

1/10 LUXURY ELECTRIC TOURING CAR

XTRAY X4



INSTRUCTION MANUAL
FOR X4'23 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.

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

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 warranty 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 additions that may arise from the use of this product. All rights reserved.

QUALITY CERTIFICATE

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

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

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

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

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

TOOLS REQUIRED



Combination Pliers (HUDY #189020)

Side Cutters (HUDY #189010)

Pocket Hobby Knife (HUDY #188981)

Special Tool for turnbuckles, nuts (HUDY #181090)

Turnbuckle Wrench 4mm (HUDY #181040)

Turnbuckle Wrench 3mm (HUDY #181030)

Tweezer



Allen 1.5mm (#111545 - HUDY EXCLUSIVE Limited Edition)

Allen 2.0mm (#112045 - HUDY EXCLUSIVE Limited Edition)

Allen 3.0mm (#113045 - HUDY EXCLUSIVE Limited Edition)

Ball Allen 3.0mm (#133045 - HUDY EXCLUSIVE Limited Edition)

Screwdriver 3.0mm (#153055 - HUDY EXCLUSIVE Limited Edition)

Socket 5.5mm (#175535 - HUDY EXCLUSIVE Limited Edition)

Socket 7.0mm (#177035 - HUDY EXCLUSIVE Limited Edition)

Reamer (#107602 - HUDY EXCLUSIVE Limited Edition)

Scissors (HUDY #188990)

Professional Multi Tool (HUDY #183011)

INCLUDED

* Kit includes smaller but sufficient amount of oil and grease to build the car.

350cSt (#106335) HUDY Premium Silicone Oils

5.000cSt (#106450) HUDY Premium Silicone Oils



(HUDY #106210) Premium Graphite Grease



EQUIPMENT REQUIRED

<p>Transmitter</p>	<p>Receiver</p>	<p>Speed Controller</p>	<p>Steering Servo</p>
<p>Electric Motor</p>	<p>Pinion Gear with Setscrew</p>	<p>LiPo Battery</p>	<p>Battery Charger</p>
<p>Lexan™ Paint</p>	<p>Wheels & Tires & Inserts (HUDY #803053 C3-28) (HUDY #803062 A1-36)</p>	<p>190mm Bodyshell</p>	<p>Double-sided Tape (HUDY #107875)</p>
<p>Fibre Tape (HUDY #107870)</p>	<p>Bearing Oil (HUDY #106230)</p>	<p>Threadlock</p>	<p>CA glue</p>

BUILD TIPS & NOTES



Alexander Hagberg (Factory Driver)

When a QR CODE is found in the instruction manual, scan the code to be directed to an online video that explains that feature or adjustment in more detail. Make sure to watch all of the instructional videos to get the most performance out of your car.



OPTION

SAMPLE OF OPTIONAL PARTS

#30XXXX	TYPE1	OPTION 1
#30XXXX	TYPE1	OPTION 2
#30XXXX	TYPE1	INCLUDED
#30XXXX	TYPE1	OPTION 3

XRAY offers wide range of optional tuning parts which are listed in a table like this. Please refer to the exploded view of each main section to verify which part is included in the kit while all other parts are available only as an optional part and must be purchased separately.

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:

305138

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

301011

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

304902

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

CHASSIS PREPARATION



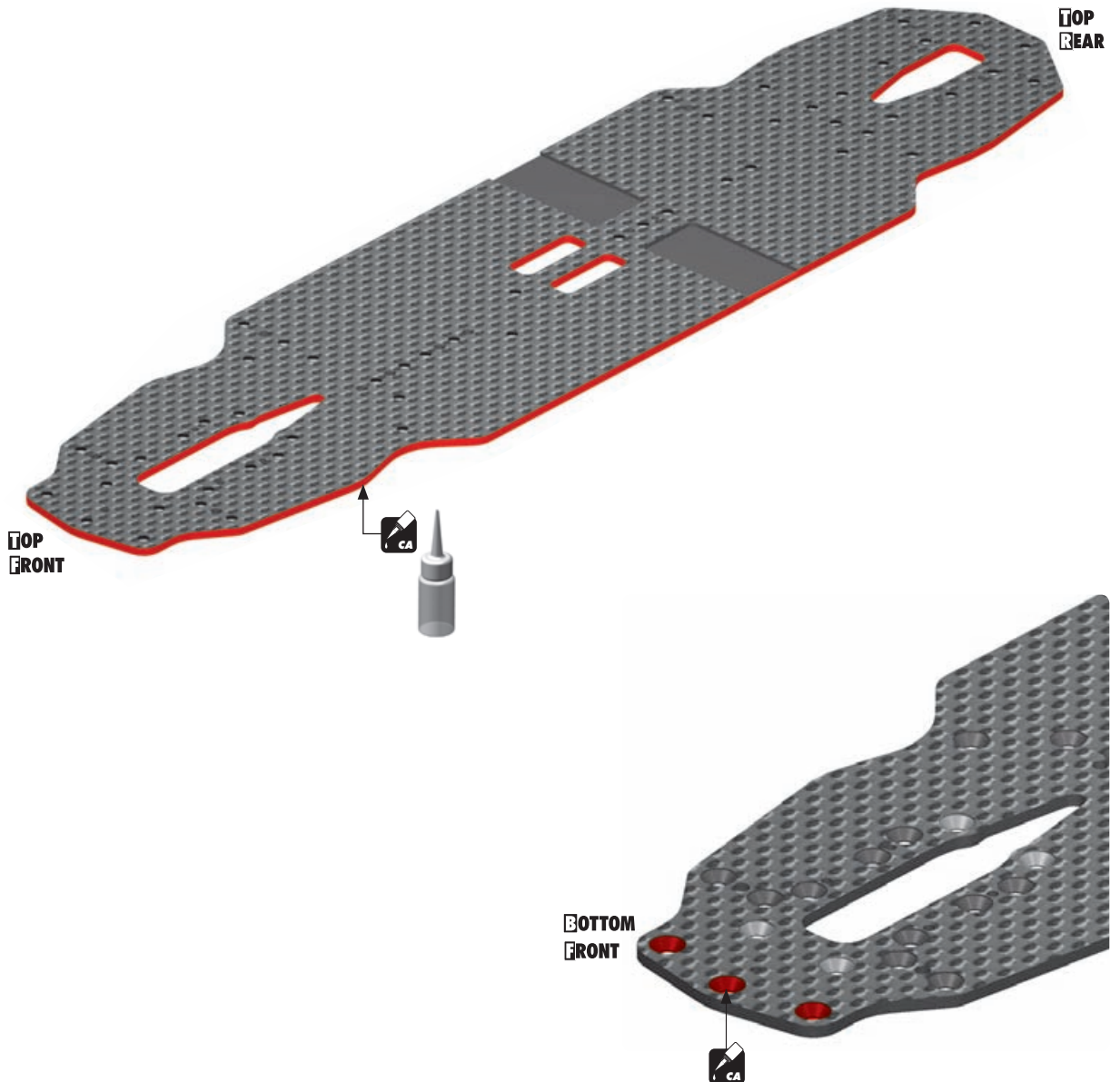
VIDEO TECH TIP



CHASSIS PREPARATION

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

Do this for: chassis edges and countersunk holes.



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

1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

#304970
ALU GEAR DIFF OUTDRIVE ADAPTER (2)
OPTION



#304971
HUDY SPRING STEEL™ OUTDRIVES (2)
OPTION



Requires #305370 drive shafts and #305241 or #305242 drive shaft replacement caps 3.5mm.

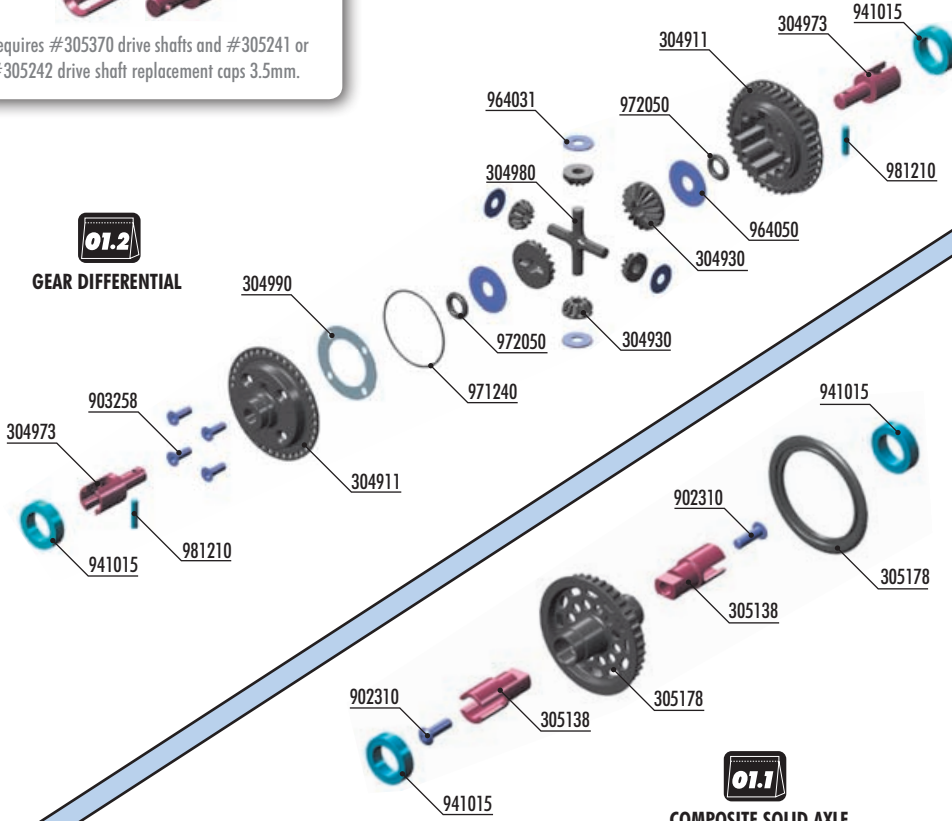
#304972
ALU GEAR DIFF CVD BB DRIVESHAFT ADAPTER - SWISS 7075 T6 (2)
OPTION



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



01.2
GEAR DIFFERENTIAL



01.1
COMPOSITE SOLID AXLE

#305136
ALU SOLID DRIVESHAFT ADAPTERS (2)
OPTION



#305137
STEEL LIGHTWEIGHT SOLID AXLE DRIVESHAFT ADAPTERS HUDY SPRING STEEL™ (2)
OPTION



Requires #305260 drive shafts and #305241 or #305242 drive shaft replacement caps 3.5mm.

BAG

01.1

01.2

- 304902 X4 BB GEAR DIFFERENTIAL - SET
- 304911 X4 COMPOSITE GEAR DIFF CASE WITH 38T PULLEY & COVER
- 304930 COMPOSITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)
- 304973 STEEL GEAR DIFF BB DRIVESHAFT ADAPTER - HUDY SPRING STEEL™ (2)
- 304980 COMPOSITE GEAR DIFF CROSS PIN
- 304990 DIFF GASKET (4)
- 305138 SOLID AXLE ECS BB DRIVESHAFT ADAPTER - HUDY SPRING STEEL™ (2)
- 305178 X4 COMPOSITE SOLID AXLE 38T

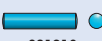
- 902310 HEX SCREW SH M3x10 (10)
- 903258 HEX SCREW SFH M2.5x8 (10)
- 941015 BALL-BEARING 10x15x4 RUBBER SEALED - OIL (2)
- 964031 WASHER S 3.5x10x0.2 (10)
- 964050 WASHER S 5x15x0.3 (10)
- 971240 SILICONE O-RING 24x0.7 (10)
- 972050 SILICONE O-RING 5x2 (10)
- 981210 PIN 2x10 (10)



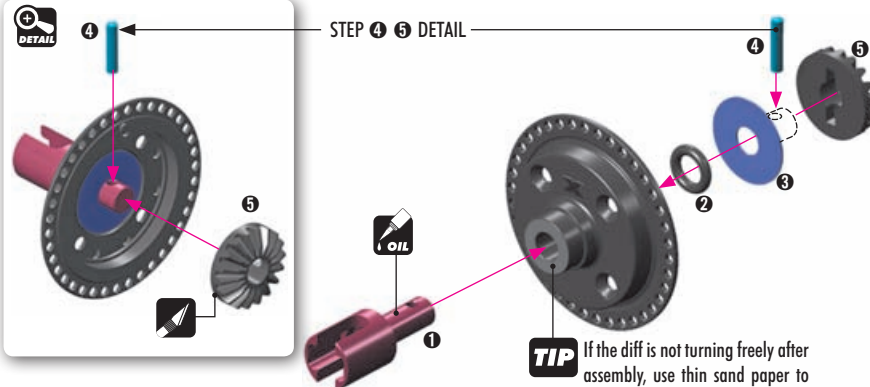
964050
S 5x15x0.3



972050
O 5x2



981210
P 2x10



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



1. GEAR DIFFERENTIAL & FRONT SOLID AXLE

964050
S 5x15x0.3

972050
O 5x2

981210
P 2x10

NOTE ORIENTATION

STEP 4 DETAIL
Use tweezers to insert pin.

If the diff is not turning freely after assembly, use thin sand paper to lightly polish the surface.

TIP **1**

CUTAWAY VIEW

964031
S 3.5x10x0.2

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

INITIAL SETTING
5.000cSt

TIP

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

! If the cross does not enter into the diff freely, use fine sand paper to lightly polish the ends of the cross.

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

12.10g

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

12.10g + 1.5g = 13.60g

13.60g

1 Put the diff (without oil) on the scale and check the weight (approximately 12.10g).

2 Slowly pour oil into the diff and watch the weight. Add 1.5g of oil into the diff. The approximate weight of the diff including oil is 13.60g.

TIPS FOR DIFFERENTIALS			
<p>LOW TRACTION</p> <p>1.000cSt (HUDY #106410)</p> <p>2.000cSt (HUDY #106420)</p> <p>3.000cSt (HUDY #106430)</p> <p>4.000cSt (HUDY #106440)</p>	<p>MEDIUM TRACTION</p> <p>2.000cSt (HUDY #106420)</p> <p>3.000cSt (HUDY #106430)</p> <p>4.000cSt (HUDY #106440)</p> <p>5.000cSt (HUDY #106450)</p> <p>6.000cSt (HUDY #106460)</p> <p>7.000cSt (HUDY #106470)</p>	<p>HIGH TRACTION</p> <p>8.000cSt (HUDY #106480)</p> <p>9.000cSt (HUDY #106490)</p> <p>10.000cSt (HUDY #106510)</p>	<p>VERY-HIGH TRACTION</p> <p>11.000cSt (HUDY #106492)</p> <p>12.000cSt (HUDY #106512)</p> <p>15.000cSt (HUDY #106515)</p> <p>20.000cSt (HUDY #106520)</p>

NOTE

LIGHTER oil increases rear traction, HEAVIER oil increases on-power steering and stability. It is important not to use lighter 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 light, 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 lighter oil first, then try heavier oil to better understand the effect on the car's behavior at the track. Choose the oil accordingly.

TIP TIPS FOR FRONT DIFFERENTIAL

To increase off-power steering and mid-corner steering, the gear diff can also be used in front.

NOTE: If you use the gear diff in the front, we recommend using optional #304971 HUDY Spring Steel™ outrives because the stress on the outrives in the front is much higher than in the rear.

USE THESE OILS FOR FRONT DIFFERENTIAL

500.000cSt (HUDY #106650)

1 000.000cSt (HUDY #106692)

2 000.000cSt (HUDY #106694)

To make the front differential thicker, 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.

VIDEO TECH TIP

REAR DIFFERENTIAL

OPTION **#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.

1. GEAR DIFFERENTIAL & FRONT SOLID AXLE




971240
O 24x0.7



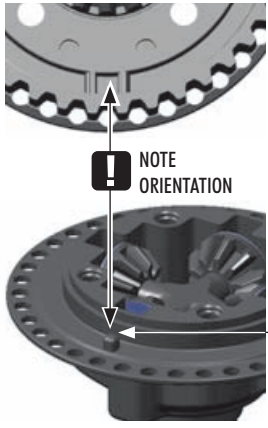
!

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 installing a new O-ring if the old one cannot be made to fit properly.

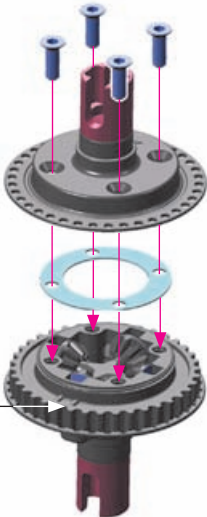



903258
SFH M2.5x8

! BOTTOM



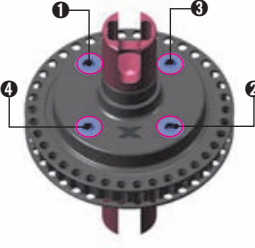
! NOTE ORIENTATION






!

Tighten the screws equally but **DO NOT** tighten them completely.

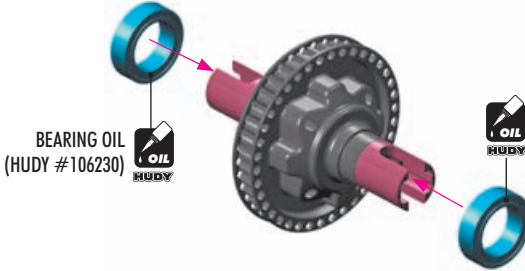


!

Finish tightening in this order.




941015
BB 10x15x4



BEARING OIL (HUDY #106230)

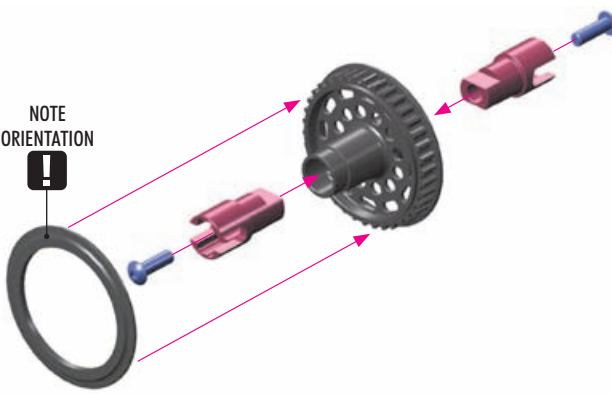
OIL HUDY

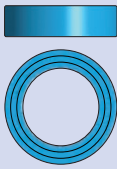
1. FRONT SOLID AXLE



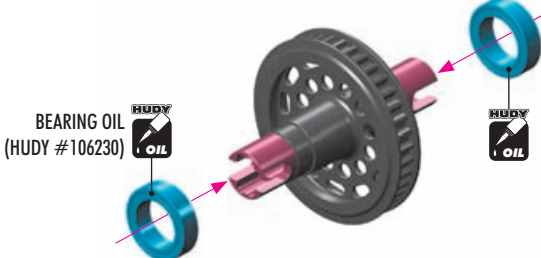
902310
SH M3x10

! NOTE ORIENTATION





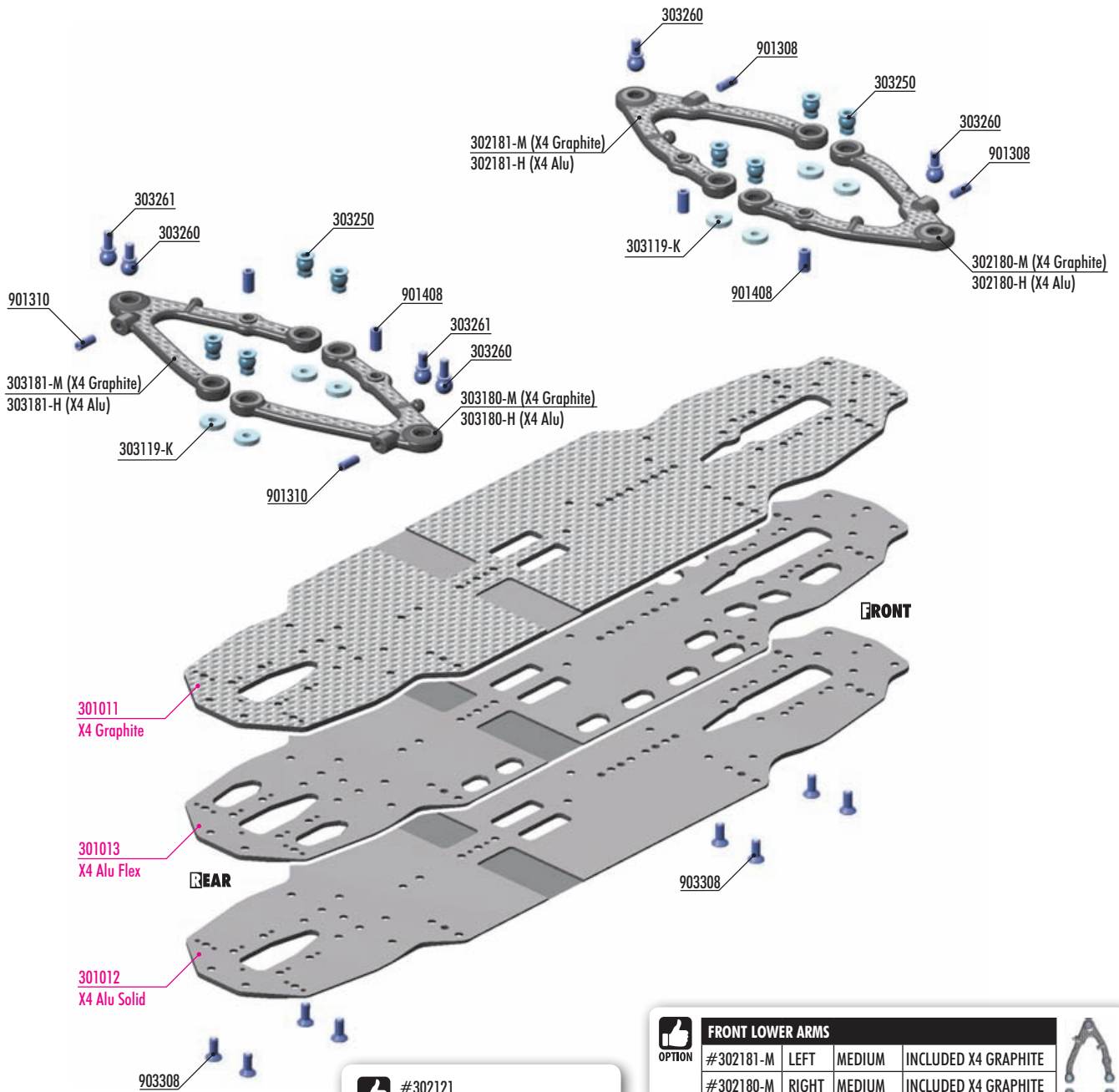
941015
BB 10x15x4



BEARING OIL (HUDY #106230)

OIL HUDY

2. FRONT & REAR SUSPENSION



301011
X4 Graphite

301013
X4 Alu Flex

301012
X4 Alu Solid

903308

#302121
FRONT ROLL-CENTER SPACER (2)

#302122
REAR ROLL-CENTER SPACER (2)

FRONT LOWER ARMS				
#302181-M	LEFT	MEDIUM	INCLUDED X4 GRAPHITE	
#302180-M	RIGHT	MEDIUM	INCLUDED X4 GRAPHITE	
#302181-H	LEFT	HARD	INCLUDED X4 ALU	
#302180-H	RIGHT	HARD	INCLUDED X4 ALU	

REAR LOWER ARMS				
#303181-M	LEFT	MEDIUM	INCLUDED X4 GRAPHITE	
#303180-M	RIGHT	MEDIUM	INCLUDED X4 GRAPHITE	
#303181-H	LEFT	HARD	INCLUDED X4 ALU	
#303180-H	RIGHT	HARD	INCLUDED X4 ALU	

BAG
02

- 302180-M X4 COMPOSITE CFF™ CARBON-FIBER FUSION FRONT LOWER ARM - MEDIUM - RIGHT
- 302180-H X4 COMPOSITE CFF™ CARBON-FIBER FUSION FRONT LOWER ARM - HARD - RIGHT
- 302181-M X4 COMPOSITE CFF™ CARBON-FIBER FUSION FRONT LOWER ARM - MEDIUM - LEFT
- 302181-H X4 COMPOSITE CFF™ CARBON-FIBER FUSION FRONT LOWER ARM - HARD - LEFT
- 303119-K ALU SHIM 3x9x2.0MM - BLACK (10)
- 303180-M X4 COMPOSITE CFF™ CARBON-FIBER FUSION REAR LOWER ARM - MEDIUM - RIGHT
- 303180-H X4 COMPOSITE CFF™ CARBON-FIBER FUSION REAR LOWER ARM - HARD - RIGHT
- 303181-M X4 COMPOSITE CFF™ CARBON-FIBER FUSION REAR LOWER ARM - MEDIUM - LEFT
- 303181-H X4 COMPOSITE CFF™ CARBON-FIBER FUSION REAR LOWER ARM - HARD - LEFT
- 303250 X4 LOWER ARM BALL UNIVERSAL 6.0MM WITH HEX - HUDY SPRING STEEL™ (2)
- 303260 X4 PIVOT BALL 6.0MM WITH M3x5.5MM THREAD - HUDY SPRING STEEL™ (2)
- 303261 X4 PIVOT BALL 6.0MM WITH M3x6.5MM THREAD - HUDY SPRING STEEL™ (2)

- 901308 HEX SCREW SB M3x8 (10)
- 901310 HEX SCREW SB M3x10 (10)
- 901408 HEX SCREW SB M4x8 (10)
- 903308 HEX SCREW SFH M3x8 (10)

- 301011 X4 GRAPHITE CHASSIS 2.2MM
- 301012 X4 ALU SOLID CHASSIS 2.0MM - SWISS 7075 T6
- 301013 X4 ALU FLEX CHASSIS 2.0MM - SWISS 7075 T6

2. FRONT & REAR SUSPENSION

REAR SUSPENSION ARMS

LEFT **RIGHT**

NOTE ORIENTATION **NOTE ORIENTATION** **NOTE ORIENTATION**

5.5mm THREAD 6.5mm THREAD

LONG ALTERNATIVE SHORT (INITIAL SETTING)

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

! Press straight

Pivot ball with M3x6.5mm **!** Play 1.5mm shim.

When using more than 1mm shim under the hub, use the #303261 pivot ball with longer 6.5mm thread length to increase durability in serious crashes.

Make sure to check for clearance between the pivot ball threads and CVD pin.

Follow page 28/ step 3

Pivot ball with M3x5.5mm (INITIAL SETTING) **!** Play 0.5mm shim.

REAR SUSPENSION ARMS

LEFT = RIGHT

4x8mm 3x10mm

! Make sure to use 10mm set screw for rear arms.

5.0mm 2.6mm

VIDEO TECH TIP

LOWER ARMS

901310 SB M3x10

901408 SB M4x8

FRONT SUSPENSION ARMS

LEFT **RIGHT**

NOTE ORIENTATION **NOTE ORIENTATION** **NOTE ORIENTATION**

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

! Use only pivot ball with M3x5.5mm thread for front arms.

! Press straight

2. FRONT & REAR SUSPENSION

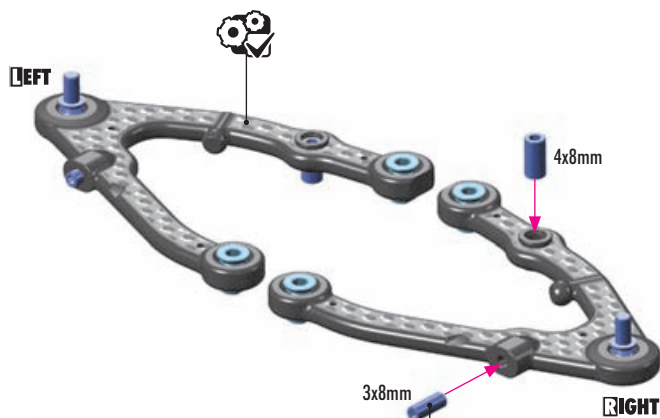


901308
SB M3x8



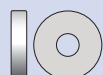
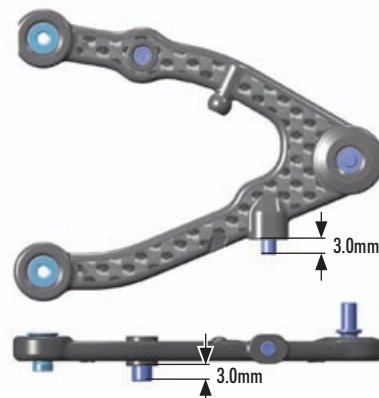
901408
SB M4x8

FRONT SUSPENSION ARMS



Make sure to use 8mm set screw for front arms.

