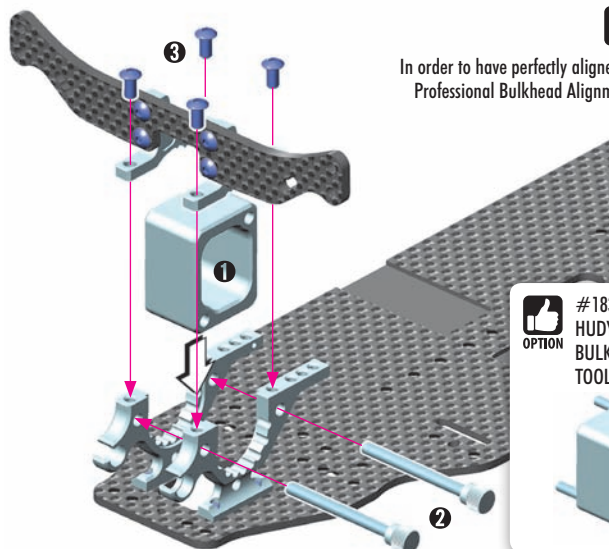
1 Bulkhead screws (4)
FULLY TIGHTEN

2 Shock tower screws (4)
FULLY TIGHTEN

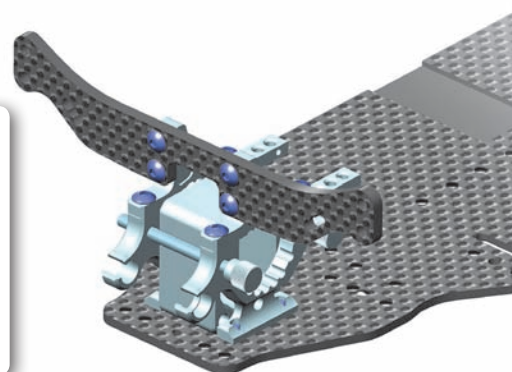
REAR

TIP

In order to have perfectly aligned bulkheads, we suggest to use Hudy Professional Bulkhead Alignment tool. Please follow these steps:



#183001
HUDY PROFESSIONAL
BULKHEAD ALIGNMENT
TOOL 17MM



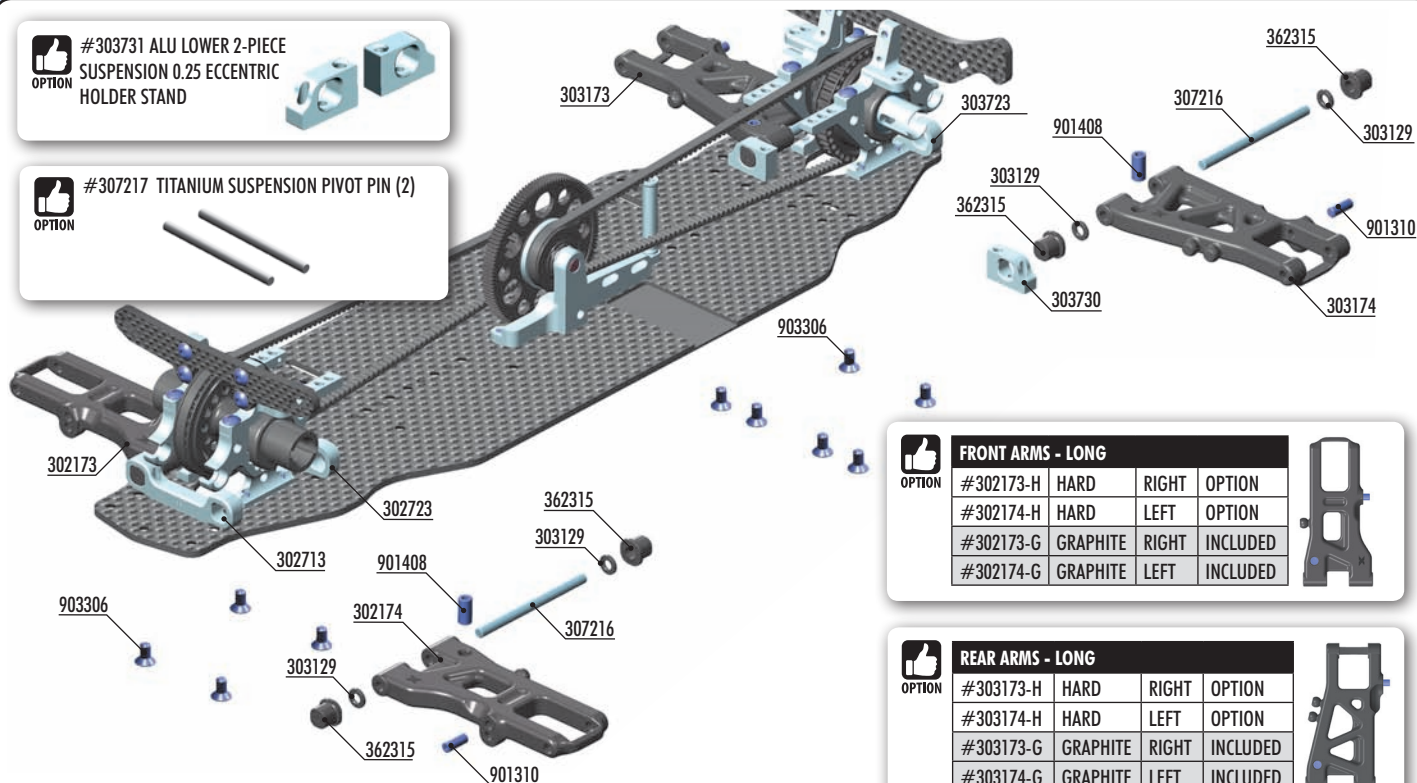
3. FRONT & REAR SUSPENSION



#303731 ALU LOWER 2-PIECE
SUSPENSION 0.25 ECCENTRIC
HOLDER STAND



#307217 TITANIUM SUSPENSION PIVOT PIN (2)



FRONT ARMS - LONG

#302173-H	HARD	RIGHT	OPTION
#302174-H	HARD	LEFT	OPTION
#302173-G	GRAPHITE	RIGHT	INCLUDED
#302174-G	GRAPHITE	LEFT	INCLUDED



REAR ARMS - LONG

#303173-H	HARD	RIGHT	OPTION
#303174-H	HARD	LEFT	OPTION
#303173-G	GRAPHITE	RIGHT	INCLUDED
#303174-G	GRAPHITE	LEFT	INCLUDED



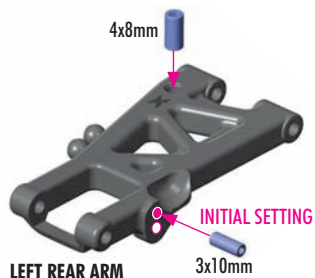
BAG

03

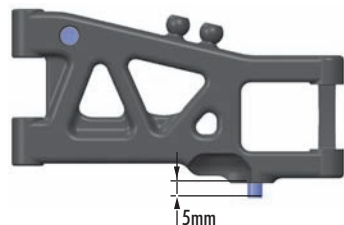
302173 FRONT SUSPENSION ARM LONG RIGHT - GRAPHITE
302174 FRONT SUSPENSION ARM LONG LEFT - GRAPHITE
302713 T4'20 ALU FRONT LOWER 1-PIECE SUSPENSION HOLDER - FRONT - FF
302723 T4'20 ALU FRONT LOWER 1-PIECE SUSPENSION HOLDER - REAR - FR
303129 COMPOSITE SET OF WHEELBASE SHIMS (3x1MM; 1x2MM) (2)
303173 REAR SUSPENSION ARM LONG RIGHT - GRAPHITE
303174 REAR SUSPENSION ARM LONG LEFT - GRAPHITE
303723 T4'20 ALU REAR LOWER 1-PIECE SUSPENSION HOLDER - REAR - RR

303730 T4'20 ALU REAR LOWER 2-PIECE SUSPENSION HOLDER - FRONT (1)
307216 SUSPENSION PIVOT PIN (2)
362315 ECCENTRIC BUSHING SET (2)
901310 HEX SCREW SB M3x10 (10)
901408 HEX SCREW SB M4x8 (10)
903306 HEX SCREW SFH M3x6 (10)

2x L=R REAR ARMS



LEFT REAR ARM



REAR LEFT ARM



REAR ARMS - LONG

#303173-H	HARD	RIGHT	OPTION
#303174-H	HARD	LEFT	OPTION
#303173-G	GRAPHITE	RIGHT	INCLUDED
#303174-G	GRAPHITE	LEFT	INCLUDED

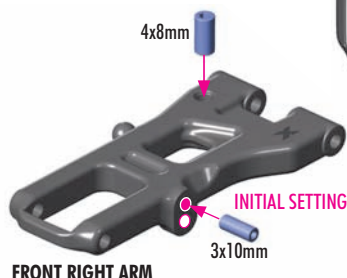


REAR RIGHT ARM

TOP

BOTTOM

2x L=R FRONT ARMS



FRONT RIGHT ARM



FRONT RIGHT ARM



FRONT ARMS - LONG

#302173-H	HARD	RIGHT	OPTION
#302174-H	HARD	LEFT	OPTION
#302173-G	GRAPHITE	RIGHT	INCLUDED
#302174-G	GRAPHITE	LEFT	INCLUDED



FRONT LEFT ARM

TOP

BOTTOM

3. FRONT & REAR SUSPENSION

IO

303129
SHIM 3x6x1



903306
SFH M3x6

REAR SUSPENSION



It is extremely important that the arms move freely on the pivot pins. If they do not, use the Arm Reamer (3.0mm) to slightly resize the holes in the arms.

#107633 HUDY Arm Reamer 3.0mm



#303731 ALU LOWER 2-PIECE
SUSPENSION 0.25 ECCENTRIC
HOLDER STAND

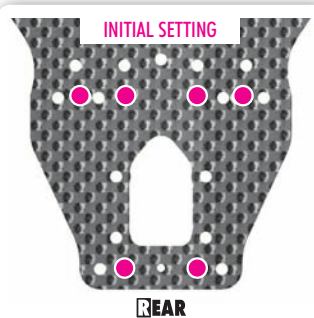


NOTE ORIENTATION ! L=R



COMPOSITE ECCENTRIC
BUSHINGS
INITIAL
SETTING

NOTE ORIENTATION !



INITIAL SETTING

REAR



COMPOSITE ECCENTRIC
BUSHINGS
Do not use INNER positions. ● Available positions

NOTE ORIENTATION !

RIGHT

Marked
"RR"



COMPOSITE ECCENTRIC
BUSHINGS
INITIAL
SETTING



#307217
TITANIUM SUSPENSION
PIVOT PIN (2)



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

FRONT SUSPENSION

FRONT

Marked
"FR"

NOTE ORIENTATION !



903306
SFH M3x6

3. FRONT & REAR SUSPENSION

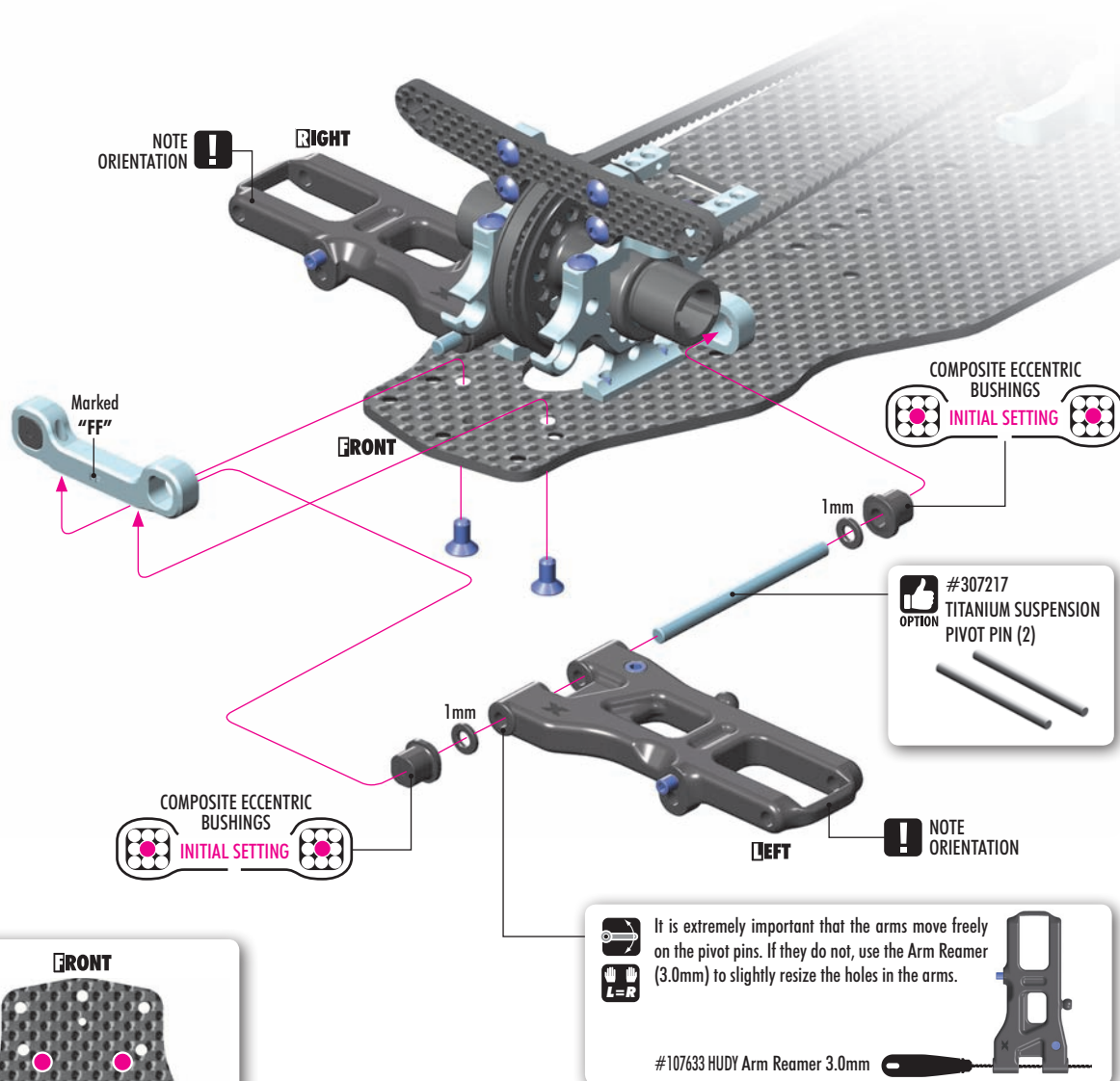
10

303129
SHIM 3x6x1

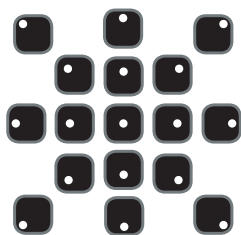


903306
SFH M3x6

FRONT SUSPENSION



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 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.



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

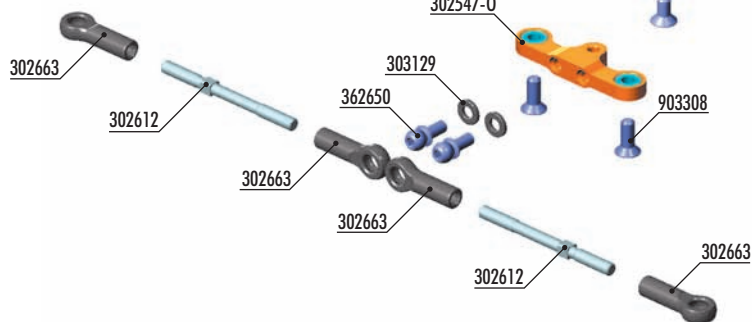
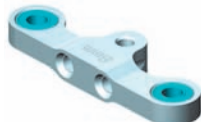
4. STEERING



#301061
T4'20 GRAPHITE UPPER DECK 1.6MM



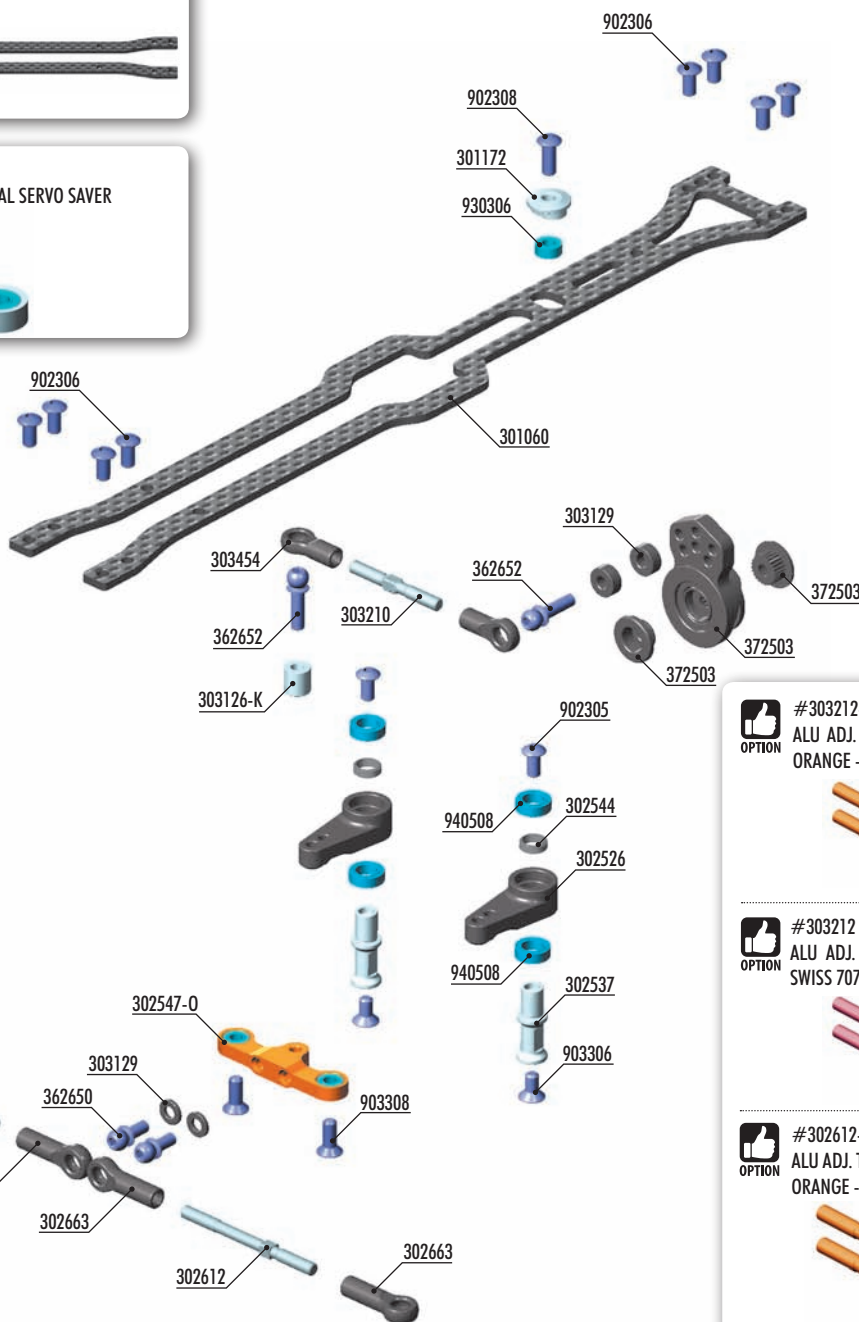
#302548
ALU STEERING PLATE 8MM FOR DUAL SERVO SAVER



#302525
ALU DUAL-SERVO SAVER ARM



#303071
BELT TENSIONER



#303212-0
ALU ADJ. TURNBUCKLE L/R 26mm -
ORANGE - SWISS 7075 T6 (2)



#303212
ALU ADJ. TURNBUCKLE L/R 26mm -
SWISS 7075 T6 (2)



#302612-0
ALU ADJ. TURNBUCKLE M3 L/R 39mm
ORANGE - SWISS 7075 T6 (2)

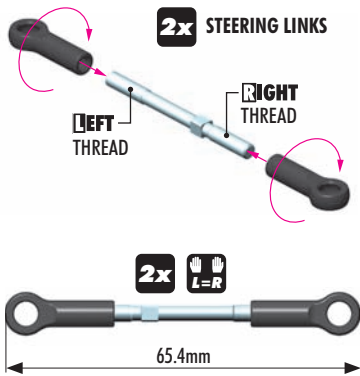


#302610
ADJ. TURNBUCKLE L/R 40mm
HUDY SPRING STEEL™ (2)

**BAG**

301060	T4*20 GRAPHITE UPPER DECK 2.0MM
301172	ALU UPPER DECK COLLAR FOR FLEX ELIMINATION
302526	COMPOSITE DUAL SERVO SAVER ARM
302537	T4*20 ALU STEERING POST FOR DUAL SERVO SAVER (2)
302544	ALU SHIM FOR RADIAL PLAY ADJUSTMENT OF STEERING ARM (2)
302547-O	T4 ALU STEERING PLATE 8.5MM FOR DUAL-SERVO SAVER - ORANGE
302612	ALU ADJ. TURNBUCKLE M3 L/R 39 MM - SWISS 7075 T6 (2)
302663	COMPOSITE BALL JOINT 5 MM - OPEN - V2 (8)
303126-K	ALU SHIM 3x6x5.0MM - BLACK (10)
303129	COMPOSITE SET OF SHIMS (3x1MM; 1x2MM) (2)
303210	REAR TURNBUCKLE L/R 26 MM - HUDY SPRING STEEL (2)
303454	BALL JOINT 4.9MM - OPEN (4)

362650	BALL END 4.9MM WITH THREAD 6MM (2)
362652	BALL END 4.9MM WITH THREAD 10MM (2)
372503	COMPOSITE SERVO SAVER - X-STIFF - SET - V2
902305	HEX SCREW SH M3x5 (10)
902306	HEX SCREW SH M3x6 (10)
902308	HEX SCREW SH M3x8 (10)
903306	HEX SCREW SFH M3x6 (10)
903308	HEX SCREW SFH M3x8 (10)
930306	BALL-BEARING 3x6x2.5 STEEL-SEALED - OILED (2)
940508	BALL-BEARING 5x8x2.5 RUBBER-SEALED - OILED (2)



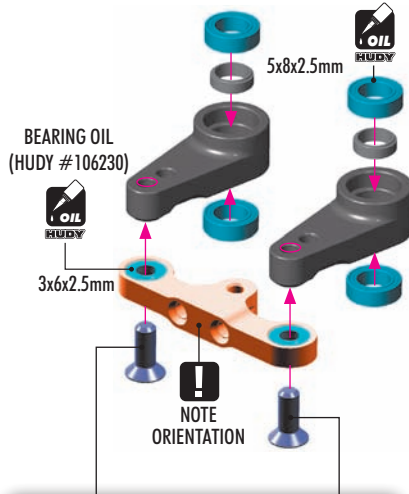
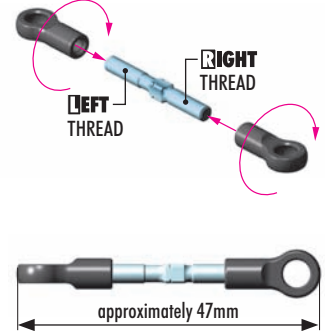
OPTION #302612-0
ALU ADJ. TURNBUCKLE M3
L/R 39mm ORANGE - SWISS
7075 T6 (2)



OPTION #302610
ADJ. TURNBUCKLE L/R 40mm
HUDY SPRING STEEL (2)



SERVO LINK
Adjust servo link to fit your servo



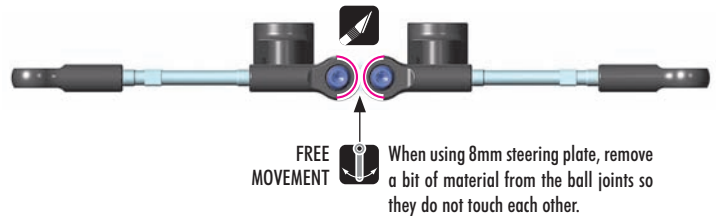
Tighten the screws gently but fully, and then loosen 1/3 turn so the composite dual-servo saver moves freely.

