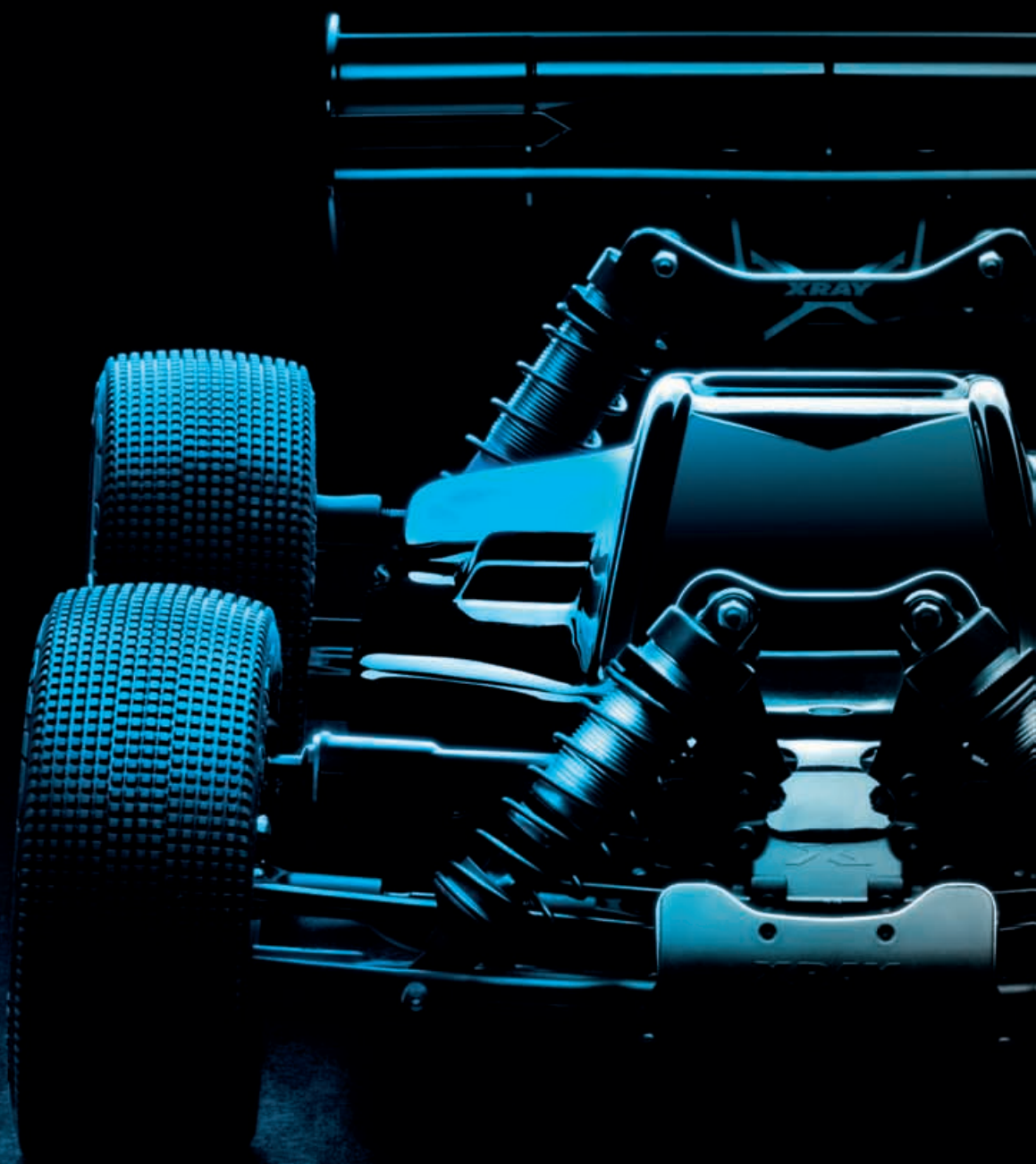


1/8 LUXURY ELECTRIC OFF-ROAD BUGGY

# XRAY XB8E



**INSTRUCTION MANUAL**

**XRAY XB8E'24**

## 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](mailto:info@teamxray.com). Also, please visit our Web site at [www.teamxray.com](http://www.teamxray.com) to find the latest updates, set-up information, option parts, and many other goodies. We pride ourselves on taking excellent care of our customers.

You can join thousands of XRAY fans and enthusiasts in our online community at: [www.teamxray.com](http://www.teamxray.com)

Read carefully and fully understand the instructions before beginning assembly.

Make sure you review this entire manual, download and use set-up book from the web, and examine all details carefully. If for some reason you decide this is not what you wanted or expected, DO NOT continue any further. Your hobby dealer can not accept your kit for return or exchange after it has been partially or fully assembled.

Contents of the box may differ from pictures. In line with our policy of continuous product development, the exact specifications of the kit may vary without prior notice.

### XRAY Europe

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91101 Trenčín  
Slovakia, EUROPE  
Phone: 421-32-7401100  
Fax: 421-32-7401109  
E-mail: [info@teamxray.com](mailto:info@teamxray.com)

### XRAY USA

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

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

## SAFETY PRECAUTIONS

Contains:

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

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

CAUTION: CANCER HAZARD

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

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

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

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

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

## IMPORTANT NOTES - GENERAL

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

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

## **IMPORTANT NOTES - ELECTRICAL**

- Insulate any exposed electrical wiring (using heat shrink tubing or electrical tape) to prevent dangerous short circuits. Take maximum care in wiring, connecting and insulating cables. Make sure cables are always connected securely. Check connectors for if they become loose. And if so, reconnect them securely. Never use RC models with damaged wires. A damaged wire is extremely dangerous, and can cause short-circuits resulting in fire. Please have wires repaired at your local hobby shop.
- Low battery power will result in loss of control. Loss of control can occur due to a weak battery in either the transmitter or the receiver. Weak running battery may also result in an out of control car if your car's receiver power is supplied by the running battery. Stop operation immediately if the car starts to slow down.
- When not using RC model, always disconnect and remove battery.
- DO NOT disassemble battery or cut battery cables. If the running battery short-circuits, approximately 300W of electricity can be discharged, leading to fire or burns. Never disassemble battery or cut battery cables.
- Use a recommended charger for the receiver and transmitter batteries and follow the instructions correctly. Over-charging, incorrect charging,

or using inferior chargers can cause the batteries to become dangerously hot. Recharge battery when necessary. Continual recharging may damage battery and, in the worst case, could build up heat leading to fire. If battery becomes extremely hot during recharging, please ask your local hobby shop for check and/or repair and/or replacement.