LEFT = RIGHT



303119-K
SHIM 3x9x2

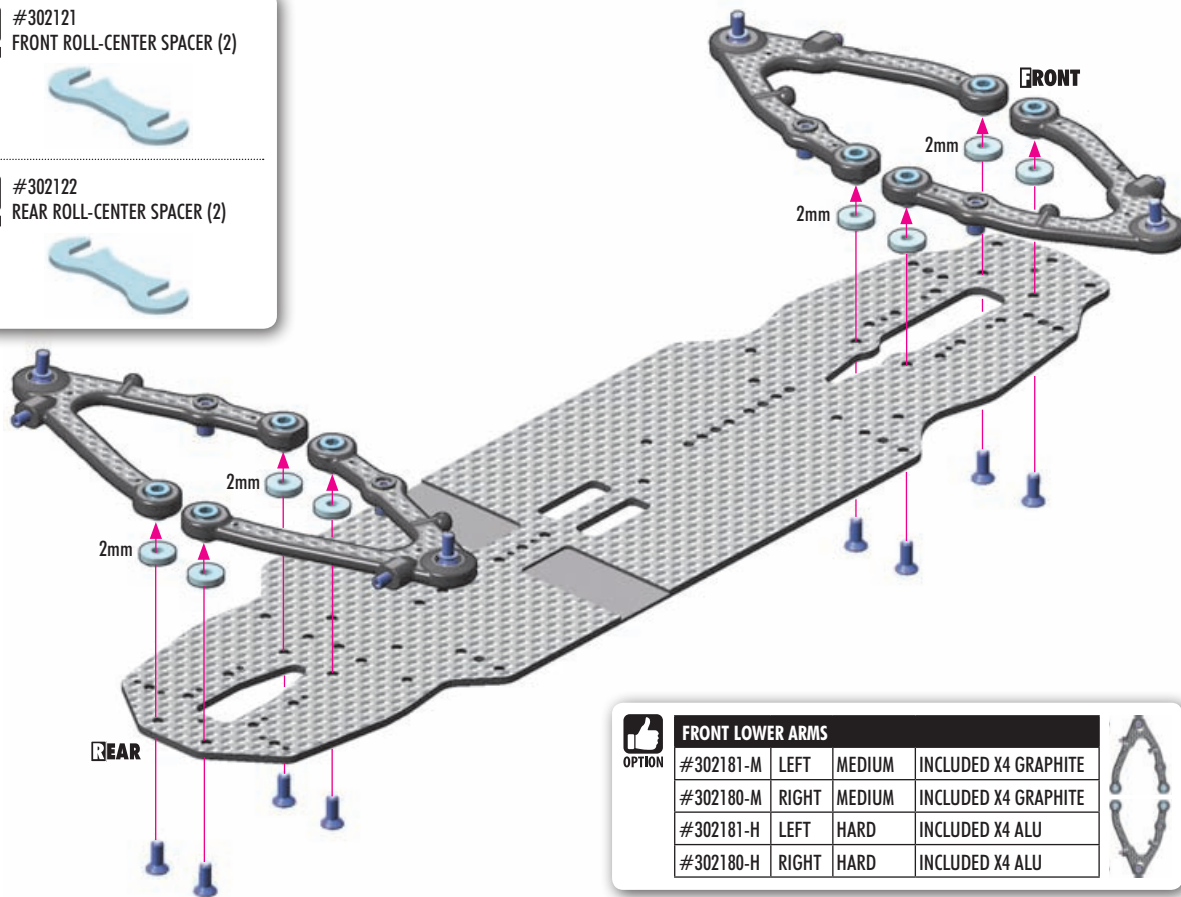


903308
SFH M3x8

#302121
FRONT ROLL-CENTER SPACER (2)



#302122
REAR ROLL-CENTER SPACER (2)



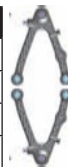
FRONT LOWER ARMS

#302181-M	LEFT	MEDIUM	INCLUDED X4 GRAPHITE
#302180-M	RIGHT	MEDIUM	INCLUDED X4 GRAPHITE
#302181-H	LEFT	HARD	INCLUDED X4 ALU
#302180-H	RIGHT	HARD	INCLUDED X4 ALU



REAR LOWER ARMS

#303181-M	LEFT	MEDIUM	INCLUDED X4 GRAPHITE
#303180-M	RIGHT	MEDIUM	INCLUDED X4 GRAPHITE
#303181-H	LEFT	HARD	INCLUDED X4 ALU
#303180-H	RIGHT	HARD	INCLUDED X4 ALU



ROLL-CENTER ADJUSTMENT

RAISING THE LOWER ARMS will raise the car's roll center. Raising the lower arms both front and rear will free up the car, and will make it initially more responsive. Side bite will be decreased. A higher roll center is typically recommended for asphalt racing.

LOWERING THE LOWER ARMS will lower the car's roll center. Lowering both the front and rear arms will lock in the car more, and will make it initially less responsive. Side bite will be increased. A lower roll center is typically recommended for carpet racing.

We recommend the **MEDIUM** hardness of the lower suspension arms for asphalt. These arms are more flexible than the H (hard) arms.

For carpet racing and even some high-grip asphalt conditions, we recommend the **HARD** suspension arms.



VIDEO TECH TIP

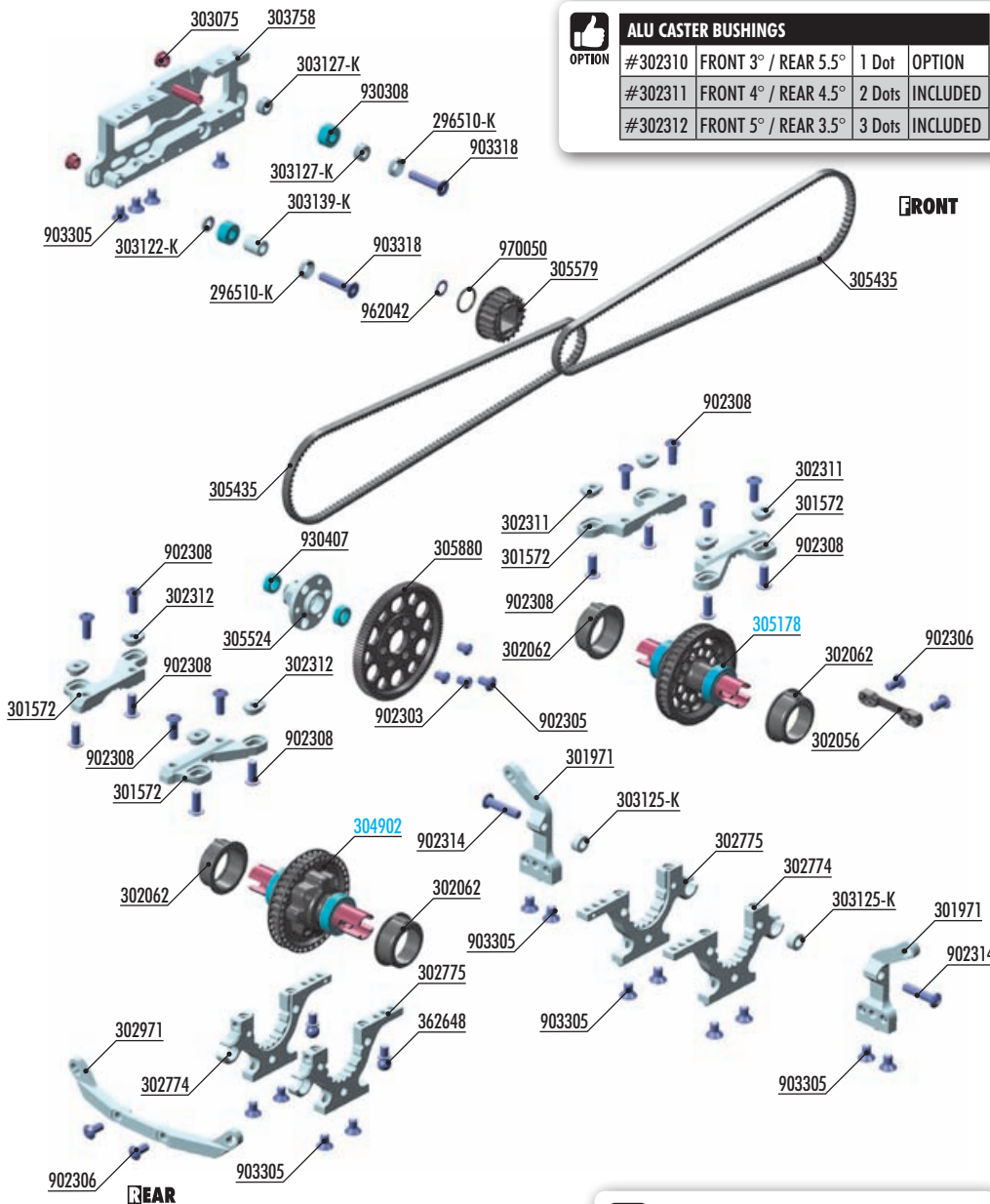


ROLL-CENTER



CHASSIS ALTERNATIVES

3. CENTRAL TRANSMISSION



OPTION **ALU CASTER BUSHINGS**

#302310	FRONT 3° / REAR 5.5°	1 Dot	OPTION
#302311	FRONT 4° / REAR 4.5°	2 Dots	INCLUDED
#302312	FRONT 5° / REAR 3.5°	3 Dots	INCLUDED

OPTION #305436
HIGH-PERFORMANCE DRIVE BELT
LOW-FRICTION 3x351mm

OPTION #303768
ALU CHASSIS T-BRACE - 7075 T6

OPTION #303767
BRASS CHASSIS T-BRACE - 10g

OPTION **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
#305784-0	84T / 48P	OPTION

OFFSET SPUR GEARS 64P

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

OPTION #301574
ALU UPPER CLAMPS - 1.5mm

OPTION #302055
X4 ALU CHASSIS FRONT BRACE

OPTION #309852
X4 BRASS WEIGHTS NICKEL COATED FOR MOTOR MOUNT 4g + 4g + 8g

OPTION #302063-K
ALU ADJUSTMENT BALL-BEARING HUB (2)

BAG
03

- 296510-K ALU COUNTERSUNK SHIM - BLACK (10)
- 301572 X4 ALU UPPER CLAMP - SWISS 7075 T6 (L+R)
- 301971 XLP ALU SHOCK TOWER FRONT - SWISS 7075 T6 (L+R)
- 302056 X4 GRAPHITE FRONT SUSPENSION BRACE
- 302062 COMPOSITE ADJUSTMENT BALL-BEARING HUB (4)
- 302311 X4 ALU CASTER BUSHING FRONT 4° / REAR 1.5° - 2 DOTS (4)
- 302312 X4 ALU CASTER BUSHING FRONT 5° / REAR 2.5°/3.5° - 3 DOTS (4)
- 302774 X4 ALU LOWER ADJUSTMENT BULKHEAD - FRONT R / REAR L
- 302775 X4 ALU LOWER ADJUSTMENT BULKHEAD - FRONT L / REAR R
- 302971 XLP ALU SHOCK TOWER REAR - SWISS 7075 T6
- 303075 STEEL NUT (2)
- 303122-K ALU SHIM 3x6x1.0MM - BLACK (10)
- 303125-K ALU SHIM 3x6x3.0MM - BLACK (10)
- 303127-K ALU SHIM 3x6x4.0MM - BLACK (10)
- 303139-K ALU SHIM 3x6x7.0MM - BLACK (10)
- 303758 X4 ALU MOTOR MOUNT
- 305435 HIGH-PERFORMANCE DRIVE BELT 3x351MM
- 305524 X4 ALU SOLID LAYSHAFT & BEARINGS

- 305579 X4 COMPOSITE PULLEY FOR LAYSHAFT 20T
- 305880 OFFSET SPUR GEAR 110T / 64
- 362648 BALL END 4.9MM WITH THREAD 4MM (2)
- 902303 HEX SCREW SH M3x4 SMALL HEAD - STAINLESS (10)
- 902305 HEX SCREW SH M3x5 (10)
- 902306 HEX SCREW SH M3x6 (10)
- 902308 HEX SCREW SH M3x8 (10)
- 902314 HEX SCREW SH M3x14 (10)
- 903305 HEX SCREW SFH M3x5 (10)
- 903318 HEX SCREW SFH M3x18 (10)
- 930308 BALL-BEARING 3x8x4 STEEL SEALED - OIL (2)
- 930407 BALL-BEARING 4x7x2.5 STEEL SEALED - OIL (2)
- 962042 WASHER S 4x6x0.1 (10)
- 970050 O-RING 5x1 (10)
- 304902 X4 BB GEAR DIFFERENTIAL - SET
- 305178 X4 COMPOSITE SOLID AXLE 38T

3. CENTRAL TRANSMISSION



903305
SFH M3x5



VIDEO TECH TIP



BUILDING THE BULKHEADS

Milled Out Area inside

NOTE ORIENTATION

1

2

FRONT

REAR

Milled Out Area inside

NOTE ORIENTATION



#302063-K
ALU ADJUSTMENT BALL-BEARING HUB (2)



#305436
HIGH-PERFORMANCE DRIVE BELT
LOW-FRICTION 3x351mm



FRONT SOLID AXLE

LONGER

SHORTER

FRONT

REAR GEAR DIFF

SHORTER

LONGER

REAR

FRONT SOLID AXLE

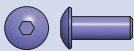
LONG

SHORT

LEFT

RIGHT

3. CENTRAL TRANSMISSION



902308
SH M3x8

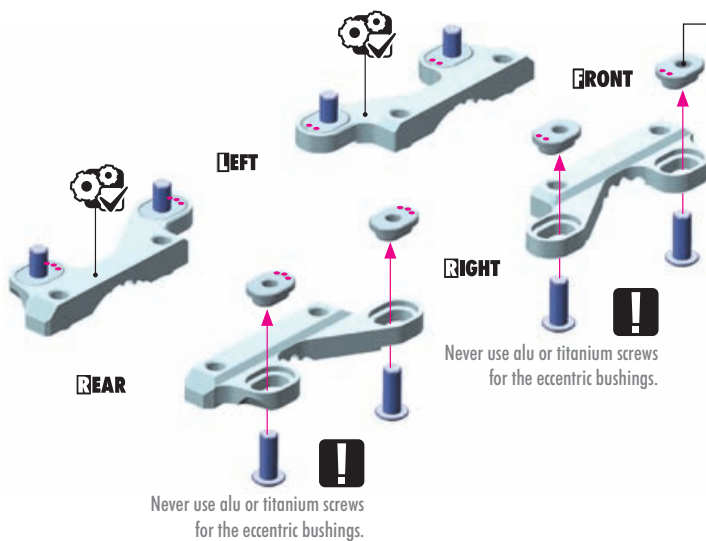


VIDEO TECH TIP



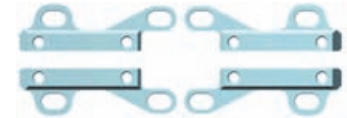
CASTER

NOTE ORIENTATION FOR ALL PARTS



IMPORTANT
All 4 bushings at one end of the car must be installed in the same orientation.

#301574 ALU UPPER CLAMPS - 1.5mm

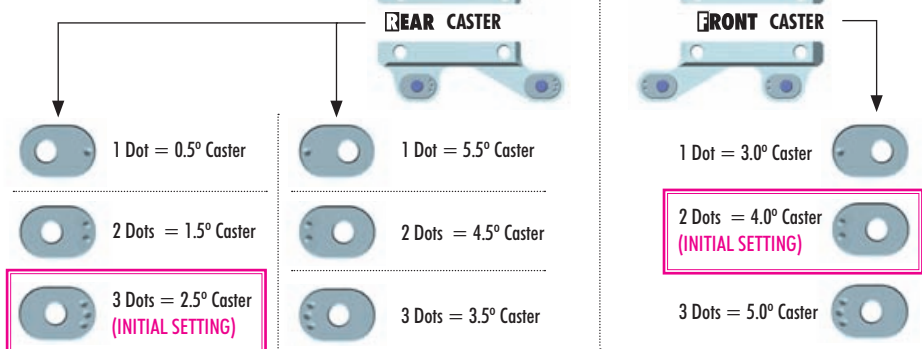


The new upper clamps move the inner pivot 1.5mm closer to center. This position lengthens the upper arm and reduces camber gain to free up the car. Mid corner steering improves in long sweepers, and traction rolling is reduced in very high traction carpet conditions. Recommended for large open tracks or high traction carpet tracks.

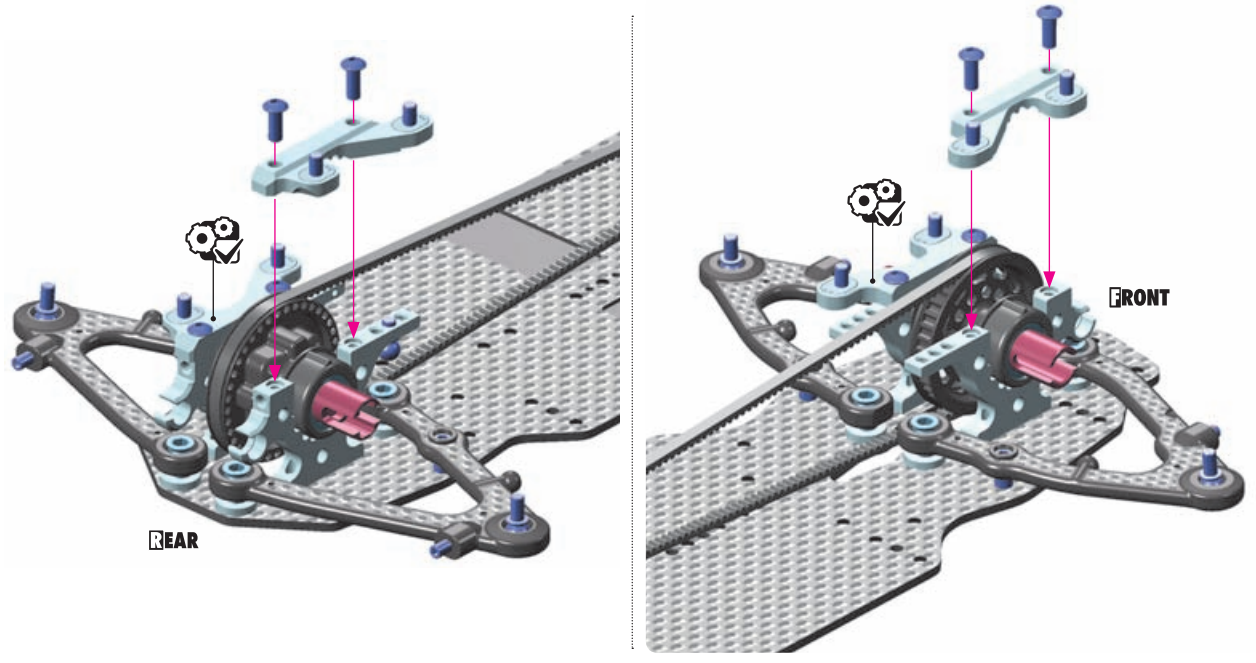
ALU CASTER BUSHINGS				
OPTION	#302310	0.5° / 3.0° / 5.5°	1 Dot	OPTION
	#302311	1.5° / 4.0° / 4.5°	2 Dots	INCLUDED
	#302312	2.5° / 3.5° / 5°	3 Dots	INCLUDED

CASTER ADJUSTMENT
For most conditions, start with 4.0° front caster. Increasing front caster will increase steering (mainly on-power) but may also become more difficult to drive and more likely to traction roll.
The standard starting point for rear caster is 2.5°. More rear caster will increase initial steering but make the car more nervous to drive. It can increase rear traction in lower grip conditions. Less rear caster helps to increase cornering speed and rotation.

IMPORTANT
All 4 bushings at one end of the car must be installed in the same orientation.



902308
SH M3x8

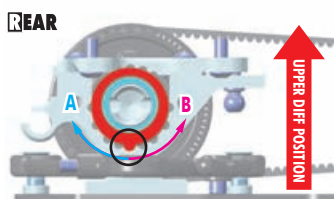


3. CENTRAL TRANSMISSION

REAR BELT TENSION ADJUSTMENT & DIFFERENTIAL POSITION

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

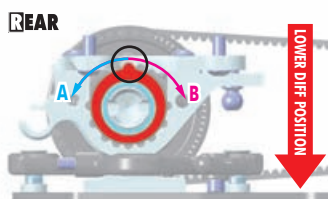
Recommended for **medium-high traction** tracks.



INITIAL POSITION
for ASPHALT

Rear diff **LOWER** position - tab in top notch - provides **more rear traction** (mainly on-power), makes the car **more stable in chicanes**, but can **cause a push on corner exit**.

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

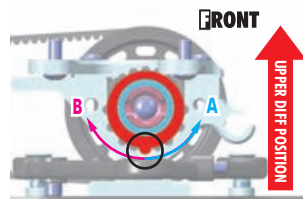


INITIAL POSITION
for CARPET

FRONT BELT TENSION ADJUSTMENT & DIFFERENTIAL POSITION

Front solid axle **UPPER** position - tab in bottom notch - provides **more steering**, but **less forward traction**.

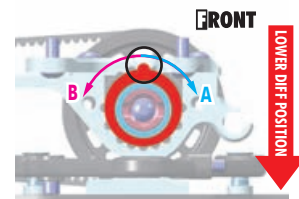
Recommended for **medium-high** traction tracks and technical tracks.



INITIAL POSITION
for ASPHALT

Front solid axle **LOWER** position - tab in top notch - provides **more forward traction**, but makes the car **push on-power**.

Recommended for **low-traction** tracks.



INITIAL POSITION
for CARPET

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**



VIDEO TECH TIP



DIFF HEIGHT



BELT TENSION ADJUSTMENT

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**



902303
SH M3x4



930407
BB 4x7x2.5

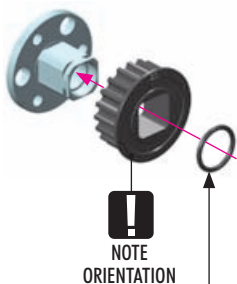


970050
O 5x1



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 CH-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
(HUDY #189040)

2. ALTERNATIVE
64P OFFSET SPUR GEAR
(INITIAL SETTING)



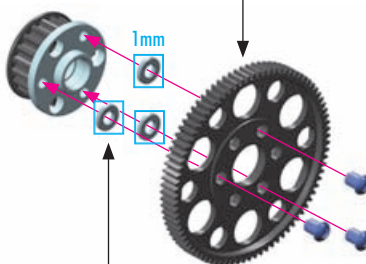
CUTAWAY VIEW



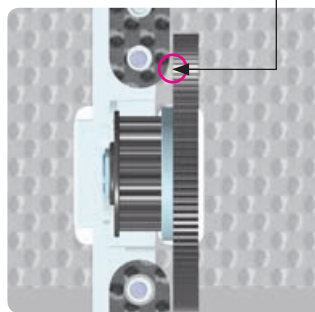
OFFSET SPUR GEARS 64P

OPTION	TOOTH COUNT	STATUS
#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

2. ALTERNATIVE
48P SPUR GEAR



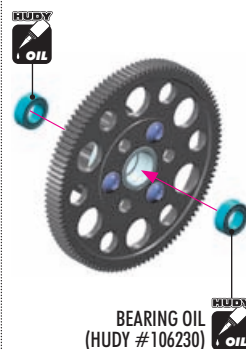
When using XRAY 48P spur gears or aftermarket spur gears without an offset, use the 3x5x1mm shims (#303141 not included) between the gear and layshaft to create the necessary clearance from the top deck.



SPUR GEARS 48P

OPTION	TOOTH COUNT	STATUS
#305772	72T	OPTION
#305776	76T	OPTION
#305778	78T	OPTION
#305779	79T	OPTION
#305781	81T	OPTION
#305784	84T	OPTION
#305784-0	84T	OPTION

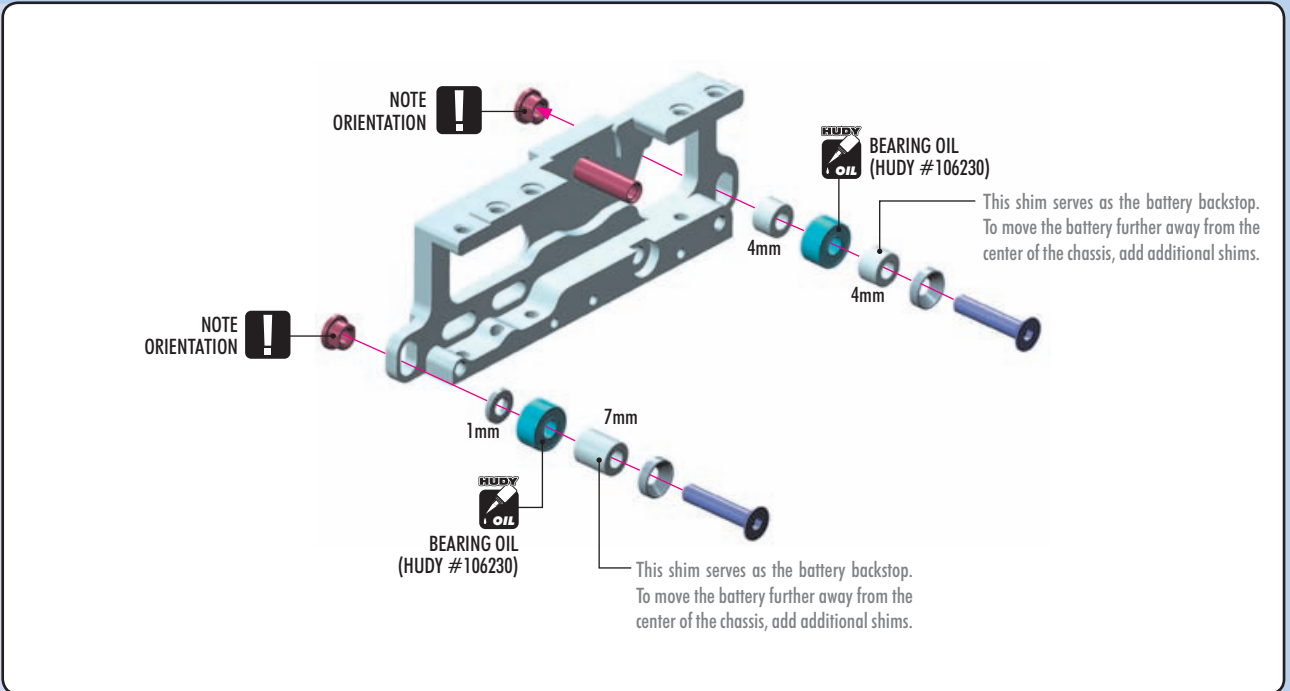
3.





BEARING OIL
(HUDY #106230)

3. CENTRAL TRANSMISSION

-  303122-K
SHIM 3x6x1
-  303127-K
SHIM 3x6x4
-  303139-K
SHIM 3x6x7
-  903318
SFH M3x18
-  930308
BB 3x8x4



NOTE ORIENTATION 

NOTE ORIENTATION 

BEARING OIL (HUDY #106230)

4mm

4mm


1mm


7mm


BEARING OIL (HUDY #106230)


This shim serves as the battery backstop. To move the battery further away from the center of the chassis, add additional shims.

This shim serves as the battery backstop. To move the battery further away from the center of the chassis, add additional shims.