- 1 tighten fully
- 2 loosen 1/3 ccw
- 3 check free movement



OPTION #302548
ALU STEERING PLATE 8MM FOR DUAL SERVO SAVER

Optional 8mm steering plate reduces steering response and increases cornering speed. Recommended for big open tracks, but also on technical tracks with many chicanes as it decreases over-steering and increases stability of the car in chicanes.

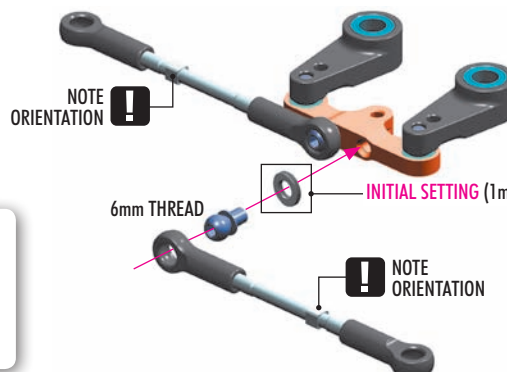


OPTION #302525
ALU DUAL SERVO SAVER ARM

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

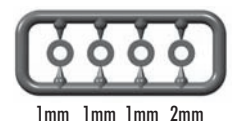


TIP Install the pivot balls with Professional Multi Tool (HUDY #183011)



TIP

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



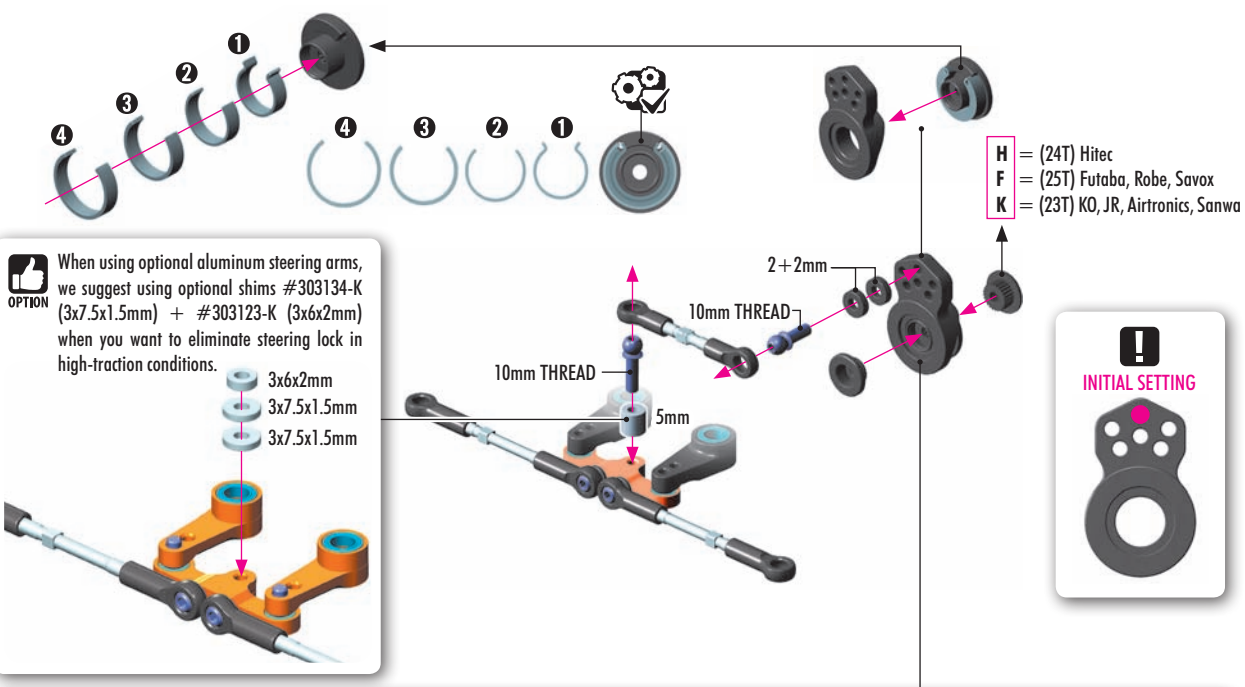
4. STEERING

IO

303129
SHIM 3x6x2



303126-K
SHIM 3x6x5



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

OPTION

ALU SERVO HORNS - OFFSET

#293491	KO, Sanwa - 23T
#293492	Hitec - 24T
#293493	Futaba - 25T

CLAMP ALU SERVO HORNS - OFFSET

#293401	KO, Sanwa - 23T
#293402	Hitec - 24T
#293403	Futaba - 25T

OPTION

HUDY ALU SERVO HORNS

#293497	KO, Sanwa - 23T
#293498	Hitec - 24T
#293499	Futaba - 25T

HUDY CLAMP ALU SERVO HORNS

#293404	KO, Sanwa - 23T
#293405	Hitec - 24T
#293406	Futaba - 25T

OPTION

HUDY ALU SERVO HORNS

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

HUDY CLAMP ALU SERVO HORNS

#293407	KO, Sanwa - 23T
#293408	Hitec - 24T
#293409	Futaba - 25T

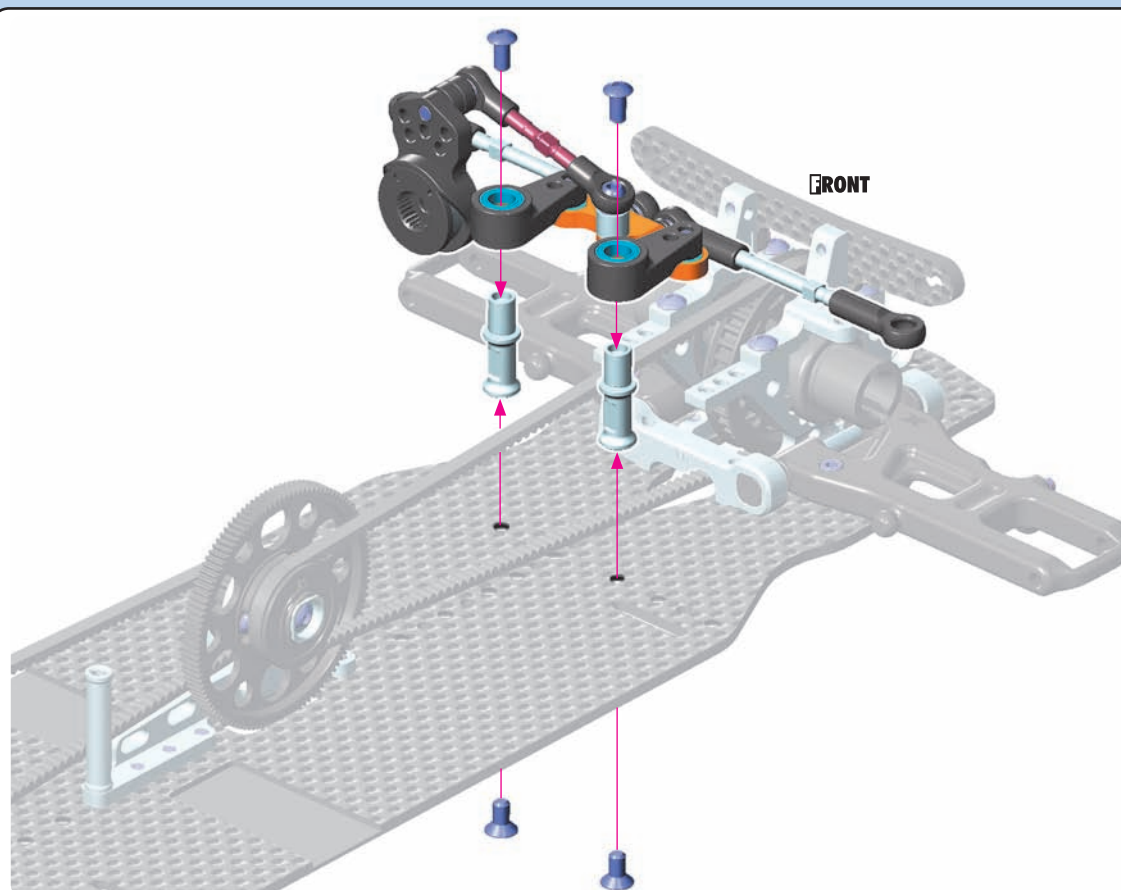
! IMPORTANT!
When an aluminum horn is used, the steering servo saver is not used. This increases the risk of breaking the servo in serious crashes.

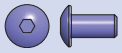


902305
SH M3x5

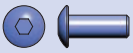


903306
SFH M3x6





902306
SH M3x6



902308
SH M3x8



930306
BB 3x6x2.5

TOP DECK FLEX SETTINGS

The new feature of the top deck is the flex setting adjustment.
There are three different flex setting alternatives.

SOFT



Post is not connected to the top deck. This allows maximum flex setting and provides maximum steering characteristics. However, the car is less stable on-power.

MEDIUM

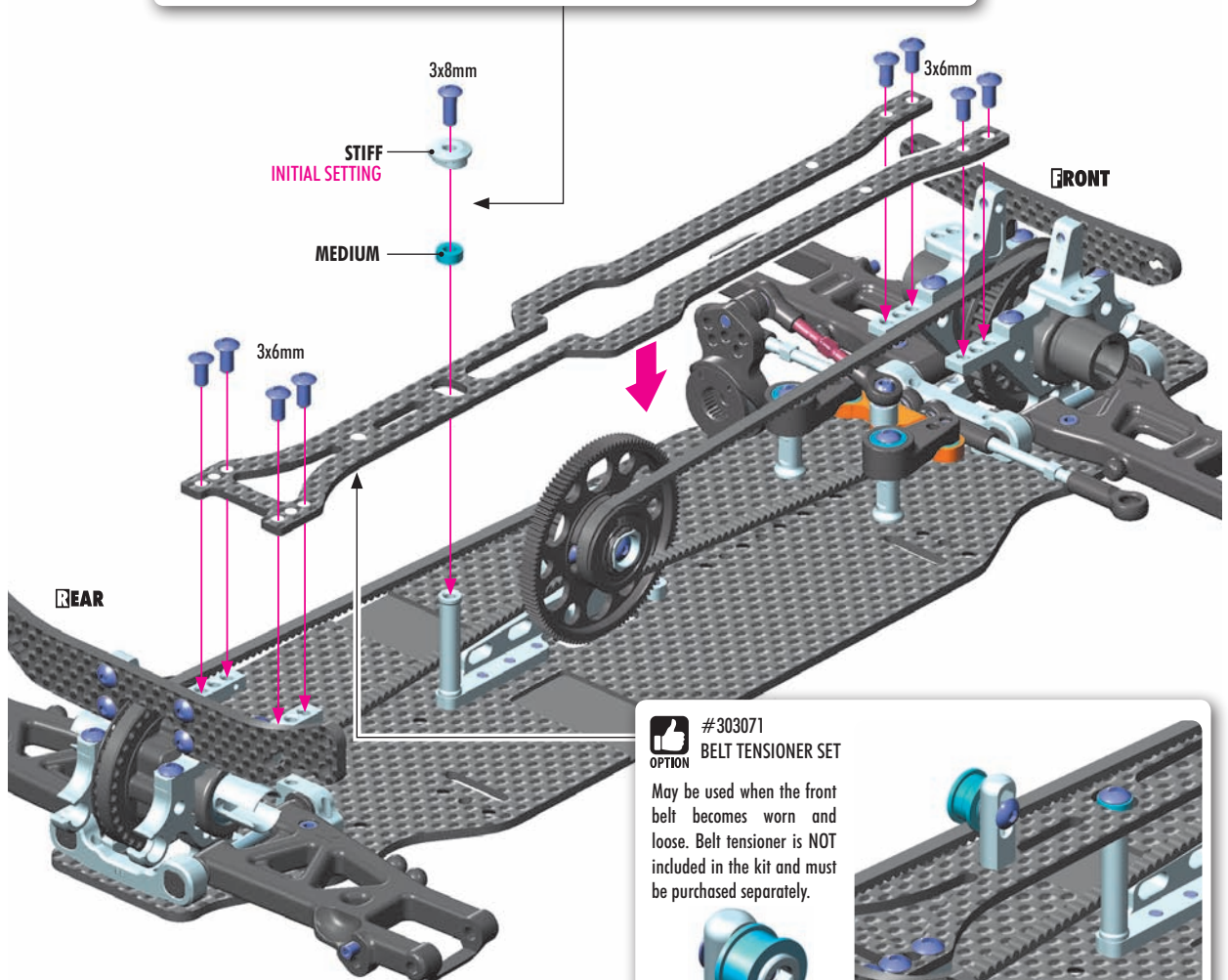


Post is connected to the top deck via ball bearing. This allows the top deck to flex to the sides but not to the front/rear. This setting eliminates a bit of steering but improves stability.

STIFF

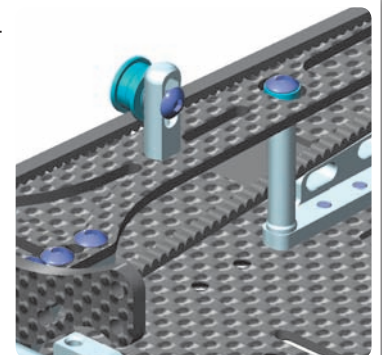


Post is connected to the top deck via aluminum bushing. This setting provides maximum stability as it stiffens the entire car and eliminates flex to sides and front/rear.



#303071 BELT TENSIONER SET OPTION

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



#301061 T4'20 GRAPHITE TOP DECK 1.6MM OPTION



We recommend using optional 1.6mm top deck for super-low traction conditions or in combination with aluminum chassis as it provides more overall traction and steering.



SET-UP BOOK
CHASSIS FLEX SETTING
TOP DECK SETTING

5. FRONT & REAR TRANSMISSION



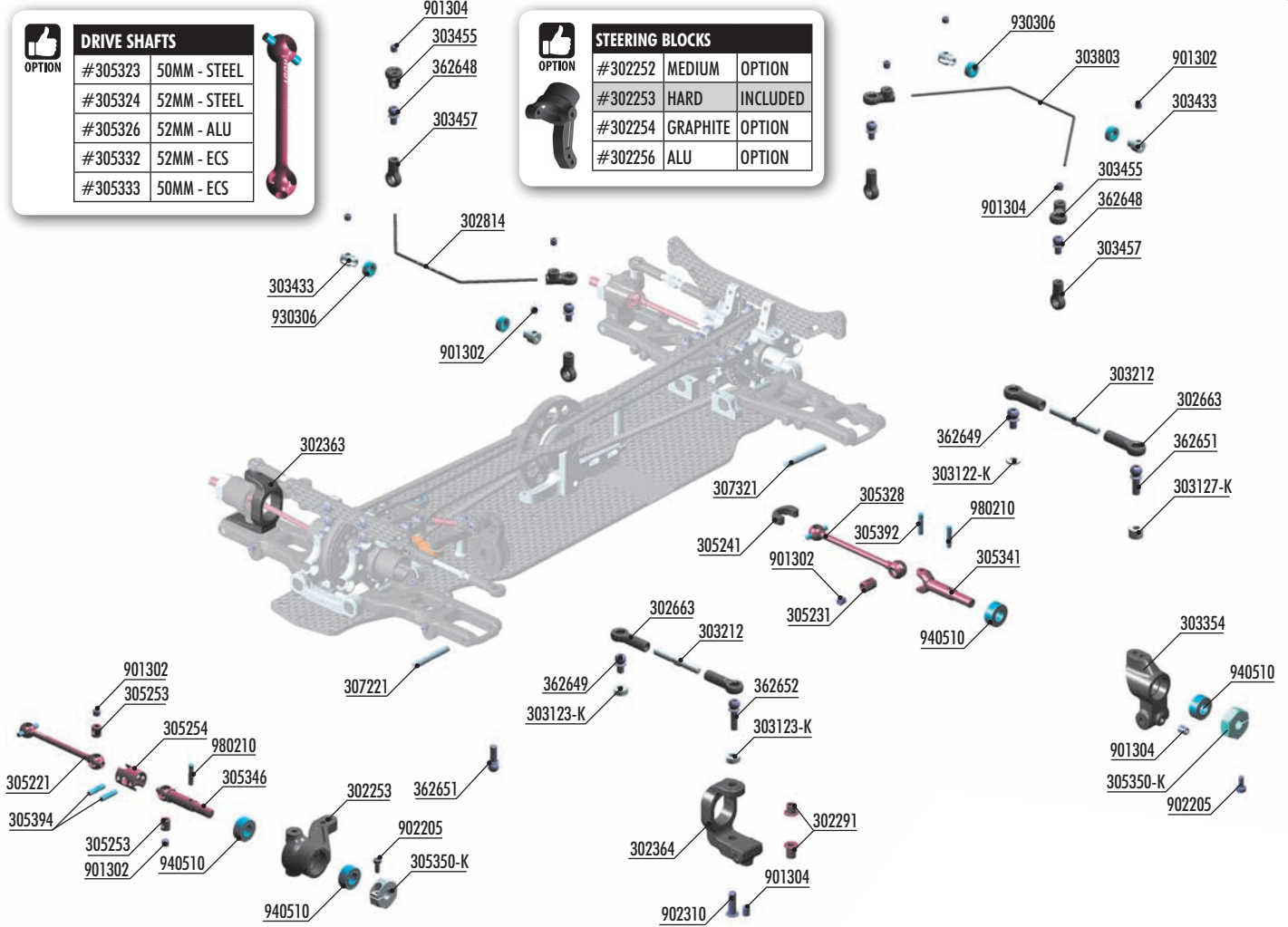
DRIVE SHAFTS

#305323	50MM - STEEL
#305324	52MM - STEEL
#305326	52MM - ALU
#305332	52MM - ECS
#305333	50MM - ECS



STEERING BLOCKS

#302252	MEDIUM	OPTION
#302253	HARD	INCLUDED
#302254	GRAPHITE	OPTION
#302256	ALU	OPTION



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



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



#303212-0
ALU TURNBUCKLE L/R 26mm
ORANGE - SWISS 7075 T6 (2)



#303210
TURNBUCKLE M3 L/R 26mm
HUDY SPRING STEEL™ (2)



#309002
SET OF CERAMIC
BALL-BEARINGS (14)



UPRIGHTS

OPTION	#303351	1° - R	MEDIUM	(2-HOLE)
	#303352	0° - R/L	MEDIUM	(2-HOLE)
	#303353	1° - R	HARD	(2-HOLE)
INCLUDED	#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)