- Regularly check the charger for potential hazards such as damage to the cable, plug, casing or other defects. Ensure that any damage is rectified before using the charger again. Modifying the charger may cause short-circuit or overcharging leading to a serious accident. Therefore DO NOT modify the charger.
- Always unplug charger when recharging is finished.
- DO NOT recharge battery while battery is still warm. After use, battery retains heat. Wait until it cools down before charging.
- DO NOT allow any metal part to short circuit the receiver batteries or other electrical/electronic device on the model.
- Immediately stop running if your RC model gets wet as may cause short circuit.
- Please dispose of batteries responsibly. Never put batteries into fire.

## **R/C & BUILDING TIPS**

- Make sure all fasteners are properly tightened. Check them periodically.
- Make sure that chassis screws DO NOT protrude from the chassis.
- For the best performance, it is very important that great care is taken to ensure the free movement of all parts.
- Clean all ball-bearings so they move very easily and freely.
- Tap or pre-thread the plastic parts when threading screws.
- Self-tapping screws cut threads into the parts when being tightened. DO NOT use excessive force when tightening the self-tapping screws because you may strip out the thread in the plastic. We recommended you stop tightening a screw when you feel some resistance.
- Ask your local hobby shop for any advice.

Please support your local hobby shop. We at XRAY Model Racing Cars support all local hobby dealers. Therefore we ask you, if at all possible, to purchase XRAY products at your hobby dealer and give them your support like we do. If you have difficulty finding XRAY products, please check out [www.teamxray.com](http://www.teamxray.com) to get advice, or contact us via email at [info@teamxray.com](mailto:info@teamxray.com), or contact the XRAY distributor in your country.

## **WARRANTY**

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

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

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

### **Limitations of Liability**

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

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

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

**All rights reserved.**

## **QUALITY CERTIFICATE**

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

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

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

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

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

# TOOLS REQUIRED



Combination Pliers (HUDY #189020)

Side Cutters (HUDY #189010)

Pocket Hobby Knife (HUDY #188981)

Turnbuckle Wrench 3mm

(HUDY #181030)

Turnbuckle Wrench 4mm

(HUDY #181040)

Turnbuckle Wrench 5mm

(HUDY #181050)

Special Tool for turnbuckles, nuts (HUDY #181090)

HUDY Tweezers Straight (HUDY #188970)

HUDY Tweezers Curved (HUDY #188971)

Scissors (HUDY #188990)

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

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

Allen 2.5mm (#112545 - HUDY EXCLUSIVE Limited Edition)

Ball Allen 2.5mm (#132545 - HUDY EXCLUSIVE Limited Edition)

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

Arm Reamer 3.0mm (#107643 - HUDY EXCLUSIVE Limited Edition)

Arm Reamer 4.0mm (#107644 - HUDY EXCLUSIVE Limited Edition)

Socket 5.0mm (#175035 - HUDY EXCLUSIVE Limited Edition)

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

Caster Clip Remover (#107612 - HUDY EXCLUSIVE Limited Edition)

Reamer (#107602 - HUDY EXCLUSIVE Limited Edition)

Flywheel/Wheel Nut Multi-Tool (HUDY #182016)  
Wheel Nut Tool 17mm (HUDY #107570)

Professional Multi-Tool (HUDY #183011)

# EQUIPMENT REQUIRED

<p>Transmitter</p>	<p>Receiver</p>	<p>Speed Controller</p>	<p>Steering Servo</p>	<p>Battery Charger</p>
<p>Electric Motor</p>	<p>Pinion Gear</p>	<p>Lexan™ Paint</p>	<p>LiPo Battery Saddle Pack (Short)</p>	
<p>Double-sided Tape (HUDY #107875)</p>	<p>Tires &amp; Wheels</p>	<p>Bearing Oil (HUDY #106230)</p>	<p>Threadlock</p>	<p>CA glue</p>

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

<p>550cSt (#106356) HUDY Premium Silicone Oils</p>  	<p>600cSt (#106361) HUDY Premium Silicone Oils</p>  	<p>3.000cSt (#106431) HUDY Premium Silicone Oils</p>  	<p>7.000cSt (#106471) HUDY Premium Silicone Oils</p>  	<p>(HUDY #106210) Premium Graphite Grease</p>  
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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:

- 351203** **STYLE A** - indicates parts that are included in the bag marked for the section.
- 351119** **STYLE B** - indicates parts that are included in the box.
- 355006** **STYLE C** - indicates parts that are already assembled from previous steps.
- 350908** **STYLE D** - indicates parts that are optional.

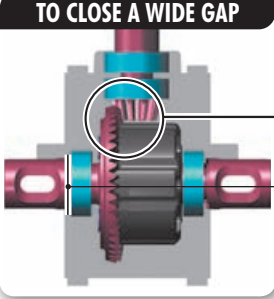
## XB8 TECH TIPS

### TIP FRONT & REAR DIFF GEAR MESH ADJUSTMENT

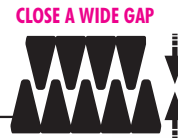
If there is too much or too little diff side play, this may create non-optimal gear mesh between the diff gear and the pinion drive gear. This is easily resolved by inserting 1 or 2 of the included thin shims behind a diff outdrive ball-bearing, depending on how much play there is.