 #309852
X4 BRASS WEIGHTS NICKEL COATED FOR MOTOR MOUNT 4g + 4g + 8g
OPTION

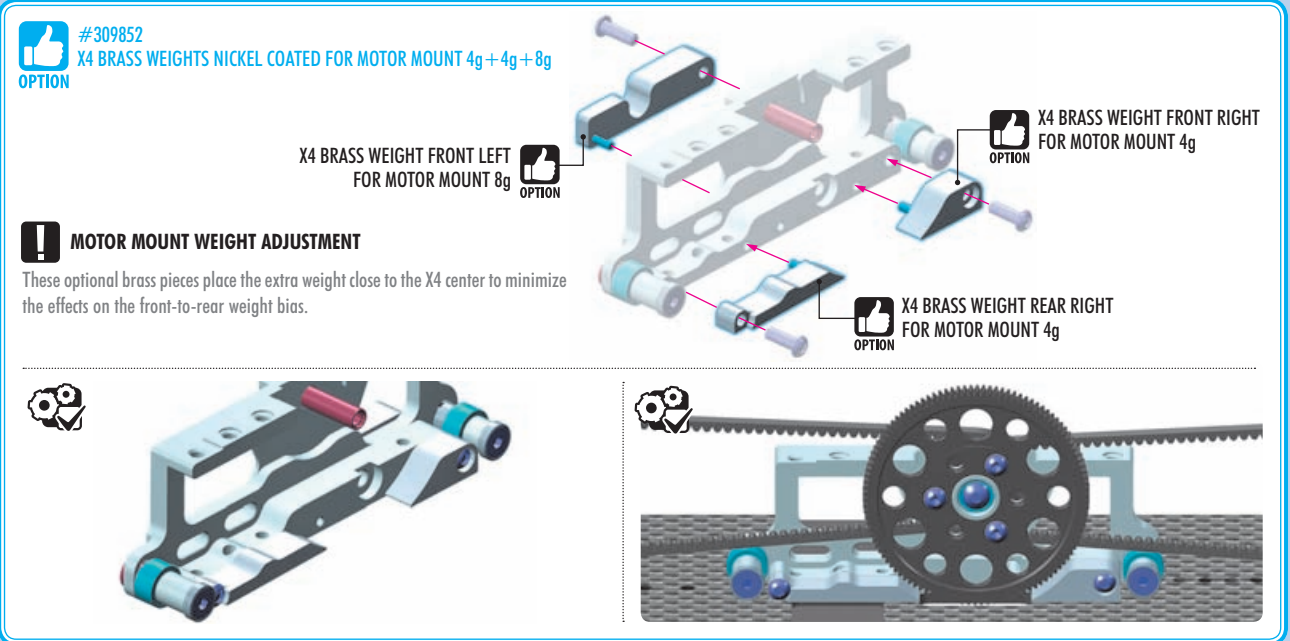
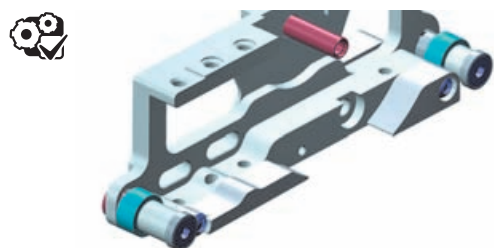
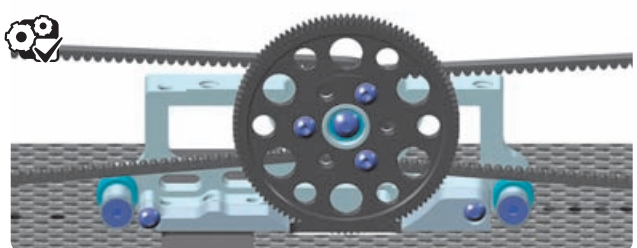
X4 BRASS WEIGHT FRONT LEFT FOR MOTOR MOUNT 8g  **OPTION**

X4 BRASS WEIGHT FRONT RIGHT FOR MOTOR MOUNT 4g  **OPTION**

X4 BRASS WEIGHT REAR RIGHT FOR MOTOR MOUNT 4g  **OPTION**

! MOTOR MOUNT WEIGHT ADJUSTMENT

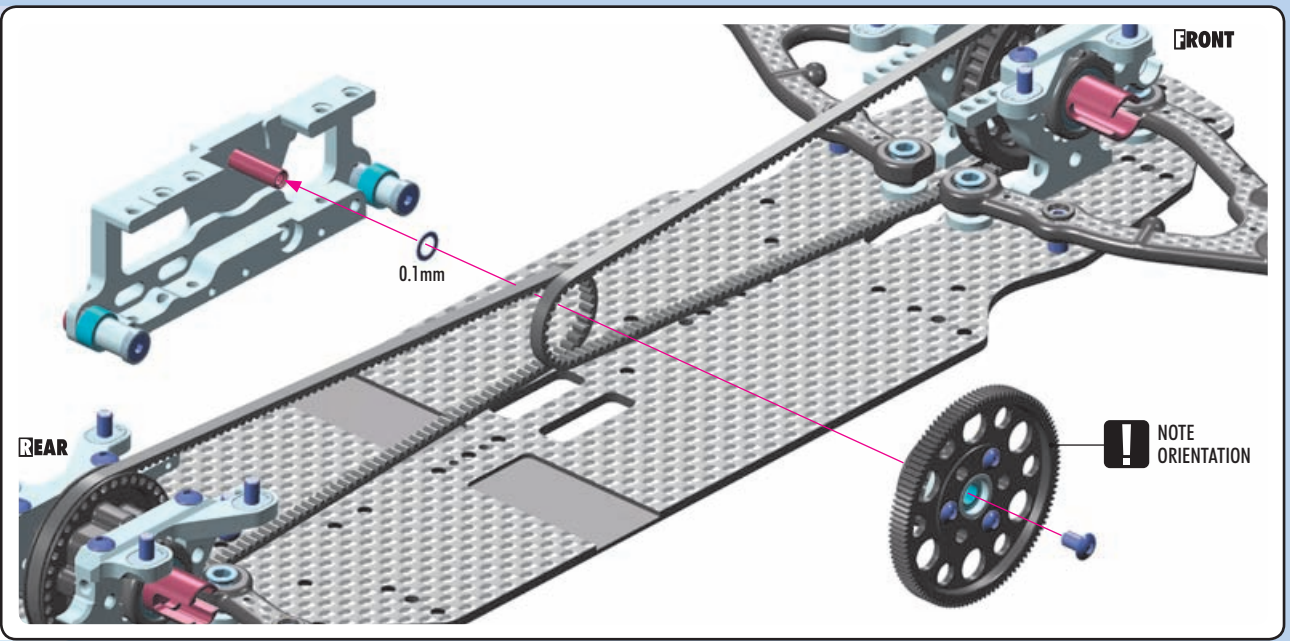
These optional brass pieces place the extra weight close to the X4 center to minimize the effects on the front-to-rear weight bias.

-  902305
SFH M3x5
-  962042
S 4x8x0.1

 VIDEO TECH TIP


 BELT TENSION ADJUSTMENT



FRONT

0.1mm

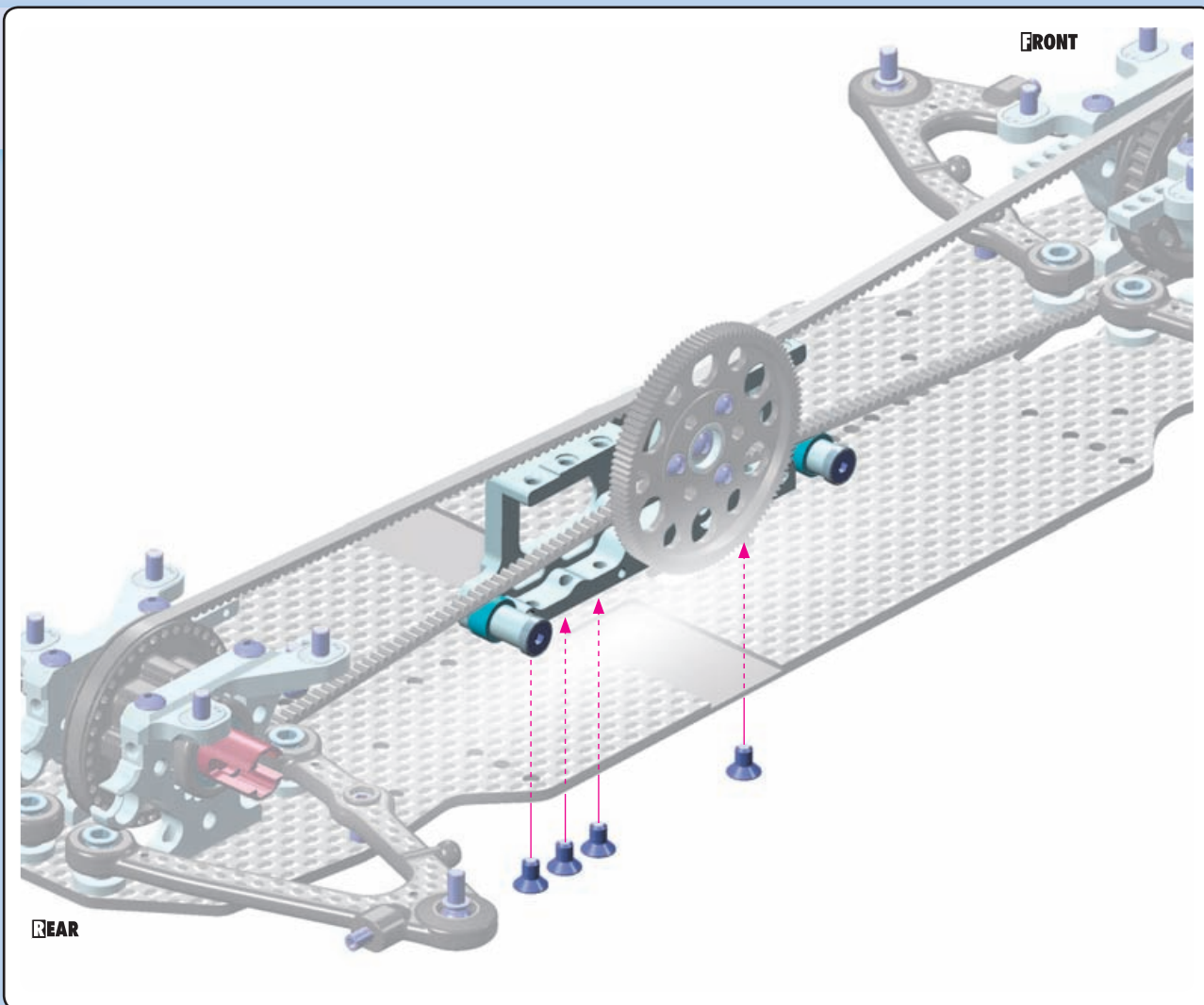
REAR

NOTE ORIENTATION 

3. CENTRAL TRANSMISSION



903305
SFH M3x5



MOTOR MOUNT FLEX ADJUSTMENT

The motor mount is part of the chassis flex adjustment. Adding or removing screws from the mount will create different flex settings for different tracks and traction levels.

NOTE: When removing screws from the motor mount, the spur gear becomes more susceptible to breakage in crashes.

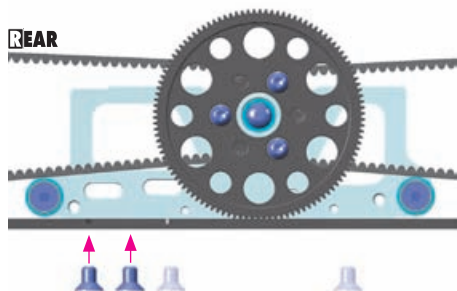


▶ VIDEO TECH TIP

MOTOR MOUNT FLEX

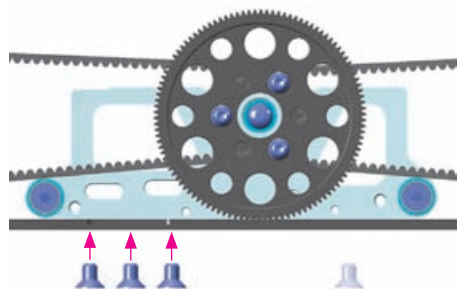
SOFT (INITIAL SETTING)

Use only the 2 rearmost screws to attach the motor mount (as shown). DO NOT install the 2 screws immediately in front of & behind the spur gear. This allows the chassis to flex more in the central area, and will improve traction (especially on-power). Rear grip will be improved through the entire corner, but initial reaction will decrease. This setting is recommended for low- to medium-traction conditions, both on carpet and asphalt.



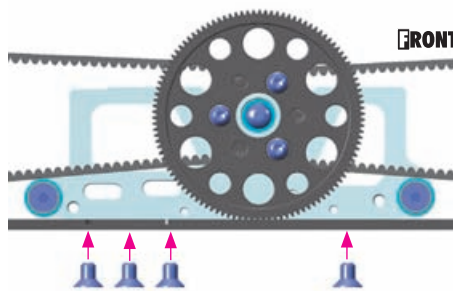
MEDIUM

Use only the 3 rearmost screws to attach the motor mount (as shown); DO NOT install the very front screw. This gives a good compromise between stability and initial response. The car will have more rear grip than the full stiff setting, but will not be as stable as the soft setting.



STIFF

Using all screws to attach the motor mount (as shown) will give the best steering response, but with the least mechanical traction. The car will have more cornering speed, but will be more difficult to drive. Mainly recommended for high-traction carpet conditions.



3. CENTRAL TRANSMISSION



303121-K
SHIM 3x6x0.5

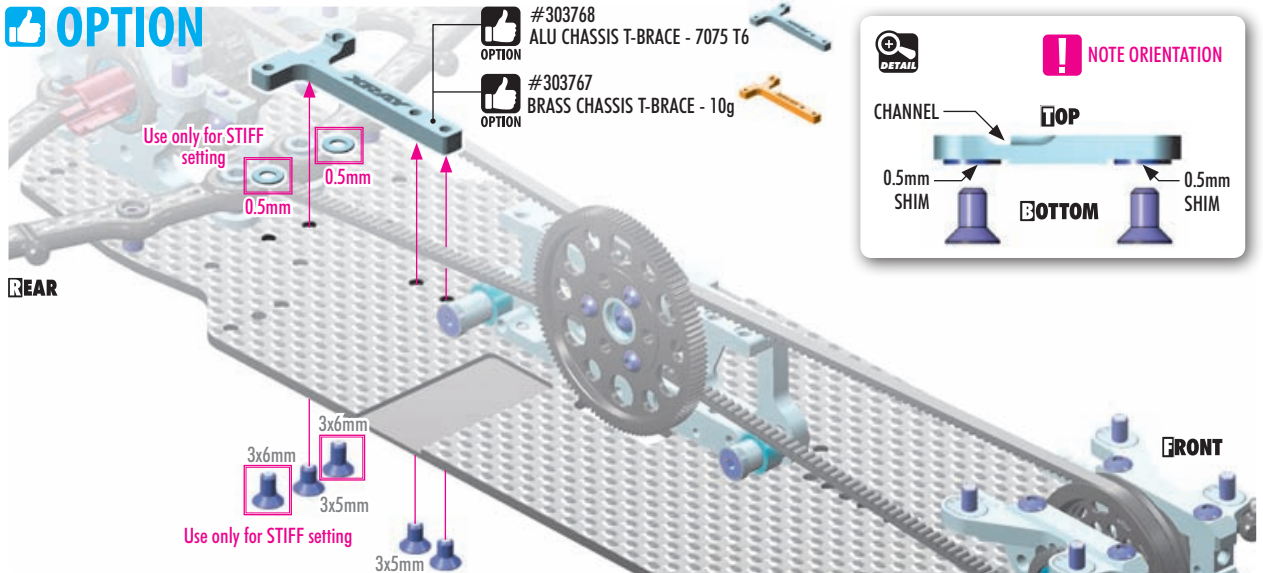


903305
SFH M3x5

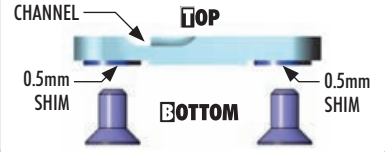


903306
SFH M3x6

OPTION



NOTE ORIENTATION



CHASSIS FLEX ADJUSTMENT

The brace provides chassis flex adjustment possibilities depending on which screws are connected.

SOFT - NO BRACE

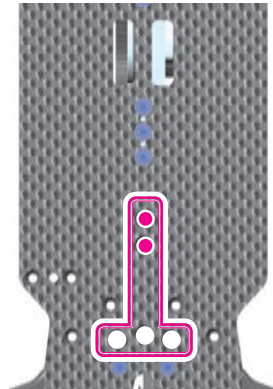
When the brace is not installed, the car will have the most steering and rotation. However, the car will be more difficult to drive as it is less stable. Recommended for medium-high traction conditions and for small, technical tracks with many hairpin corners.



REAR

SOFT - MEDIUM

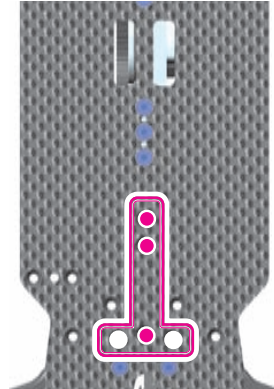
Install the brace using only the 2 forward bottom centerline screws (as shown). This gives improved on-power stability but still offers great off-power steering and rotation. Recommended for medium-high traction conditions and for small, technical tracks with many hairpin corners.



REAR

MEDIUM

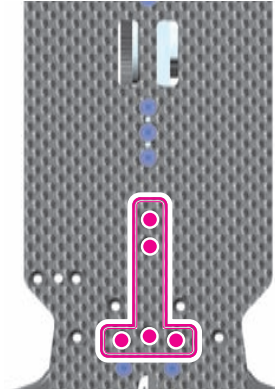
Install the brace using all 3 bottom centerline screws (as shown). This gives improved on-power stability and traction, but makes the car push more off-power. Recommended for low- or high-traction conditions where stability and traction is needed.



REAR

STIFF

In addition to installing all 3 bottom centerline screws, also install the 2 rear side screws but with 0.5mm shims between the brace and the chassis. This setting gives maximum stability.

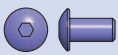


REAR

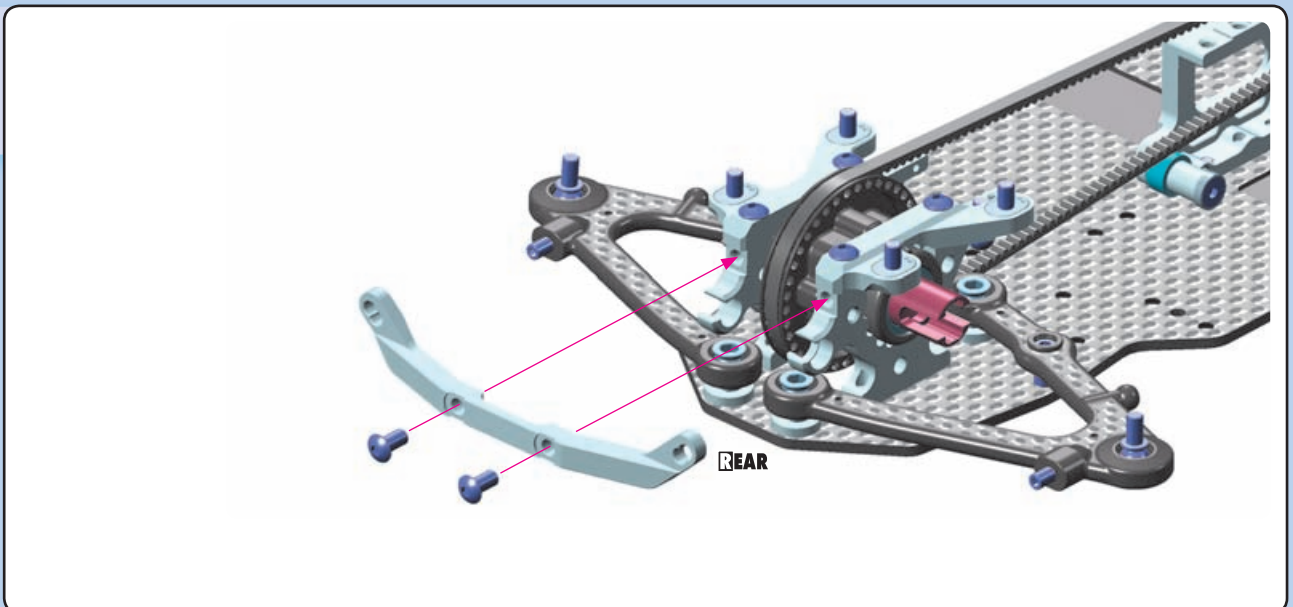
VIDEO TECH TIP



CHASSIS & TOP DECKS



902306
SH M3x6



3. CENTRAL TRANSMISSION



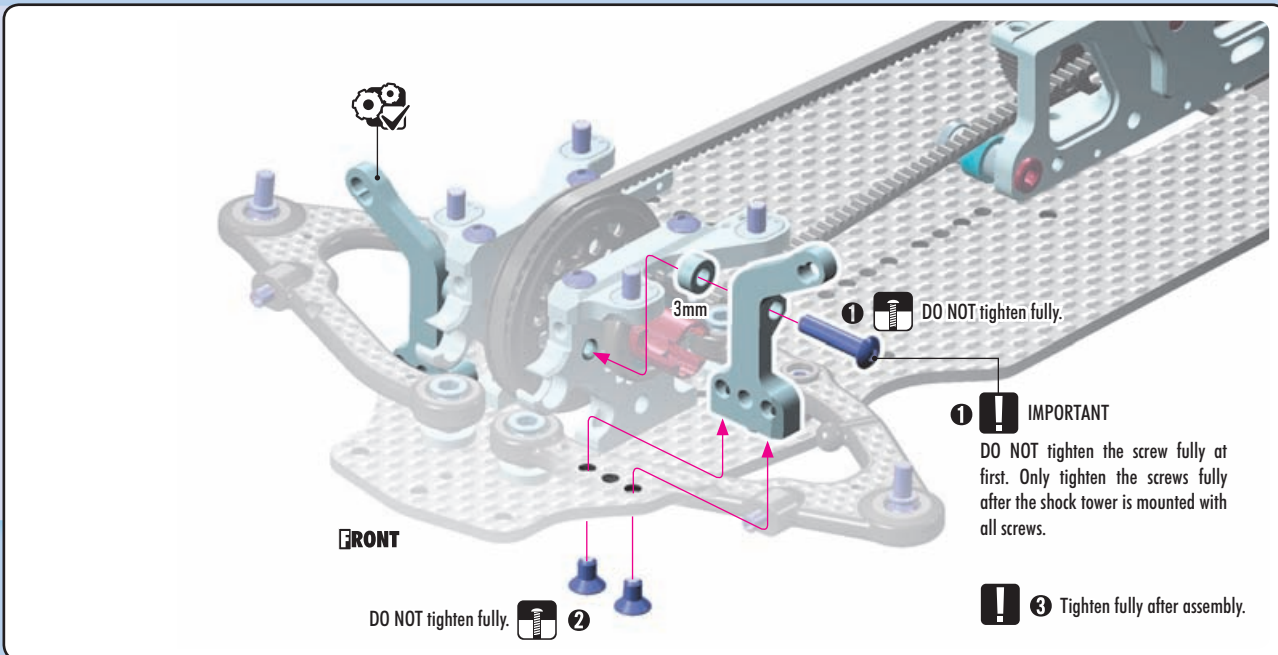
303125-K
SHIM 3x6x3



902314
SH M3x14

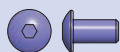


903305
SFH M3x5

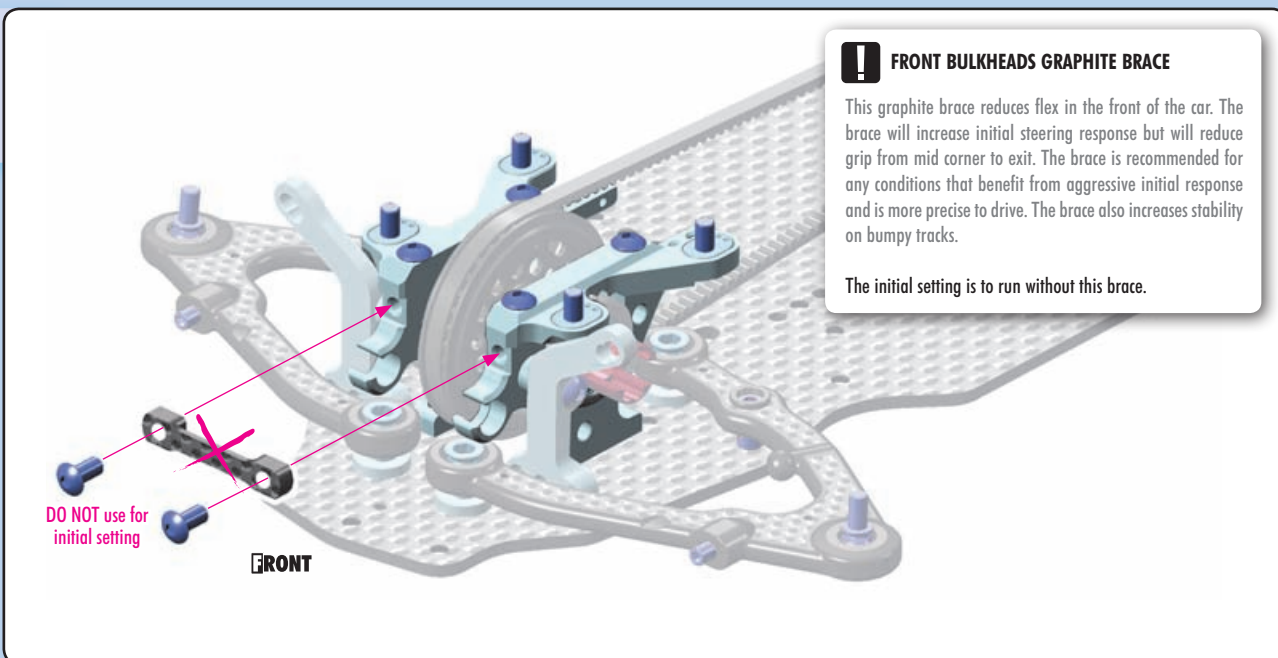


1 **!** **IMPORTANT**
DO NOT tighten the screw fully at first. Only tighten the screws fully after the shock tower is mounted with all screws.

! **3** Tighten fully after assembly.



902306
SH M3x6

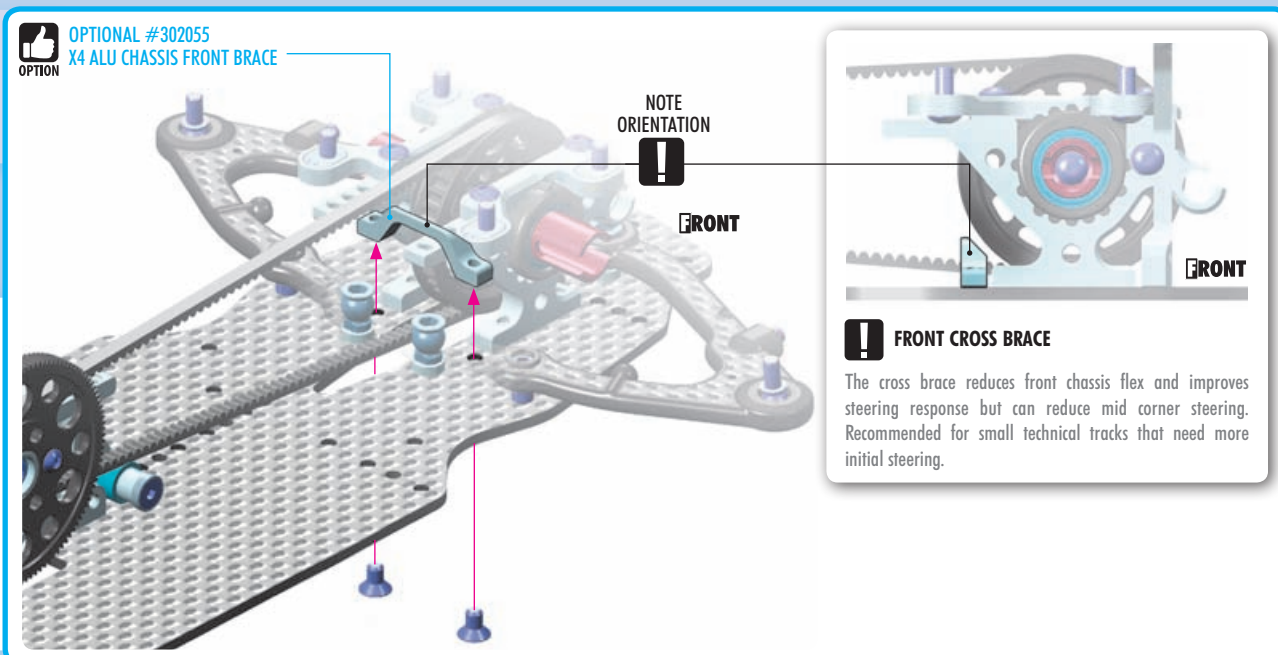


! **FRONT BULKHEADS GRAPHITE BRACE**
This graphite brace reduces flex in the front of the car. The brace will increase initial steering response but will reduce grip from mid corner to exit. The brace is recommended for any conditions that benefit from aggressive initial response and is more precise to drive. The brace also increases stability on bumpy tracks.

The initial setting is to run without this brace.

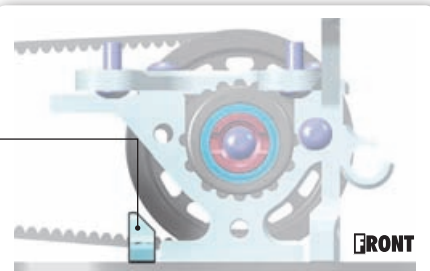


903305
SFH M3x5



OPTIONAL #302055
X4 ALU CHASSIS FRONT BRACE

NOTE ORIENTATION
!



! **FRONT CROSS BRACE**
The cross brace reduces front chassis flex and improves steering response but can reduce mid corner steering. Recommended for small technical tracks that need more initial steering.