BAG

05

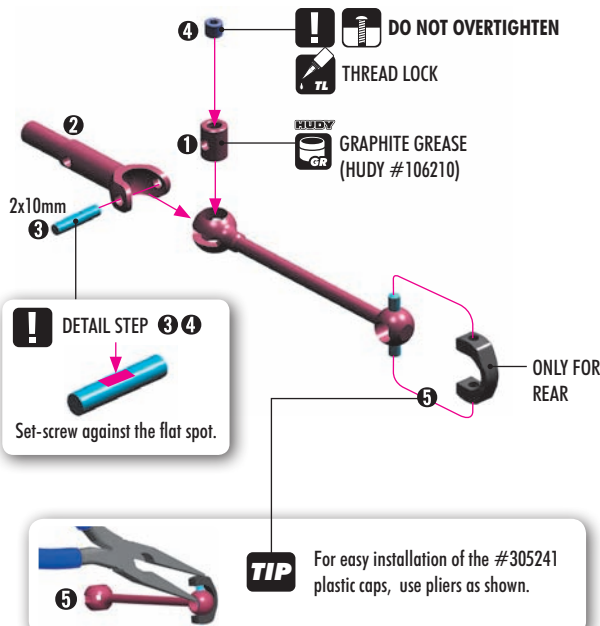
302253 COMPOSITE STEERING BLOCK - HARD
302291 STEEL STEERING BUSHING (2+2)
302363 COMPOSITE C-HUB RIGHT - 4° DEG. - MEDIUM - V2
302364 COMPOSITE C-HUB LEFT - 4° DEG. - MEDIUM - V2
302663 COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8)
302814 T4'20 ANTI-ROLL BAR FOR BALL-BEARINGS - FRONT 1.4 MM
303122-K ALU SHIM 3x6x1.0MM - BLACK (10)
303123-K ALU SHIM 3x6x2.0MM - BLACK (10)
303127-K ALU SHIM 3x6x4.0MM - BLACK (10)
303212 ALU ADJ. TURNBUCKLE M3 L/R 26 MM - SWISS 7075 T6 (2)
303354 COMPOSITE UPRIGHT 0° OUTBOARD TOE-IN - HARD
303433 ALU ANTI-ROLL BAR BUSHING - 6MM (2)
303455 COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9 MM (4)
303457 BALL JOINT 4.9MM - EXTRA SHORT OPEN (4)
303803 ANTI-ROLL BAR FOR BALL BEARINGS - REAR 1.3 MM
305231 DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
305241 DRIVE SHAFT REPLACEMENT CAP 3.5 MM (4)
305221 ECS (ES) DRIVE SHAFT 51MM FOR 2MM PIN - HUDY SPRING STEEL™ (1)
305253 ECS DRIVE SHAFT COUPLING FOR 2MM PIN - HUDY SPRING STEEL™
305254 ECS (ES) DRIVE SHAFT CASE FOR 2MM PIN - HUDY SPRING STEEL™
305328 ALU DRIVE SHAFT SWISS 7075 T6 - HARDCOATED - 50MM

305334 ECS ES (ES) DRIVE SHAFT 51MM - HUDY SPRING STEEL™ - SET
305341 DRIVE AXLE - LIGHTWEIGHT - HUDY SPRING STEEL™
305346 ECS DRIVE AXLE FOR 2MM PIN - HUDY SPRING STEEL™
305350-K ALU WHEEL HUB - BLACK (2)
305392 DRIVE SHAFT PIN 2 x 10 WITH FLAT SPOT (2)
305394 ECS DRIVE SHAFT PIN 2 x 9 WITH FLAT SPOT (2)
307221 FRONT ARM PIVOT PIN (2)
307321 REAR ARM PIVOT PIN (2)
362648 BALL END 4.9MM WITH THREAD 4MM (2)
362649 BALL END 4.9MM WITH THREAD 5MM (2)
362651 BALL END 4.9MM WITH THREAD 8MM (2)
362652 BALL END 4.9MM WITH THREAD 10MM (2)

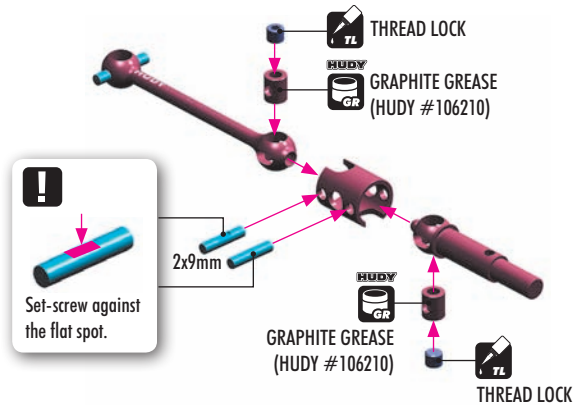
901302 HEX SCREW SB M3x2.5 (10)
901304 HEX SCREW SB M3x4 (10)
902205 HEX SCREW SH M2x5 (10)
902310 HEX SCREW SH M3x10 (10)
930306 BALL-BEARING 3x6x2.5 STEEL-SEALED - OILED (2)
940510 BALL-BEARING 5x10x4 RUBBER SEALED - OIL (2)
980210 PIN 2x10 (10)

5. FRONT & REAR TRANSMISSION

2x REAR TRANSMISSION



2x FRONT TRANSMISSION



ECS DRIVE SHAFTS

ECS drive shafts are available in 51mm length in kit, or optional 50mm & 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.



DRIVE SHAFTS

#305323	50MM - STEEL
#305324	52MM - STEEL
#305326	52MM - ALU
#305332	52MM - ECS
#305333	50MM - ECS



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).

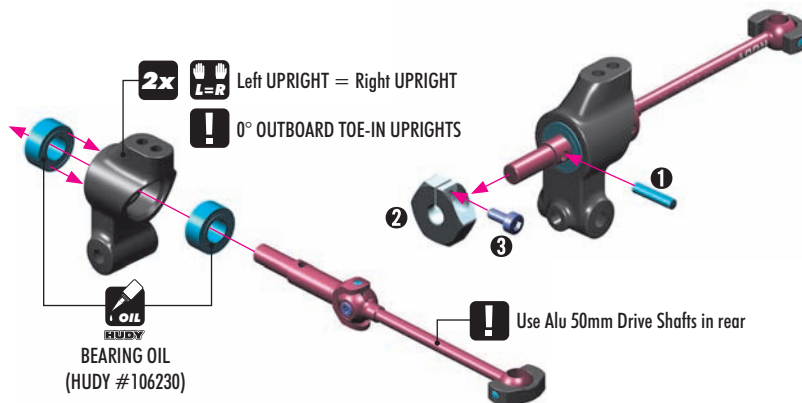
52mm shafts are recommended for **carpet high-traction** tracks.

51mm shafts are recommended for **carpet** tracks and **large asphalt** tracks.

50mm shafts are recommended for **low-traction** or **tight asphalt** tracks.

The new 51mm drive shafts which are included in the kit are the best compromise between 50 and 52mm lengths.

2x REAR TRANSMISSION



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



902205
SH M2x5



940510
BB 5x10x4



980210
P 2x10

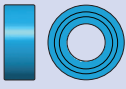


REAR TOE-IN
TRACK-WIDTH

5. FRONT & REAR TRANSMISSION



902205
SH M2x5



940510
BB 5x10x4

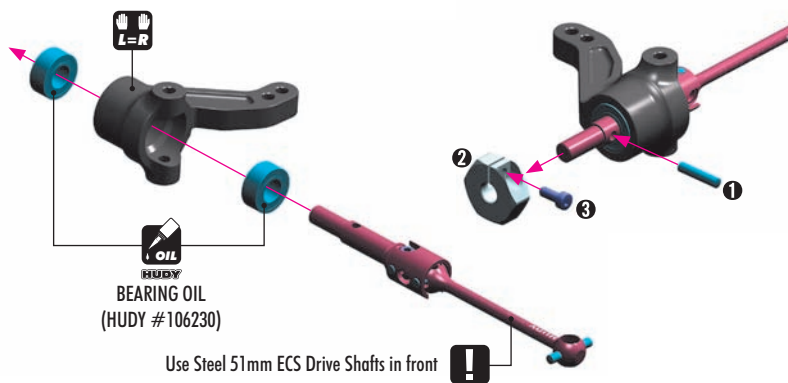


980210
P 2x10



REAR TOE-IN
TRACK-WIDTH

2x FRONT TRANSMISSION



ALU OFFSET WHEEL HUBS

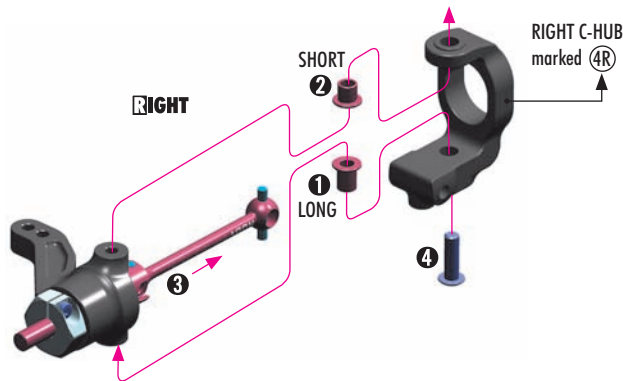
OPTION	Part #	Offset	Material	Status
	#305350-K	0mm	ALU	INCLUDED
	#305351	-0.75mm	ALU	OPTION
	#305352	+0.75mm	ALU	OPTION
	#305353	+1.5mm	ALU	OPTION



STEERING BLOCKS

OPTION	Part #	Material	Status
	#302252	MEDIUM	OPTION
	#302253	HARD	INCLUDED
	#302254	GRAPHITE	OPTION
	#302256	ALU	OPTION

2x FRONT TRANSMISSION



C-HUBS FRONT TRANSMISSION

OPTION	Part #	Angle	Material	Status
	#302335	2° - RIGHT	ALU	OPTION
	#302336	2° - LEFT	ALU	OPTION
	#302337	4° - RIGHT	ALU	OPTION
	#302338	4° - LEFT	ALU	OPTION
	#302339	6° - RIGHT	ALU	OPTION
	#302340	6° - LEFT	ALU	OPTION
	#302361	2° - RIGHT	MEDIUM	OPTION
	#302362	2° - LEFT	MEDIUM	OPTION
	#302363	4° - RIGHT	MEDIUM	INCLUDED
	#302364	4° - LEFT	MEDIUM	INCLUDED
	#302365	6° - RIGHT	MEDIUM	OPTION
	#302366	6° - LEFT	MEDIUM	OPTION
	#302371	2° - RIGHT	HARD	OPTION
	#302372	2° - LEFT	HARD	OPTION
	#302373	4° - RIGHT	HARD	OPTION
	#302374	4° - LEFT	HARD	OPTION
	#302375	6° - RIGHT	HARD	OPTION
	#302376	6° - LEFT	HARD	OPTION
	#302383	4° - RIGHT	GRAPHITE	OPTION
	#302384	4° - LEFT	GRAPHITE	OPTION

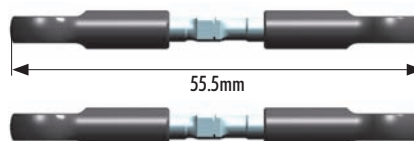
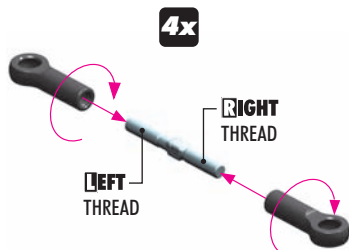


CASTER ADJUSTMENT

FRONT



FRONT LEFT = FRONT RIGHT



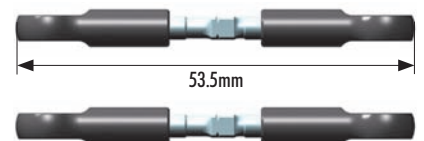
#303212-0
ALU TURNBUCKLE L/R 26mm
ORANGE - SWISS 7075 T6 (2)



REAR



REAR LEFT = REAR RIGHT



#303210
TURNBUCKLE M3 L/R 26mm
HUDY SPRING STEEL™ (2)



CAMBER ADJUSTMENT

5. FRONT & REAR TRANSMISSION



303122-K
SHIM 3x6x1



303127-K
SHIM 3x6x4



901304
SB M3x4



REAR SUSPENSION



The information about the optional Active rear suspension is at the end of the manual.



1-HOLE REAR UPRIGHTS (See page 21)

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.

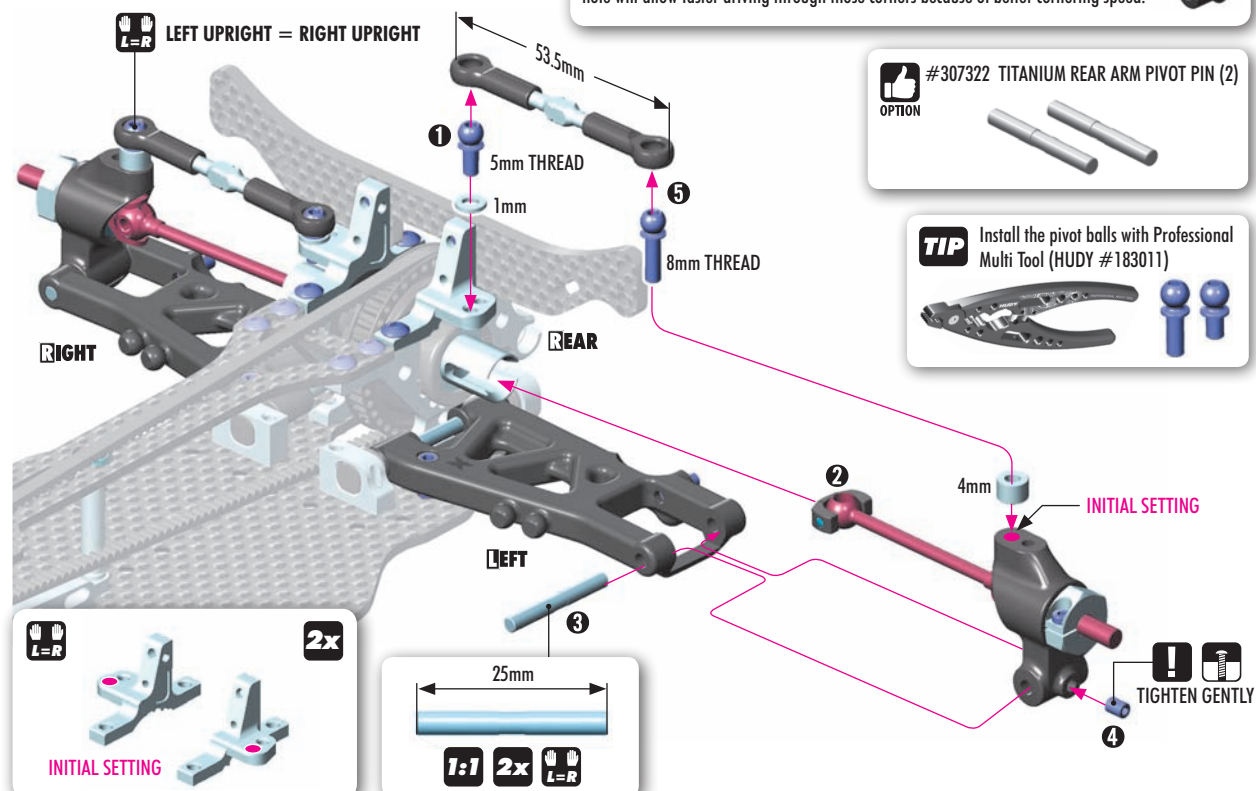


#307322 TITANIUM REAR ARM PIVOT PIN (2)



TIP

Install the pivot balls with Professional Multi Tool (HUDY #183011)



ROLL CENTER
CAMBER



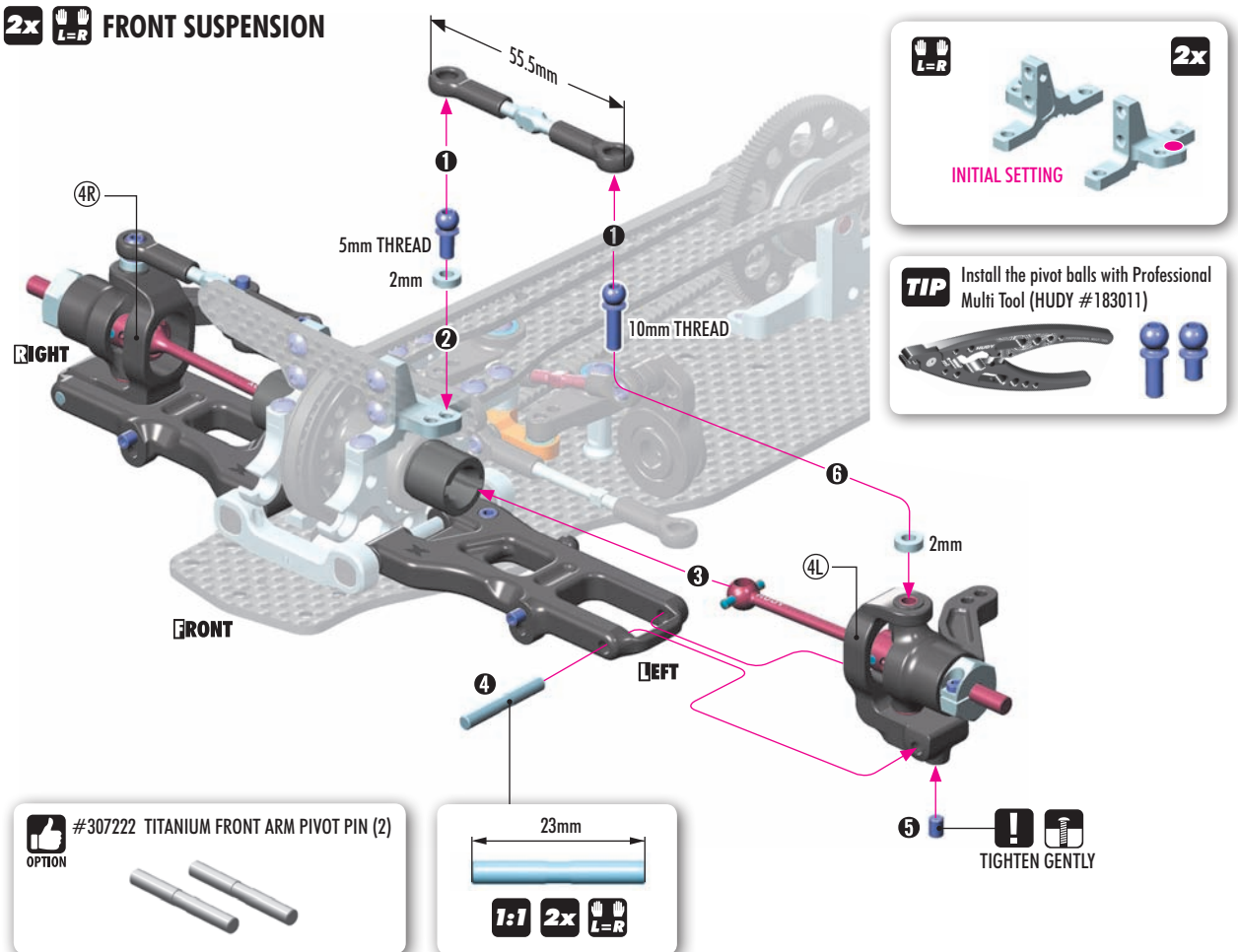
FRONT SUSPENSION



INITIAL SETTING

TIP

Install the pivot balls with Professional Multi Tool (HUDY #183011)



ROLL-CENTER

5. FRONT & REAR TRANSMISSION

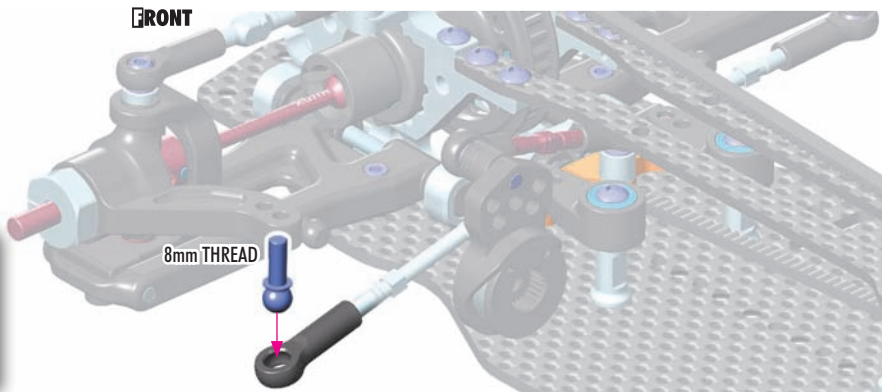
2x 

FRONT

TIP Install the pivot balls with Professional Multi Tool (HUDY #183011)



8mm THREAD



 L=R

FRONT TRANSMISSION

INITIAL SETTING



FREE MOVEMENT 

FREE MOVEMENT 

FRONT

RIGHT

LEFT

CARPET - none shim
ASPHALT - 2mm shim

TIP RECOMMENDED BUMPSTEER SETTINGS:

CARPET - none shim
ASPHALT - 2mm thick shim

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.