THE LOCATION OF THE SHIM(S) DEPENDS ON WHETHER YOU ARE TRYING TO CLOSE OR OPEN THE GAP:

**TO CLOSE A WIDE GAP**



**CLOSE A WIDE GAP**

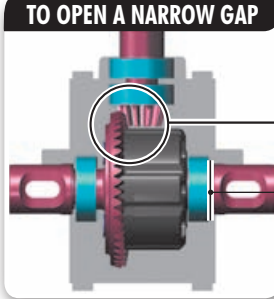


insert shim(s) here


To CLOSE a wide gap: add 1 or 2 shims against diff spur gear

WASHER #962131 S 13 x 16 x 0.1 mm (10)  
#962130 S 13 x 16 x 0.2 mm (10)

**TO OPEN A NARROW GAP**



**OPEN A NARROW GAP**



insert shim(s) here

To OPEN a narrow gap: add 1 or 2 shims on the other side of the diff, away from spur gear

WASHER #962131 S 13x16x0.1mm (10)  
#962130 S 13x16x0.2mm (10)

**CHECK GEAR MESH AND DIFF PLAY ONLY AFTER THE ENTIRE GEARBOX IS MOUNTED TOGETHER WITH THE SUSPENSION HOLDERS ON THE CHASSIS. ALL PARTS ARE DESIGNED TO HAVE CERTAIN PLAY AND IT IS ALL DESIGNED BY PURPOSE.**

### SUSPENSION & DRIVETRAIN MAINTENANCE

- Check suspension for free movement during building and operation, and especially after running and if you have crashed the car. If the suspension DOES NOT move freely, use the appropriate HUDY Arm Reamer to clean and resize the holes of the suspension arms.
- Regularly check the drive shaft pins (both side and center) and if they show any wear they must be immediately replaced by new pins. If the car is run with worn pins, excessive wear on the diff outdrives will result. The **106000 HUDY Drive Pin Replacement Tool (for 3mm Pins)** is a compact, rugged multi-use tool set for replacing 3mm drive pins in drive shafts. Use the **HUDY replacement drive shaft pins 3x14 (#106050)**.
- Regularly inspect and replace the pins that connect the center driveshafts with the pinion gear and the pins connecting the wheel drive shafts to the wheel axles.
- Pivot balls and ball joints will wear naturally and over time will develop minor play. If there is excess play, the pivot balls and ball joints should be replaced.
- If the car is run in wet conditions, apply WD-40® on all drivetrain parts before the run. After the run, clean and dry the parts again.

### HUDY SPRING STEEL™

The HUDY Spring Steel™ used in the car is the strongest and most durable steel material on the RC market. While items made from HUDY Spring Steel™ are still subject to wear, the lifespan is considerably longer than any other material. As parts made from HUDY Spring Steel wear, the brown color may fade over time, but this will not affect the strength of the material. The brown color is only a surface treatment, and any color fade will not impact the durability of the part.

### TIP DRIVE SHAFT PIN SERVICING


To enjoy the longest possible lifespan of the drive shafts and diff outdrives, it is extremely important to properly service the drive shaft pins. Inspect the pins after every 3 hours of runtime. If the pins show any wear, replace them with new pins.




1 DO NOT use drive shafts when the pins are worn.

2 Press out the worn pins.

3 Press in new pins and regularly inspect for wear.



For easy drive pin replacements use #106000 HUDY Drive Pin Replacement Tool.