VIDEO TECH TIP



CHASSIS & TOP DECKS

4. STEERING

(All X4 top decks fit also into X4'23 car)



#301072 X4 GRAPHITE UPPER DECK - SPLIT FRONT - 2.0mm
#301073 X4 GRAPHITE UPPER DECK - SPLIT REAR - 2.0mm



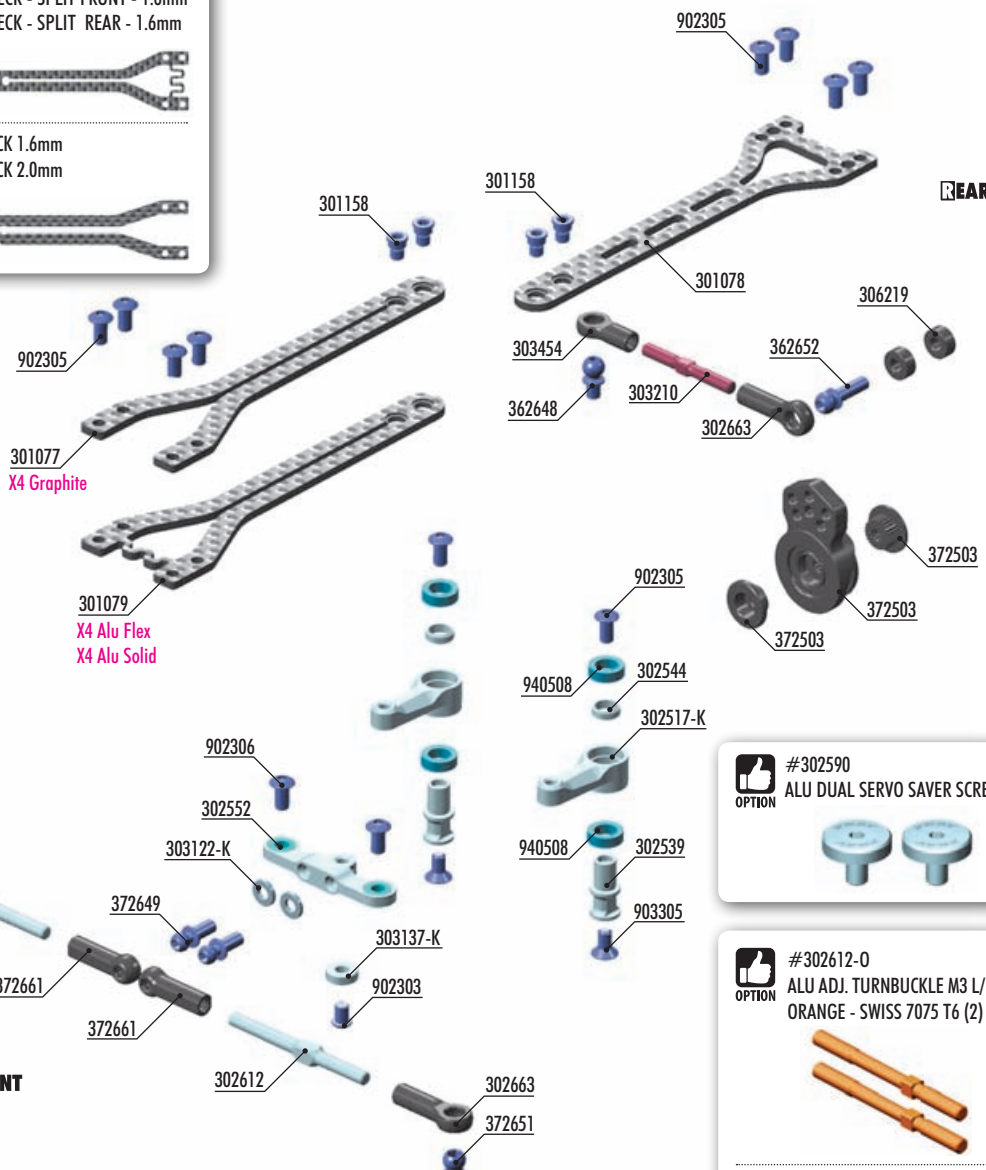
#301079-L X4 GRAPHITE UPPER DECK - SPLIT FRONT - 1.6mm
#301078-L X4 GRAPHITE UPPER DECK - SPLIT REAR - 1.6mm



#301071 X4 GRAPHITE UPPER DECK 1.6mm
#301070 X4 GRAPHITE UPPER DECK 2.0mm



#302553
ALU STEERING PLATE 7.5MM FOR DUAL
SERVO SAVER



#302590
ALU DUAL SERVO SAVER SCREW M3x7 (2)



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



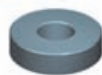
#302610
ADJ. TURNBUCKLE L/R 39mm
HUDY SPRING STEEL™ (2)



#302571
X4 GRAPHITE STEERING PLATE SET



#303138-K or 303138-O
ALU SHIM 3x7x2.0mm (10)



#302664
COMPOSITE BALL JOINT 4.9mm
UNIDIRECTIONAL - OPEN (4)



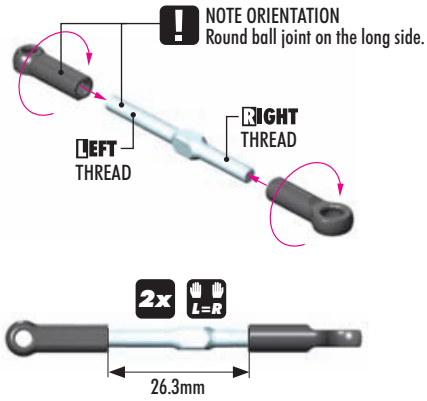
BAG

04

- 301077 X4G'23 GRAPHITE UPPER DECK - SPLIT FRONT - 2.0MM
- 301078 X4'23 GRAPHITE UPPER DECK - SPLIT REAR - 2.0MM
- 301079 X4A'23 GRAPHITE UPPER DECK - SPLIT FRONT - 2.0MM
- 301158 TOP DECK HEX SCREW M3x5.5 - HUDY SPRING STEEL™ (2)
- 302517-K X4 ALU DUAL STEERING ARM - BLACK + BALL-BEARINGS (2)
- 302539 X4 ALU STEERING POST FOR DUAL SERVO SAVER (2)
- 302544 ALU SHIM FOR RADIAL PLAY ADJUSTMENT OF STEERING ARM (2)
- 302552 ALU STEERING PLATE 8.0MM FOR DUAL SERVO SAVER
- 302612 ALU ADJ. TURNBUCKLE M3 L/R 39 MM - SWISS 7075 T6 (2)
- 302663 COMPOSITE BALL JOINT 5 MM - OPEN - V2 (8)
- 303122-K ALU SHIM 3x6x1.0MM - BLACK (10)
- 303137-K ALU SHIM 3x7.5x2.0MM - BLACK (10)
- 303210 REAR TURNBUCKLE L/R 26 MM - HUDY SPRING STEEL (2)
- 303454 BALL JOINT 4.9MM - OPEN (4)

- 306219 COMPOSITE SET OF SERVO SHIMS (4)
- 362648 BALL END 4.9MM WITH THREAD 4MM (2)
- 362652 BALL END 4.9MM WITH THREAD 10MM (2)
- 372503 COMPOSITE SERVO SAVER - X-STIFF - SET - V2
- 372649 BALL END 4.2MM WITH 4MM THREAD (2)
- 372651 PIVOT BALL UNIVERSAL 4.9 MM - HUDY SPRING STEEL™ (2)
- 372661 COMPOSITE STEERING BALL-JOINT OPEN 4.2 MM (4)
- 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)
- 940508 BALL-BEARING 5x8x2.5 RUBBER-SEALED - OILED (2)

2x STEERING LINKS

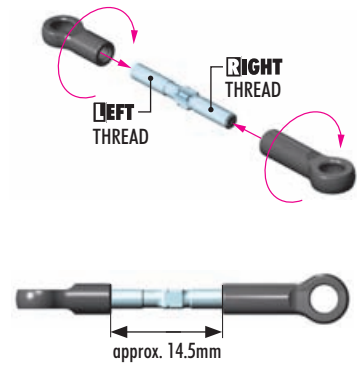


OPTION #302612-0
ALU ADJ. TURNBUCKLE M3 L/R
39mm ORANGE - SWISS 7075 T6 (2)

OPTION #302610
ADJ. TURNBUCKLE L/R 39mm
HUDY SPRING STEEL (2)

SERVO LINK

Adjust servo link to fit your servo.



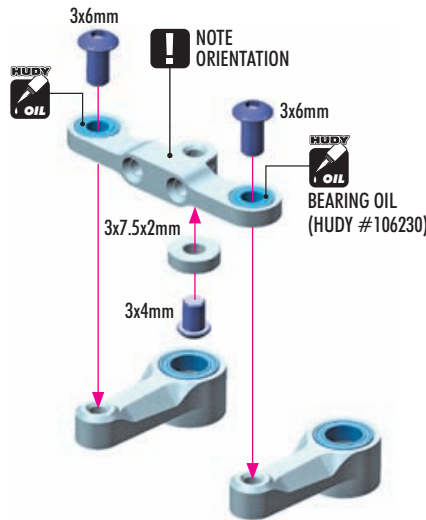
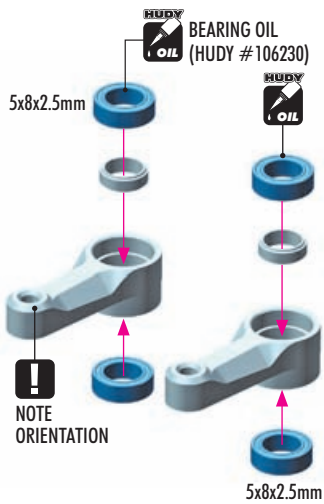
303137-K
SHIM 3x7.5x2



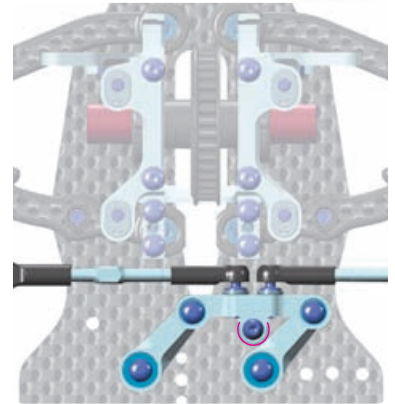
902303 SH M3x4
902306 SH M3x6



940508
BB 5x8x2.5



OPTION #303138-K or 303138-0
ALU SHIM 3x7x2.0mm (10)



The steering lock is adjusted by the size of the shim which attaches to the bottom of the steering. The kit includes a 7.5mm OD shim, which limits the physical steering lock to approx. 26 degrees.

An optional 7mm shim is offered, to be able to achieve 28 degrees of steering lock.

Running no shim will allow up to 30 degrees of steering lock. More steering lock will increase steering, especially in tight corners, but it will also reduce cornering speeds, and will make the car more difficult to drive.

OPTION #302553 ALU STEERING
PLATE 7.5MM FOR DUAL
SERVO SAVER

Optional 7.5mm steering plate improves steering from mid corner to exit but reduces initial response. Recommended for high traction carpet or high-speed asphalt tracks.



VIDEO TECH TIP

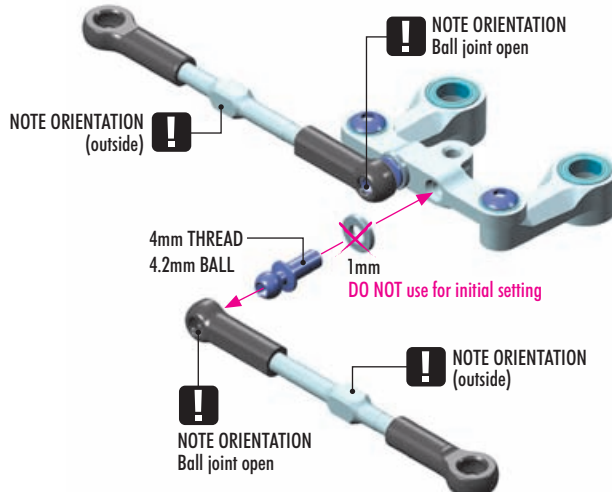


STEERING SYSTEM



303122-K
SHIM 3x6x1

2x L=R



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



4. STEERING

IO
306219
SHIM 3x6x2



VIDEO TECH TIP



STEERING SYSTEM

SERVO SAVER

1 **2** **3** **4**

10mm THREAD
4.9mm BALL

2mm

2mm

4mm THREAD
4.9mm BALL

! Use the adapter that matches the steering servo.
F = 25T H = 24T K = 23T

! INITIAL SETTING

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

OPTION #302664 COMPOSITE BALL JOINT 4.9mm UNIDIRECTIONAL - OPEN (4)

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

OPTION HUDY

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

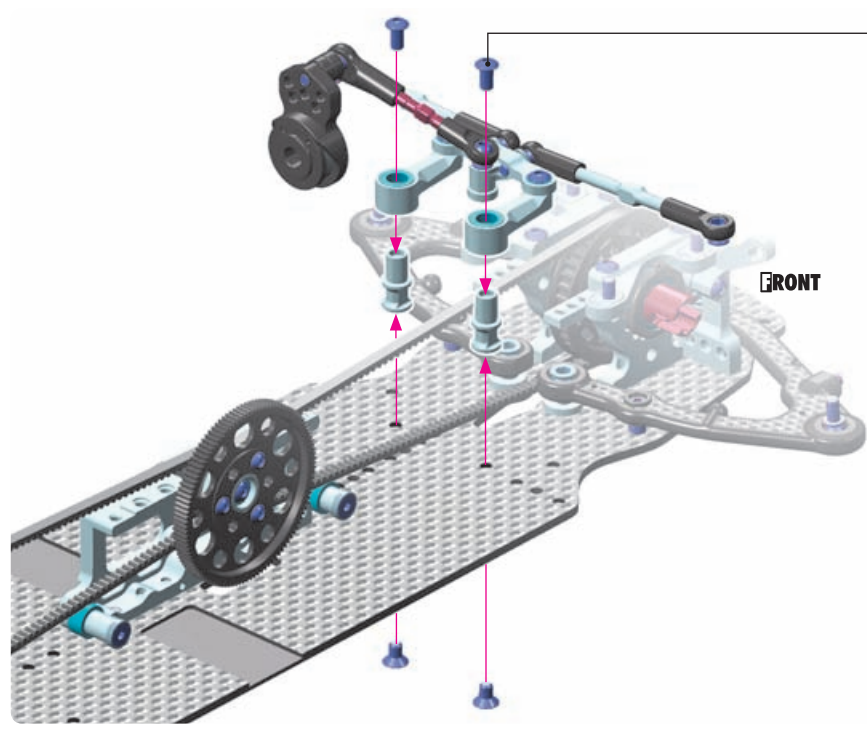
OPTION HUDY

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

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.



OPTION #302590 ALU DUAL SERVO SAVER SCREW M3x7 (2)

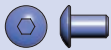
The optional screw removes excessive radial play from the steering.

OPTION #302571 X4 GRAPHITE STEERING PLATE SET

The optional graphite bridge stiffens the steering assembly and improves initial steering response. This option is mainly recommended for medium - to high-grip carpet racing.



301158
SCREW 3x5.5

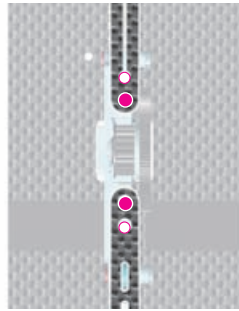


902305
SH M3x5

TOP DECK (SPLIT) FLEX SETTINGS

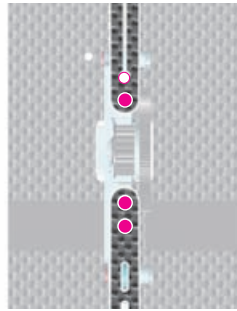
The new feature of the split top deck is the flex setting adjustment. There are three different flex setting alternatives.

SOFT



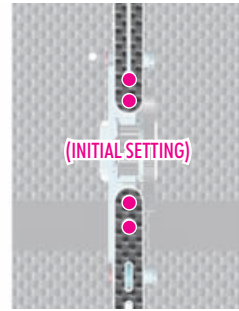
This allows maximum flex and provides maximum steering. However, the car is less stable on-power.

MEDIUM



This setting gives reduced rear flex which increases stability. Rotation is decreased.

STIFF



This setting gives reduced flex both in front and rear. Mid-corner steering is decreased, rotation is decreased. This setting provides maximum stability.



VIDEO TECH TIP



TOP DECK FLEX

X4'23 Graphite

Graphite version includes the open shape front top deck (#301077) that allows more flex in the front suspension to improve mid corner steering and decrease initial steering response, a good match for most asphalt tracks.

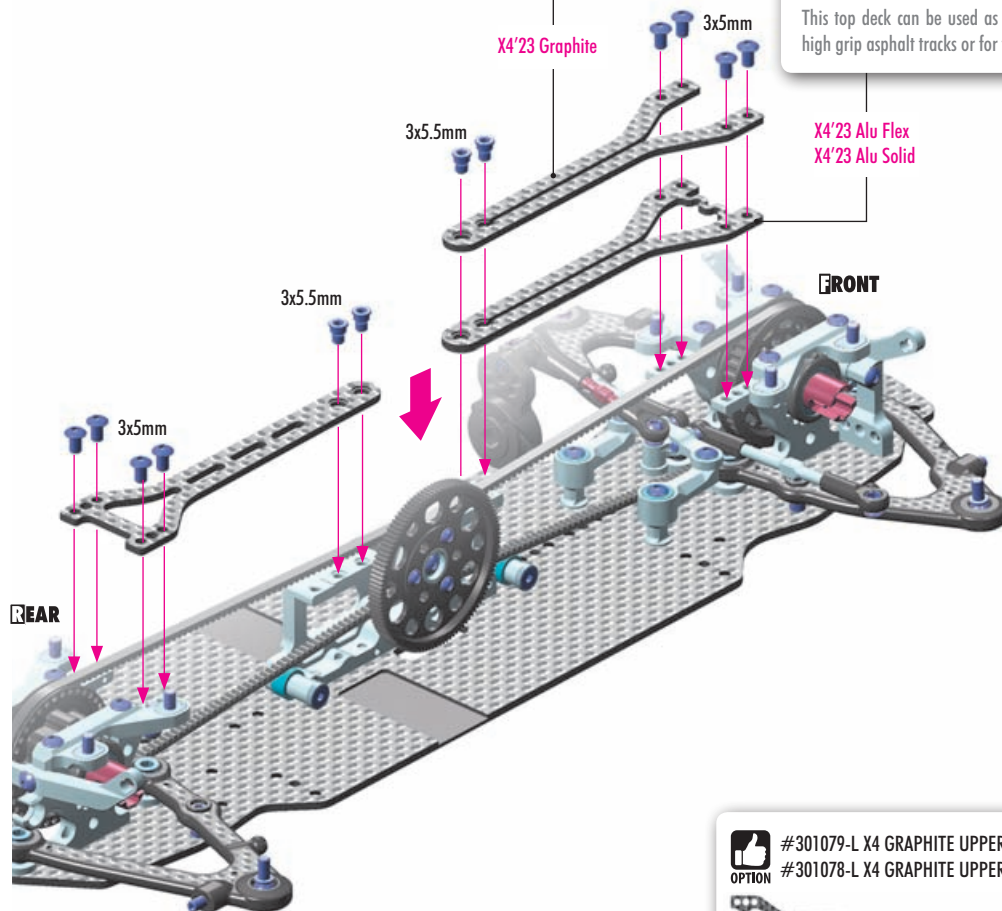
The open top deck can also be used with alu chassis on low grip carpet conditions.

X4'23 Alu Flex X4'23 Alu Solid

Alu versions feature the front top deck (#301079) with special wave reinforcement, which decreases the flex of the front suspension compared to the open shape, which makes the car easier to drive and more predictable on medium to high grip carpet tracks.

The wave design allows more flex of the suspension compared to the #302056 graphite front brace which fits into the front bulkheads.

This top deck can be used as an option for graphite version in high grip asphalt tracks or for the modified class.

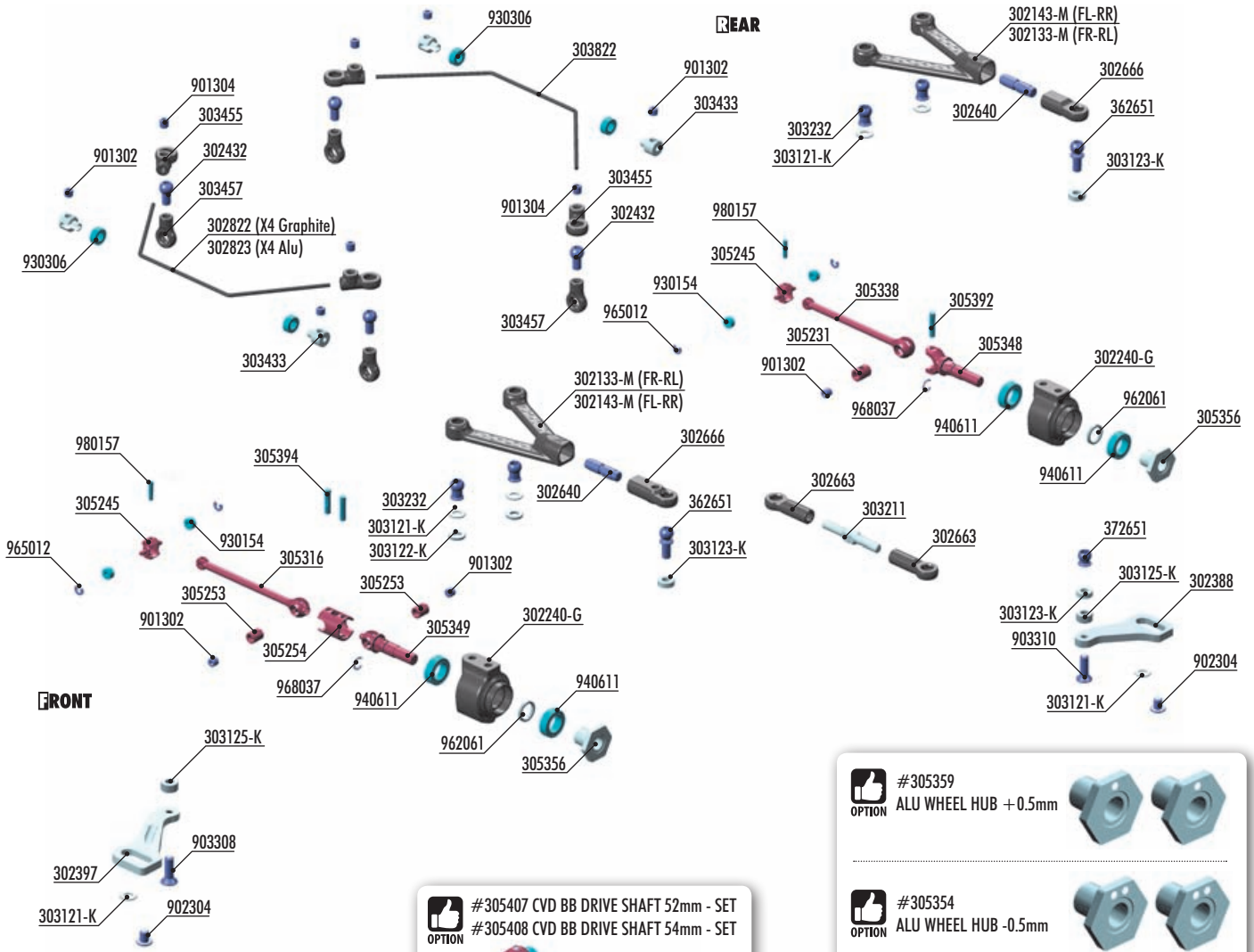


#301079-L X4 GRAPHITE UPPER DECK - SPLIT FRONT - 1.6mm
#301078-L X4 GRAPHITE UPPER DECK - SPLIT REAR - 1.6mm



For low grip carpet tracks or for modified class, optional 1.6mm top decks will help to generate more traction and steering.

5. FRONT & REAR SUSPENSION



#305359
 OPTION ALU WHEEL HUB +0.5mm

#305354
 OPTION ALU WHEEL HUB -0.5mm

#303211-0
 OPTION ALU TURNBUCKLE L/R 30mm ORANGE

UPPER ARMS CFF™

#	UPPER ARM	TYPE	SIDE	STATUS
#302143-M	MEDIUM	FL-RR	INCLUDED	
#302133-M	MEDIUM	FR-RL	INCLUDED	
#302143-S	SOFT	FL-RR	OPTION	
#302133-S	SOFT	FR-RL	OPTION	

STEERING BLOCKS

#	STEERING BLOCK	STATUS
#302240-H	HARD	OPTION
#302240-G	GRAPHITE	INCLUDED
#302241	ALU	OPTION

#305407 CVD BB DRIVE SHAFT 52mm - SET
#305408 CVD BB DRIVE SHAFT 54mm - SET

#305307 ECS BB DRIVE SHAFT 59mm - SET

BAG
05

302133-M	X4 COMPOSITE CFF™ CARBON-FIBER FUSION UPPER ARM - MEDIUM - FR/RL	305306	X4 ECS BB DRIVE SHAFT 58MM - HUDY SPRING STEEL™ - SET
302143-M	X4 COMPOSITE CFF™ CARBON-FIBER FUSION UPPER ARM - MEDIUM - FL/RR	305316	X4 ECS BB DRIVE SHAFT 58MM - HUDY SPRING STEEL™ (2)
302240-G	X4 COMPOSITE STEERING BLOCK - GRAPHITE	305338	X4 CVD BB DRIVE SHAFT 54MM - HUDY SPRING STEEL™ (2)
302388	X4 ALU REAR ARS PLATE - SWISS 7075 T6 (L+R)	305348	X4 CVD DRIVE AXLE - SPRING CLIP - HUDY SPRING STEEL™
302397	X4 ALU FRONT STEERING PLATE - SWISS 7075 T6 (L+R)	305349	X4 ECS DRIVE AXLE - SPRING CLIP - HUDY SPRING STEEL™
302432	STEEL BALL END 4.9MM WITH 4MM THREAD (2)	305356	X4 ALU WHEEL HUB - SPRING CLIP - SWISS 7075 T6 (2)
302640	ADJUSTABLE CAMBER SCREW 14MM M4 L/R - HUDY SPRING STEEL™ (2)	305392	DRIVE SHAFT PIN 2 x 10 WITH FLAT SPOT (2)
302663	COMPOSITE BALL JOINT 4.9MM - OPEN - V2 (8)	305394	ECS DRIVE SHAFT PIN 2 x 9 WITH FLAT SPOT (2)
302666	COMPOSITE BALL JOINT 4.9MM F+R - OPEN (2+2)	305408	X4 CVD BB DRIVE SHAFT 54MM - HUDY SPRING STEEL™ - SET
302822	X4 ANTI-ROLL BAR - FRONT 1.2 MM	362651	BALL END 4.9MM WITH THREAD 8MM (2)
302823	X4 ANTI-ROLL BAR - FRONT 1.3 MM	372651	PIVOT BALL UNIVERSAL 4.9 MM - HUDY SPRING STEEL™ (2)
303121-K	ALU SHIM 3x6x0.5MM - BLACK (10)	901302	HEX SCREW SB M3x2.5 (10)
303122-K	ALU SHIM 3x6x1.0MM - BLACK (10)	901304	HEX SCREW SB M3x4 (10)
303123-K	ALU SHIM 3x6x2.0MM - BLACK (10)	902304	HEX SCREW SH M3x4 - STAINLESS (10)
303125-K	ALU SHIM 3x6x3.0MM - BLACK (10)	903308	HEX SCREW SFH M3x8 (10)
303211	ALU ADJUSTABLE TURNBUCKLE L/R 30 MM - SWISS 7075 T6 (2)	903310	HEX SCREW SFH M3x10 (10)
303232	X4 UPPER ARM BALL UNIVERSAL 4.9MM - HUDY SPRING STEEL™ (2)	930154	BALL-BEARING 1.5x4x2 STEEL SEALED - OIL (4)
303433	ALU ANTI-ROLL BAR BUSHING - 6MM (2)	930306	BALL-BEARING 3x6x2.5 STEEL-SEALED - OILED (2)
303455	COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9 MM (4)	940611	BALL-BEARING 6x10x3 RUBBER SEALED - OIL (2)
303457	BALL JOINT 4.9MM - EXTRA SHORT OPEN (4)	962061	WASHER S 6x7.5x1.0 (10)
303822	X4 ANTI-ROLL BAR - REAR 1.2 MM	965012	E-CLIP 1.2 (10)
305231	DRIVE SHAFT COUPLING - HUDY SPRING STEEL™	968037	C-CLIP 3.7 (10)
305245	ECS BB DRIVE SHAFT ADAPTER - HUDY SPRING STEEL™ (2)	980157	PIN 1.5x7.3 (10)
305253	ECS DRIVE SHAFT COUPLING FOR 2MM PIN - HUDY SPRING STEEL™		
305254	ECS (ES) DRIVE SHAFT CASE FOR 2MM PIN - HUDY SPRING STEEL™		

5. FRONT & REAR SUSPENSION



901302
SB M3x2.5



305392
P 2x10



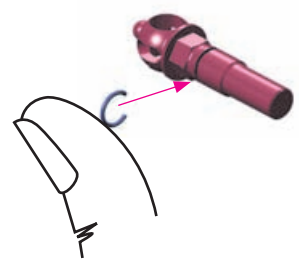
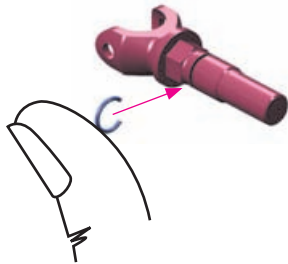
305394
P 2x9



968037
C 3.7

2x REAR TRANSMISSION - CVD DRIVE SHAFT

2x FRONT TRANSMISSION - ECS DRIVE SHAFT



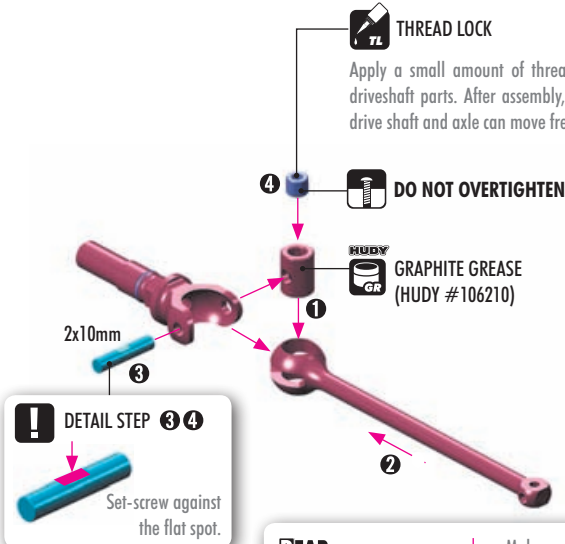
Insert the clip into the groove on the axle. The clip should fit smoothly without extra force and should not require pliers. Make sure the clip will rotate after installation.