SET-UP BOOK

ACKERMANN
BUMPSTEER

4x



4mm THREAD

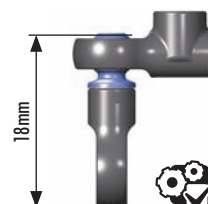
TIP Install the pivot balls with Professional Multi Tool (HUDY #183011)



4x



18mm



2x

BEARING OIL
(HUDY #106230)

 OPTION

REAR ANTI-ROLL BARS

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

INCLUDED

 OPTION

FRONT ANTI-ROLL BARS

#302812	FRONT 1.2mm
#302813	FRONT 1.3mm
#302814	FRONT 1.4mm
#302815	FRONT 1.5mm

INCLUDED

BEARING OIL
(HUDY #106230)

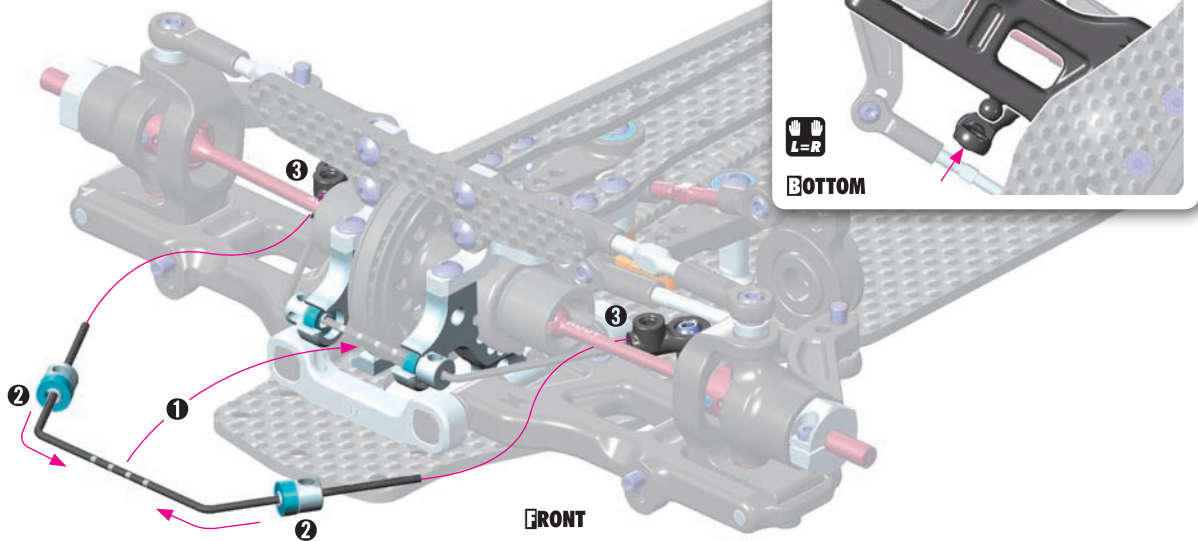


930306
BB 3x6x2.5

XRAY

5. FRONT & REAR TRANSMISSION

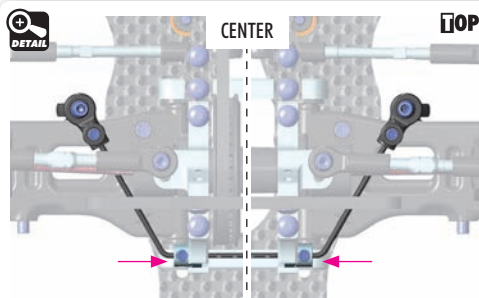
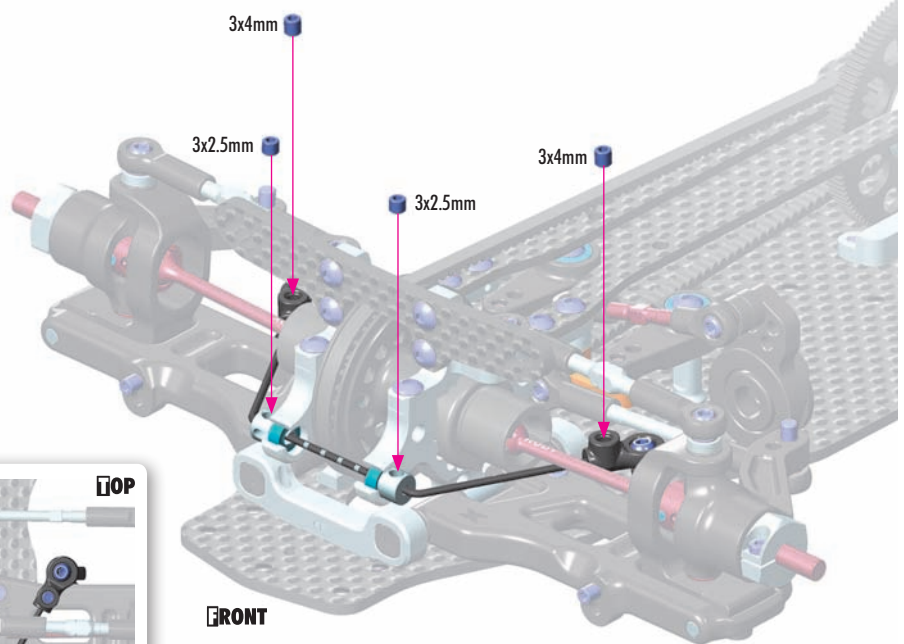
! FRONT ANTI-ROLL BAR



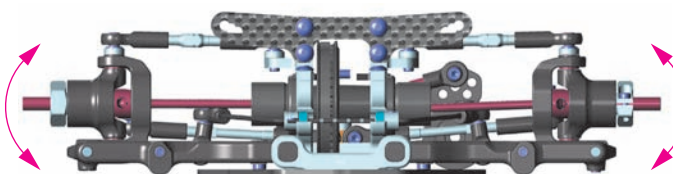
! FRONT ANTI-ROLL BAR

901302
SB M3x2.5

901304
SB M3x4



Set the bar into the center, remove the play in the bushings, and tighten the set-screws fully.



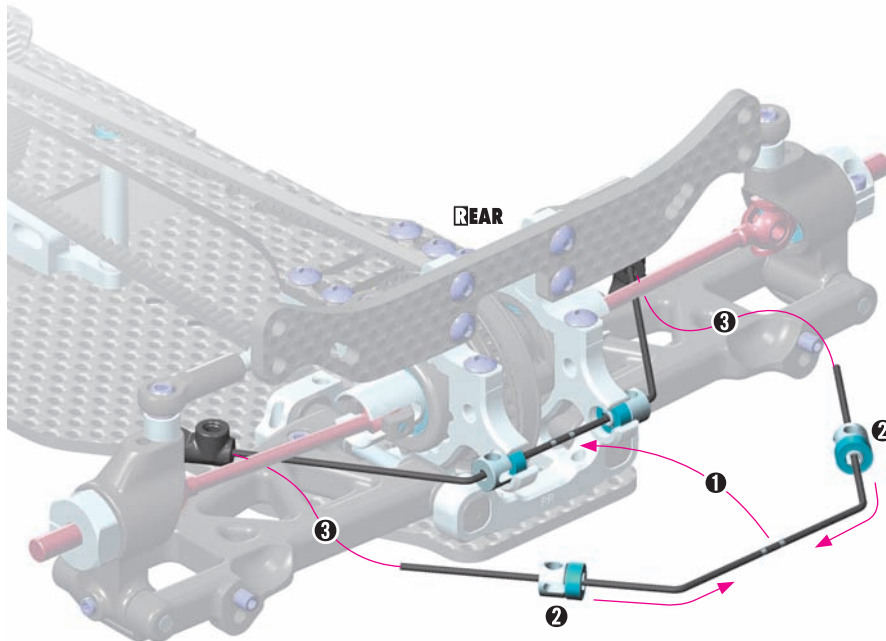
When the bars are set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same and that the bar wire is flat.



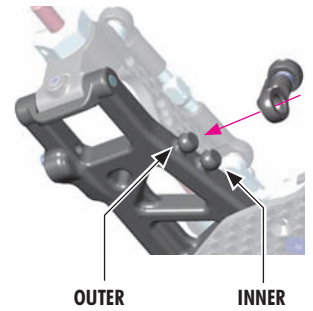
If both sides still do not move at the same time, adjust the length of the bar holders.

5. FRONT & REAR TRANSMISSION

! REAR ANTI-ROLL BAR



2x **L=R** INITIAL POSITION



ANTI-ROLL BAR POSITION

INITIAL SETTING = OUTER BALL

Use the **OUTER** ball on medium-high traction tracks. The car will roll less which will make it easier to drive with more cornering speed.

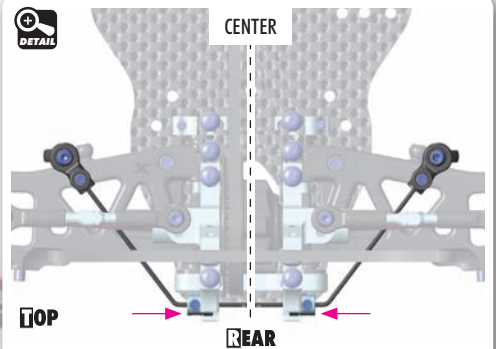
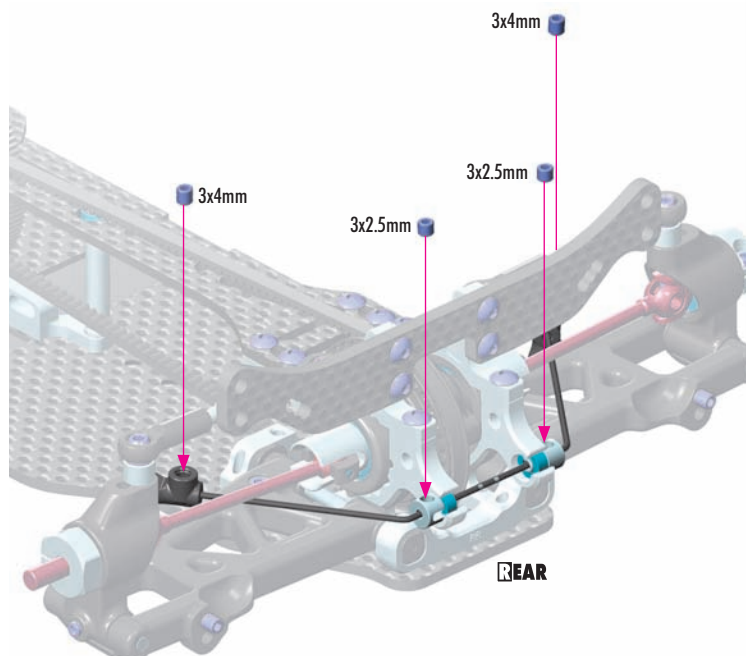
Use the **INNER** ball on low-traction tracks (mainly low-traction carpet tracks). The car will have more traction & more steering, but will be more difficult to drive because the car will roll more.

SET-UP BOOK
ANTI-ROLL BARS

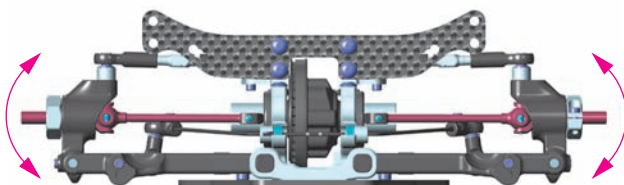
901302
SB M3x2.5

901304
SB M3x4

! REAR ANTI-ROLL BAR



Set the bar into the center, remove the play in the bushings, and tighten the set-screws fully.



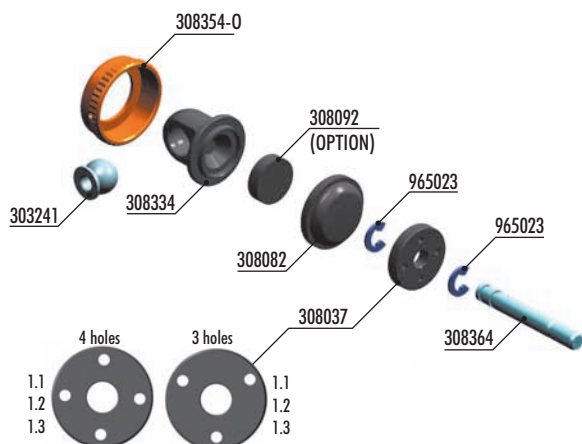
When the bars are set, verify that both sides move at the same time. If they do, the bars are set up correctly. If not, make sure that both downstops are the same and that the bar wire is flat.



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

6. SHOCK ABSORBERS

4x



#104002

HUDY AIR VAC – VACUUM PUMP - ON-ROAD



XRAY SPRINGS

#308263	C = 2.3-2.6	OPTION
#308264	C = 2.5-2.8	OPTION
#308274	C = 2.3	OPTION
#308275	C = 2.5	INCLUDED
#308286	C = 2.6	OPTION
#308276	C = 2.7	OPTION
#308288	C = 2.8	OPTION
#308277	C = 2.9	OPTION
#308290	C = 3.0	OPTION



#308308-K

ULP ALU SHOCK ABSORBER-SET - BLACK (2)



#308031-O

ALU XRAY SHOCK SPRING RETAINING COLLAR - ORANGE (4)



#308031-K

ALU XRAY SHOCK SPRING RETAINING COLLAR - BLACK (4)



#308029

ULP ALU PROGRESSIVE SHOCK SYSTEM - SET (2)

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



BAG

06

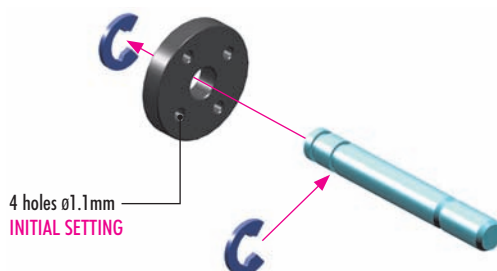
- 303241 BALL UNIVERSAL 5.8 MM HEX (4)
- 308037 COMPOSITE PISTONS 4-HOLE 1.0-1.2MM, 3-HOLE 1.0-1.2MM
- 308044-O ULP ALU SHOCK ADJUSTABLE NUT - ORANGE (2)
- 308082 T4 SHOCK ABSORBER MEMBRANE (4)
- 308092 T4 SHOCK FOAM INSERTS (4) (OPTION)
- 308308-O ULP ALU SHOCK ABSORBER-SET - ORANGE (2)
- 308316 SHOCK BALL JOINT - OPEN (4)
- 308324 ULP ALU SHOCK BODY (2)
- 308327-O ALU CAP FOR XRAY SHOCK BODY - ORANGE

- 308334 ULP COMPOSITE SHOCK PARTS
- 308354-O ULP ALU SHOCK CAP-NUT WITH VENT HOLE - ORANGE (2)
- 308364 T4 HARDENED SHOCK SHAFT FOR ALU SHOCKS (2)
- 308275 XRAY SPRING-SET C=2.5
- 965023 E-CLIP 2.3 (10)
- 970131 O-RING 13 x 1.0 (10)
- 972030 SILICONE O-RING 3 x 2 (10)



965023
C 23

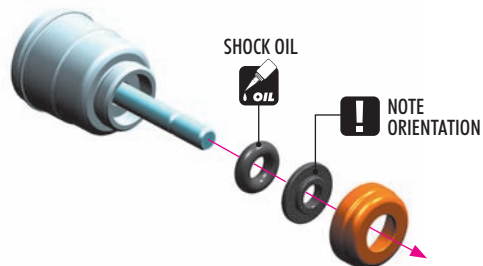
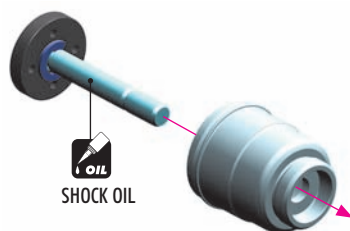
4x



6. SHOCK ABSORBERS

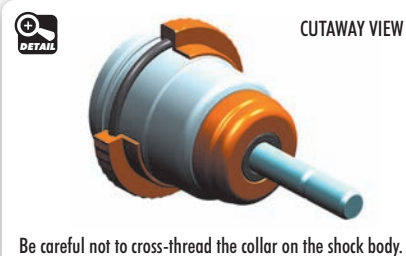
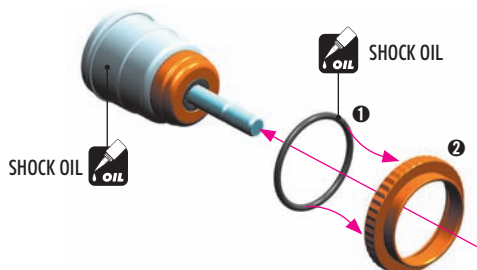
OIL
972030
0 3x2

4x



OIL
970131
0 13x1.0

4x

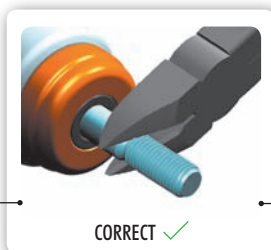


Be careful not to cross-thread the collar on the shock body.

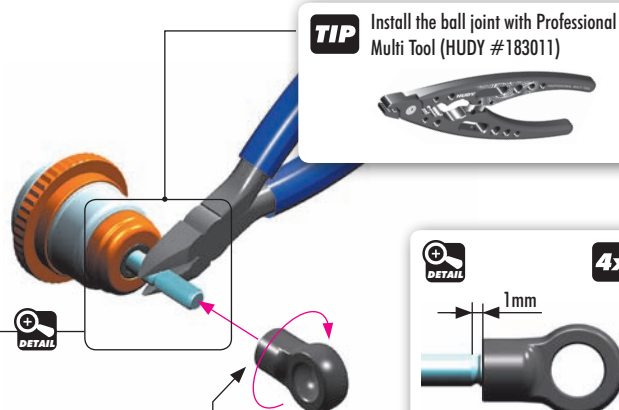
4x



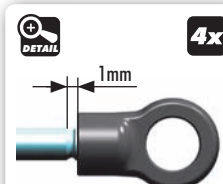
INCORRECT ✗



CORRECT ✓



TIP Install the ball joint with Professional Multi Tool (HUDY #183011)



INITIAL SETTING

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.

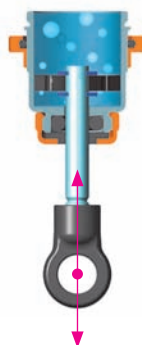
OIL 450cSt

SHOCK FILLING

4x



- 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.



TIP **OPTION** #104002 HUDY AIR VAC – VACUUM PUMP



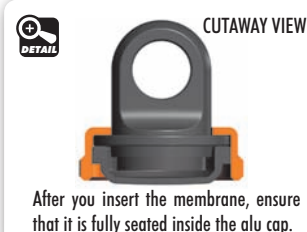
To make sure that all the air is removed from the shock oil, we recommend using the HUDY Air Vac.

SHOCK OILS (50ml)	
#106325	250cSt
#106330	300cSt
#106335	350cSt
#106340	400cSt
#106345	450cSt
#106350	500cSt
#106355	550cSt
#106360	600cSt
#106365	650cSt
#106370	700cSt
#106375	750cSt
#106380	800cSt

4x



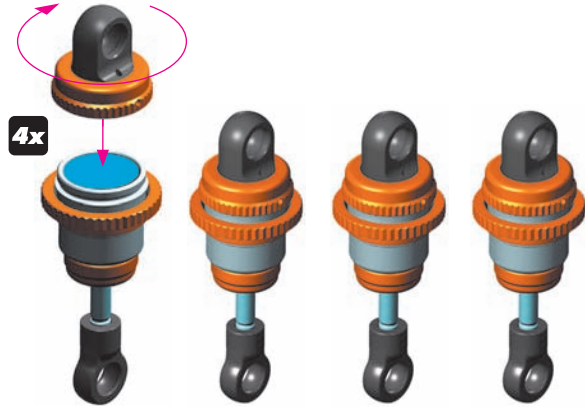
Foam insert (OPTION)



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

6. SHOCK ABSORBERS

- 1 When installing the shock cap assembly on the shock body, some oil will leak out... this is normal.
- 2 Tighten the cap and clean off any excess oil.
- 3 After the shock is assembled, the shock rod will push itself out of the shock body fairly quickly.
- 4 Follow the next procedure to adjust the rebound.



SET-UP BOOK

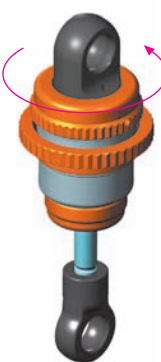
SHOCK DAMPING

4x

REBOUND ADJUSTMENT

RELEASE 2-3 turns

1

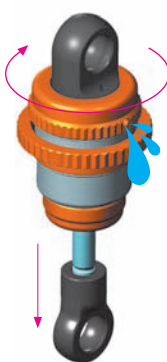


2



TIGHTEN FULLY

3

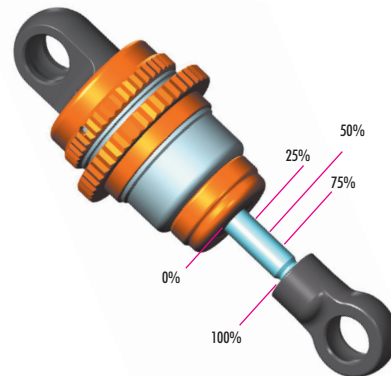


AFTER THE SHOCK IS ASSEMBLED YOU HAVE TO SET THE SHOCK REBOUND:

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

4x

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 steps 1 to 3 until the shock shaft will push out 75% of its length |
| 50% | rebound - repeat steps 1 to 3 until the shock shaft will push out 50% of its length |
| 25% | rebound - repeat steps 1 to 3 until the shock shaft will push out 25% of its length |
| 0% | rebound - repeat steps 1 to 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.

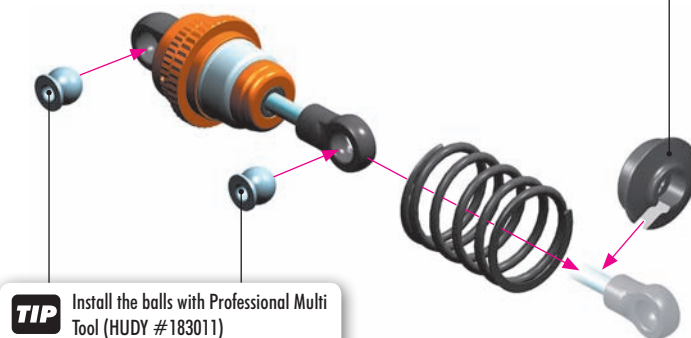
4x

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.