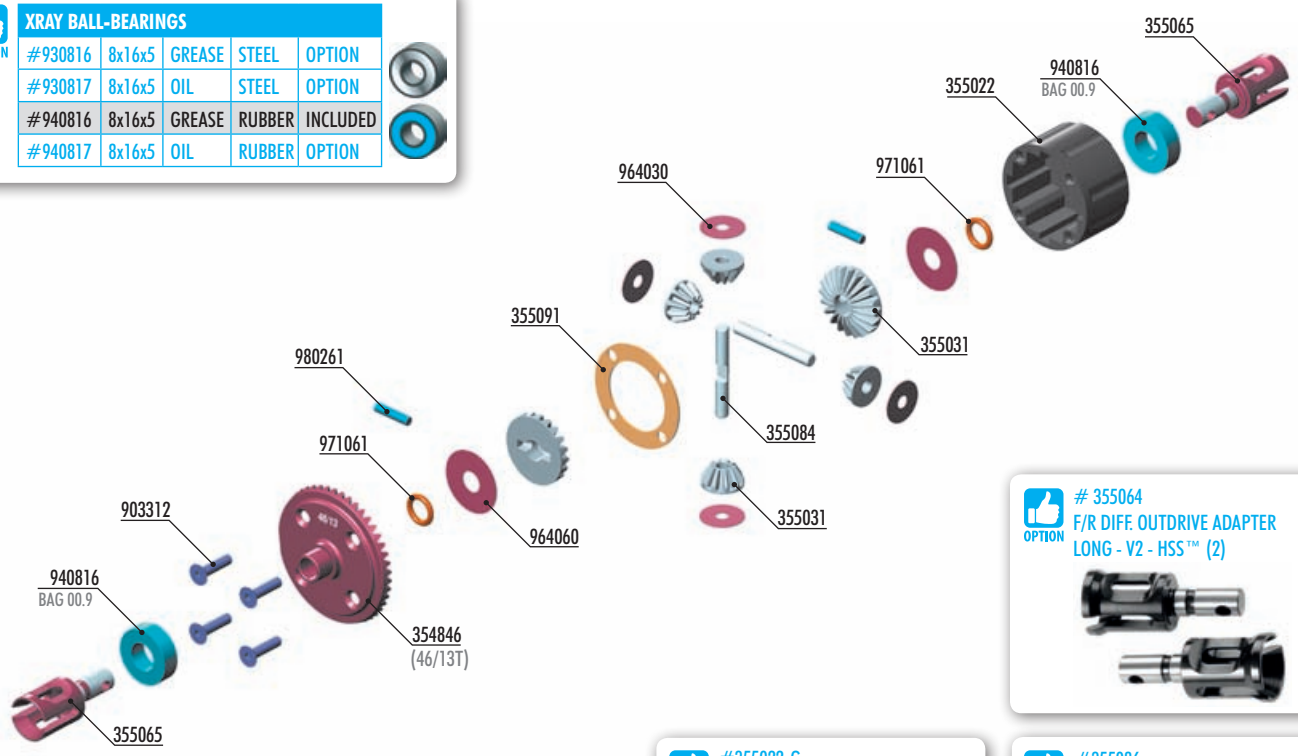


To replace the worn pins use only premium HUDY drive pins #106050.

# 1. FRONT & REAR DIFFERENTIALS

OPTION	XRAY BALL-BEARINGS				
#930816	8x16x5	GREASE	STEEL	OPTION	
#930817	8x16x5	OIL	STEEL	OPTION	
#940816	8x16x5	GREASE	RUBBER	INCLUDED	
#940817	8x16x5	OIL	RUBBER	OPTION	

**2x**



**# 355064**  
 F/R DIFE. OUTDRIVE ADAPTER LONG - V2 - HSS™ (2)

**#355022-G**  
 DIFFERENTIAL CASE - V2 - GRAPHITE

**#355086**  
 HEAT-RESISTANT F/R ALU DIFE PINS + INSERTS (SET)

**BAGS**  
  
**2x**

- |        |   |        |  |
|--------|---|--------|--|
| 354846 | F/R DIFE LARGE BEVEL GEAR 46T - MATCHED FOR 13T PINION GEAR | 903312 | HEX SCREW SFH M3x12 (10)                       |
| 355006 | DIFFERENTIAL 46T - MATCHED FOR 13T PINION GEAR - SET        | 940816 | BALL-BEARING 8x16x5 RUBBER SEALED - GREASE (2) |
| 355022 | DIFFERENTIAL CASE - V2                                      | 964030 | WASHER S 3.5x12x0.2 (10)                       |
| 355031 | STEEL DIFE BEVEL & SATELLITE GEARS - V2 (2+4)               | 964060 | WASHER S 6x18x0.2 (10)                         |
| 355065 | DIFE OUTDRIVE ADAPTER - V2 - HUDY SPRING STEEL™ (2)         | 971061 | SILICONE O-RING 6x1.55 (10)                    |
| 355084 | F/R DIFE PIN (2)  | 980261 | PIN 2.5x11.5 (10)                              |
| 355091 | F/R DIFE GASKET (4)   |        |  |

- 2x 940816 BB 8x16x5
- 2x 964060 S 6x18x0.2
- 2x 971061 O 6x1.55
- 2x 980261 P 2.5x11.5

**SET-UP BOOK**  
 DIFFERENTIAL GEARS

**2x**

Use HUDY Ball-Bearing Grease  
 #106220 - STANDARD  
 #106221 - BLUE  
 #106222 - RED

Graphite Grease (HUDY #106210)

46/13T

Graphite Grease (HUDY #106210)

**TIP IMPORTANT!**  
 Use matching outdrives on left and right sides of a diff.

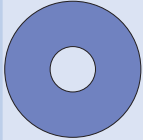
**STEP 5 6 DETAIL**

OPTION	XRAY BALL-BEARINGS				
#930816	8x16x5	GREASE	STEEL	OPTION	
#930817	8x16x5	OIL	STEEL	OPTION	
#940816	8x16x5	GREASE	RUBBER	INCLUDED	
#940817	8x16x5	OIL	RUBBER	OPTION	

# 1. FRONT & REAR DIFFERENTIALS



2x 940816  
BB 8x16x5



2x 964060  
S 6x18x0.2



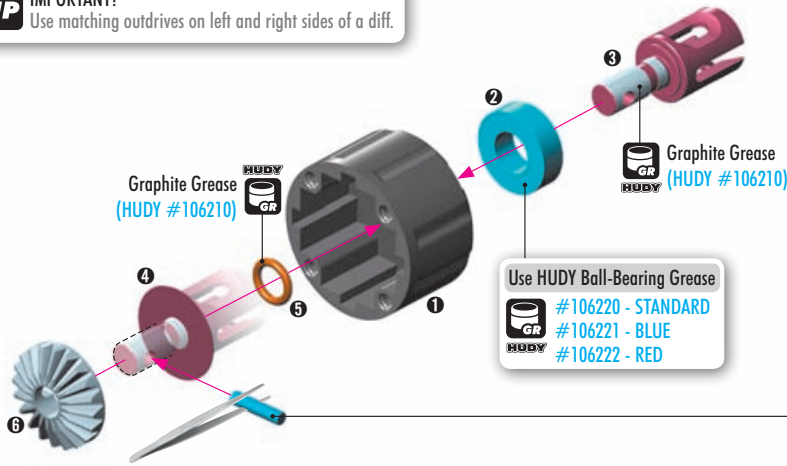
2x 971061  
O 6x1.55



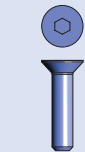
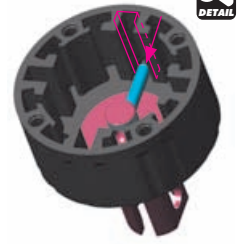
2x 980261  
P 2.5x11.5