THREAD LOCK

Apply a small amount of thread lock and confirm it does not leak onto other driveshaft parts. After assembly, wait until the thread lock dries and check if the drive shaft and axle can move freely in all directions.

DO NOT OVERTIGHTEN

GRAPHITE GREASE (HUDY #106210)



DETAIL STEP 3 4

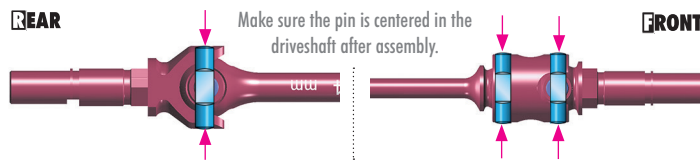
Set-screw against the flat spot.

THREAD LOCK

GRAPHITE GREASE (HUDY #106210)



Set-screw against the flat spot.



REAR

Make sure the pin is centered in the driveshaft after assembly.

FRONT



VIDEO TECH TIP



DRIVE SHAFTS



REAR CVD DRIVE SHAFTS

#305370	54mm - CVD	OPTION
#305407	52mm - BB CVD	OPTION
#305408	54mm - BB CVD	INCLUDED

- #305307 - Longer 59mm front drive shafts provide more stability but reduce steering. - Recommended for high grip carpet.
- #305407 - Shorter 52mm rear drive shafts improve rotation and off power steering but decreases rear traction. - Recommended for small technical tracks and high grip conditions.
- #305370 - 54mm rear drive shafts using 305241 replacement caps generate more rear traction. - Recommended for very low traction conditions. Requires 304970/304971 driveshaft adapters.
- #305360 - 58mm front drive shafts must be used with 305241 replacement caps.



FRONT ECS DRIVE SHAFTS

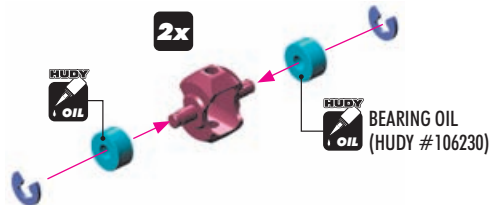
#305360	58mm - ECS	OPTION
#305306	58mm - BB ECS	INCLUDED
#305307	59mm - BB ECS	OPTION



930154
BB 1.5x4.2



965012
E 1.2



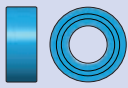
BEARING OIL (HUDY #106230)



980157
P 1.5x7.3



5. FRONT & REAR SUSPENSION



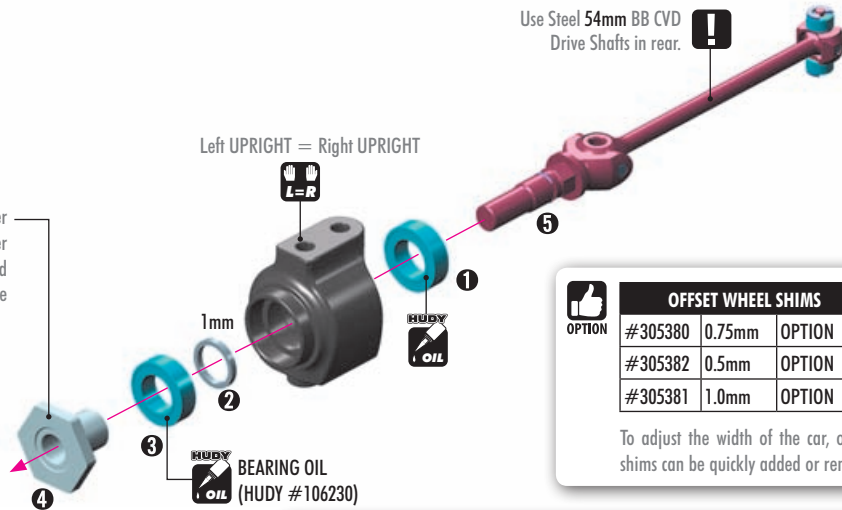
940611
BB 6x10x3



962061
S 6x7.5x1

2x REAR TRANSMISSION

X4'23 wheel hubs are 0.5mm narrower than the X4, resulting in 1mm narrower track width for improved steering and traction. To increase width, use the optional offset wheel shims or hexes.



OFFSET WHEEL SHIMS			
#305380	0.75mm	OPTION	
#305382	0.5mm	OPTION	
#305381	1.0mm	OPTION	

To adjust the width of the car, optional wheel shims can be quickly added or removed.



VIDEO TECH TIP



FRONT & REAR UPRIGHTS

HUBS		
#302240-H	HARD	OPTION
#302240-G	GRAPHITE	INCLUDED
#302241	ALU	OPTION

Optional HARD hubs are recommended for low traction to generate more grip.

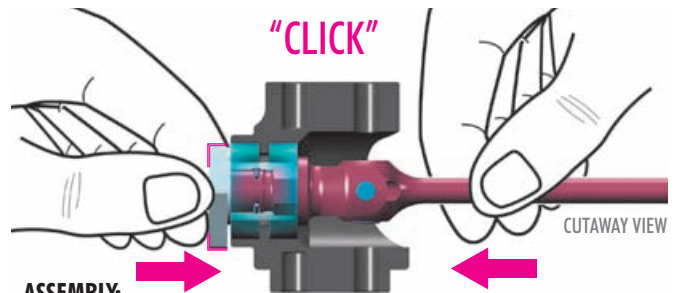
Optional ALU hubs are recommended for high traction surfaces to improve rotation and free up the car, but they will decrease traction. ALU hubs also improve durability in serious crashes.

#305359 ALU WHEEL HUB +0.5mm

The wider wheel hubs free up the car and improve cornering speed in high traction conditions.

#305354 ALU WHEEL HUB -0.5mm

For very low traction conditions, the narrower wheel hubs can generate more traction and steering but will make the car nervous and decrease cornering speed.



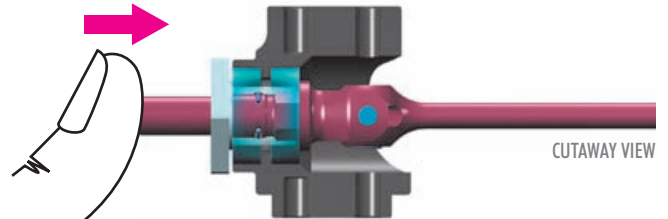
ASSEMBLY:

When installing the wheel hub on the drive axle, make sure the inside groove in the hub seats over the clip on the axle.

To confirm proper installation there should be a 'click' noise when the clip engages the inner groove in the wheel hub. There should be slight axial play once fully seated.

DISSASSEMBLY:

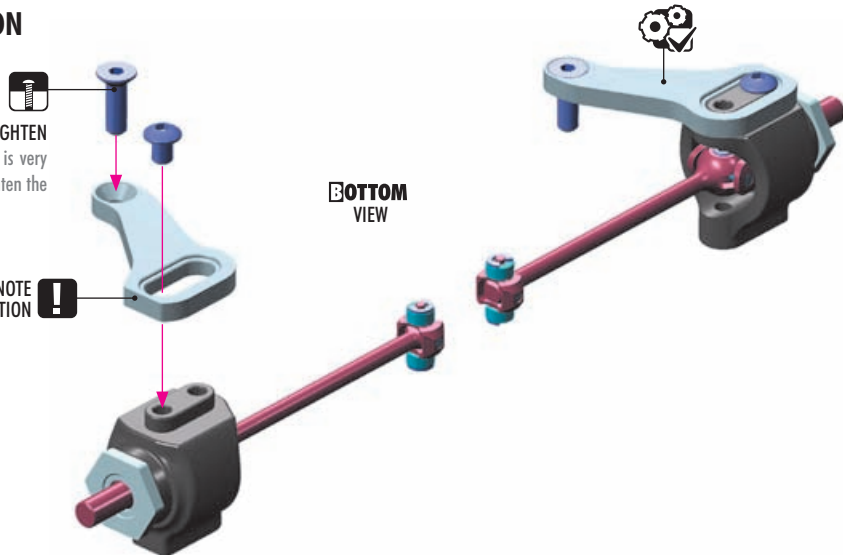
To remove the wheel hub from the axle, push the end of the axle back through the wheel hub to separate the wheel hub from the inner clip.



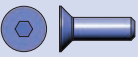
2x REAR TRANSMISSION

DO NOT OVERTIGHTEN
The thread in the rear ARS plate is very short; therefore, make sure to tighten the screw gently.

NOTE ORIENTATION **!**

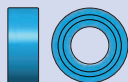


902304
SH M3x4



903310
SFH M3x10

5. FRONT & REAR SUSPENSION



940611
BB 6x10x3



962061
S 6x7.5x1

2x FRONT TRANSMISSION



2x

Use Steel 58mm BB ECS
Drive Shafts in front.



Left UPRIGHT = Right UPRIGHT



4



HUBS



OIL

BEARING OIL
(HUDY #106230)

1mm

X4'23 wheel hubs are 0.5mm narrower than the X4, resulting in 1mm narrower track width for improved steering and traction. To increase width, use the optional offset wheel shims or hexes.



OFFSET WHEEL SHIMS

#305380	0.75mm	OPTION
#305382	0.5mm	OPTION
#305381	1.0mm	OPTION

To adjust the width of the car, optional wheel shims can be quickly added or removed.



#305359
ALU WHEEL HUB +0.5mm



The wider wheel hubs free up the car and improve cornering speed in high traction conditions.



#305354
ALU WHEEL HUB -0.5mm



For very low traction conditions, the narrower wheel hubs can generate more traction and steering but will make the car nervous and decrease cornering speed.



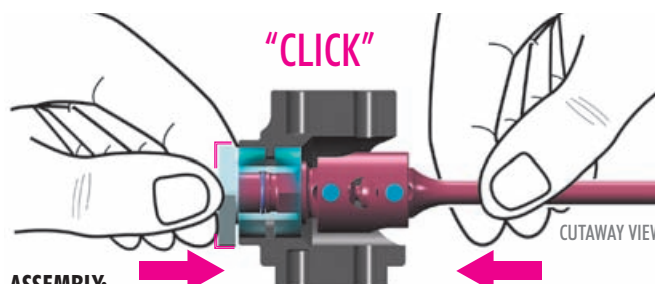
HUBS

#302240-H	HARD	OPTION
#302240-G	GRAPHITE	INCLUDED
#302241	ALU	OPTION



Optional HARD hubs are recommended for low traction to generate more grip.

Optional ALU hubs are recommended for high traction surfaces to improve rotation and free up the car, but they will decrease traction. ALU hubs also improve durability in serious crashes.



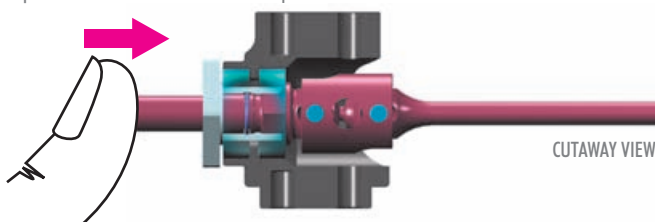
ASSEMBLY:

When installing the wheel hub on the drive axle, make sure the inside groove in the hub seats over the clip on the axle.

To confirm proper installation there should be a 'click' noise when the clip engages the inner groove in the wheel hub. There should be slight axial play once fully seated.

DISSASSEMBLY:

To remove the wheel hub from the axle, push the end of the axle back through the wheel hub to separate the wheel hub from the inner clip.



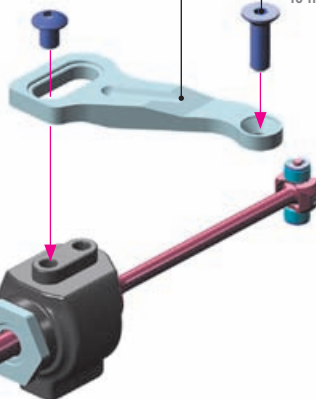
2x FRONT TRANSMISSION



DO NOT OVERTIGHTEN

The threads in the front steering plate are very short; take caution to tighten the screw gently.

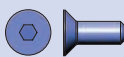
NOTE
ORIENTATION



BOTTOM
VIEW



902304
SH M3x4



903308
SFH M3x8

5. FRONT & REAR SUSPENSION

2x REAR

2x FRONT

VIDEO TECH TIP

CAMBER & UPPER ARMS

2x REAR

! BOTTOM NOTE ORIENTATION

Shiny side

Ball joint should be aligned in the arm with the shiny side facing down.

FRONT

BOTTOM VIEW

Check arm orientation so that each arm is in the correct location with the markings facing down when installed.

2x FRONT

! BOTTOM NOTE ORIENTATION

Shiny side Cut out

Ball joint should be aligned in the arm with the machined clearance facing down.

FRONT

BOTTOM VIEW

Check arm orientation so that each arm is in the correct location with the markings facing down when installed.

303121-K
SHIM 3x6x0.5

VIDEO TECH TIP

ROLL-CENTER

2x REAR SUSPENSION

0.5mm (INITIAL SETTING)

Raising the rear axle height will improve rotation and off-power steering. Recommended for medium to high traction asphalt surfaces. Minimum shim thickness is 0.5mm; DO NOT use thinner.

6.5mm

Pivot ball with M3x6.5mm

! Play

1.5mm shim.

When using more than 1mm shim under the hub, use the #303261 pivot ball with longer 6.5mm thread length to increase durability in serious crashes.

Make sure to check for clearance between the pivot ball threads and CVD pin.

ALTERNATIVE

(INITIAL SETTING) 5.5mm

Pivot ball with M3x5.5mm

! Play

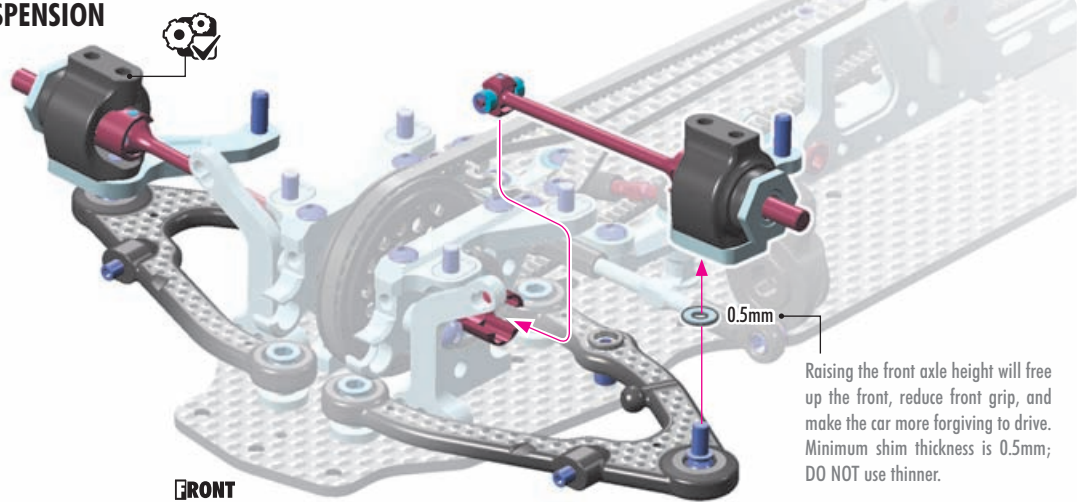
0.5mm shim.

5. FRONT & REAR SUSPENSION



303121-K
SHIM 3x6x0.5

2x FRONT SUSPENSION



Raising the front axle height will free up the front, reduce front grip, and make the car more forgiving to drive. Minimum shim thickness is 0.5mm; DO NOT use thinner.

FRONT

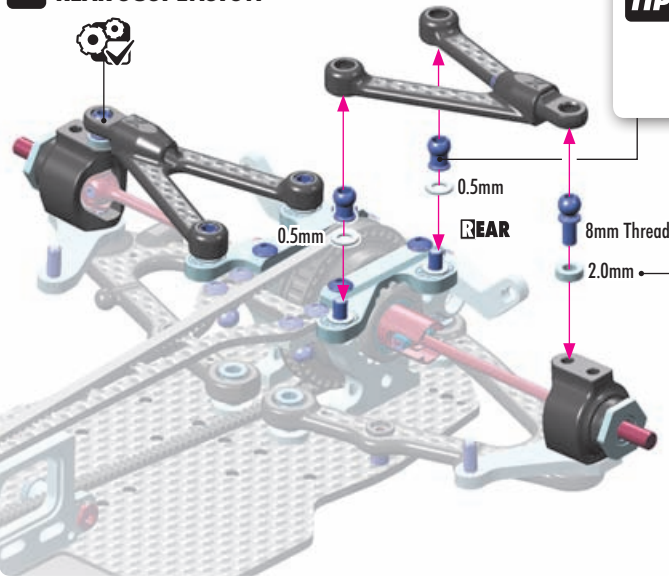


303121-K
SHIM 3x6x0.5



303123-K
SHIM 3x6x2

2x REAR SUSPENSION



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



OPTION

UPPER ARMS CFF™				
#302143-M	MEDIUM	FL-RR	INCLUDED	
#302133-M	MEDIUM	FR-RL	INCLUDED	
#302143-S	SOFT	FL-RR	OPTION	
#302133-S	SOFT	FR-RL	OPTION	



Soft upper arms generate more traction and steering in low grip conditions and can improve side traction. Soft arms are more fragile in severe crashes.

Rear upper arm location affects the rear roll-center and camber gain. Raising the arm with thicker shims on the upper clamps will lower the rear roll-center and decrease camber gain. Reducing the shim height on the upper clamps has the same effect as increasing the shim height on the outside.

VIDEO TECH TIP



ROLL-CENTER



303121-K
SHIM 3x6x0.5

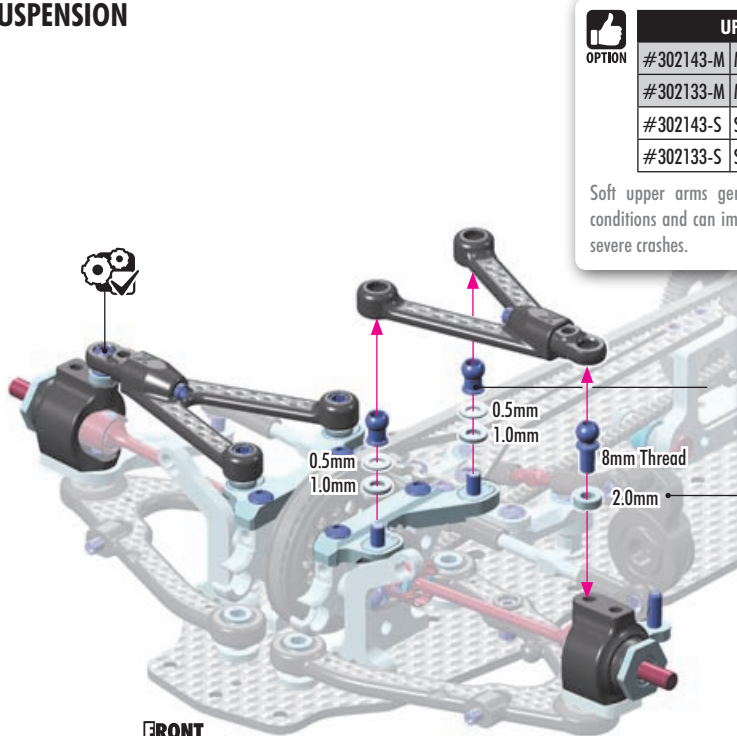


303122-K
SHIM 3x6x1



303123-K
SHIM 3x6x2

2x FRONT SUSPENSION



OPTION

UPPER ARMS CFF™				
#302143-M	MEDIUM	FL-RR	INCLUDED	
#302133-M	MEDIUM	FR-RL	INCLUDED	
#302143-S	SOFT	FL-RR	OPTION	
#302133-S	SOFT	FR-RL	OPTION	



Soft upper arms generate more traction and steering in low grip conditions and can improve side traction. Soft arms are more fragile in severe crashes.

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

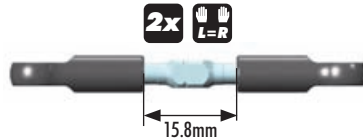
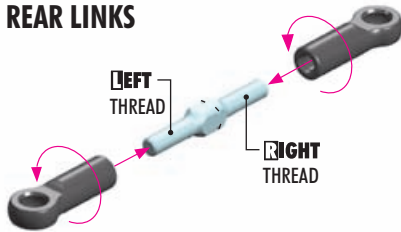


Front upper arm location affects the front roll-center and camber gain. Raising the arms with thicker shims on the upper clamps will lower the front roll-center and decrease camber gain. Reducing the shim height on the upper clamps has the same effect as increasing the shim height on the outside.

FRONT

5. FRONT & REAR SUSPENSION

2x REAR LINKS



#303211-0 ALU TURNBUCKLE L/R
30mm ORANGE - SWISS 7075 T6 (2)

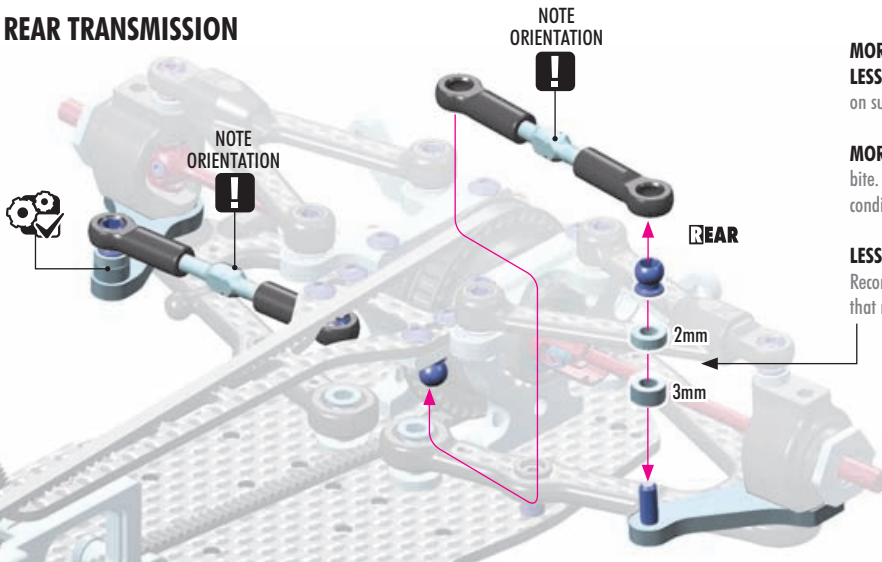


VIDEO TECH TIP



REAR TOE-GAIN

2x REAR TRANSMISSION



MORE SHIMS gives more toe-gain on compression.
LESS SHIMS gives less toe-gain (or even toe loss), on suspension compression.

MORE TOE-GAIN improves rear grip and side bite. Mainly recommended for low- to medium-grip conditions.

LESS TOE-GAIN reduces rear grip and side bite. Recommended for higher- grip conditions or tracks that require more steering.

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

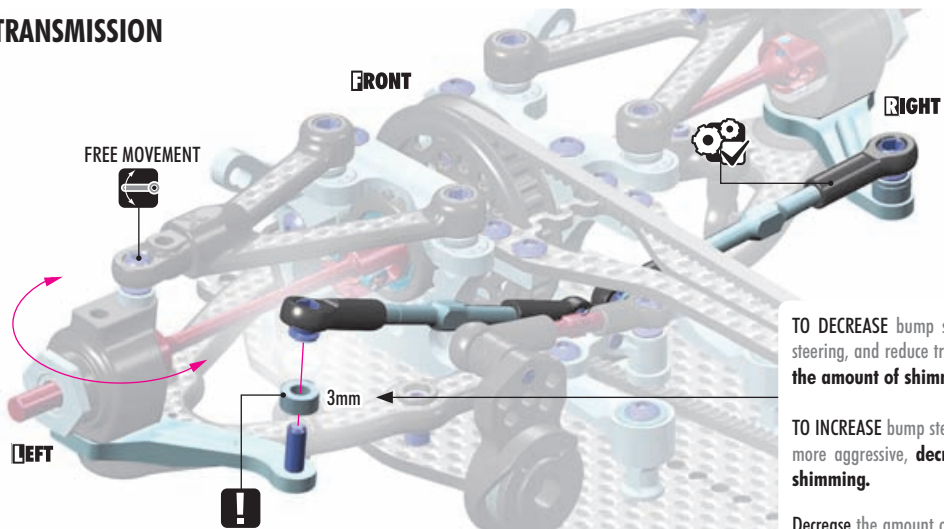


VIDEO TECH TIP



STEERING SYSTEM

2x FRONT TRANSMISSION



TO DECREASE bump steer, smoothen out the steering, and reduce traction rolling: **increase the amount of shimming.**

TO INCREASE bump steer, to make the steering more aggressive, **decrease the amount of shimming.**

Decrease the amount of shimming to get more steering.

Increase the shimming if the car is difficult to drive and/or it is traction rolling.

The new X4'23 front steering plates are 1mm higher than the previous X4. To duplicate bump steer characteristics from the previous version, use 1mm thinner shims to achieve the same setting.

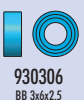
2x FRONT & REAR ANTI-ROLL BARS



REAR ANTI-ROLL BARS		
#303821	1.1mm	OPTION
#303822	1.2mm	INCLUDED
#303823	1.3mm	OPTION
#303824	1.4mm	OPTION

FRONT ANTI-ROLL BARS		
#302821	1.1mm	OPTION
#302822	1.2mm	INCLUDED X4 Graphite
#302823	1.3mm	INCLUDED X4 Alu
#302824	1.4mm	OPTION
#302825	1.5mm	OPTION

BEARING OIL (HUDY #106230)



VIDEO TECH TIP



ANTI-ROLL BARS

5. FRONT & REAR SUSPENSION

4x

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

4mm Thread

2.0mm

17mm

2x REAR TRANSMISSION

REAR

901302
SB M3x2.5

901304
SB M3x4

REAR TRANSMISSION

DETAIL

CENTER

TOP

REAR

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

3x4mm ④

3x2.5mm ④

3x2.5mm ④

3x4mm ④

REAR

SOFTER rear anti-roll bar:
Generates more side traction. Mainly recommended for low-grip asphalt tracks.

STIFFER rear anti-roll bar:
Helps the car stay flatter and reduces traction rolling on high-grip surfaces.

VIDEO TECH TIP

ANTI-ROLL BARS

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.

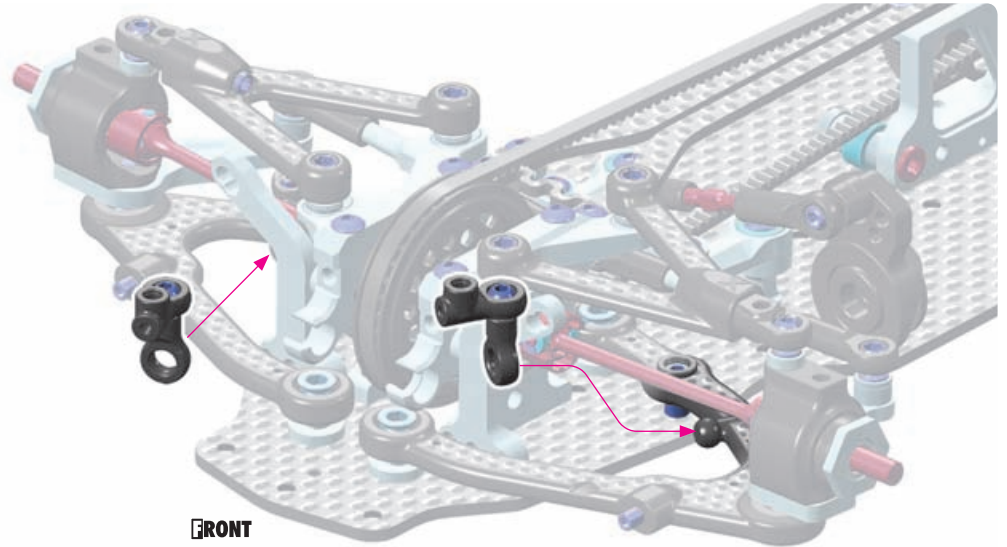
If both sides still **DO NOT** move at the same time, adjust the length of the bar holders.