TIP Install the balls with Professional Multi Tool (HUDY #183011)



#308031-0

ALU XRAY SHOCK SPRING RETAINING COLLAR - ORANGE (4)



#308031-K

ALU XRAY SHOCK SPRING RETAINING COLLAR - BLACK (4)



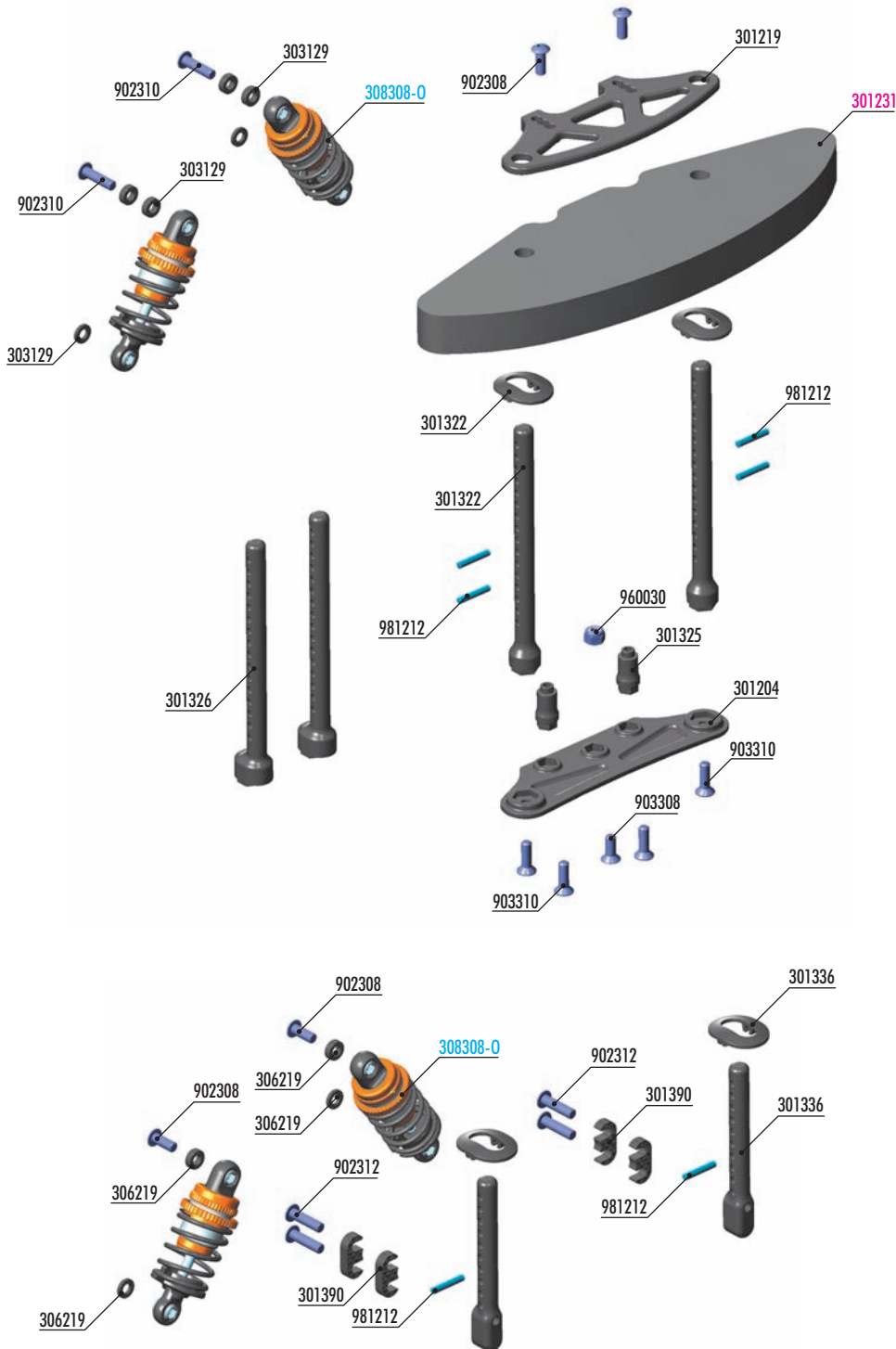
ASSEMBLY VIEW



SET-UP BOOK

SHOCK DAMPING
SPRING RATE SELECTION

7. FRONT & REAR ASSEMBLY



REAR BODY MOUNT SET

#301336	0mm	INCLUDED
#301337	+1mm	OPTION
#301338	+2mm	OPTION



FRONT BODY MOUNT SET

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



FRONT ECC. BODY MOUNT SET

#301326	0mm	INCLUDED
#301327	+1mm	OPTION
#301328	+2mm	OPTION



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



#301210
GRAPHITE UPPER HOLDER FOR BUMPER 2.5MM



#301232
T4 FOAM BUMPER WIDE - HARD



BAG

07

301204 COMPOSITE BUMPER
301219 COMPOSITE UPPER HOLDER FOR BUMPER
301322 FRONT BODY MOUNT SET
301326 FRONT ECCENTRIC BODY MOUNT SET
301325 T4 COMPOSITE BRACE FOR BUMPER - LOW (2)
301336 REAR BODY MOUNT SET
301390 GRAPHITE ADJ. SHIM FOR REAR BODY POST 3.0MM (2)
303129 COMPOSITE SET OF WHEELBASE SHIMS (3x1MM; 1x2MM) (2)
306219 COMPOSITE SET OF SERVO SHIMS (4)

902308 HEX SCREW SH M3x8 (10)
902308 HEX SCREW SH M3x8 (10)
902310 HEX SCREW SH M3x10 (10)
903308 HEX SCREW SFH M3x8 (10)
903310 HEX SCREW SFH M3x10 (10)
960030 NUT M3 (10)
981212 PIN 2x12 (10)

301231 T4 FOAM BUMPER - LIGHT & STRONG

308308-0 ULP ALU SHOCK ABSORBER-SET - ORANGE (2)

7. FRONT & REAR ASSEMBLY



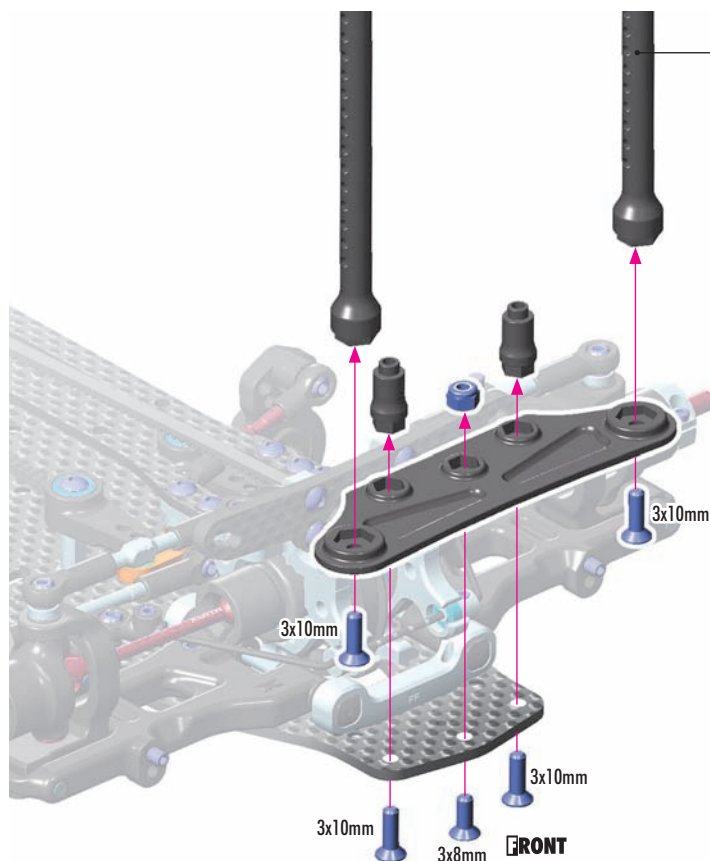
903308
SFH M3x8



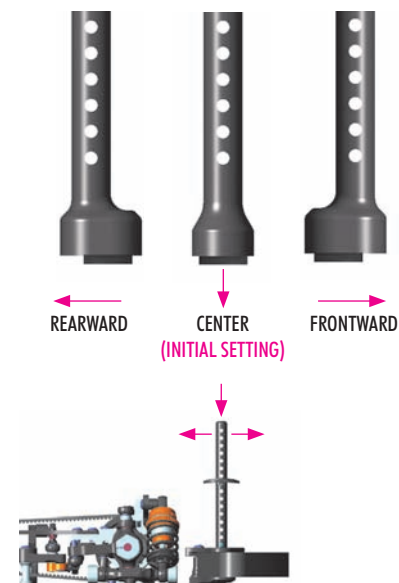
903310
SFH M3x10



960030
N M3



! FRONT BODY POST ORIENTATION



FRONT

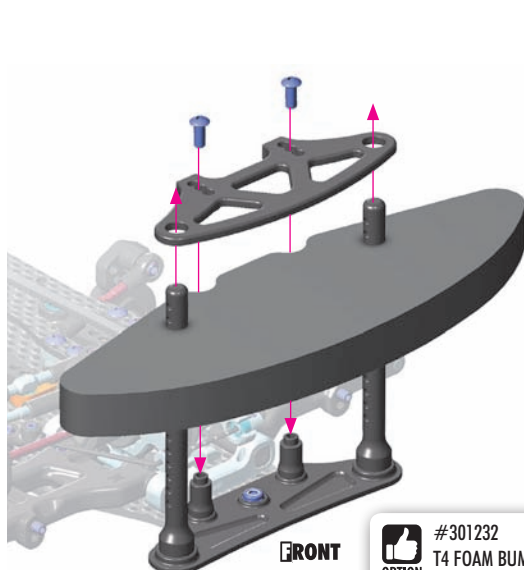
! It is important to use the same body setting (rearward, center, forward) both on front and rear body posts at the same time.

TIP This new, innovative & unique feature allows adjustment of the body position for all kind of surfaces, traction conditions, touring classes, using only one body. There are three different body positions; rearward, center, and forward. Depending on the conditions the body posts position can be easily changed which allows the body to be moved.

- The body in the **REARWARD POSITION** makes the car super stable and very easy to drive. It makes the car easier to drive over chicanes and be more predictable in high-traction conditions.
- The body in the **CENTER POSITION** makes the car more aggressive and steer faster, but is a bit more difficult to drive in low-grip conditions.
- The body in the **FORWARD POSITION** is the most aggressive. It makes the car steer a lot, but is more difficult to drive when the traction is high or when the track has a lot of chicanes.



902308
SH M3x8



DETAIL

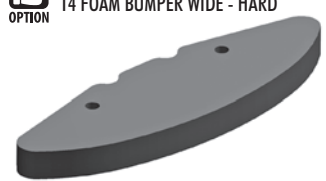


INITIAL SETTING



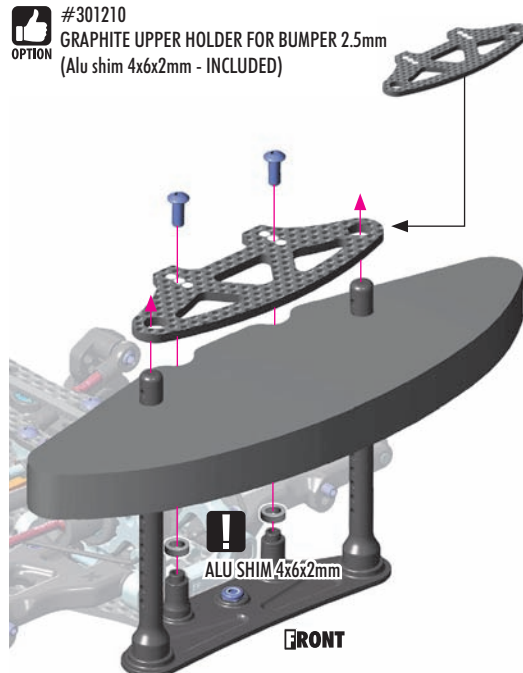
OPTION

#301232
T4 FOAM BUMPER WIDE - HARD



OPTION

#301210
GRAPHITE UPPER HOLDER FOR BUMPER 2.5mm
(Alu shim 4x6x2mm - INCLUDED)



OPTION

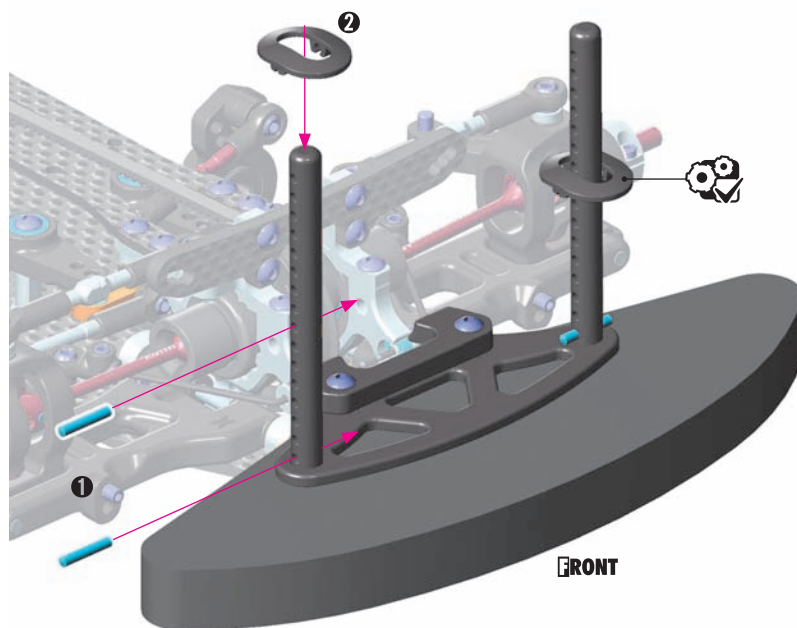
ALU SHIM 4x6x2mm

7. FRONT & REAR ASSEMBLY



981212
P 2x12

2x
L=R



#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 ECC. BODY MOUNT SET

#301326	0mm	INCLUDED
#301327	+1mm	OPTION
#301328	+2mm	OPTION



FRONT BODY MOUNT SET

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

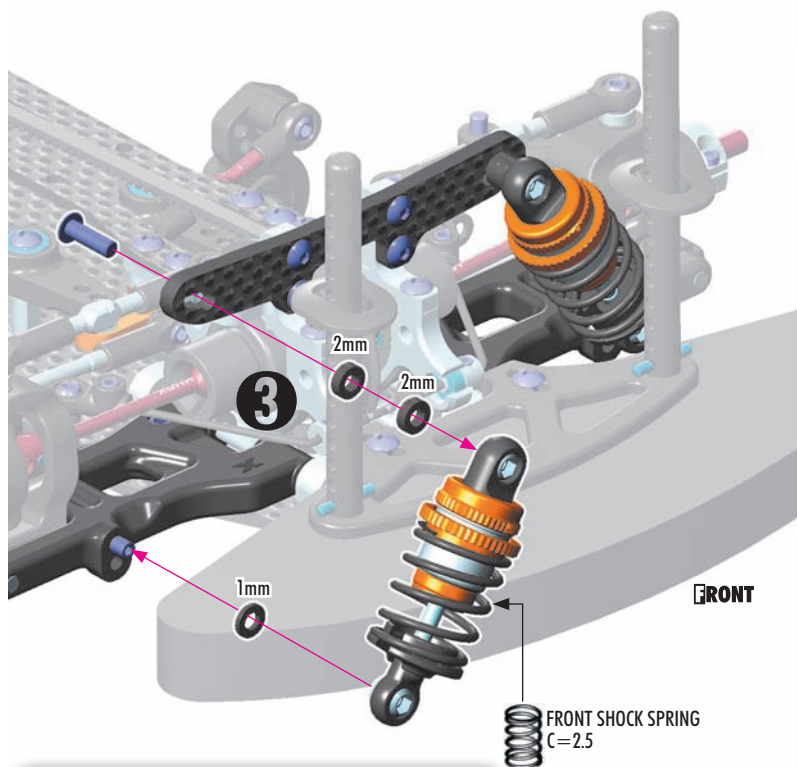


902310
SH M3x10

10
303129
SHIM 3x6x1

10
303129
SHIM 3x6x2

L=R



FRONT SHOCK SPRING
C=2.5



The information about optional lower shock tower is at the end of the manual.



INITIAL SETTING



#308307-0
XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)



#301962
SLP SHOCK TOWER FRONT 3.0MM GRAPHITE



For some very specific racing conditions like extremely-low traction, these SLP shocks with SLP shock tower are available as an option.



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



SHOCK POSITION
RIDE HEIGHT
DROOP

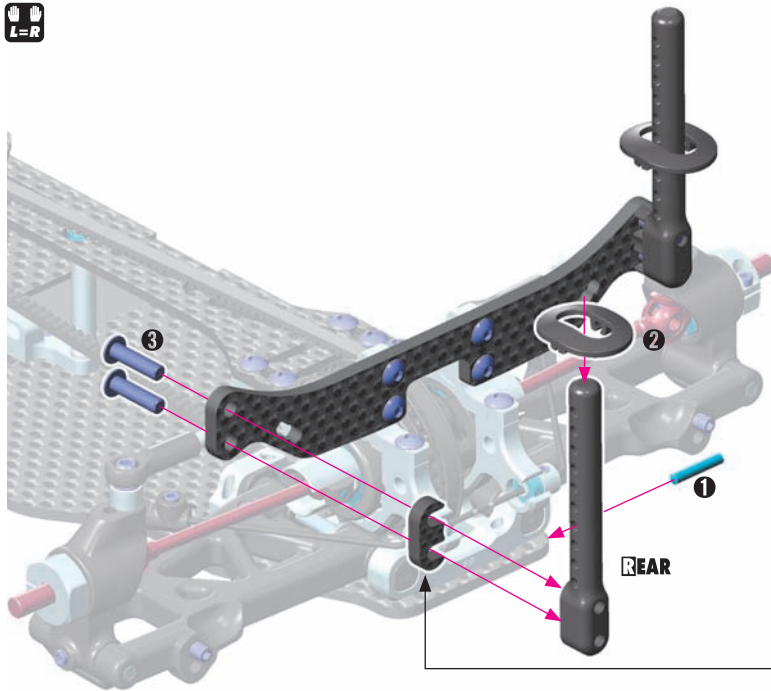
7. FRONT & REAR ASSEMBLY



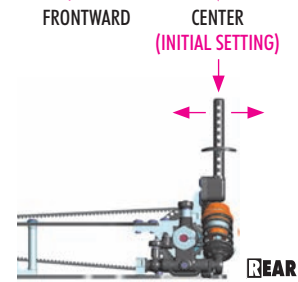
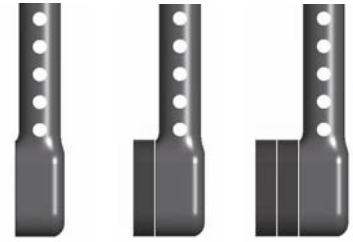
902312
SH M3x12



981212
P 2x12



! REAR BODY POST POSITION



! It is important to use the same body setting (rearward, center, forward) both on front and rear body posts at the same time.



#301351-0

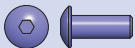
ALU ADJUSTABLE BODY POST STOP (2)

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

#	Offset	Status
#301336	0mm	INCLUDED
#301337	+1mm	OPTION
#301338	+2mm	OPTION



902308
SH M3x8



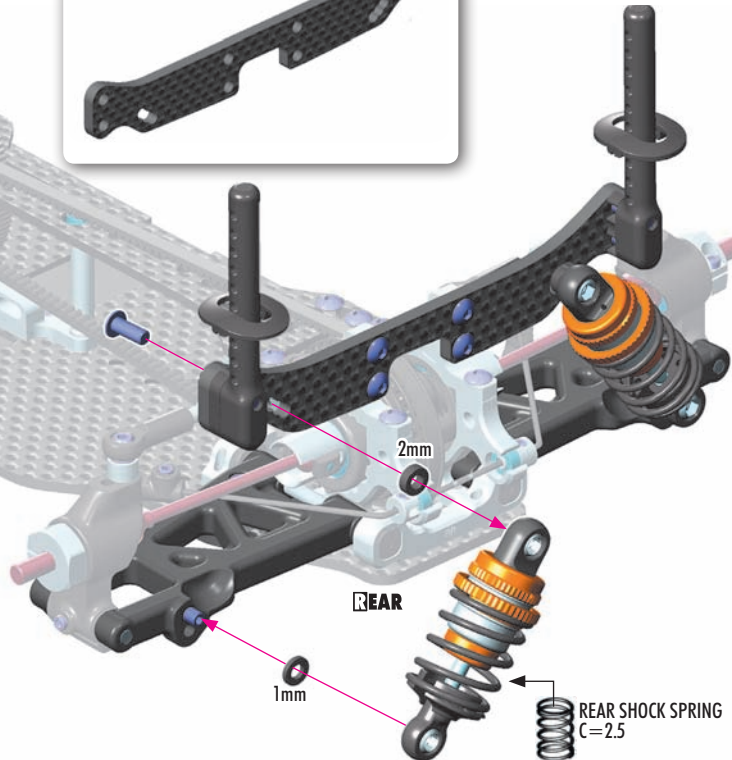
306219
SHIM 3x6x1



306219
SHIM 3x6x2



The information about optional lower shock tower is at the end of the manual.



#308307-0

XRAY T4 ALU SHOCK ABSORBER-SET - ORANGE (2)



#302962

SLP SHOCK TOWER REAR 3.0MM GRAPHITE



For some very specific racing conditions like extremely-low traction, these SLP shocks with SLP shock tower are available as an option.