2x F=R

**TIP** IMPORTANT!  
Use matching outrides on left and right sides of a diff.



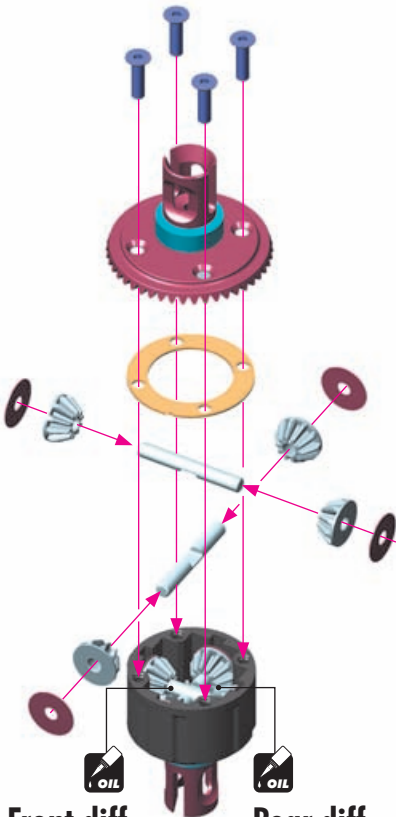
STEP 5 DETAIL



4x 903312  
SFH M3x12



4x 964030  
S 3.5x12x0.2



**Front diff:**

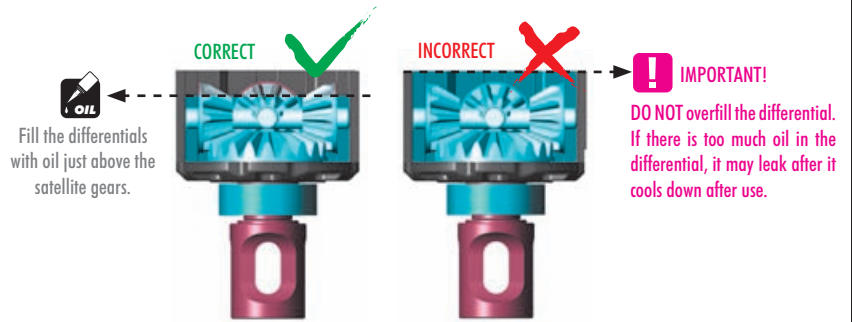
Silicone oil **7.000cSt**  
Fill just above the  
satellite gears.

**Rear diff:**

Silicone oil **3.000cSt**  
Fill just above the  
satellite gears.

## VERY IMPORTANT!

Use the following silicone oils included in the kit for initial settings:  
FRONT diff: **7.000cSt** / REAR diff: **3.000cSt**



To ensure you have the same amount of oil from rebuild to rebuild, do the following:

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



1. Put the diff (without oil) on the scale and check the weight:

- REAR DIFF approx. 39.30g
- FRONT DIFF approx. 39.30g

2. Slowly pour oil into the diff and watch the weight. Add 2.60g of oil into the diff. The approximate weight of the diff+oil is approx. 41.90g

$$\text{REAR DIFF } 39.30\text{g} + 2.60\text{g} = 41.90\text{g}$$

$$\text{FRONT DIFF } 39.30\text{g} + 2.60\text{g} = 41.90\text{g}$$

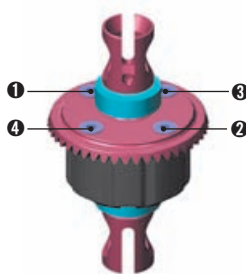
**SET-UP BOOK**

DIFFERENTIAL OIL

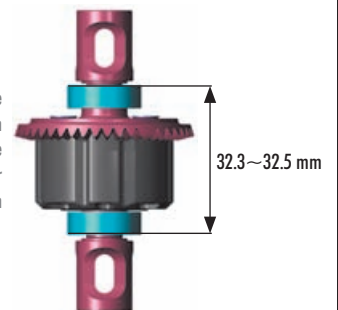
Tighten the screws equally.



Finish tightening in this order:



After assembly the differentials should have a length of 32.3~32.5 mm measured from the ends of the installed ball-bearings. If the differentials are longer, check that the gear is properly seated on the case and retighten the 4 screws while holding the crown gear.