VIDEO TECH TIP

ANTI-ROLL BARS

5. FRONT & REAR SUSPENSION

2x FRONT ANTI-ROLL BAR

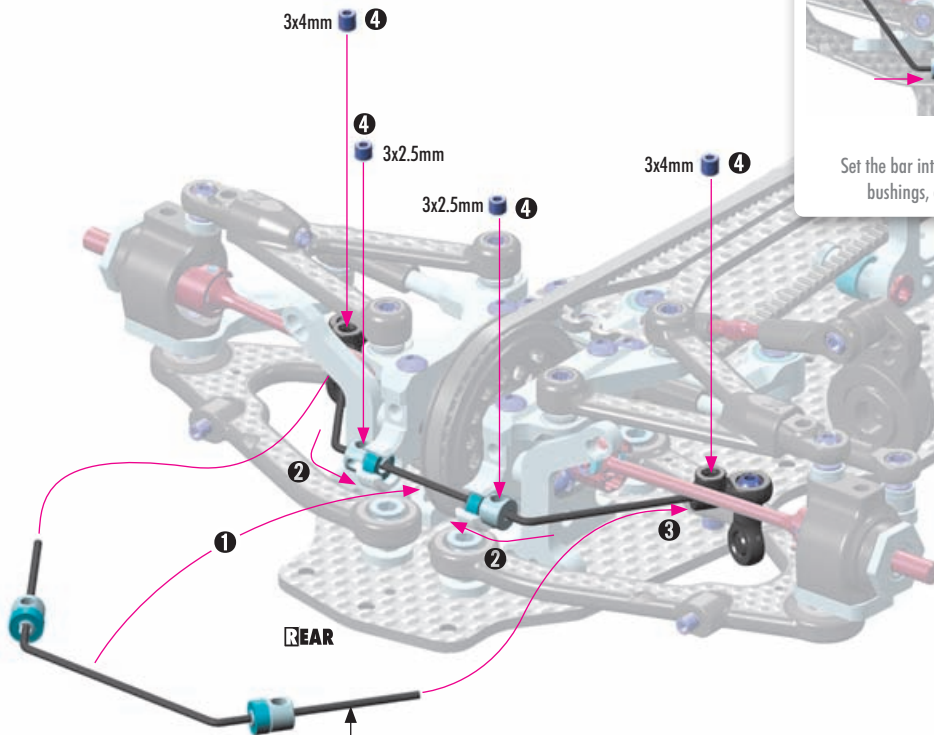
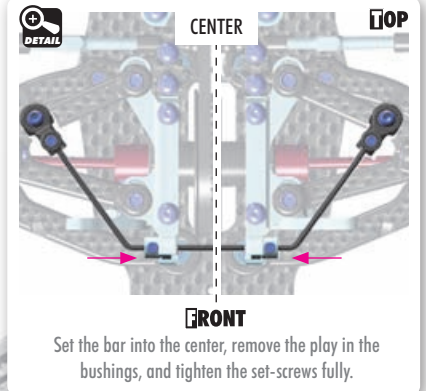


901302
SB M3x2.5



901304
SB M3x4

! FRONT ANTI-ROLL BAR



SOFTER front anti-roll bar:
Allows the front to roll more which gives more front grip and improves on-power steering.

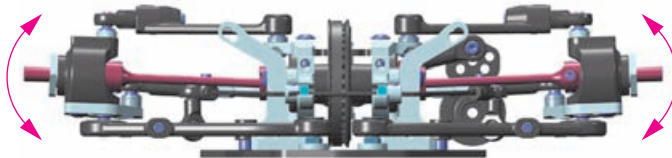
STIFFER front anti-roll bar:
Makes the car initially more responsive, and helps the car stay flatter on fast direction changes. Reduces steering from mid-corner to corner exit. Mainly recommended for high-grip carpet.



VIDEO TECH TIP



ANTI-ROLL BARS



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

#308164	C = 2.4-2.7	OPTION
#308165	C = 2.5-2.8	INCLUDED
#308166	C = 2.6-2.9	OPTION
#308175	C = 2.5	OPTION
#308176	C = 2.6	INCLUDED
#308177	C = 2.7	OPTION
#308178	C = 2.8	OPTION
#308179	C = 2.9	OPTION



#308308-K ULP ALU SHOCK ABSORBER SET - BLACK (2)



Must be used with X4 shock towers: #301970 and #302970



#308029 XLP/ULP ALU PROGRESSIVE SHOCK SYSTEM - SET (2)

The progressive shock inserts improve steering characteristics. The ULP PSS set fits the stock XLP shock bodies included in the kit. Must be used with:



#308026 XLP COMPOSITE 2-HOLE ø0.8mm PROGRESSIVE PISTON (4)



#308033-K ALU XLP SHOCK SPRING RETAINING COLLAR - BLACK (4)



VIDEO TECH TIP SHOCKS & SPRINGS

BAG

06

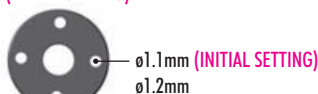
- 308027 XLP COMPOSITE 4-HOLE 1.1-1.2MM PISTON (2+2)
- 308045-K XLP ALU SHOCK ADJUSTABLE NUT - BLACK (2)
- 308083 XLP SHOCK ABSORBER MEMBRANE (4)
- 308092 SHOCK FOAM INSERTS (4) (OPTION)
- 308309-K XLP ALU SHOCK ABSORBER-SET - BLACK (2)
- 308325 XLP ALU SHOCK BODY (2)
- 308328-K XLP ALU CAP FOR SHOCK BODY - BLACK (2)
- 308336 XLP COMPOSITE SHOCK PARTS WITH 2 HOLES
- 308355-K XLP ALU SHOCK CAP-NUT - BLACK (2)

- 308365 XLP HARDENED SHOCK SHAFT (2)
- 372651 PIVOT BALL UNIVERSAL 4.9 MM - HUDY SPRING STEEL™ (2)
- 965023 E-CLIP 2.3 (10)
- 970131 O-RING 13 x 1.0 (10)
- 972030 SILICONE O-RING 3 x 2 (10)
- 308165 XLP SPRING-SET PROGRESSIVE C=2.5-2.8 (2)
- 308176 XLP SPRING-SET C=2.6 (2)

965023 E 2.3

4x

4 holes (INITIAL SETTING)

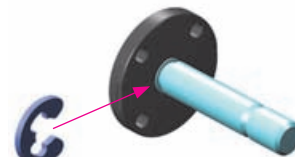


NOTE ORIENTATION



#308026 XLP COMPOSITE 2-HOLE ø0.8mm PROGRESSIVE PISTON (4)

These pistons must be used with optional: #308029 XLP/ULP PROGRESSIVE SHOCK INSERTS



6. SHOCK ABSORBERS

972030
0 3x2

4x

970131
0 13x1.0

4x

4x

INCORRECT ✗

CORRECT ✓

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.

INITIAL SETTING 8-8.5mm

VIDEO TECH TIP

HUDY AIR-VAC SHOCK BUILD

OIL 350cSt

SHOCK FILLING

- 1 Fully extend the piston rod so the piston is at the bottom of the shock body.
- 2 Hold the shock upright and slightly overfill the shock body with shock oil.
- 3 Let the oil settle and allow air bubbles to rise to the top. Slowly move the piston up and down to allow oil into all cavities within the shock body.
- 4 Extend the piston rod most of the way out of the shock body. Let the shock rest for 5 minutes to allow the air bubbles to escape.
- 5 Add shock oil as necessary.

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

SHOCK OILS (50ml)					
#106325	250cSt	OPTION	#106352	525cSt	OPTION
#106330	300cSt	OPTION	#106355	550cSt	OPTION
#106335	350cSt	INCLUDED	#106357	575cSt	OPTION
#106337	375cSt	OPTION	#106360	600cSt	OPTION
#106340	400cSt	OPTION	#106362	625cSt	OPTION
#106342	425cSt	OPTION	#106365	650cSt	OPTION
#106345	450cSt	OPTION	#106367	675cSt	OPTION
#106347	475cSt	OPTION	#106370	700cSt	OPTION
#106350	500cSt	OPTION	#106375	750cSt	OPTION
			#106380	800cSt	OPTION

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

4x

6. SHOCK ABSORBERS

4x

1 REBOUND ADJUSTMENT

For most conditions, 0-25% rebound is recommended. This is the most forgiving and best to absorb bumps. Cornering speed is generally the best with this setting.

0~25% Rebound (INITIAL SETTING)

50% Rebound

100% Rebound

For certain low grip conditions, adding additional rebound may improve initial reaction and side bite. Direction change will be faster and may feel like the car is creating more traction. Note that higher rebound settings will make the car less stable over bumps and may increase the tendency to traction roll.

4x

2 Insert shock membrane.

3 Gently push shock membrane to remove excess oil. But DO NOT push the membrane too hard otherwise it can fall inside the shock body.

4 Tighten shock cap.

VIDEO TECH TIP

SHOCKS & SPRINGS

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.

Laser engraved springs.

FRONT C = 2.5-2.8

REAR C = 2.6

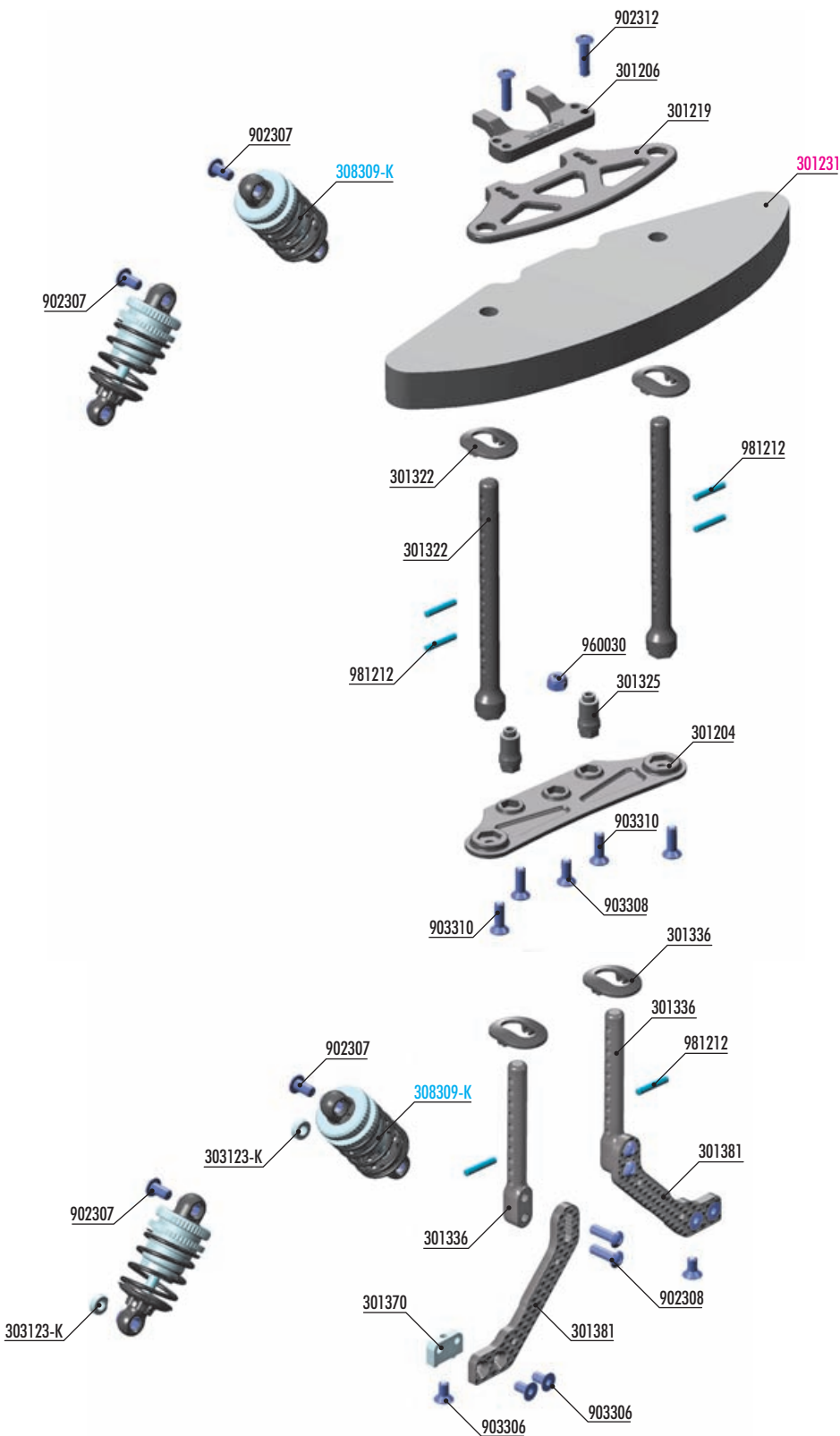
TIP Install the pivot balls with Professional Multi Tool (HUDY #183011).

#308033-K
ALU XLP SHOCK SPRING RETAINING COLLAR - BLACK (4)

OPTION


ASSEMBLY VIEW

7. FRONT & REAR ASSEMBLY




OPTION **REAR BODY MOUNT SET**

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




OPTION **FRONT BODY MOUNT SET**

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



OPTION **FRONT ECC. BODY MOUNT SET**

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



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



OPTION #301210
GRAPHITE UPPER HOLDER FOR BUMPER 2.5mm



OPTION #301232
FOAM BUMPER FOR ADJ. BODY MOUNTS - HARD



OPTION #301322-H
HARD COMPOSITE HORIZONTAL REAR BODY MOUNT POST - SET



BAG

07

- 301204 COMPOSITE BUMPER
- 301206 X4 COMPOSITE BUMPER UPPER HOLDER BRACE
- 301219 COMPOSITE UPPER HOLDER FOR BUMPER
- 301322 FRONT BODY MOUNT SET
- 301325 COMPOSITE BRACE FOR BUMPER - LOW (2)
- 301336 REAR BODY MOUNT SET
- 301370 X4 ALU PLATE FOR REAR GRAPHITE BODY POST HOLDER
- 301381 X4 GRAPHITE BODY POST HOLDER (L+R)
- 303123-K ALU SHIM 3x6x2.0MM - BLACK (10)

- 902307 HEX SCREW SH M3x6 SMALL HEAD (10)

- 902308 HEX SCREW SH M3x8 (10)
- 902312 HEX SCREW SH M3x12 (10)
- 903306 HEX SCREW SFH M3x6 (10)
- 903308 HEX SCREW SFH M3x8 (10)
- 903310 HEX SCREW SFH M3x10 (10)
- 960030 NUT M3 (10)
- 981212 PIN 2x12 (10)

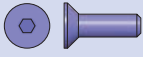
- 301231 **FOAM BUMPER - LIGHT & STRONG**

- 308309-K **XLP ALU SHOCK ABSORBER-SET - BLACK (2)**

7. FRONT & REAR ASSEMBLY



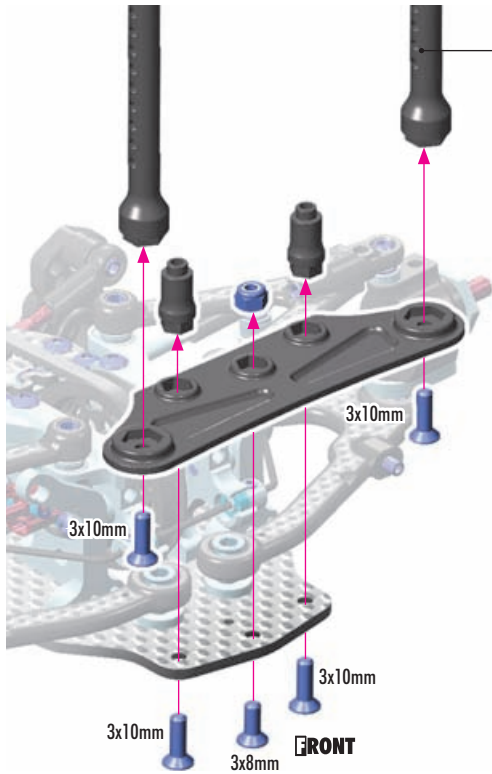
903308
SFH M3x8



903310
SFH M3x10



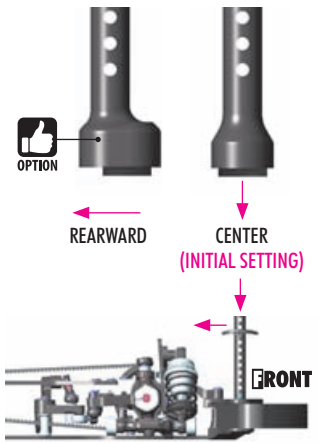
960030
N M3



FRONT BODY POST ORIENTATION

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 two different body positions; rearward and center. Depending on the conditions the body post positions 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 in chicanes and 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.



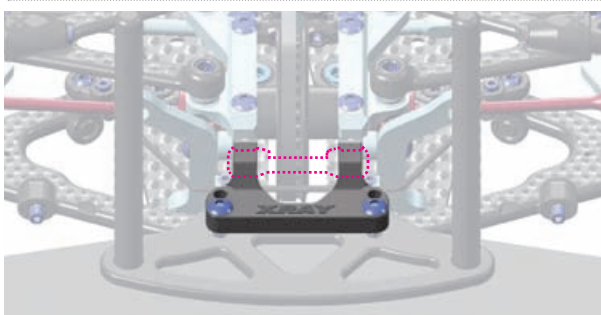
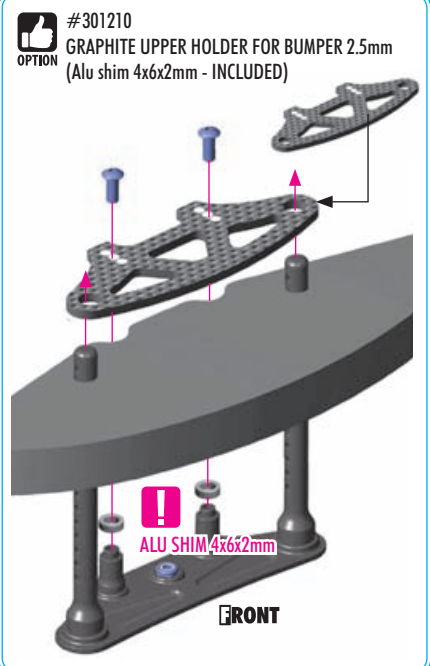
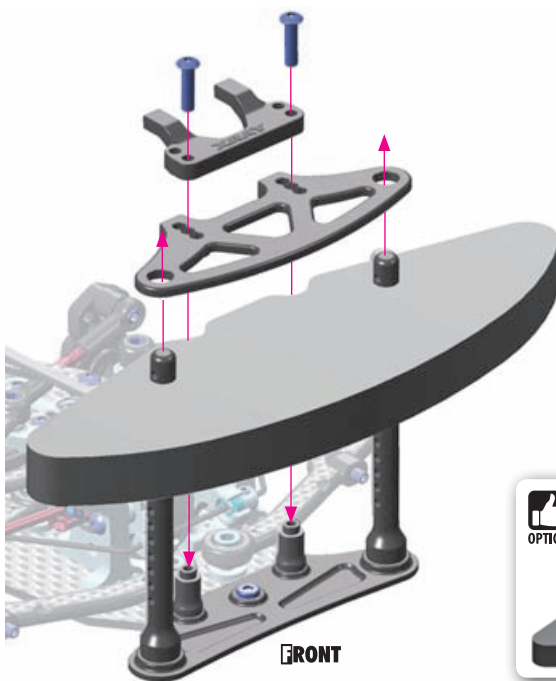
It is important to use the same body setting (rearward and center) on both front and rear body posts at the same time.

OPTION	FRONT BODY MOUNT SET	
#301322	0mm	INCLUDED
#301323	+1mm	OPTION
#301324	+2mm	OPTION

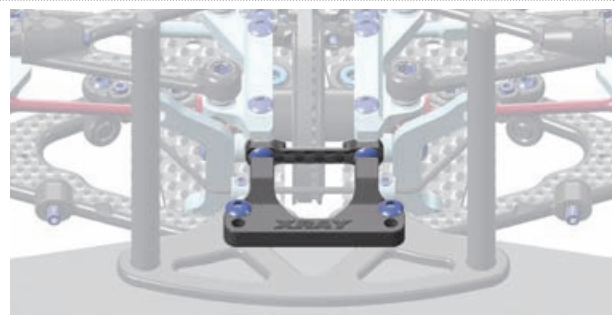
OPTION	FRONT ECC. BODY MOUNT SET	
#301326	0mm	OPTION
#301327	+1mm	OPTION
#301328	+2mm	OPTION



902312
SH M3x12



Position WITHOUT graphite brace. INITIAL SETTING



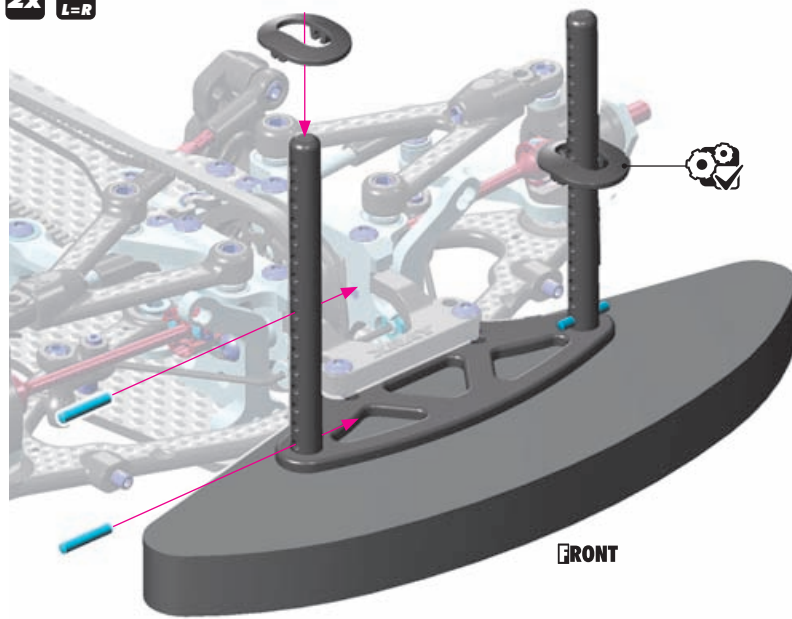
Position WITH graphite brace. INITIAL SETTING

7. FRONT & REAR ASSEMBLY



981212
P 2x12

2x
L=R



FRONT



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



Very handy, easily externally adjustable body post made 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	OPTION
#301327	+1mm	OPTION
#301328	+2mm	OPTION



FRONT BODY MOUNT SET

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



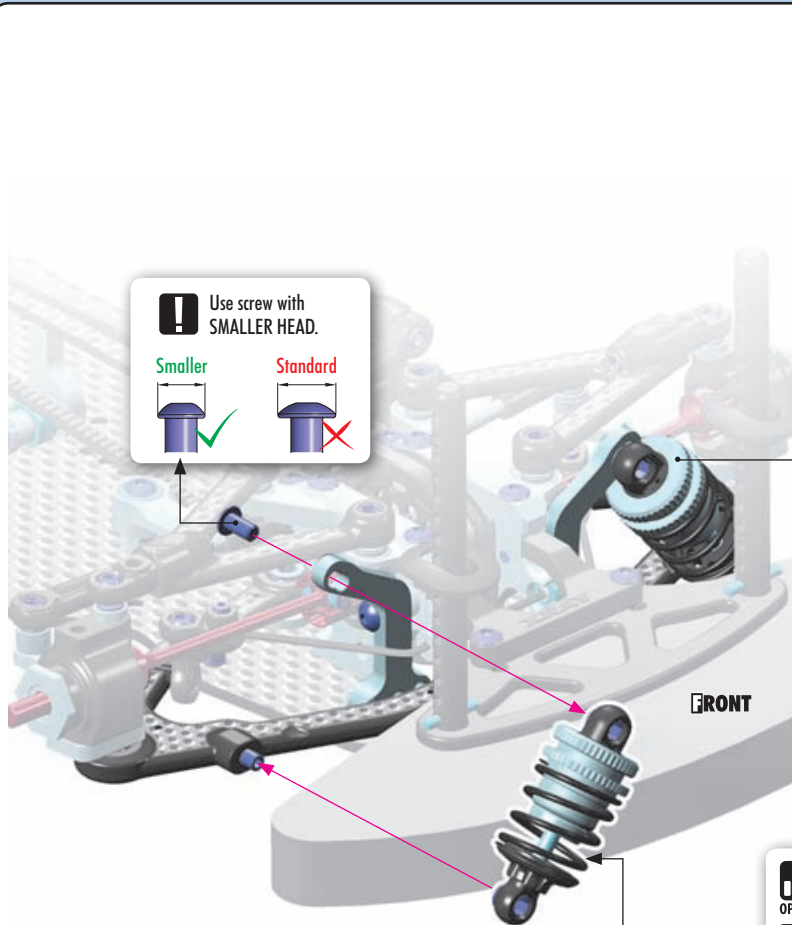
VIDEO TECH TIP



FRONT BODY UPSTOP SYSTEM



902307
SH M3x6
SMALLER HEAD



FRONT

Use screw with SMALLER HEAD.

Smaller



Standard



FRONT SHOCK SPRING
C=2.5-2.8

VIDEO TECH TIP



SHOCKS & SPRINGS

INITIAL SETTING

Upper hole - CARPET TRACKS



INITIAL SETTING

Lower hole - ASPHALT TRACKS



RIDE HEIGHT ADJUSTMENT

When setting the ride height, hold with your fingers the top upper ball joint and cap nut ① so when turning the adjustable nut ② these parts DO NOT unscrew from the body.



#308029
XLP/ULP ALU PROGRESSIVE SHOCK SYSTEM - SET (2)



The progressive shock inserts improve steering characteristics. The ULP PSS set fits the stock XLP shock bodies included in the kit. Must be used with #308026 - XLP Progressive Pistons.



#308026
XLP COMPOSITE 2-HOLE ø0.8mm PROGRESSIVE PISTON (4)



7. FRONT & REAR ASSEMBLY

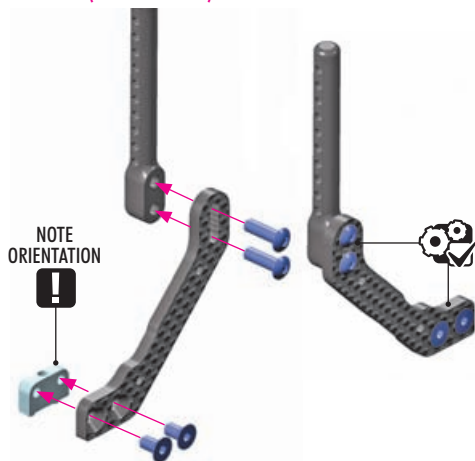


902308
SH M3x8



903306
SFH M3x6

2x REAR VERTICAL BODY MOUNTING (INITIAL SETTING)

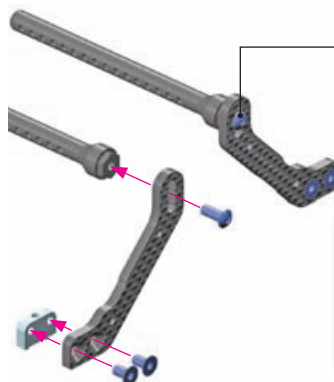


NOTE ORIENTATION

REAR BODY MOUNT SET		
#301336	0mm	INCLUDED
#301337	+1mm	OPTION
#301338	+2mm	OPTION

REAR HORIZONTAL BODY MOUNTING

OPTION



The graphite body post holder has 5 POSITIONS, spaced 1.1mm between each, for precise and easy adjustment.



FRONT BODY MOUNT SET

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



#301322-H

OPTION

HARD COMPOSITE HORIZONTAL REAR BODY MOUNT POST - SET

Optional HARD posts eliminates the flex of the horizontal mounting. Use these posts only for horizontal body mounting.

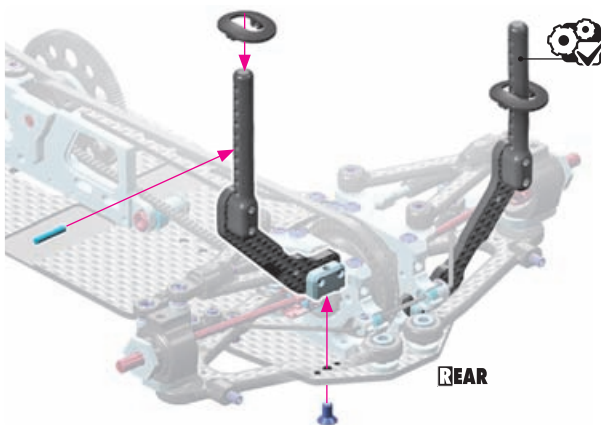
Optional horizontal rear body mounting has shown benefits on medium to high grip conditions, especially on technical tracks, by improving directional changes, steering response and rotation. Note that rear grip is also reduced, so may be useful in Stock or Super Stock spec class racing.



903306
SFH M3x6



981212
P 2x12



#301351-0

ALU ADJUSTABLE BODY POST STOP (2)



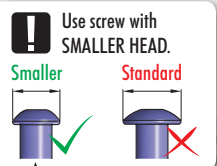
Very handy, easily externally adjustable body post made from Swiss 7075 T6 aluminum. Allows for adjustment of body height by 3mm without needing to change the position on the body post.



303123-K
SHIM 3x6x2

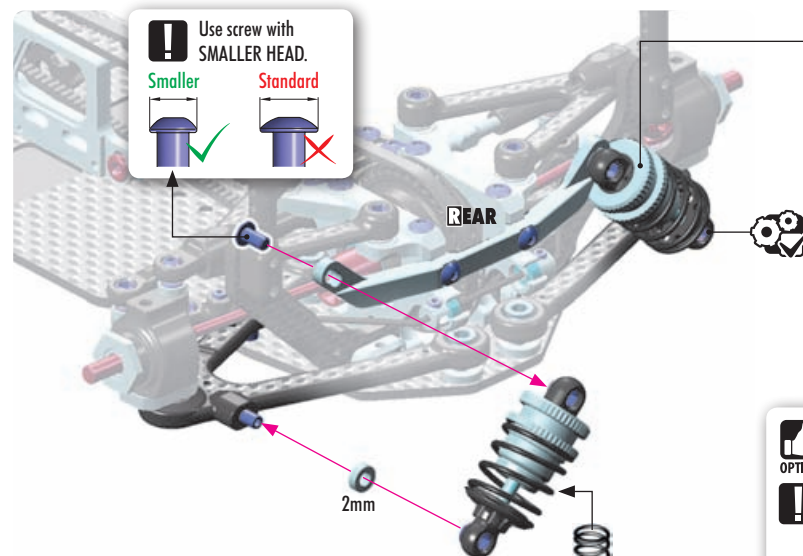


902307
SH M3x6
SMALLER HEAD



Use screw with SMALLER HEAD.