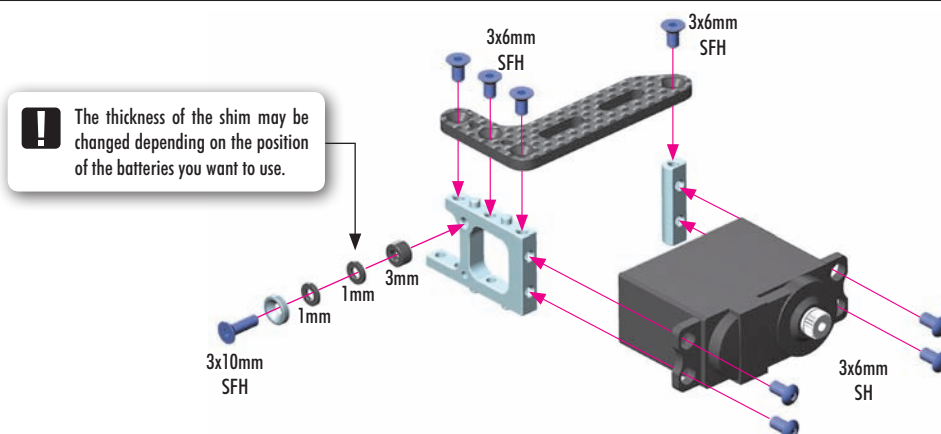
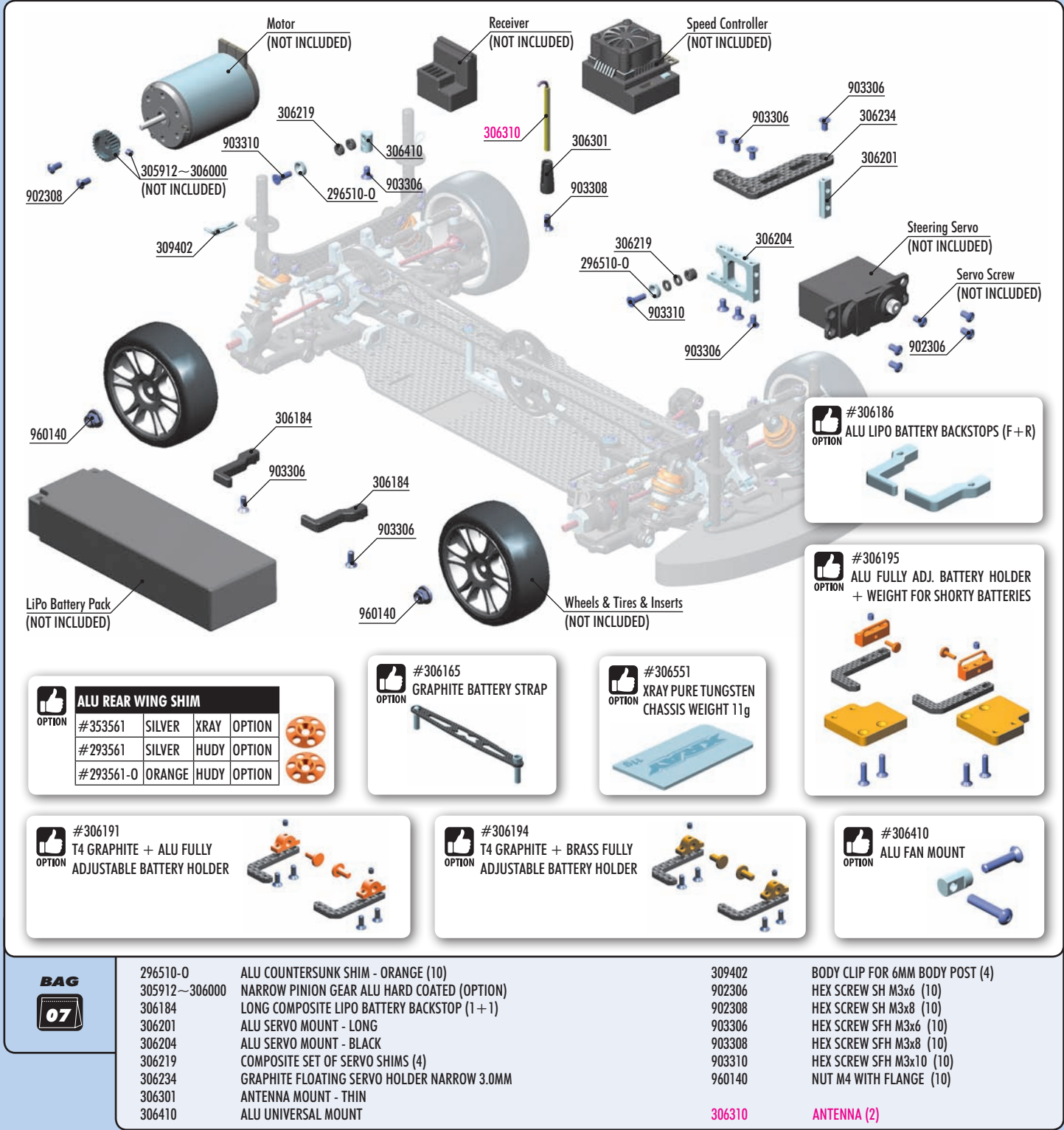
#308039

ULP ALU PROGRESSIVE SHOCK SYSTEM - SET (2)



SET-UP BOOK

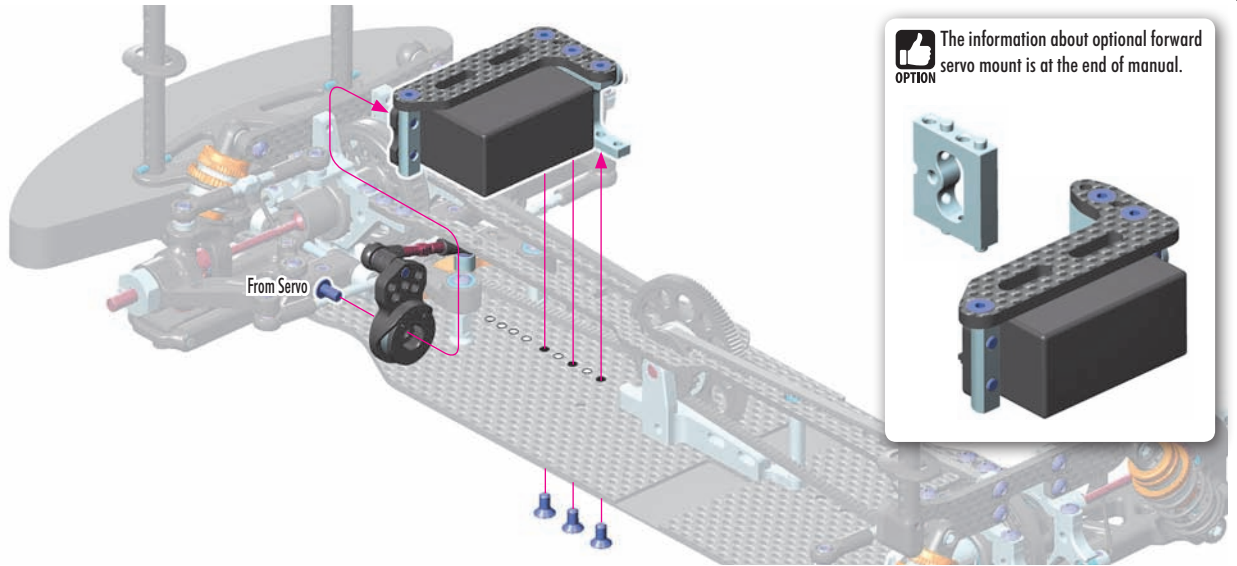
SHOCK POSITION
RIDE HEIGHT
DROOP



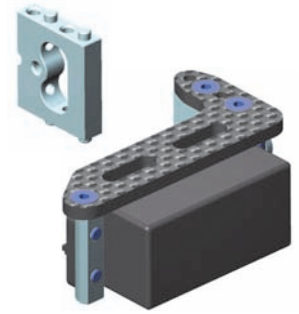
7. FINAL ASSEMBLY



903306
SFH M3x6



The information about optional forward servo mount is at the end of manual.



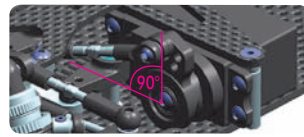
For improved weight balance and for more space for electronics, we recommend using a narrow, light servo.



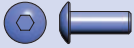
IMPORTANT!



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



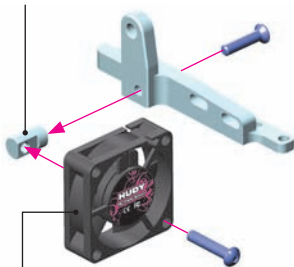
Attach servo arm to servo output shaft using screw from servo. Servo saver must be perpendicular to chassis when servo is in neutral.



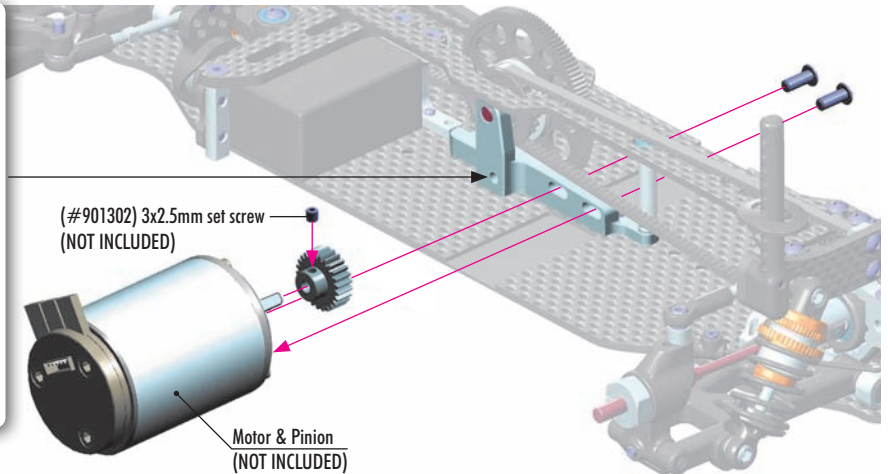
902308
SH M3x8



#306410
ALU FAN MOUNT



#293110 HUDY BRUSHLESS RC FAN 30MM
#293111 HUDY BRUSHLESS RC FAN 40MM

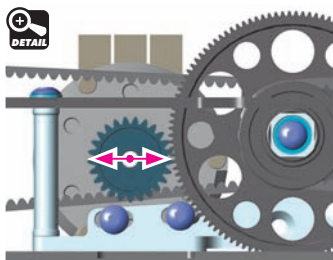


(#901302) 3x2.5mm set screw
(NOT INCLUDED)

Motor & Pinion
(NOT INCLUDED)

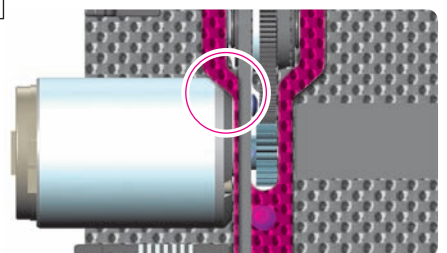
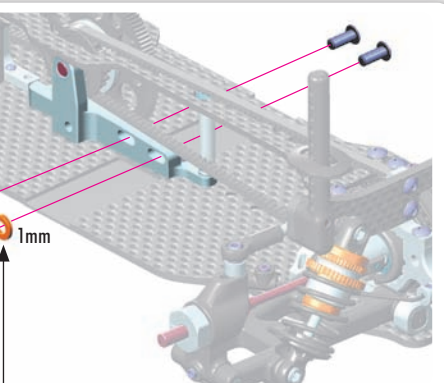
Adjust the motor so the pinion meshes with the spur gear properly. Make sure the gear mesh is not too tight.

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



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 or you can shim out the motor by using #303122-0 (3x6x1mm) shims.



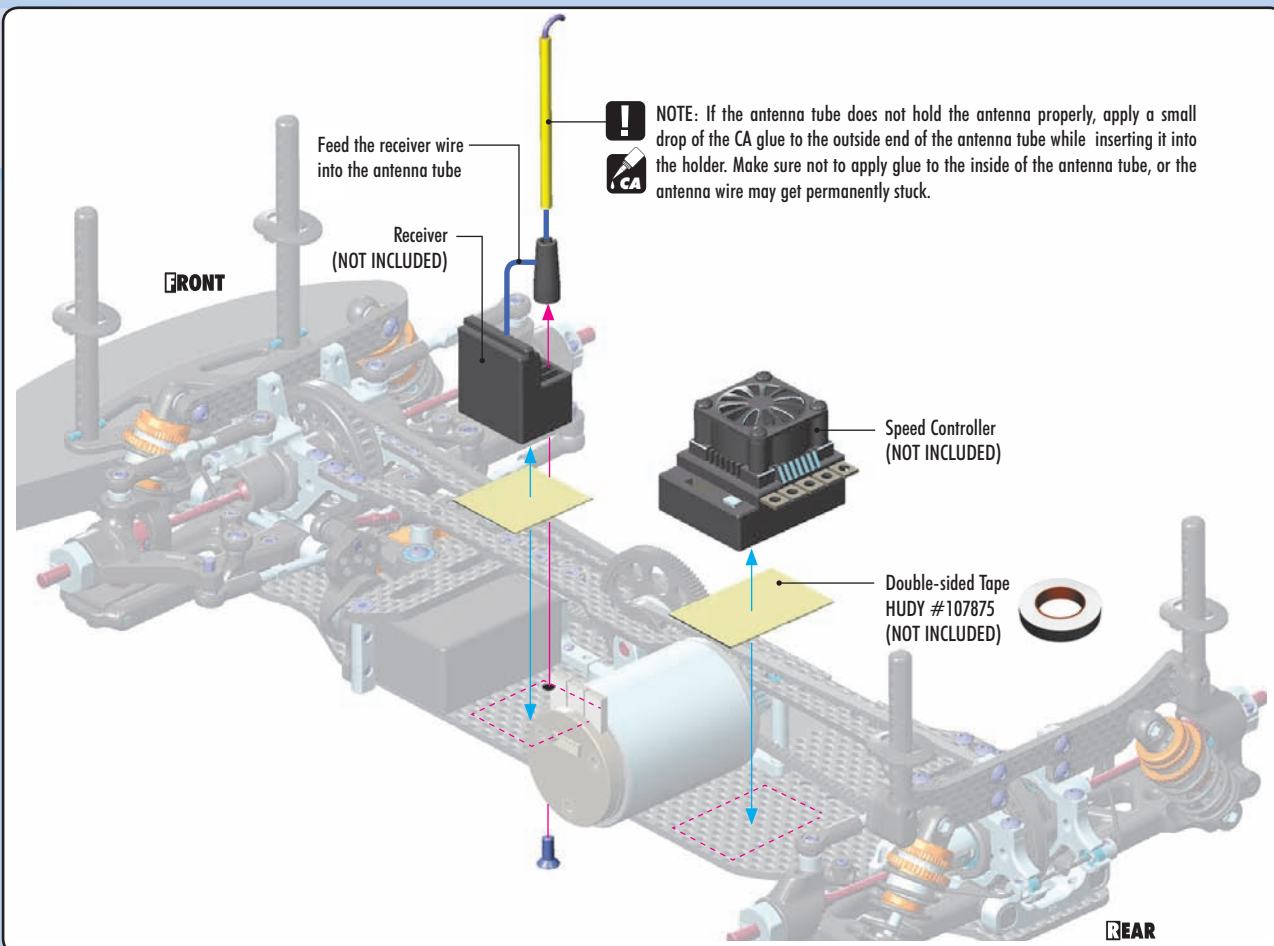
SET-UP
BOOK

GEARING ADJUSTMENT

7. FINAL ASSEMBLY



903308
SFH M3x8



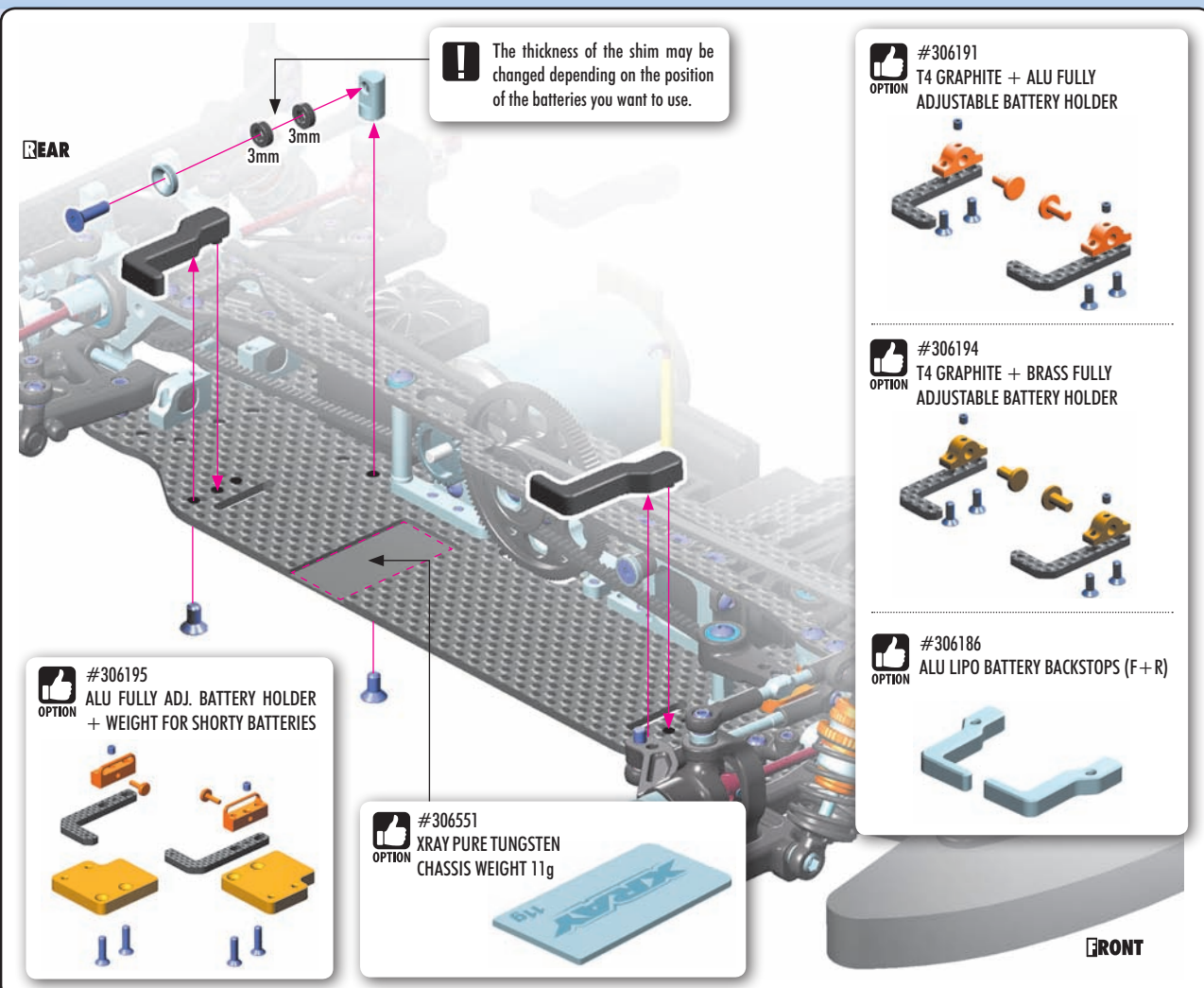
306219
SHIM 3x6x3



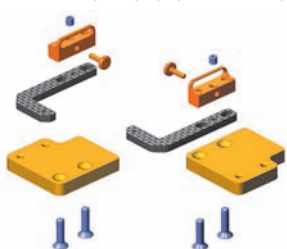
903306
SFH M3x6



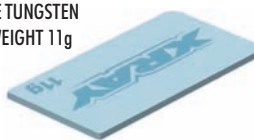
903310
SFH M3x10



#306195
ALU FULLY ADJ. BATTERY HOLDER
+ WEIGHT FOR SHORTY BATTERIES



#306551
XRAY PURE TUNGSTEN
CHASSIS WEIGHT 11g



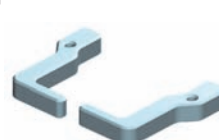
#306191
T4 GRAPHITE + ALU FULLY
ADJUSTABLE BATTERY HOLDER



#306194
T4 GRAPHITE + BRASS FULLY
ADJUSTABLE BATTERY HOLDER



#306186
ALU LIPO BATTERY BACKSTOPS (F + R)



7. FINAL ASSEMBLY

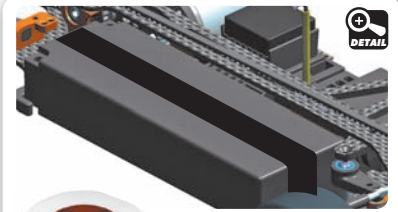


960140
N M4

4x

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

LiPo Battery Pack
(NOT INCLUDED)



We recommend using #107870 HUDY Fibre-reinforced Tape (NOT INCLUDED)



#306165
GRAPHITE BATTERY STRAP

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



ALU REAR WING SHIM

#353561	SILVER	XRAY	OPTION
#293561	SILVER	HUDY	OPTION
#293561-0	ORANGE	HUDY	OPTION

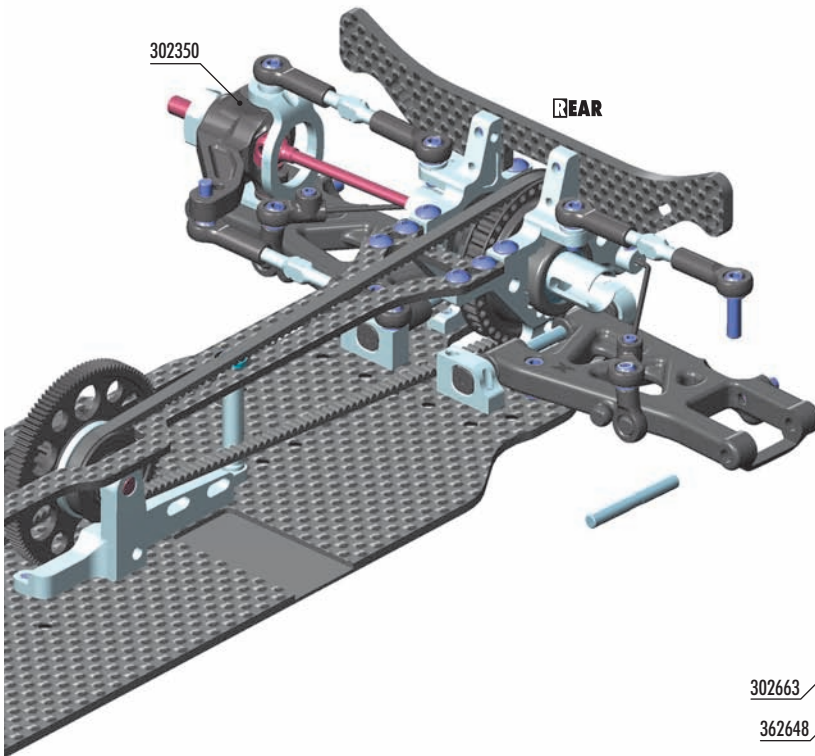


OPTION

EXTRA INFORMATION ABOUT OPTIONAL PARTS FOR T4'20

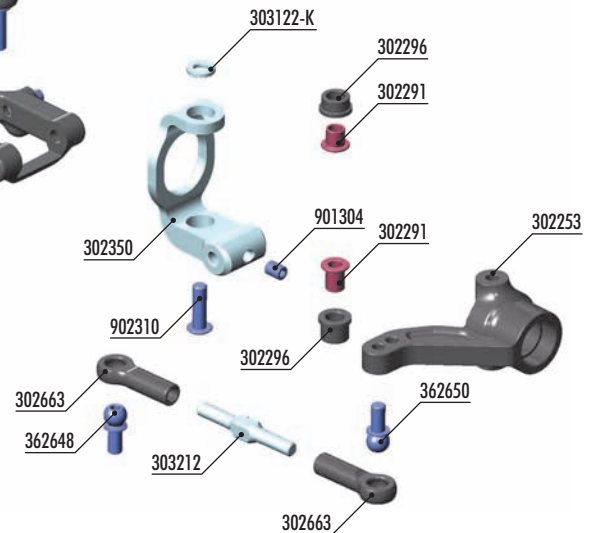


#300902
T4'20 ACTIVE REAR SUSPENSION™ SET



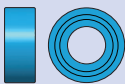
ALU C-HUB ACTIVE REAR SUSP.