# 1. CENTER DIFFERENTIAL



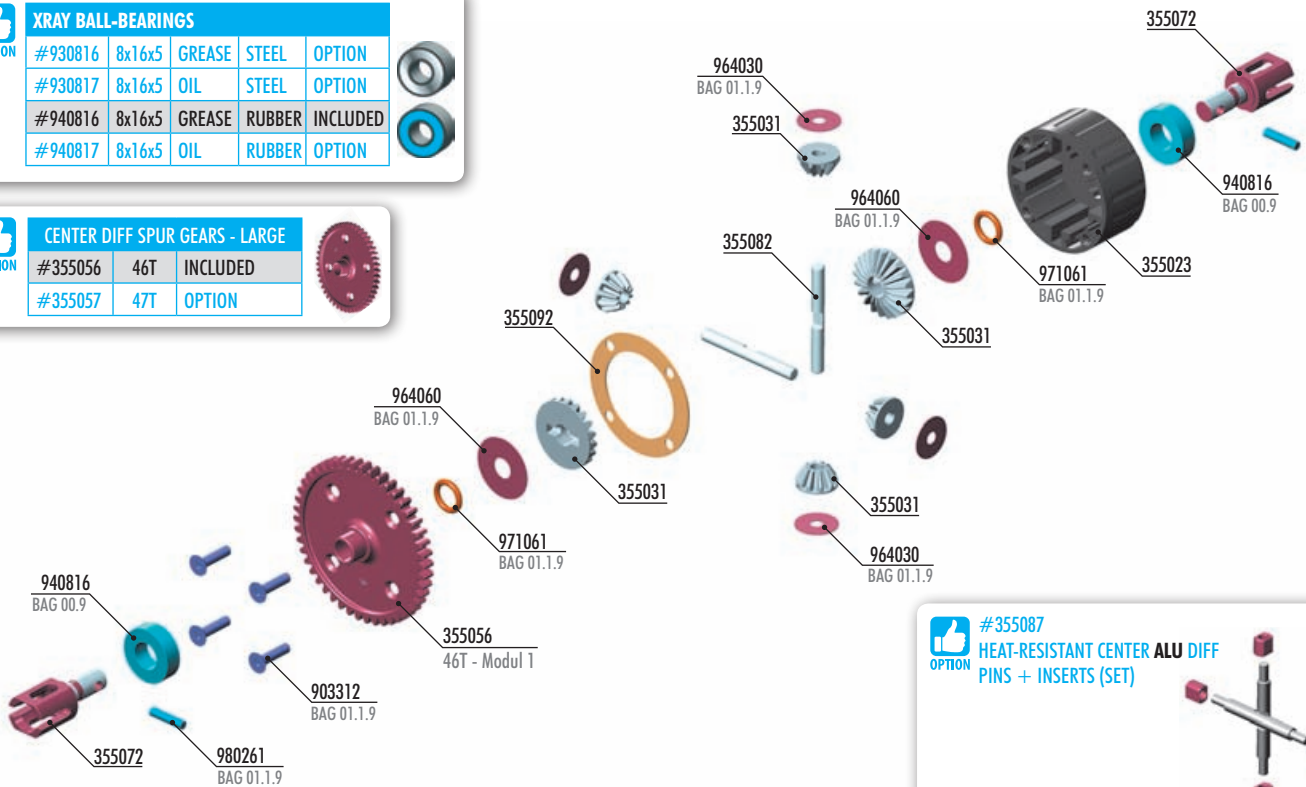
## XRAY BALL-BEARINGS

#930816	8x16x5	GREASE	STEEL	OPTION
#930817	8x16x5	OIL	STEEL	OPTION
#940816	8x16x5	GREASE	RUBBER	INCLUDED
#940817	8x16x5	OIL	RUBBER	OPTION



## CENTER DIFF SPUR GEARS - LARGE

#355056	46T	INCLUDED
#355057	47T	OPTION



## #355023-G CENTER DIFFERENTIAL CASE - V2 - GRAPHITE



## #355087 HEAT-RESISTANT CENTER ALU DIFF PINS + INSERTS (SET)



## #355083 HEAT-RESISTANT CENTER STEEL DIFF PINS + INSERTS (SET)

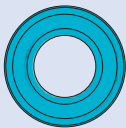


### BAG



- 355013 CENTER DIFFERENTIAL - LARGE - SET - V2
- 355023 CENTER DIFFERENTIAL CASE - V2
- 355031 STEEL DIFF BEVEL & SATELLITE GEARS - V2 (2+4)
- 355056 CENTER DIFF SPUR GEAR 46T - LARGE
- 355072 LARGE CENTER DIFF OUTDRIVE ADAPTER - HUDY STEEL (2)
- 355082 CENTER DIFF PIN (2)
- 355092 CENTER DIFF GASKET (2)

- 903312 HEX SCREW SFH M3x12 (10)
- 940816 BALL-BEARING 8x16x5 RUBBER SEALED - GREASE (2)
- 964030 WASHER S 3.5x12x0.2 (10)
- 964060 WASHER S 6x18x0.2 (10)
- 971061 SILICONE O-RING 6x1.55 (10)
- 980261 PIN 2.5x11.5 (10)



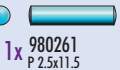
1x 940816  
BB 8x16x5



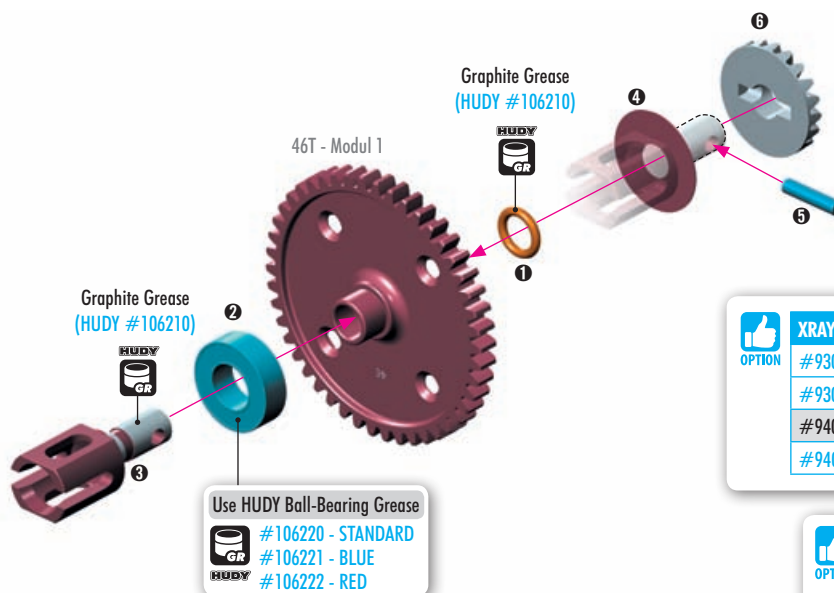
1x 964060  
S 6x18x0.2



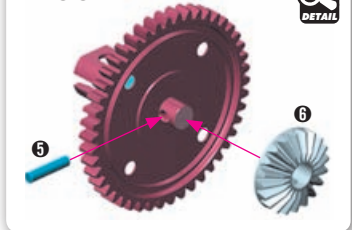
1x 971061  
O 6x1.55



1x 980261  
P 2.5x11.5



### STEP 5 6 DETAIL



## XRAY BALL-BEARINGS

#930816	8x16x5	GREASE	STEEL	OPTION
#930817	8x16x5	OIL	STEEL	OPTION
#940816	8x16x5	GREASE	RUBBER	INCLUDED
#940817	8x16x5	OIL	RUBBER	OPTION