Smaller Standard



RIDE HEIGHT ADJUSTMENT

When setting the ride height, hold with your fingers the top upper ball joint and cap nut 1 so when turning the adjustable nut 2 these parts DO NOT unscrew from the body.



#308029

XLP/ULP ALU PROGRESSIVE SHOCK SYSTEM - SET (2)



The progressive shock inserts improve steering characteristics. The ULP PSS set fits the stock XLP shock bodies included in the kit. Must be used with #308026 - XLP Progressive Pistons.



#308026

XLP COMPOSITE 2-HOLE ø0.8mm PROGRESSIVE PISTON (4)



INITIAL SETTING

Upper hole - CARPET TRACKS



INITIAL SETTING

Lower hole - ASPHALT TRACKS



REAR SHOCK SPRING
C=2.6

VIDEO TECH TIP



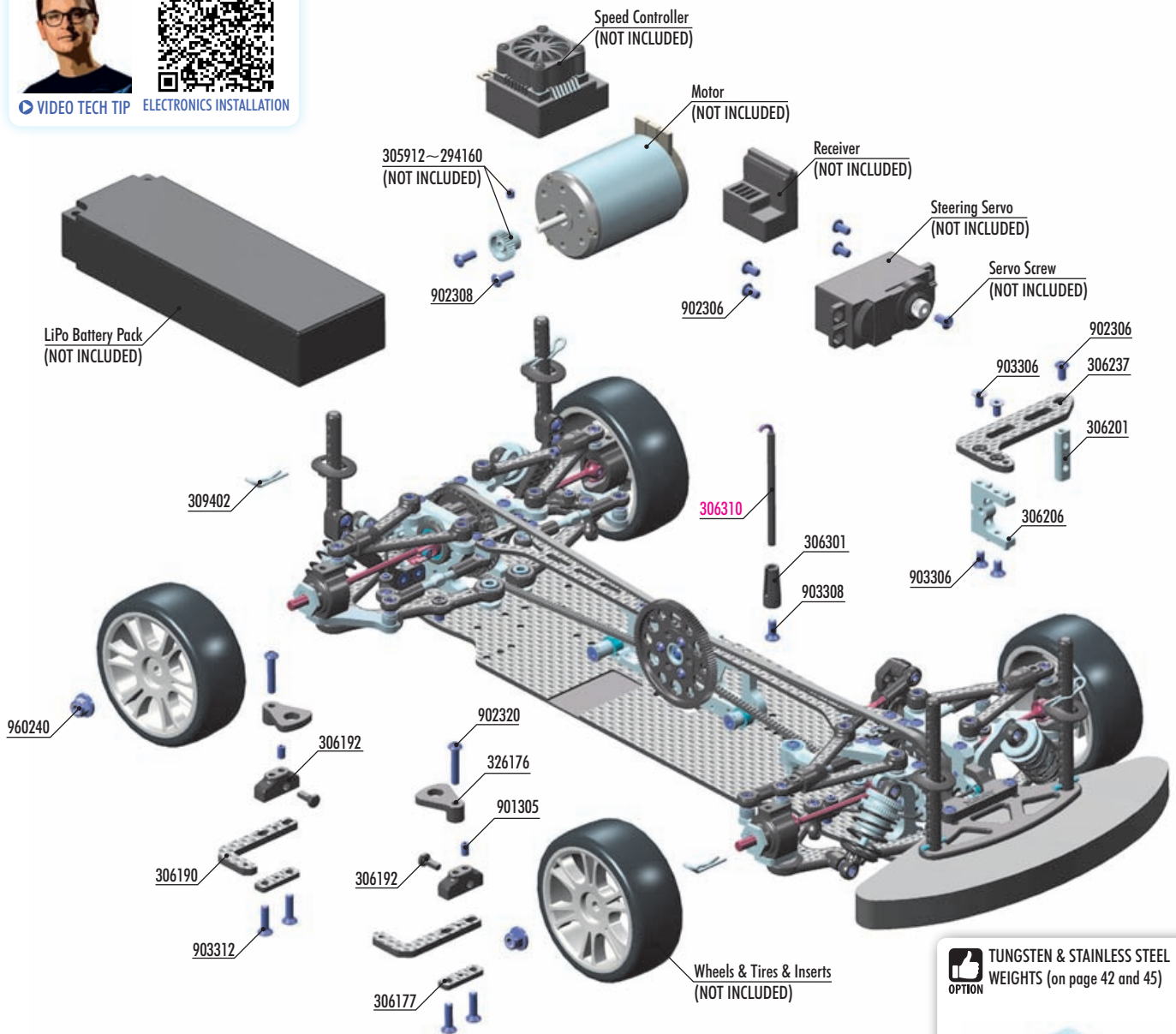
REAR BODY POST MOUNTING

VIDEO TECH TIP



SHOCK SHIMMING TUTORIAL

7. FINAL ASSEMBLY



OPTION TUNGSTEN & STAINLESS STEEL WEIGHTS (on page 42 and 45)

OPTION #306410 ALU FAN MOUNT

OPTION #107870 HUDY FIBRE-REINFORCED TAPE

OPTION #306199 GRAPHITE HOLDER FOR ADJ. BATTERY HOLDER FOR NARROW BATTERIES (2)

OPTION #306551 XRAY PURE TUNGSTEN CHASSIS WEIGHT 12g

OPTION #306165 GRAPHITE BATTERY STRAP

OPTION ALU REAR WING SHIM

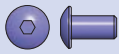
#353561	SILVER	XRAY	OPTION
#293561	SILVER	HUDY	OPTION
#293561-0	ORANGE	HUDY	OPTION

OPTION #309861 SHORT LIPO BALANCING CHASSIS WEIGHT 40g (2)

BAG
07

- 305912~294160 NARROW ALU PINION GEAR 12T~60T (OPTION)
- 306177 GRAPHITE BATTERY PLATE SHIM (2)
- 306190 GRAPHITE BATTERY ADJ. WIDTH PLATE (2)
- 306192 COMPOSITE ADJUSTABLE BATTERY HOLDER & BACKSTOP (2+2)
- 306201 ALU SERVO MOUNT - LONG
- 306206 X4 ALU SERVO MOUNT - BLACK
- 306237 X4 GRAPHITE FLOATING SERVO HOLDER 3.0MM
- 306301 ANTENNA MOUNT - THIN
- 309402 BODY CLIP FOR 6MM BODY POST (4)
- 326176 COMPOSITE LIPO BATTERY BACKSTOP (2+2)

- 901305 HEX SCREW SB M3x5 (10)
 - 902306 HEX SCREW SH M3x6 (10)
 - 902308 HEX SCREW SH M3x8 (10)
 - 902320 HEX SCREW SH M3x20 (10)
 - 903306 HEX SCREW SFH M3x6 (10)
 - 903308 HEX SCREW SFH M3x8 (10)
 - 903312 HEX SCREW SFH M3x12 (10)
 - 960240 NUT M4 WITH SERRATED FLANGE (10)
- 306310 ANTENNA (2)**



902306
SH M3x6



903306
SFH M3x6

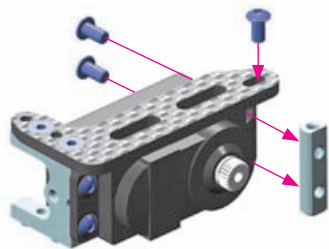
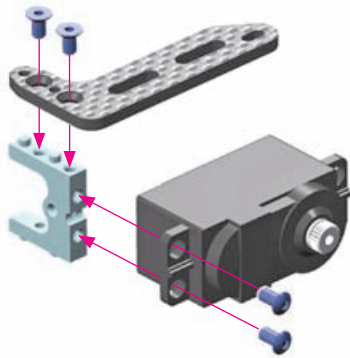


VIDEO TECH TIP



STEERING SYSTEM

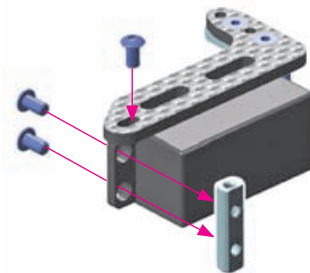
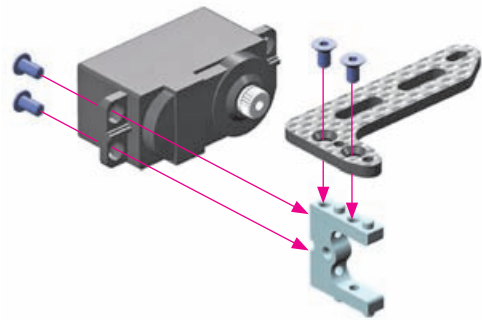
ALTERNATIVE 1 FLOATING REARWARD MOUNT SERVO HOLDER (INITIAL SETTING)



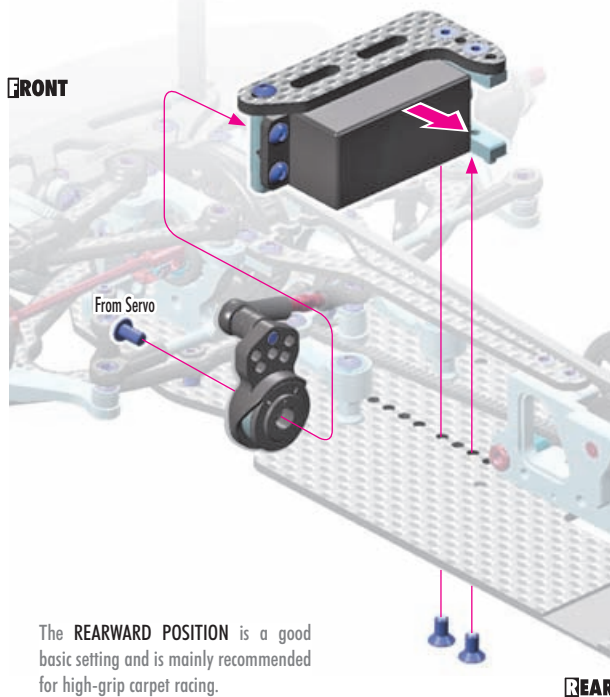
TIP

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

ALTERNATIVE 2 FLOATING FORWARD MOUNT SERVO HOLDER

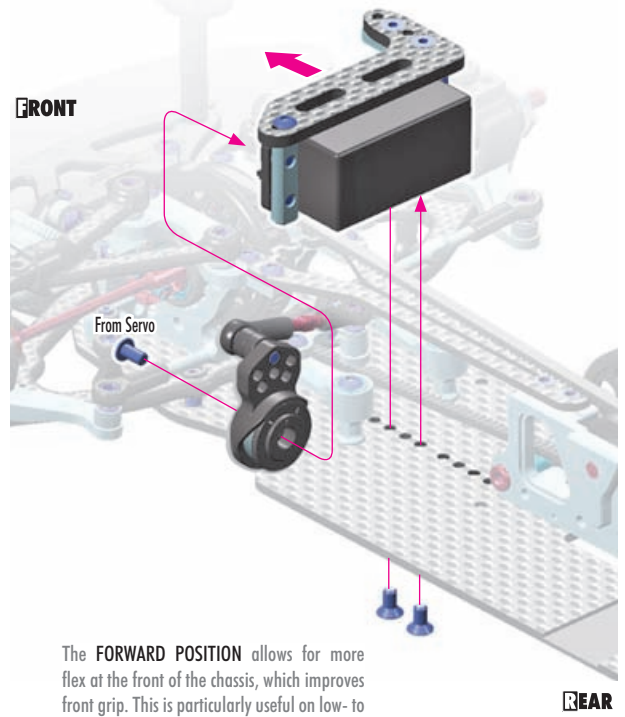


ALTERNATIVE 1 FLOATING REARWARD MOUNT SERVO HOLDER (INITIAL SETTING)



The REARWARD POSITION is a good basic setting and is mainly recommended for high-grip carpet racing.

ALTERNATIVE 2 FLOATING FORWARD MOUNT SERVO HOLDER



The FORWARD POSITION allows for more flex at the front of the chassis, which improves front grip. This is particularly useful on low- to medium-grip carpet as well as asphalt.



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

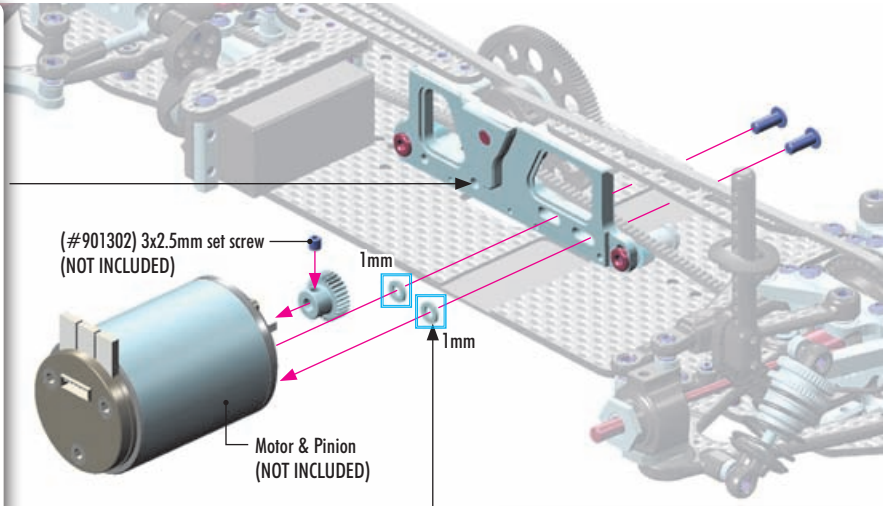


7. FINAL ASSEMBLY



#306410
ALU FAN MOUNT
OPTION

#293110 HUDY BRUSHLESS RC FAN 30MM WITH EXTERNAL SOLDERING TABS
#293111 HUDY BRUSHLESS RC FAN 40MM WITH EXTERNAL SOLDERING TABS
#293112 HUDY BRUSHLESS RC FAN 30MM WITH INTERNAL SOLDERING TABS
#293113 HUDY BRUSHLESS RC FAN 40MM WITH INTERNAL SOLDERING TABS



If you use very heavy battery for stock racing and very light speedo and motor, you can use shims between motor and motor mount to move the weight more outside on the motor side which can help to have same weight balance left and right. You can use shims #303122 (3x6x1mm) NOT INCLUDED in kit.

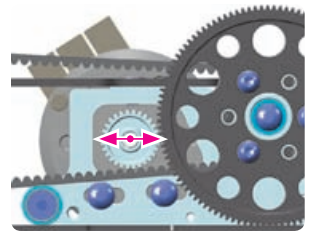
ALU PINION GEARS (OPTION)

- OPTION
- | | |
|-------------------|-------------------|
| #305912 12T / 48P | #305968 18T / 64P |
| #305913 13T / 48P | #305969 19T / 64P |
| #305914 14T / 48P | #305970 20T / 64P |
| #305915 15T / 48P | #305971 21T / 64P |
| #305916 16T / 48P | #305972 22T / 64P |
| #294017 17T / 48P | #305973 23T / 64P |
| #305918 18T / 48P | #305974 24T / 64P |
| #305919 19T / 48P | #305975 25T / 64P |
| #294020 20T / 48P | #294126 26T / 64P |
| #294021 21T / 48P | #294127 27T / 64P |
| #294022 22T / 48P | #294128 28T / 64P |
| #294023 23T / 48P | #294129 29T / 64P |
| #305924 24T / 48P | #294130 30T / 64P |
| #305925 25T / 48P | #294131 31T / 64P |
| #305926 26T / 48P | #305982 32T / 64P |
| #305927 27T / 48P | #294133 33T / 64P |
| #305928 28T / 48P | #305984 34T / 64P |
| #305929 29T / 48P | #305985 35T / 64P |
| #294030 30T / 48P | #294136 36T / 64P |
| #305931 31T / 48P | #294137 37T / 64P |
| #305932 32T / 48P | #294138 38T / 64P |
| #294033 33T / 48P | #294139 39T / 64P |
| #305934 34T / 48P | #294140 40T / 64P |
| #294035 35T / 48P | #294141 41T / 64P |
| | #294142 42T / 64P |
| | #294143 43T / 64P |
| | #294144 44T / 64P |
| | #294145 45T / 64P |
| | #294146 46T / 64P |
| | #294147 47T / 64P |
| | #294148 48T / 64P |
| | #294149 49T / 64P |
| | #294150 50T / 64P |
| | #294152 52T / 64P |
| | #294154 54T / 64P |
| | #294156 56T / 64P |
| | #294158 58T / 64P |
| | #294160 60T / 64P |



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.



VIDEO TECH TIP



WEIGHT BALANCE



VIDEO TECH TIP



ELECTRONICS INSTALLATION

Feed the receiver wire into the antenna tube.

Receiver (NOT INCLUDED)

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

CA

Speed Controller (NOT INCLUDED)

Double-sided Tape HUDY #107875 (NOT INCLUDED)

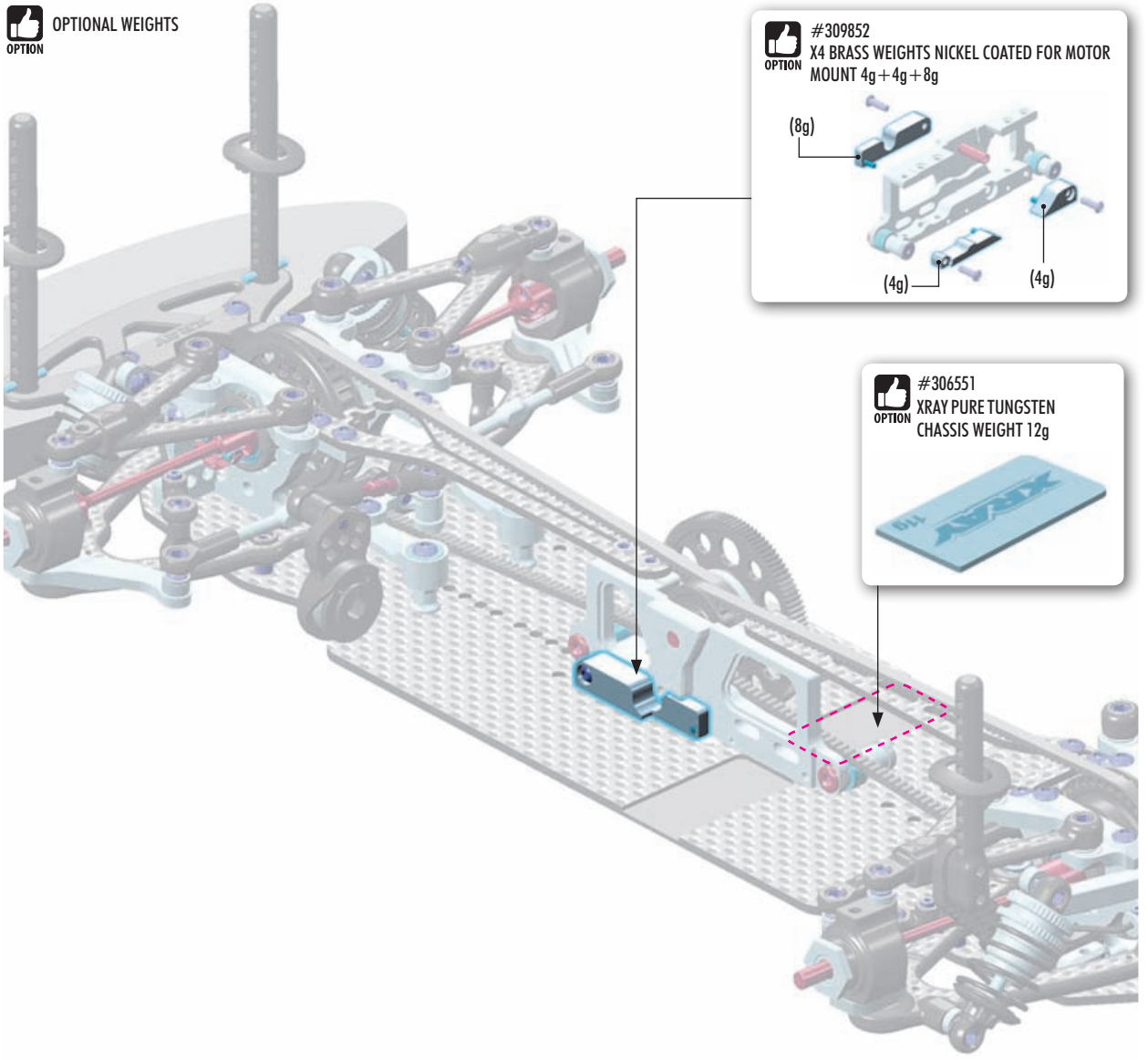
For perfect left-to-right balance, we recommend using HUDY pure tungsten weights under your electronics.

#293086
HUDY PURE TUNGSTEN WEIGHT THIN 15g - (24.5x24.5mm)

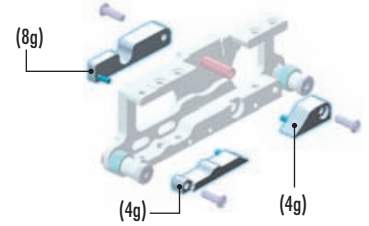
#293087
HUDY PURE TUNGSTEN WEIGHT THIN 20g - (31x26mm)

7. FINAL ASSEMBLY

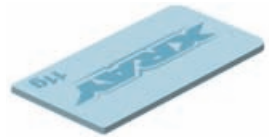
OPTIONAL WEIGHTS
OPTION



#309852
OPTION X4 BRASS WEIGHTS NICKEL COATED FOR MOTOR MOUNT 4g + 4g + 8g



#306551
OPTION XRAY PURE TUNGSTEN CHASSIS WEIGHT 12g



VIDEO TECH TIP



WEIGHT BALANCE

901305
SB M3x5

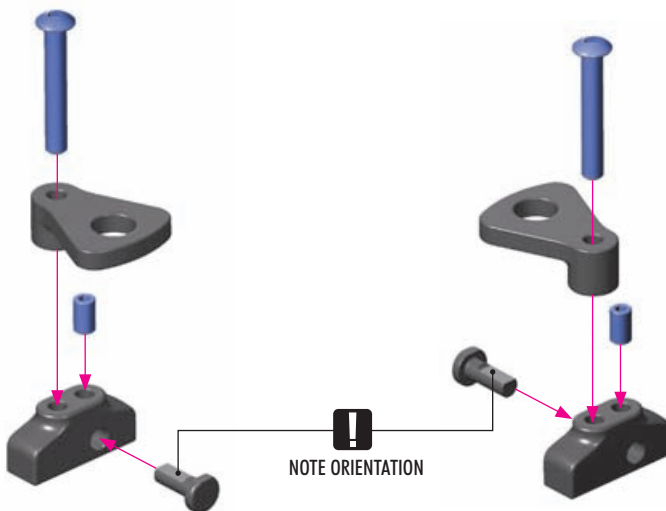
902320
SH M3x20



VIDEO TECH TIP

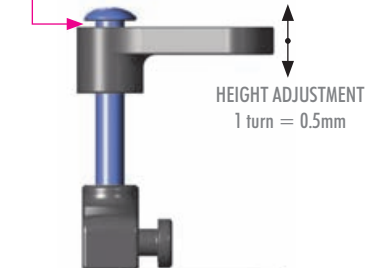


BATTERY MOUNTING SYSTEM



NOTE ORIENTATION

To ensure correct functioning of the battery holder, DO NOT overtighten the screw; the holder must be able to move.



HEIGHT ADJUSTMENT
1 turn = 0.5mm

7. FINAL ASSEMBLY



903312
SFH M3x12



VIDEO TECH TIP



WEIGHT BALANCE



VIDEO TECH TIP

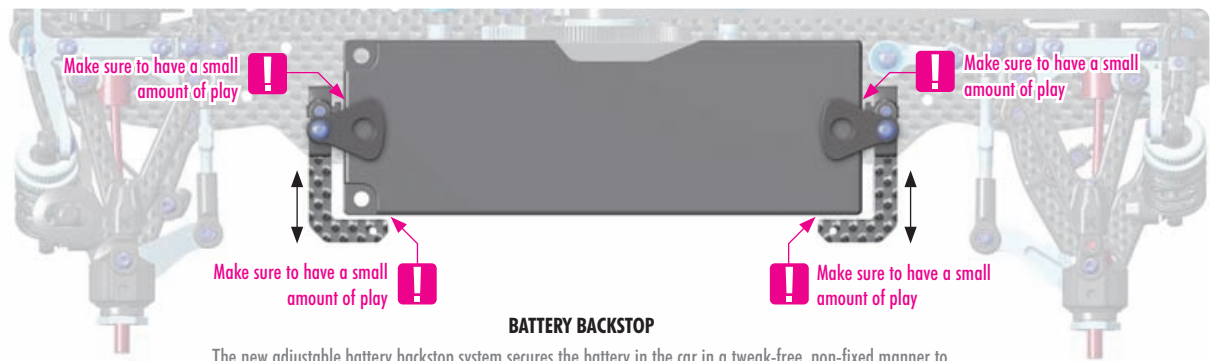
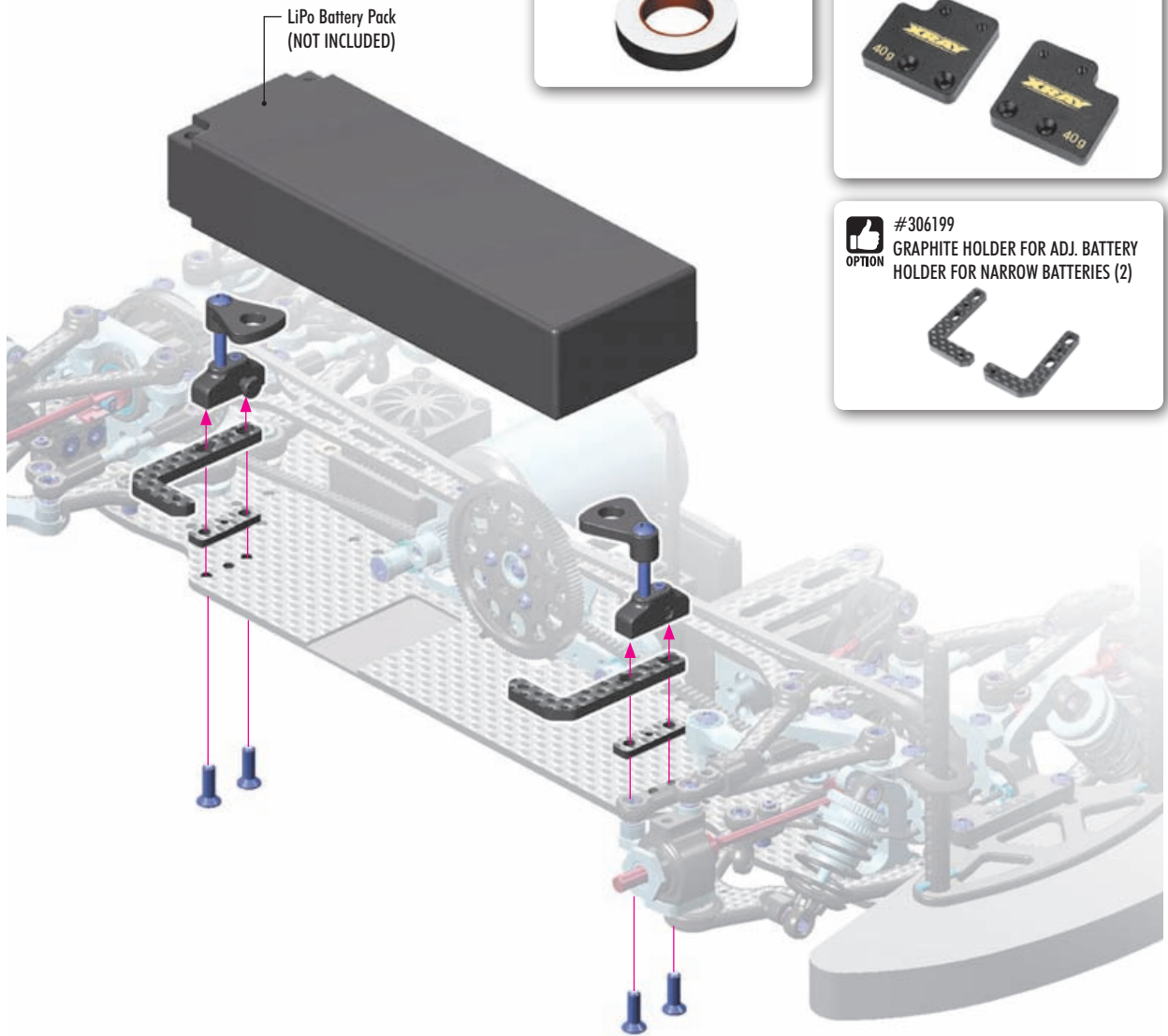


BATTERY MOUNTING SYSTEM

#107870
OPTION HUDY FIBRE-REINFORCED TAPE

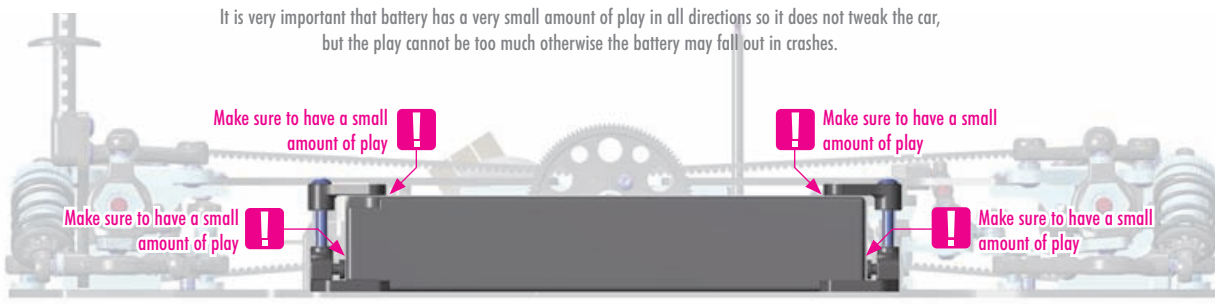
#309861
OPTION SHORT LIPO BALANCING CHASSIS WEIGHT 40g (2)

#306199
OPTION GRAPHITE HOLDER FOR ADJ. BATTERY HOLDER FOR NARROW BATTERIES (2)

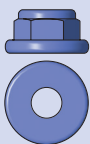


The new adjustable battery backstop system secures the battery in the car in a tweak-free, non-fixed manner to help improve traction and makes it more stable and easier to drive.