#302350	0°	-	INCLUDED
#302351	2°	RIGHT	OPTION
#302352	2°	LEFT	OPTION
#302353	4°	RIGHT	OPTION
#302354	4°	LEFT	OPTION





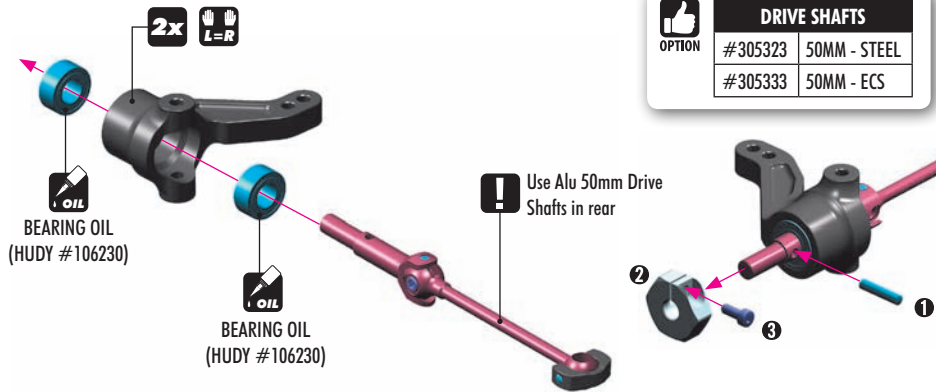
902205
SH M2x5



940510
BB 5x10x4



980210
P 2x10



DRIVE SHAFTS

#305323	50MM - STEEL
#305333	50MM - ECS

INCLUDED

ALU WHEEL HUBS - OFFSET

#305350-K	(0 mm)
#305351	(-0.75 mm)
#305352	(+0.75 mm)
#305353	(+1.5 mm)

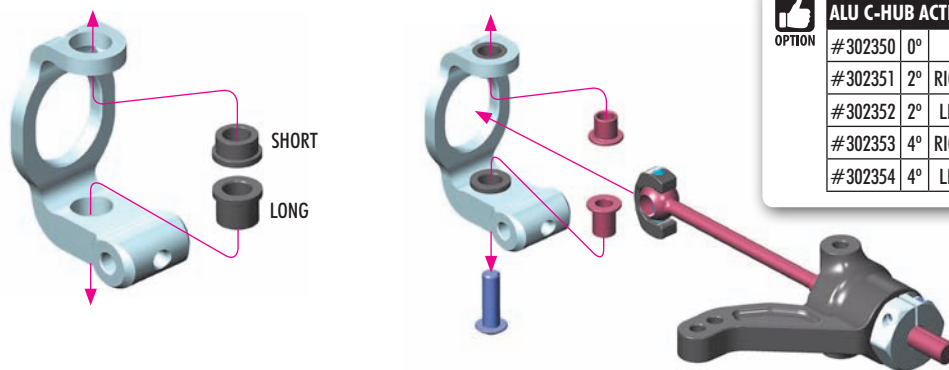


STEERING BLOCKS

#302252	MEDIUM
#302253	HARD
#302254	GRAPHITE
#302256	ALU



902310
SH M3x10



ALU C-HUB ACTIVE REAR SUSP.

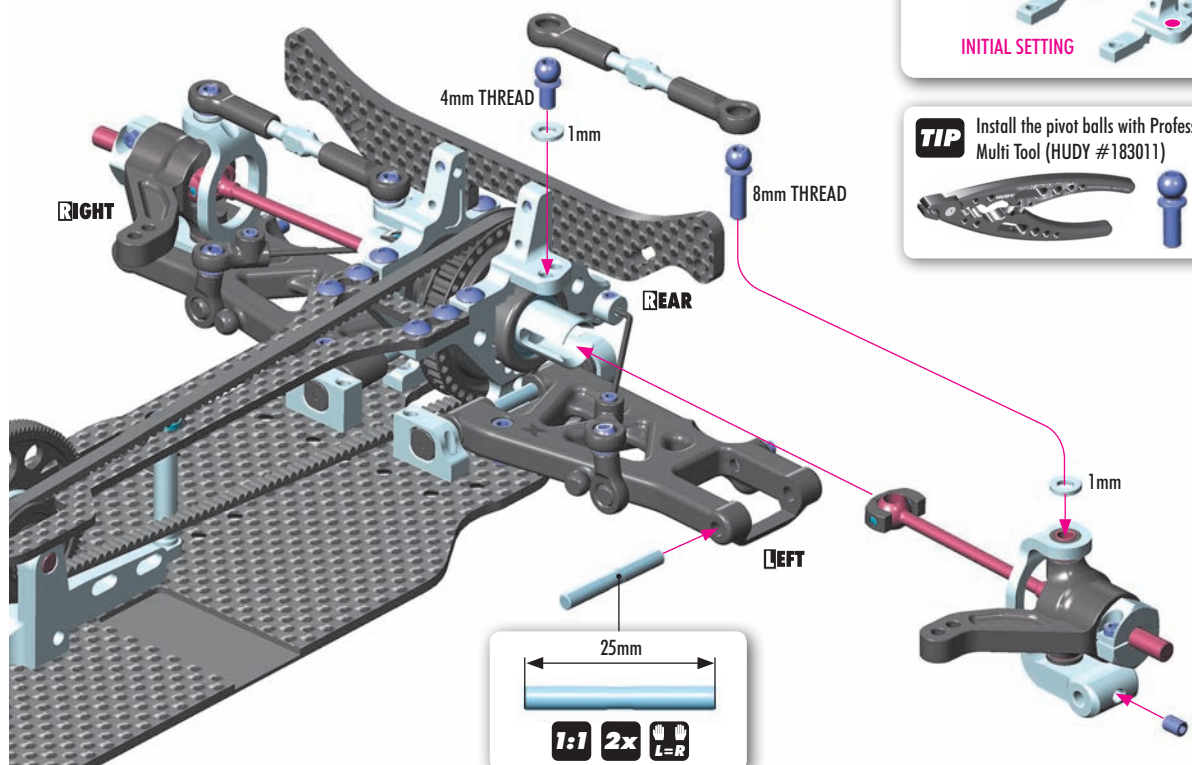
#302350	0°	-	OPTION
#302351	2°	RIGHT	OPTION
#302352	2°	LEFT	OPTION
#302353	4°	RIGHT	OPTION
#302354	4°	LEFT	OPTION



303122-K
SHIM 3x6x1



901304
SB M3x4



INITIAL SETTING



TIP Install the pivot balls with Professional Multi Tool (HUDY #183011)



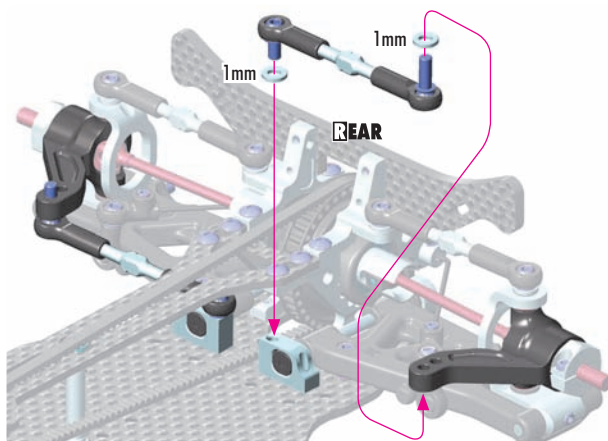
#307322 TITANIUM REAR ARM PIVOT PIN (2)



ARS™ MOUNTING ALTERNATIVES

There are two alternatives how to mount ARS linkage. Depending if you want to have increased or decreased toe-in when the car is pressed

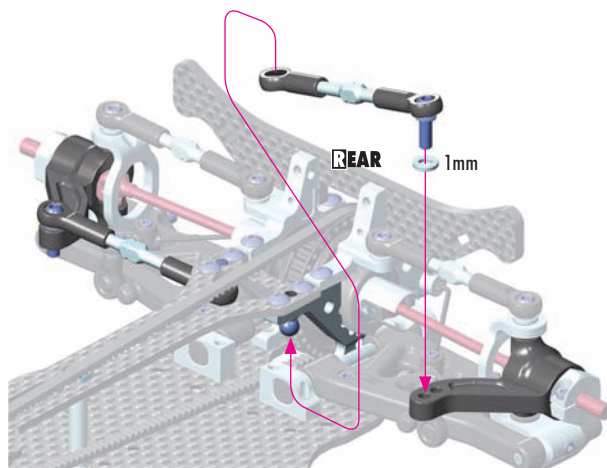
ALTERNATIVE DECREASING TOE-IN



The link is mounted from the bottom of the steering block to the RF suspension holder. With this setting, the toe-in decreases when the car is pressed. This means that if you set the toe-in to 3°, then when the car enters the corner, the toe-in decreases which increases cornering speed but decreases rear traction. Recommended for medium-high traction conditions.

By adding more shims under steering block, the toe-in is more decreasing under pressing the car.

ALTERNATIVE INCREASING TOE-IN

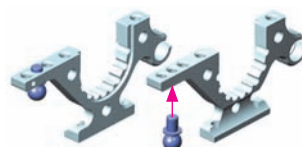


The link is mounted from the top of the steering block to the bulkhead. With this setting, the toe-in increases when the car is pressed. This means that if you set the toe-in to 3°, then when the car enters the corner, the toe-in increases which increases rear traction and stability but generates more push. Recommended for low-medium traction conditions.

By adding more shims on the top of the steering block, the toe-in is more increasing under pressing the car.






When using the ARS mounting alternative, mount the ball joints to the bulkheads before mounting the bulkheads to the chassis.

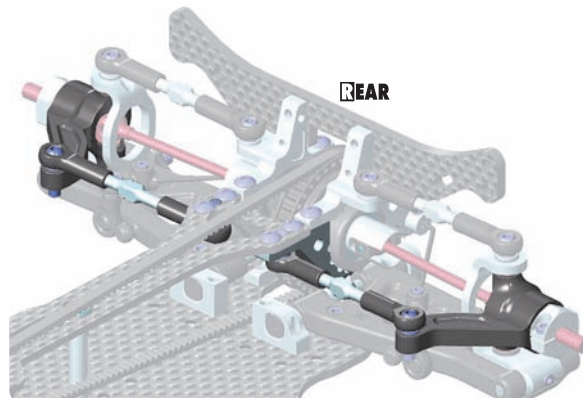
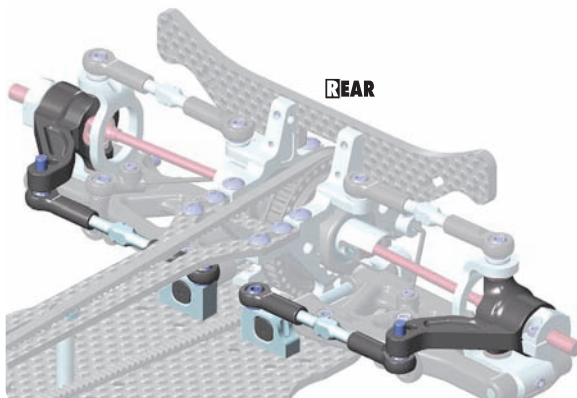


The optional ARS aluminum C-hubs were redesigned to work with the new T4'20 rear suspension geometry and are available in 0° | 2° | 4° caster.

ALU C-HUB ACTIVE REAR SUSPENSION™

 0°	C-hub is recommended for high-traction conditions as it generates greater off-power steering, rotation and cornering speed.
 2°	C-hub angled toward the front of the car helps to generate more traction but in the same time generates more off-power steering and cornering speed compared to standard rear suspension. Recommended for medium-traction conditions.
 4°	C-hub angled toward the front of the car generates maximum traction. Recommended for very-low-traction conditions. As the wheelbase will be shortened a lot with this setting, it is recommended to lengthen the rear wheelbase by moving the rear arms fully back.

The effect of the toe-in change can be checked on a set-up station. Set the desired toe-in, then press the car to the ground and check how much the toe-in changes and in which direction.



10

306219
SHIM 3x6x1



901310
SB M3x10



901408
SB M4x8



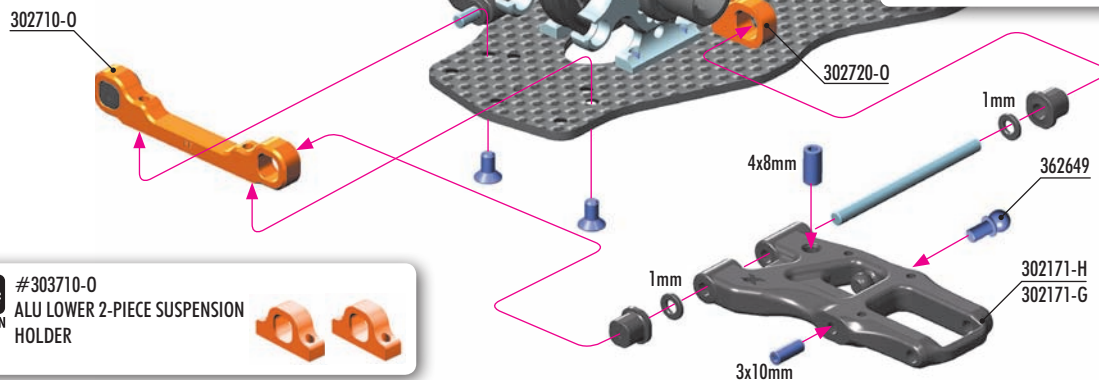
903306
SFH M3x6



SHORT FRONT SUSPENSION ARMS ALTERNATIVE

It is possible to mount the short front suspension. You need to use the old suspension holders and mounted on the marked positions.

The front short arms can be used on a small technical track with high traction.



#303710-0
ALU LOWER 2-PIECE SUSPENSION
HOLDER



#302712-0 ALU FRONT 1-PIECE SUSPENSION HOLDER (FF-LOW)
#302722-0 ALU FRONT 1-PIECE SUSPENSION HOLDER (FR-LOW)



#302711 BRASS FRONT 1-PIECE SUSPENSION HOLDER - FRONT - FF
#302721 BRASS FRONT 1-PIECE SUSPENSION HOLDER - REAR - FR



FRONT ARMS - SHORT

#302171-H	HARD	OPTION
#302171-G	GRAPHITE	OPTION



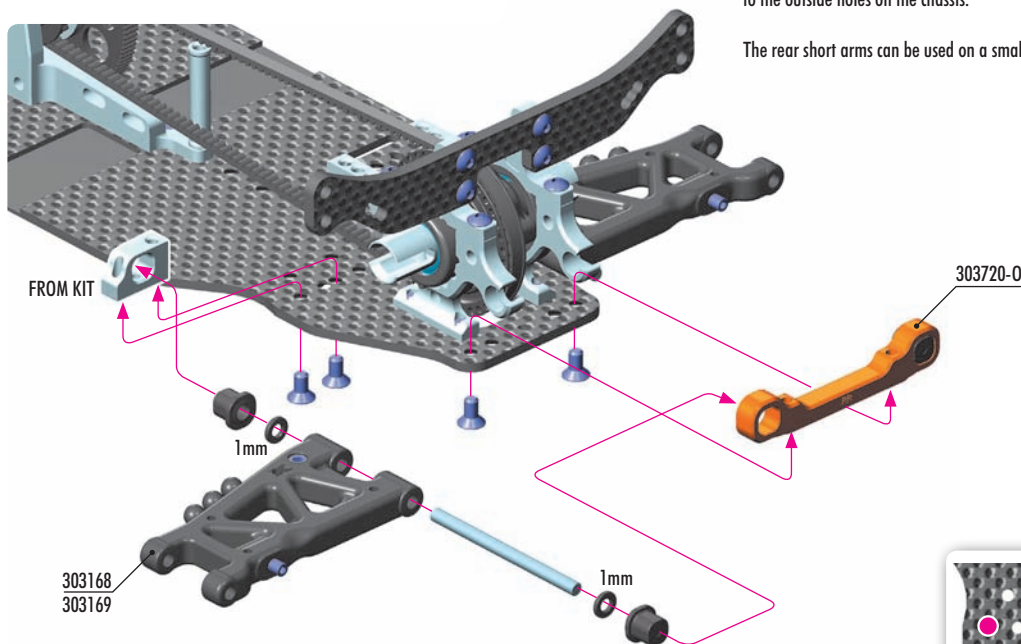
FRONT



SHORT REAR SUSPENSION ARMS ALTERNATIVE

It is possible to mount the short rear suspension arms from previous T4 versions. You need to use the old RR suspension holder and move the RF block to the outside holes on the chassis.

The rear short arms can be used on a small technical track with high traction.

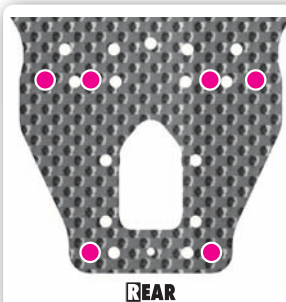


#303721
BRASS REAR 1-PIECE SUSPENSION HOLDER - REAR - RR



REAR ARMS - SHORT

#303168	HARD	OPTION
#303169	GRAPHITE	OPTION



REAR

IO
303129
SHIM 3x6x1

IO
306219
SHIM 3x6x3

902306
SFH M3x6

903306
SFH M3x6

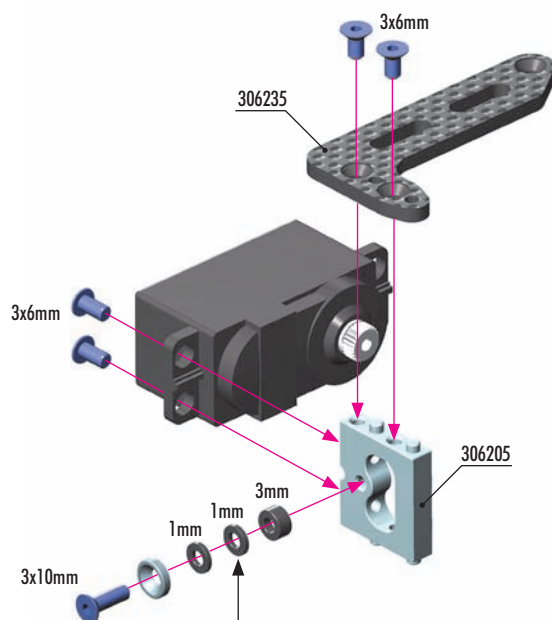
903310
SFH M3x10



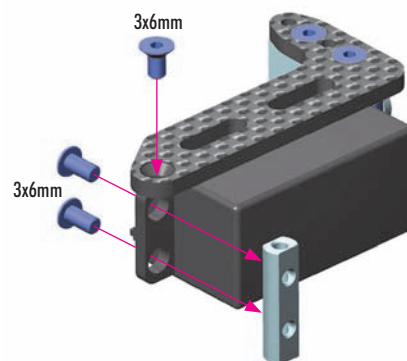
FLOATING FORWARD MOUNT SERVO HOLDER

Optional floating forward mount servo holder set allows mounting of the servo holder to the chassis more forward which leads to increased steering and steering response.

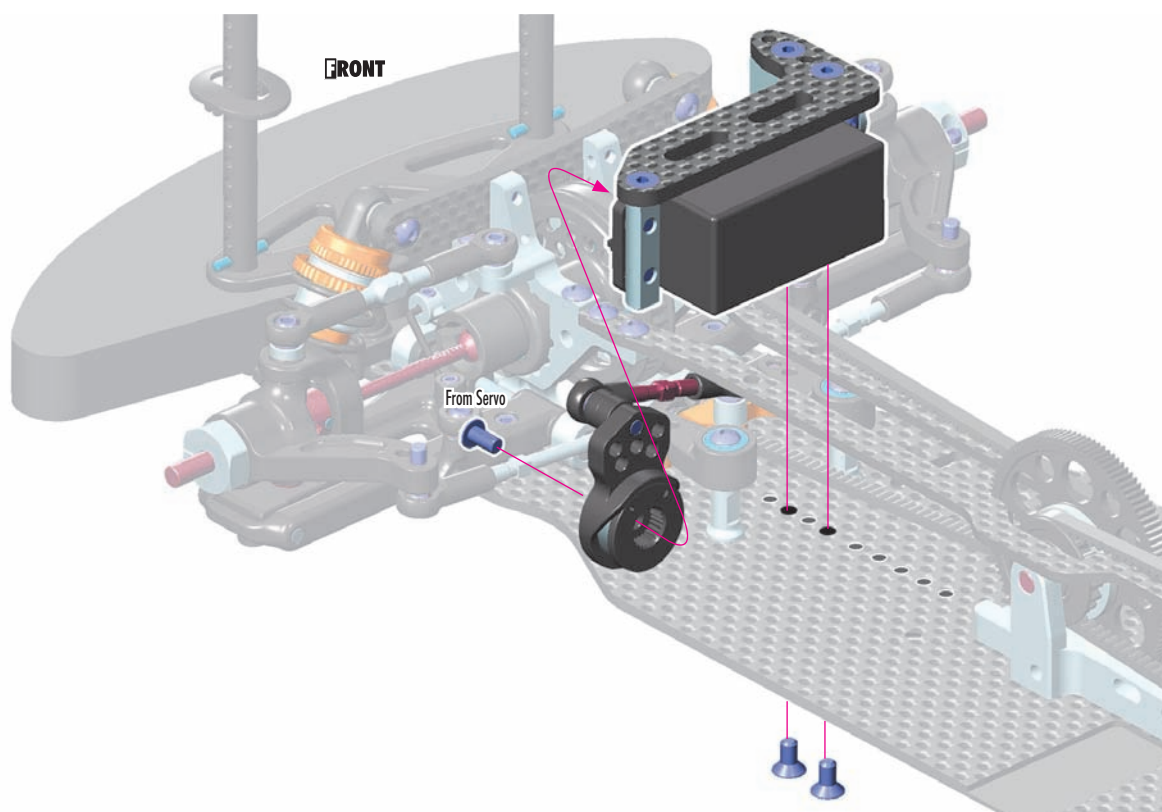
Recommended for conditions where better steering response is needed. Makes the car more reactive but less stable.