## CENTER DIFF SPUR GEARS - LARGE

#355056	46T	INCLUDED
#355057	47T	OPTION





# 1. CENTER DIFFERENTIAL



1x 940816  
BB 8x16x5



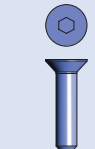
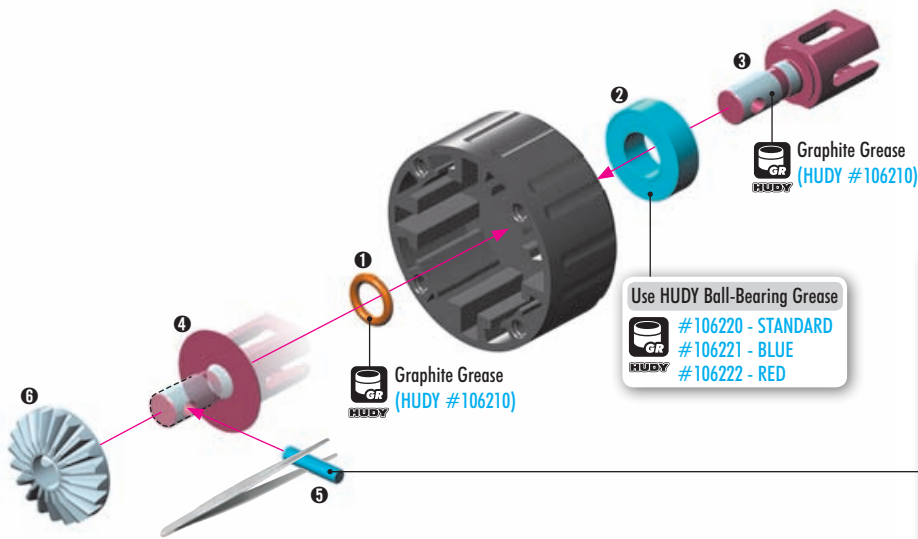
1x 964060  
S 6x18x0.2



1x 971061  
O 6x1.55



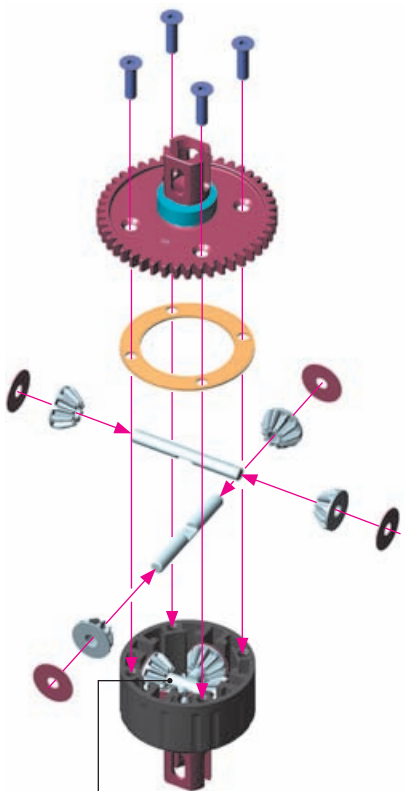
1x 980261  
P 2.5x11.5



4x 903312  
SFH M3x12



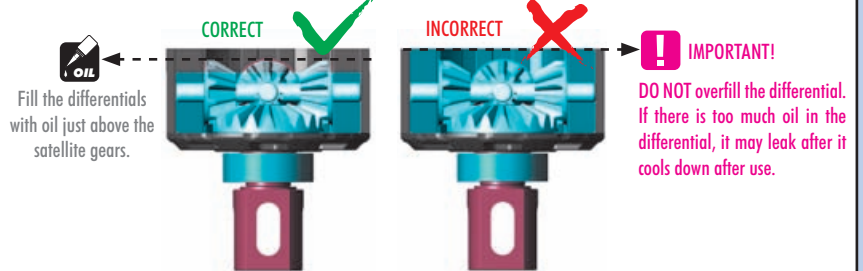
4x 964030  
S 3.5x12x0.2



**Center diff:**  
Silicone oil **7.000cSt**  
Fill to just above the satellite gears.

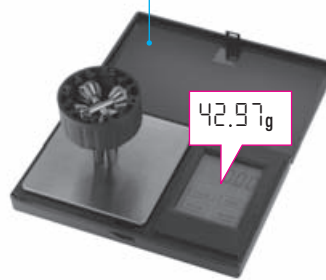
## VERY IMPORTANT!

Use the following silicone oil included in the kit for initial setting:  
Center diff: **7.000cSt**

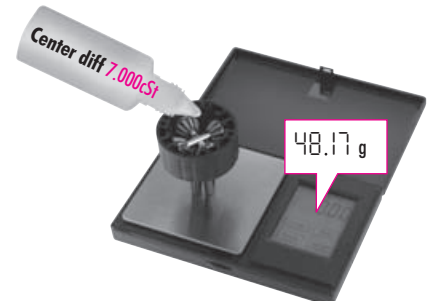


To ensure you have the same amount of oil from rebuild to rebuild, do the following:

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



1. Put the diff (without oil) on the scale and check the weight (approximately 42.97g).

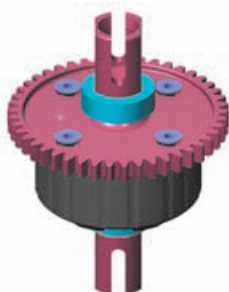


2. Slowly pour oil into the diff and watch the weight. Add 5.20g of oil into the diff. The approximate weight of the diff + oil is 48.17g.