It is very important that battery has a very small amount of play in all directions so it does not tweak the car, but the play cannot be too much otherwise the battery may fall out in crashes.



7. FINAL ASSEMBLY



960240
N M4



OPTION

ALU REAR WING SHIM

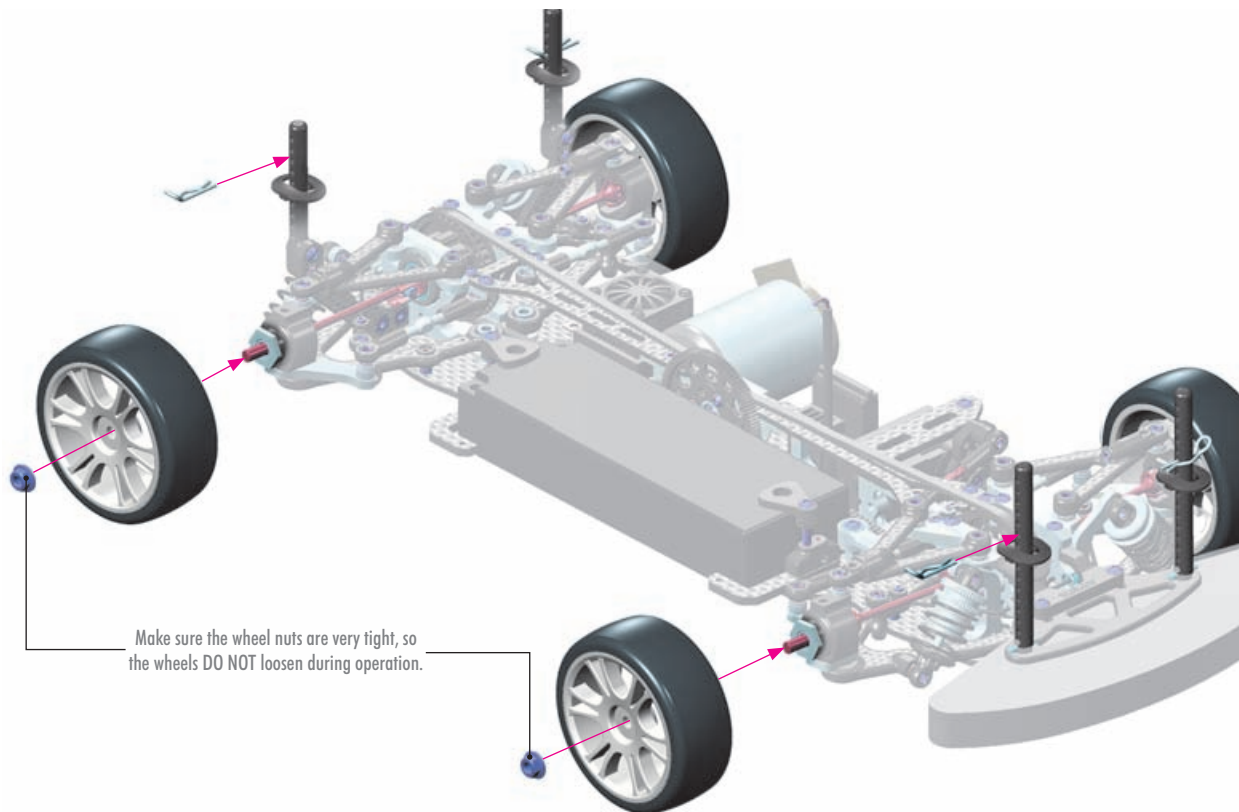
#353561	SILVER	OPTION
#293561	SILVER	OPTION
#293561-0	ORANGE	OPTION



OPTION

OFFSET ALU WHEEL SHIMS

#305380	0.75mm	OPTION
#305382	0.5mm	OPTION
#305381	1.0mm	OPTION



Make sure the wheel nuts are very tight, so the wheels DO NOT loosen during operation.



VIDEO TECH TIP



TRACK WIDTH
(OFFSET)



DOWNSTOP & RIDE
HEIGHT



CHASSIS TWEAK



#293081
HUDY PURE TUNGSTEN WEIGHT 5g



#293082
HUDY PURE TUNGSTEN WEIGHT 10g



#309862
XRAY STAINLESS STEEL WEIGHT FOR NARROW
BATTERY PACK 35g



#326181
STAINLESS STEEL BATTERY WEIGHT 35g



#293083
HUDY PURE TUNGSTEN WEIGHT 15g



#293085
HUDY PURE TUNGSTEN WEIGHT THIN ROUND
WITH M3 - 10g



7. FINAL ASSEMBLY

BODY STOP SYSTEM

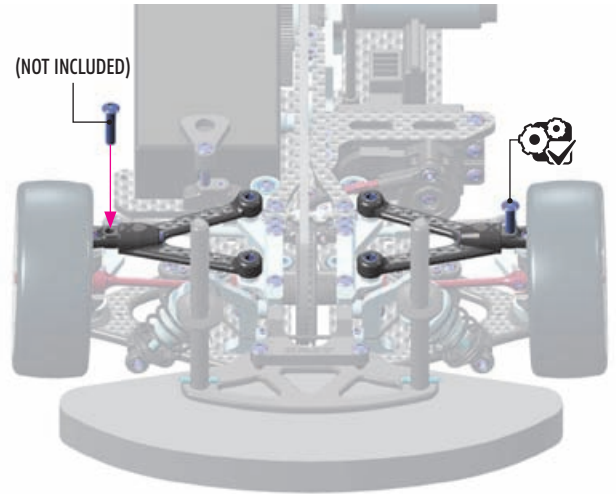
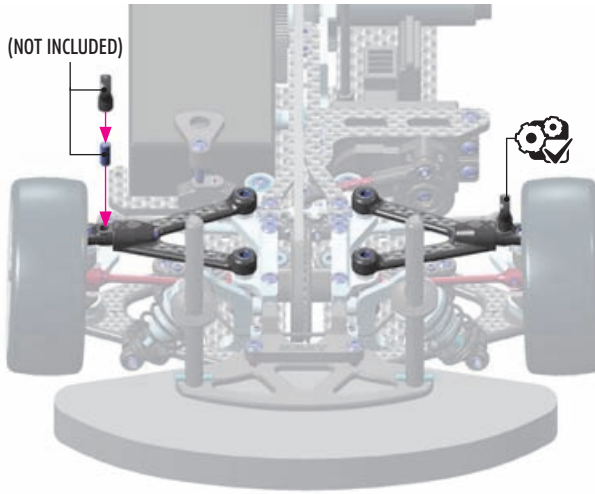
The X4 features an adjustable front body upstop system incorporated into the new upper arm to prevent the body shell from bottoming out and hitting the ground during cornering. When the system is set correctly, it allows the body to be run lower without dragging on the ground to improve aerodynamic efficiency.



BODY STOP ALTERNATIVE
with screw and ball joint
(#901308 SB M3x8mm / #303457 Ball Joint)



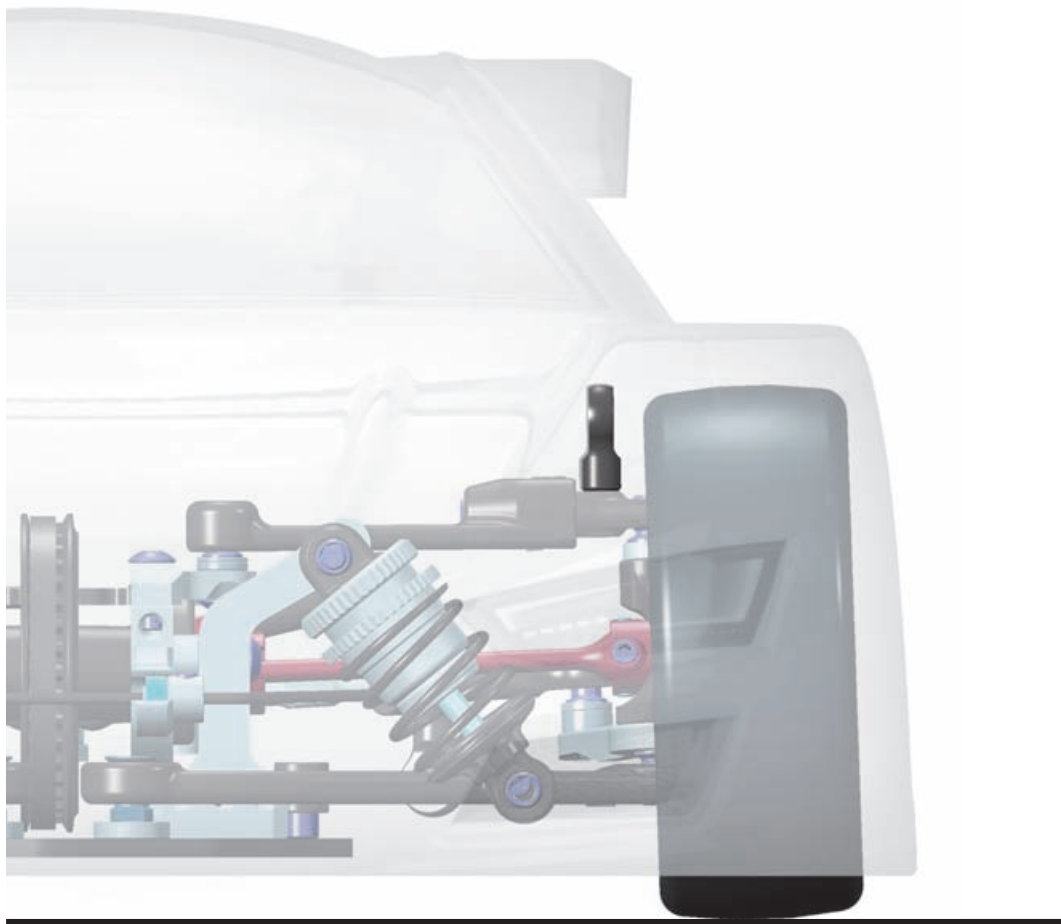
BODY STOP ALTERNATIVE
with screw
(#902316 SH M3x16mm)



▶ VIDEO TECH TIP



BODY UPSTOPS



RACE			
TRACK			
NAME	DATE		

QUAL POSITION	FINAL POSITION	BEST LAP TIME	LAPS	TIME
		/sec	/	

TRACK

TRACK SURFACE CARPET ASPHALT

TRACK LAYOUT TECHNICAL MIXED FAST

TRACTION LOW MEDIUM HIGH

FRONT	TRANSMISSION	REAR
GEAR DIFF OIL /cSt	<input type="checkbox"/> FRONT SOLID AXLE	GEAR DIFF OIL /cSt
PINION /T	SPUR GEAR /T	FINAL DRIVE RATIO

FRONT	SHOCKS	REAR
	XRAY SPRINGS	
	OIL /cSt	
	REBOUND %	
<input type="checkbox"/> YES <input type="checkbox"/> NO	FOAM INSERTS	<input type="checkbox"/> YES <input type="checkbox"/> NO

<input type="checkbox"/> 4 HOLES	1.1mm	1.1mm	4 HOLES
<input type="checkbox"/> PSS	1.2mm	1.2mm	PSS
SHOCK LENGTH /mm			SHOCK LENGTH /mm

ANTI-ROLL BAR THICKNESS/mm

TIRES

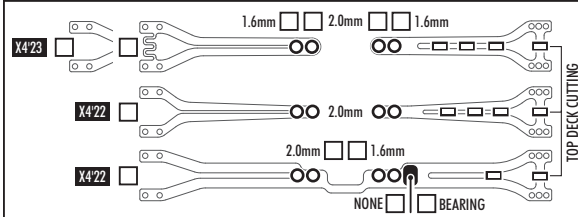
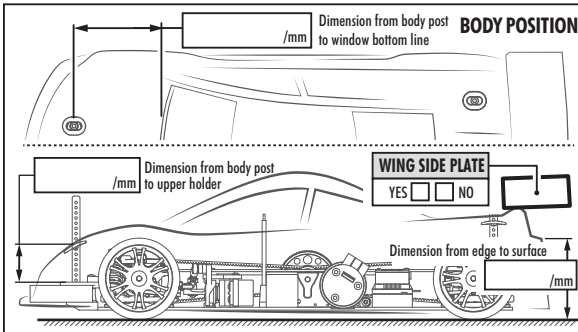
ADDITIVE

ADDITIVE TIMING

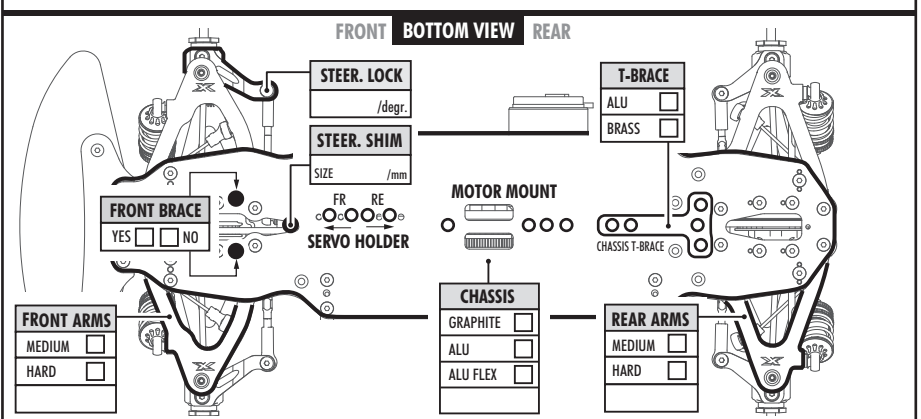
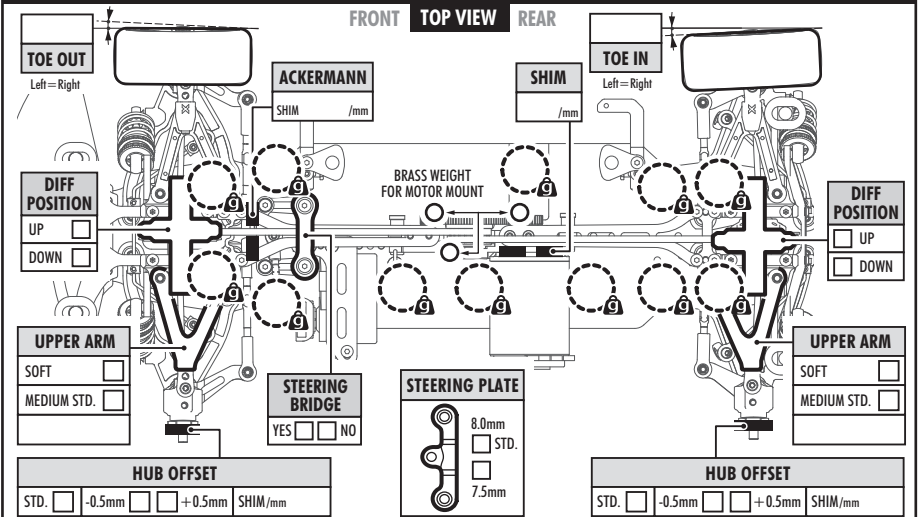
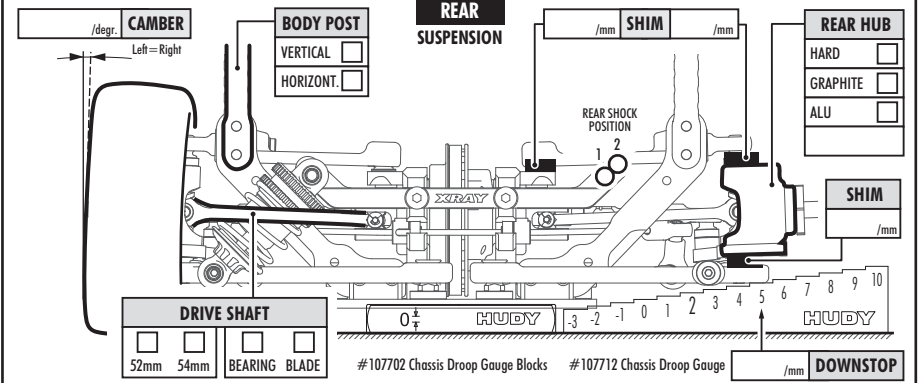
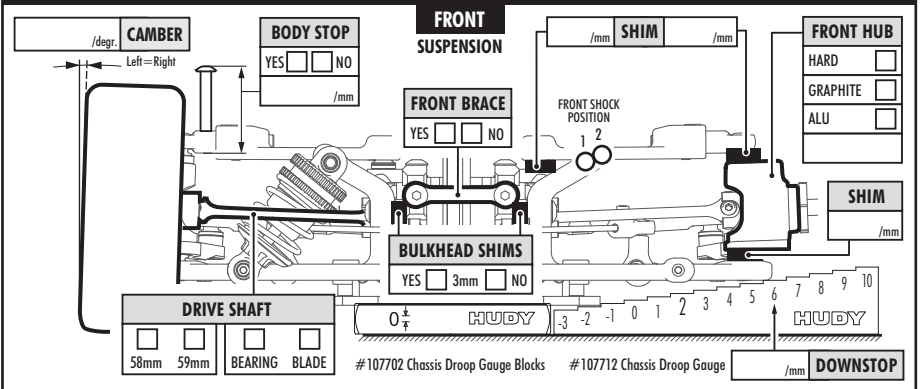
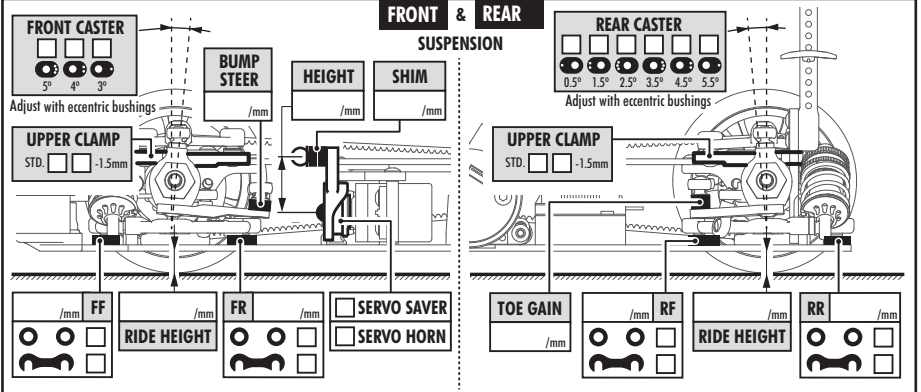
FRONT LEFT	FRONT RIGHT	TREATED AREA	REAR LEFT	REAR RIGHT
------------	-------------	--------------	-----------	------------

TOTAL WEIGHT /g WEIGHT BALANCE FRONT % REAR %

MOTOR	TIMING
ESC	BATTERIES
BODY	WING



COMMENTS



EXCLUSIVE PROFESSIONAL

HUDY

108301

108302

108303

108304

108305

108360

107905

199181

104002

199911

107865

107771

109800

107712

181040

107714

107702

181030

107719

181110

107715

293100

107713

293101

107716

293102

293110

293112

293111

293113

107880

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
 108301 SET-UP BOARD 1/10 & 1/12 ON-ROAD-LIGHTWEIGHT-GREY
 108302 SET-UP BOARD 1/10 & 1/12 ON-ROAD-LIGHTWEIGHT-SILVER GREY

108303 SET-UP BOARD 1/10 & 1/12 ON-ROAD-LIGHTWEIGHT-RED
 108304 SET-UP BOARD 1/10 & 1/12 ON-ROAD-LIGHTWEIGHT-RED
 108305 SET-UP BOARD 1/10 & 1/12 ON-ROAD-LIGHTWEIGHT-RED
 108360 PLASTIC SET-UP BOARD DECAL 28x28mm
 109301 HUDY SET-UP STATION FOR 1/10 TOURING CARS
 109360 ALU NUT FOR 1/10 TOURING CARS
 109370 ALU SET-UP WHEEL FOR 1/10 RUBBER TREAD
 109800 HUDY ALU TRAY FOR ON-ROAD TOURING CARS
 109840 HUDY ALU TRAY FOR 1/10 OFF-ROAD CARS
 109860 HUDY ALU TRAY FOR SET-UP STATION
 109880 HUDY ALU TRAY FOR ACCESSORIES
 111545 LIMITED EDITION - ALLEN WRENCH SET
 112045 LIMITED EDITION - ALLEN WRENCH SET



107855
 109880
 109840
 109301
 109370
 108190
 188981
 188990

113045 LIMITED EDITION - ALLEN WRENCH # 3.0MM
 132045 LIMITED EDITION - ALLEN WRENCH + BALL REPL. TIP # 2.0MM
 175535 LIMITED EDITION - SOCKET DRIVER # 5.5MM
 177035 LIMITED EDITION - SOCKET DRIVER # 7.0MM
 181030 HUDY SPRING STEEL TURNBUCKLE WRENCH 3 MM
 181034 TURNBUCKLE WRENCH 3 & 4MM - HUDY SPRING STEEL™
 181040 TURNBUCKLE WRENCH 4MM - HUDY SPRING STEEL™
 181110 HUDY BALL JOINT WRENCH
 183011 HUDY PROFESSIONAL MULTI TOOL
 188981 HUDY POCKET HOBBY KNIFE
 188990 HUDY PROFESSIONAL BODY SCISSORS
 199060 HUDY ALU TOOL STAND
 199181 HUDY CAR BAG - 1/10 ON-ROAD - TOURING - PAN CAR

107904
 106260
 199270
 109060
 298100
 108150
 107875
 107870
 183011
 107090
 107601
 107643
 177035
 175535
 111545
 132045
 112045
 113045

199270 HUDY LIPO SAFETY BAG
 199911 HUDY PIT MAT ROLL 750X1200MM WITH PRINTING
 293100 HUDY ALU RC FAN 30MM - BOTTOM MOUNT 2 HOLE
 293101 HUDY ALU RC FAN 30MM - SIDE MOUNT 2 HOLE
 293102 HUDY ALU RC FAN 30MM - TOP/SIDE MOUNT 4 HOLE
 293110 HUDY BRUSHLESS RC FAN 30MM - WITH EXTERNAL SOLDERING TABS
 293111 HUDY BRUSHLESS RC FAN 40MM - WITH EXTERNAL SOLDERING TABS
 293112 HUDY BRUSHLESS RC FAN 30MM - WITH INTERNAL SOLDERING TABS
 293113 HUDY BRUSHLESS RC FAN 40MM - WITH INTERNAL SOLDERING TABS
 298100 HUDY TIN ROUND BOX 80X30MM

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EXCLUSIVE PROFESSIONAL

HUDY

HUDY

199295-H

199290-H

803053

803062

106261

106200

107861

107840

107761

107846

105590

293080

106290

293012

293011

293084

294017~294035

294127~294160

293083

293082

293081

- 107761 HUDY ADJUSTABLE CAMBER GAUGE 80MM
- 107772 HUDY PROFESSIONAL 1/10 TC WHEEL ARCH MARKER + WHEEL ADAPTER & NUT
- 106210 HUDY GRAPHITE GREASE
- 106230 HUDY BEARING OIL
- 106200 HUDY MAGIC CLEANING GUM
- 106261 HUDY TIRE ADDITIVE - TIRE GRIPPER RED - 50ML
- 106350 HUDY PREMIUM SILICONE OIL 500 CST - 50ML
- 107861 HUDY PROFESSIONAL RACING STOPWATCH XL DISPLAY
- 106290 HUDY PROFESSIONAL SOLDER 3M LENGTH
- 107840 CLEANING BRUSH LARGE - SOFT
- 107846 CLEANING BRUSH SMALL - SOFT
- 105520 WHEEL ADAPTER FOR 1/10 ON-ROAD & 1/10 OFF-ROAD - 12MM

- 105590 HUDY WHEEL BALANCING PUTTY
- 181090 HUDY SPECIAL TOOL FOR TURNBUCKLES & NUTS
- 181091 HUDY TURNBUCKLE WRENCH 3 & 4MM - V2
- 803053 HUDY 1/10 TC CARPET TIRES C3-28 (4)
- 803062 HUDY 1/10 TC TIRES A1-36 - ASPHALT (4)
- 293011 HUDY STAINLESS STEEL BATTERY WEIGHT 35G
- 293012 HUDY STAINLESS STEEL BATTERY WEIGHT FOR NARROW BATTERY PACK 35G
- 293080 LEAD WEIGHTS 4X5G & 4X10G WITH 3M GLUE
- 293081 HUDY PURE TUNGSTEN WEIGHT 5G
- 293082 HUDY PURE TUNGSTEN WEIGHT 10G
- 293083 HUDY PURE TUNGSTEN WEIGHT 15G
- 293084 PRECISION BALANCING CHASSIS WEIGHT 10G (4)



199280M-H



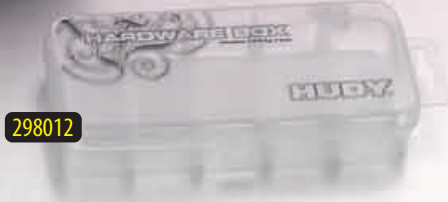
199296-H



298015



105520



298012



107772

105500



298016



298018

298019



181090



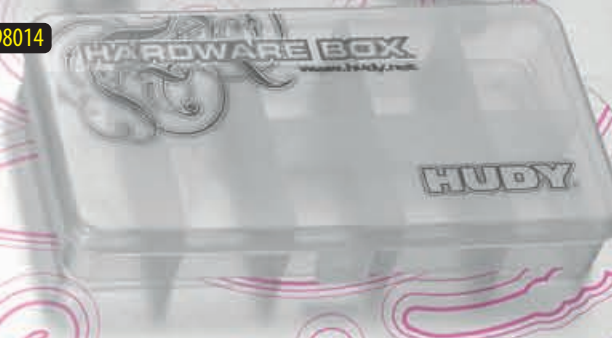
106310~106694



298017



293311



298014



298013



293491~293493

293401~293403

293497~293499

293404~293406

293501~293503

293407~293409



181091



106210



106230



- 293311 GRAPHITE REAR WING SIDE PLATE 0.5MM - 1/10 ELECTRIC (2)
- 293403 ALU CLAMP SERVO HORN - FUTABA, SAVÖX - OFFSET 1-HOLE M3 - 25T
- 293493 ALU SERVO HORN - FUTABA, SAVÖX - OFFSET 1-HOLE M3 - 25T - V2
- 294023 HUDY ALU ULTRA-LIGHT PINION GEAR - HARD COATED - 23T / 48
- 294140 HUDY ALU ULTRA-LIGHT PINION GEAR - HARD COATED - 40T / 64
- 294156 HUDY ALU ULTRA-LIGHT PINION GEAR - HARD COATED - 56T / 64
- 298012 HUDY PARTS BOX - 10-COMPARTMENTS
- 298013 HUDY SPRINGS BOX - 10-COMPARTMENTS
- 298014 HUDY PARTS BOX - 8-COMPARTMENTS
- 298015 HUDY PARTS CASE - 290 X 195MM
- 298016 HUDY TINY HARDWARE BOX - 4-COMPARTMENTS
- 298017 HUDY TINY ONE-PIECE HARDWARE BOX - 8-COMPARTMENTS

- 298018 HUDY TINY HARDWARE BOX - 8-COMPARTMENTS
- 298019 HUDY DIFF BOX - 8-COMPARTMENTS
- 199280M-H HUDY HARD CASE - 140X110X95MM - OIL BAG MEDIUM
- 199290-H HUDY HARD CASE - 235X190X75MM - ACCESSORIES / ENGINE BAG
- 199295-H HUDY HARD CASE - 280X150X85MM - ACCESSORIES BAG LARGE
- 199296-H HUDY HARD CASE - 120X85X46MM - ACCESSORIES / STOP WATCH

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