! The thickness of the shim may be changed depending on the position of the batteries you want to use.



903306
SFH M3x6



IO

306219
SHIM 3x6x1

IO

306219
SHIM 3x6x2



902306
SH M3x6



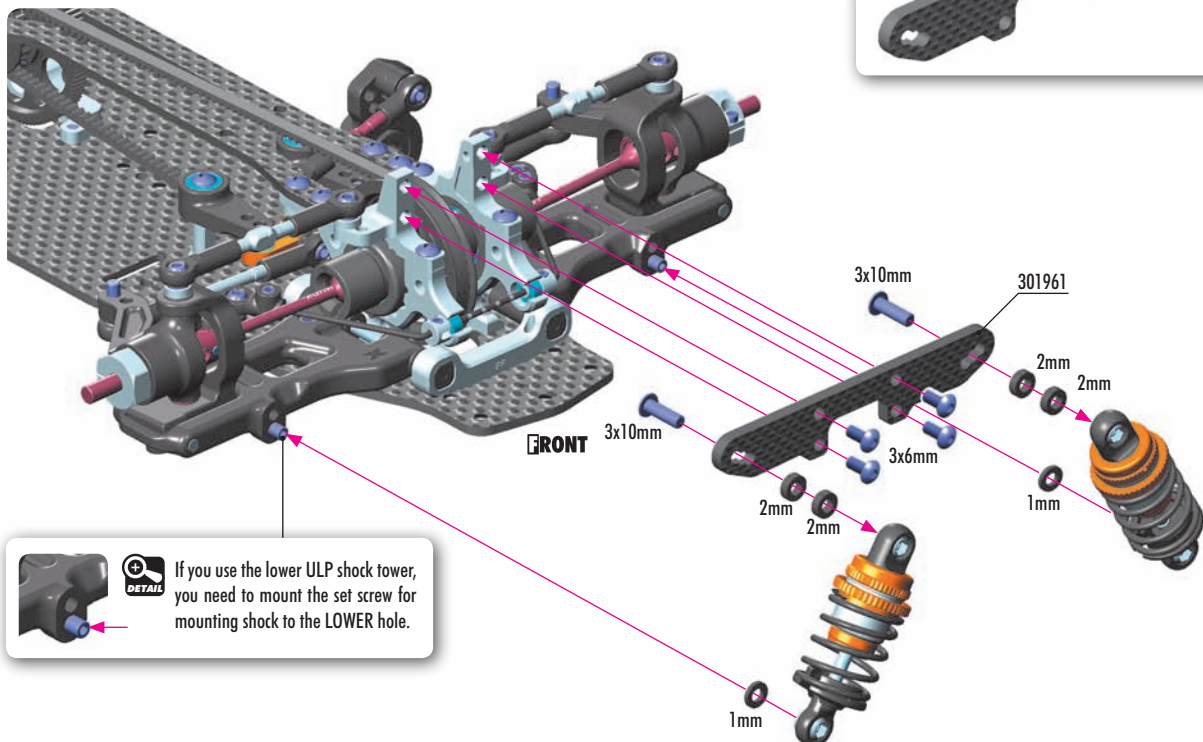
902310
SH M3x10



OPTION ULP LOWER SHOCK TOWER FOR LOWER SHOCK MOUNTING – FRONT

The new feature of the T4'20 arms is to mount the shocks lower. To use this option you need to use optional low ULP shock towers which allows you to mount shocks 4mm lower to lower the CG.

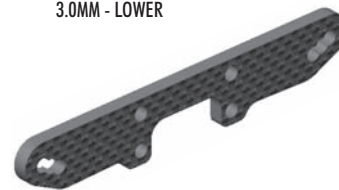
With the lower shock mounting, the car is more stable as it rolls less, is easier to drive over chicanes, and has improved steering response. Recommended for medium-high technical tracks, especially for carpet.



If you use the lower ULP shock tower, you need to mount the set screw for mounting shock to the LOWER hole.



#301961
OPTION T4'20 ULP GRAPHITE SHOCK TOWER FRONT 3.0MM - LOWER



IO

306219
SHIM 3x6x1

IO

306219
SHIM 3x6x2



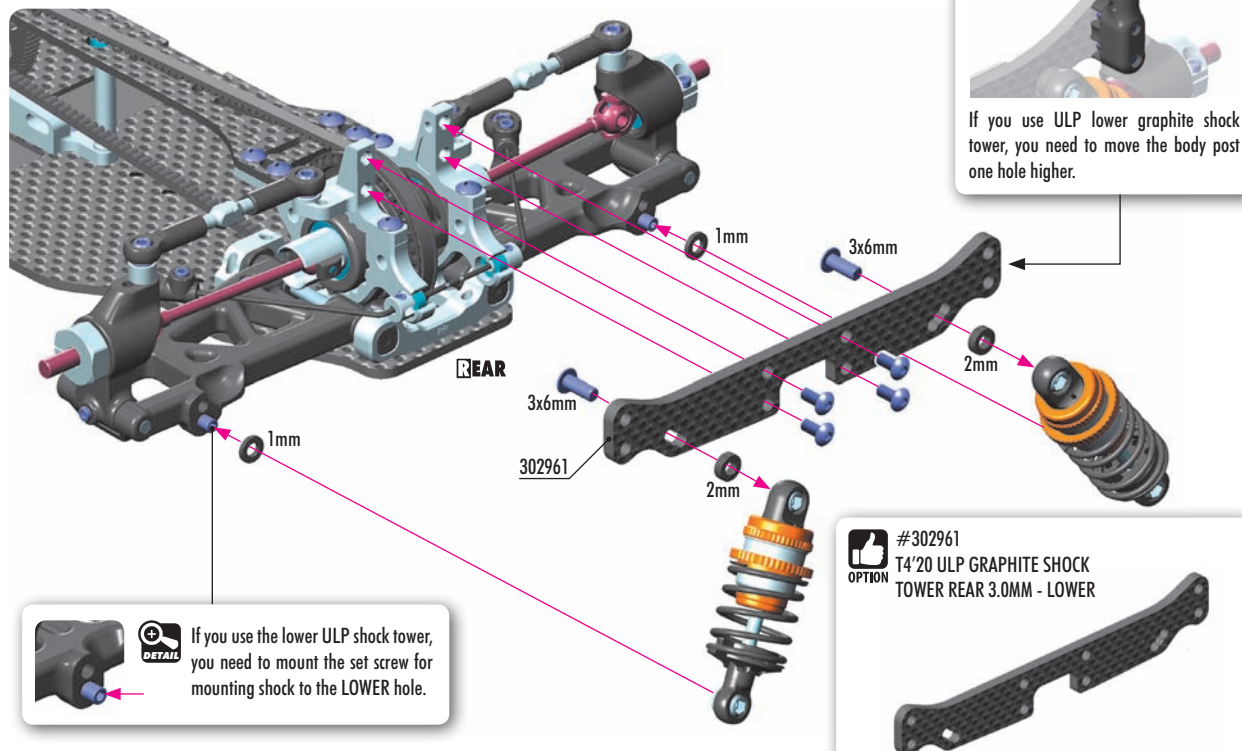
902306
SH M3x6



OPTION ULP LOWER SHOCK TOWER FOR LOWER SHOCK MOUNTING – REAR

The new feature of the T4'20 arms is to mount the shocks lower. To use this option you need to use optional low ULP shock towers which allows you to mount shocks 4mm lower to lower the CG.

With the lower shock mounting, the car is more stable as it rolls less, is easier to drive over chicanes, and has improved steering response. Recommended for medium-high technical tracks, especially for carpet.



If you use the lower ULP shock tower, you need to mount the set screw for mounting shock to the LOWER hole.



L=R



If you use ULP lower graphite shock tower, you need to move the body post one hole higher.

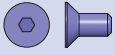


#302961
OPTION T4'20 ULP GRAPHITE SHOCK TOWER REAR 3.0MM - LOWER

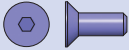




303121-K
SHIM 3x6x0-5

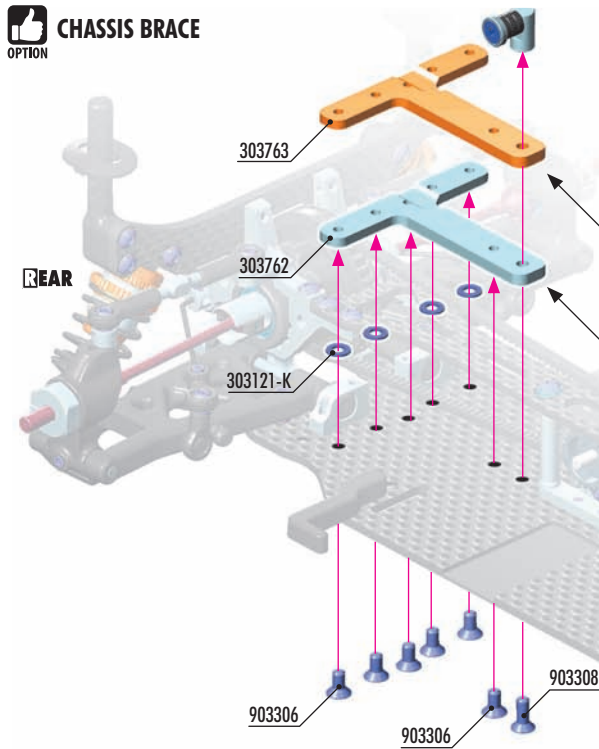


903306
SFH M3x6



903308
SFH M3x8

CHASSIS BRACE



For further chassis flex adjustment the optional chassis brace can be mounted to the chassis.

The brace can be used with both graphite and aluminum chassis.

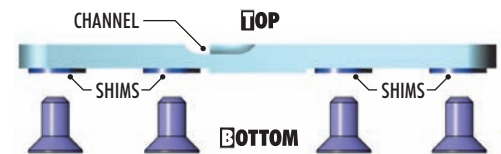
THERE ARE TWO BRACE ALTERNATIVES:

BRASS - which works also as an extra 15g weight which is recommended for high to very-high traction conditions.

ALUMINUM - recommended for low-medium-high traction conditions.



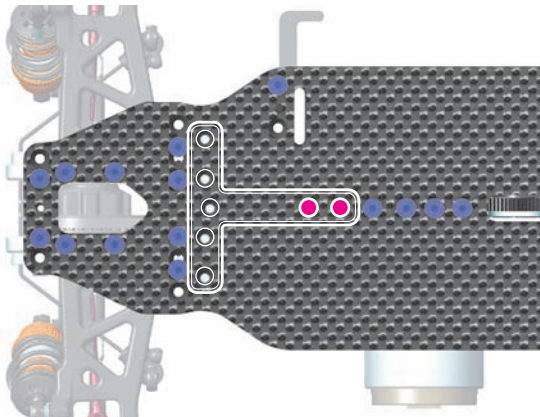
NOTE ORIENTATION



THE BRACE ALLOWS GREAT CHASSIS FLEX ADJUSTMENT POSSIBILITIES DEPENDING ON WHICH SCREWS ARE CONNECTED

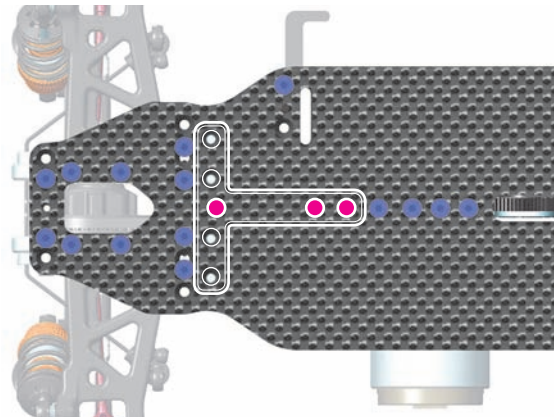
SOFT

Install only the first two screws as shown. Improves on-power stability.



MEDIUM

Install all screws along chassis center line. Generates more stability and traction.

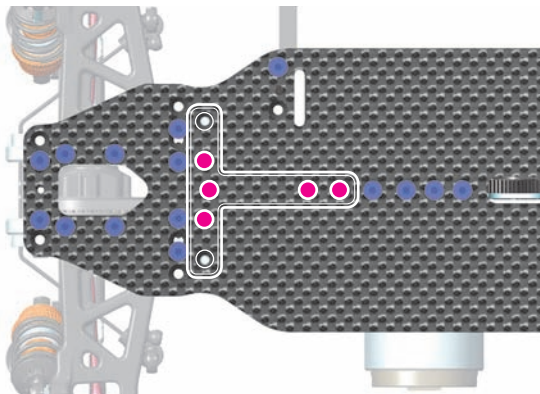


STIFF

Install all screws along center line plus inner side holes. Generates more off-power steering and rotation.

IMPORTANT!

When installing screws on the sides, add shims between the brace and the chassis.

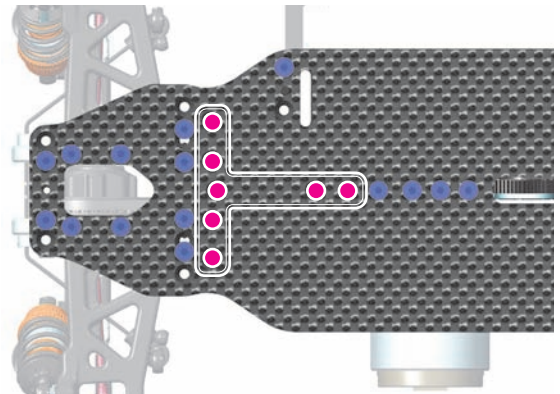


EXTRA STIFF

Install brace with all 7 screws. Recommended for high-traction conditions, gives a lot of off-power steering and rotation.

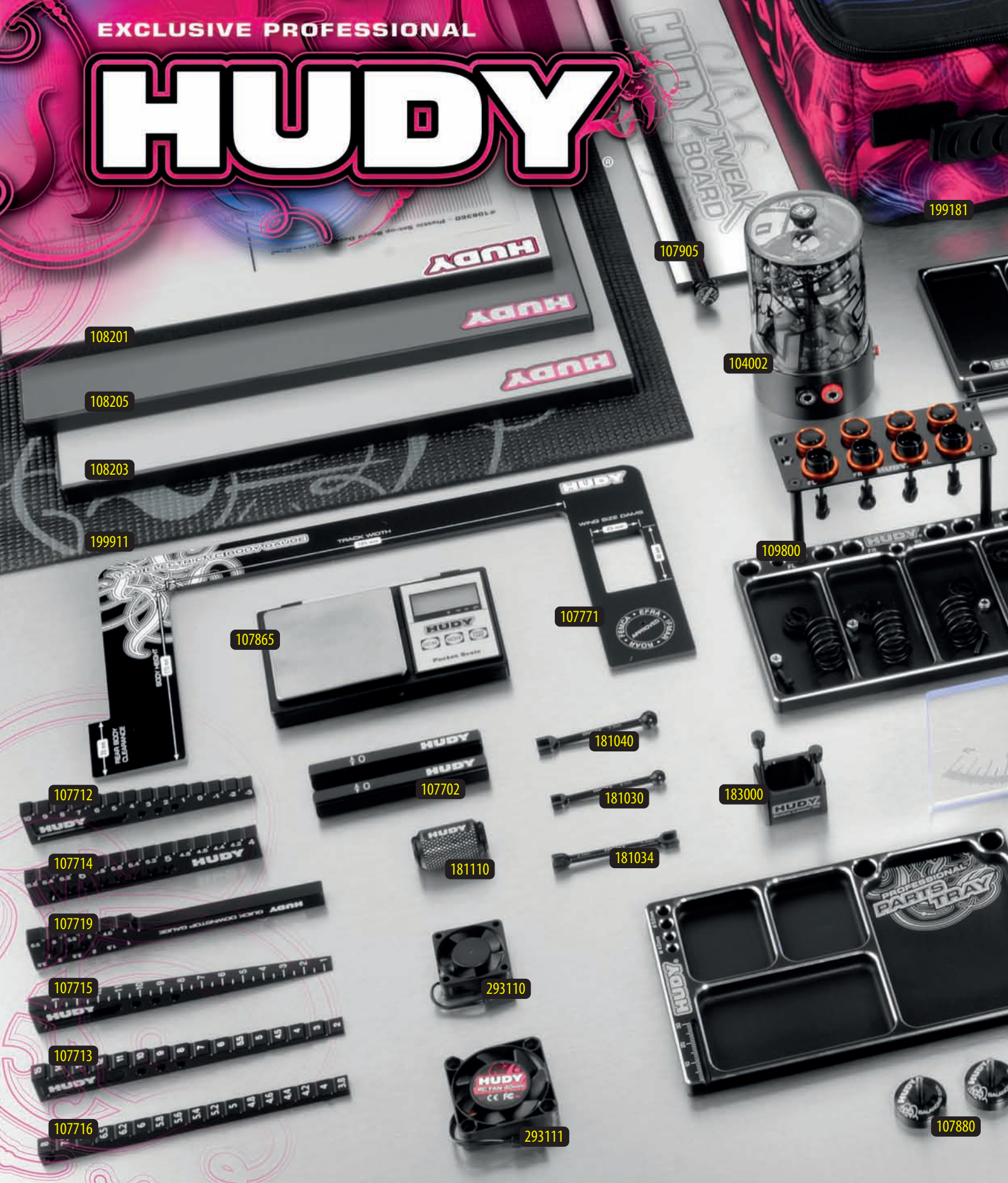
IMPORTANT!

When installing screws on the sides, add shims between the brace and the chassis.



EXCLUSIVE PROFESSIONAL

HUDY



104002 HUDY AIR VAC - VACUUM PUMP - ON-ROAD
 106260 HUDY TIRE ADDITIVE - TIRE GRIPPER - 50ML - V2
 107090 HUDY BEARING CHECKING TOOL
 107601 LIMITED EDITION - REAMER FOR BODY 0-9MM + COVER - SMALL
 107643 LIMITED EDITION - ARM REAMER # 3.0MM
 107702 CHASSIS DROOP GAUGE SUPPORT BLOCKS FOR 1/10 (2)
 107712 CHASSIS DROOP GAUGE -3.0-10MM FOR 1/10 CARS (10MM)
 107713 CHASSIS RIDE HEIGHT GAUGE STEPPED 2.0-15.0MM
 107714 ULTRA-FINE CHASSIS DROOP GAUGE 4.0-6.6MM
 107715 CHASSIS RIDE HEIGHT GAUGE 1.0-15.0MM (BEVELED)
 107716 ULTRA-FINE CHASSIS RIDE HEIGHT GAUGE 3.8-8.0MM
 107719 QUICK DOWNSTOP GAUGE TOOL 1.0-6.5MM

107720 CHASSIS RIDE HEIGHT GAUGE 30-17MM FOR 1/8 & 1/10 OFF-ROAD
 107750 HUDY GRAPHITE QUICK CAMBER GAUGE 1.5°, 2°, 2.5° FOR 1/10 TC
 107771 HUDY BODY GAUGE 1/10 ELECTRIC TOURING CARS
 107855 HUDY PIT LED
 107865 HUDY PROFESSIONAL DIGITAL POCKET SCALE 300G/0.01G
 107870 HUDY FIBRE-REINFORCED TAPE - BLACK
 107875 HUDY ULTRA DOUBLE-SIDED TAPE
 107880 CHASSIS BALANCING TOOL (2)
 107904 HUDY QUICK-TWEAK STATION 1/10 & 1/12 ON-ROAD
 107905 HUDY TWEAK BOARD SET
 108150 HUDY 1/10 TOURING CAR STAND - V3
 108190 HUDY ALU TRAY FOR PARTS

108201 FLAT SET-UP BOARD FOR
 108203 FLAT SET-UP BOARD FOR
 108205 FLAT SET-UP BOARD FOR
 109305 UNIVERSAL EXCLUSIVE SE
 109360 ALU NUT FOR 1/10 TOURI
 109370 ALU SET-UP WHEEL FOR 1
 109800 HUDY ALU TRAY FOR ON-R
 109840 HUDY ALU TRAY FOR 1/10
 109860 HUDY ALU TRAY FOR SET-
 109880 HUDY ALU TRAY FOR ACCE
 111545 LIMITED EDITION - ALLEN
 112045 LIMITED EDITION - ALLEN



www.hudy.net



www.teamxray.com

XRAY EUROPE

XRAY, K VÝSTAVISKU 6992, 91101 TRENCIN, SLOVAKIA, EUROPE
PHONE: +421-32-740 11 00, FAX: +421-32-740 11 09, info@teamxray.com

XRAY USA

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