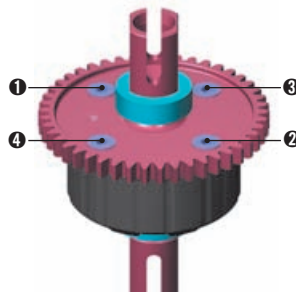
**CENTER DIFF** 42.97g + 5.20g = 48.17g

**SET-UP BOOK**  
DIFFERENTIAL OIL

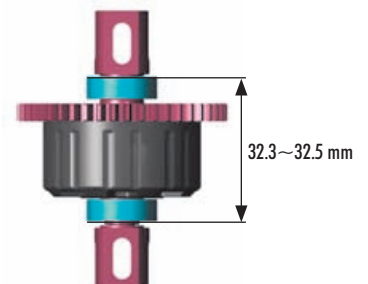
Tighten the screws equally.



Finish tightening in this order:



After assembly the differential should have a length of 32.3~32.5 mm measured from the ends of the installed ball-bearings. If the differential is longer, check that the gear is properly seated on the case and retighten the 4 screws while holding the spur gear.



## 2. FRONT TRANSMISSION

XRAY BALL-BEARINGS				
OPTION	#930816	8x16x5	GREASE	STEEL INCLUDED
	#930817	8x16x5	OIL	STEEL OPTION

**OPTION** #354814 BEVEL DRIVE PINION GEAR 14T  
MATCHED FOR 46/13T LARGE BEVEL GEAR

**OPTION** #355415 CENTRAL DOGBONE SHAFT UNIVERSAL JOINT  
#355432 FRONT CENTRAL DOGBONE DRIVE SHAFT 85mm

**FRONT**

BAG 02	
352009	SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR
352015	XB8 GEARBOX PINION HEIGHT INSERT (1+1)
352073	XB8 GEARBOX DIFF HEIGHT INSERT (2+2)
354813	BEVEL DRIVE PINION GEAR 13T - MATCHED FOR 46T LARGE BEVEL GEAR
355236	CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
355414	CENTRAL CVD SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™
355427	FRONT CENTRAL CVD DRIVE SHAFT 85MM - HUDY SPRING STEEL™
355471	DRIVE SHAFT LOCKING RING (2)
355472	DRIVE SHAFT BOOT (2)
901504	HEX SCREW SB M5x4 (10)
902306	HEX SCREW SH M3x6 (10)
908312	HEX SCREW SOCKET HEAD CAP SCH M3x12 (10)
908316	HEX SCREW SOCKET HEAD CAP SCH M3x16 (10)
930816	BALL-BEARING 8x16x5 STEEL SEALED - GREASE (2)
980314	PIN 3x14 (10)
355006	DIFFERENTIAL 46T - MATCHED FOR 13T PINION GEAR - SET

**1x** 980314  
P 3x14

Apply oil from inside to prevent breakage of the rubber boot.

**85mm - SHORT CVD DRIVE SHAFT**

**NOTE ORIENTATION**

**Graphite Grease (HUDY #106210)**

**BEFORE** inserting the clip on the central CVD shaft joint, apply a small amount of threadlock on the area where the clip goes.

**AFTER** inserting the clip on the central CVD shaft joint, turn the clip so that the slot is 90° from the pin. This will prevent the pin from opening the clip.

**2x** 902306  
SH M3x6

**2x** 930816  
BB 8x16x5  
(Steel covers)

**INLINE HUB FOR BEVEL DRIVE GEAR POSITIONS**

LOWER    **CENTER**    UPPER

**INITIAL SETTING**

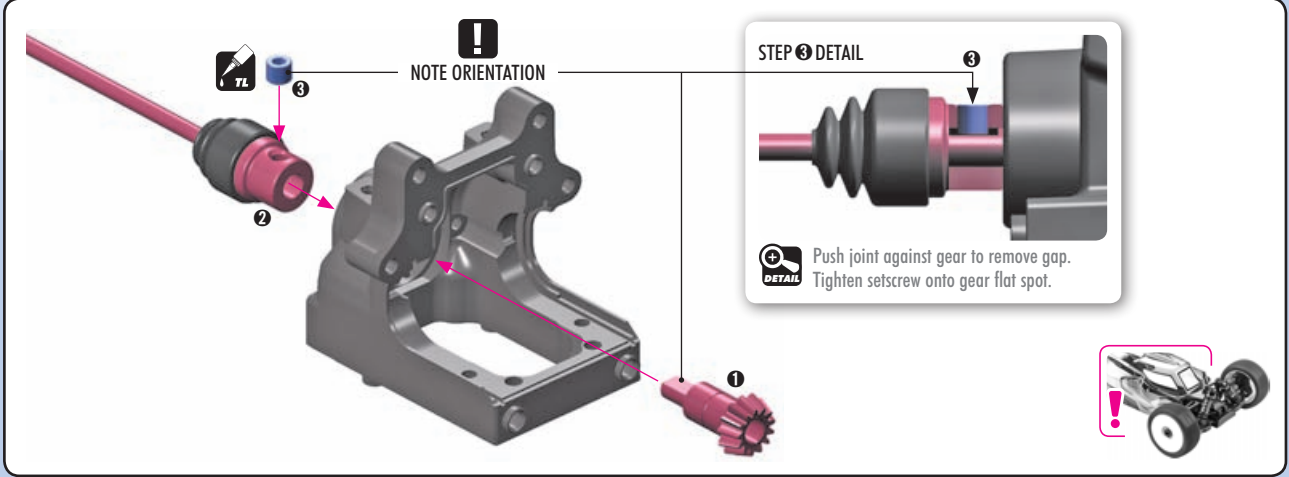
Use HUDY Ball-Bearing Grease

#106220 - STANDARD
#106221 - BLUE
#106222 - RED

XRAY BALL-BEARINGS				
OPTION	#930816	8x16x5	GREASE	STEEL INCLUDED
	#930817	8x16x5	OIL	STEEL OPTION

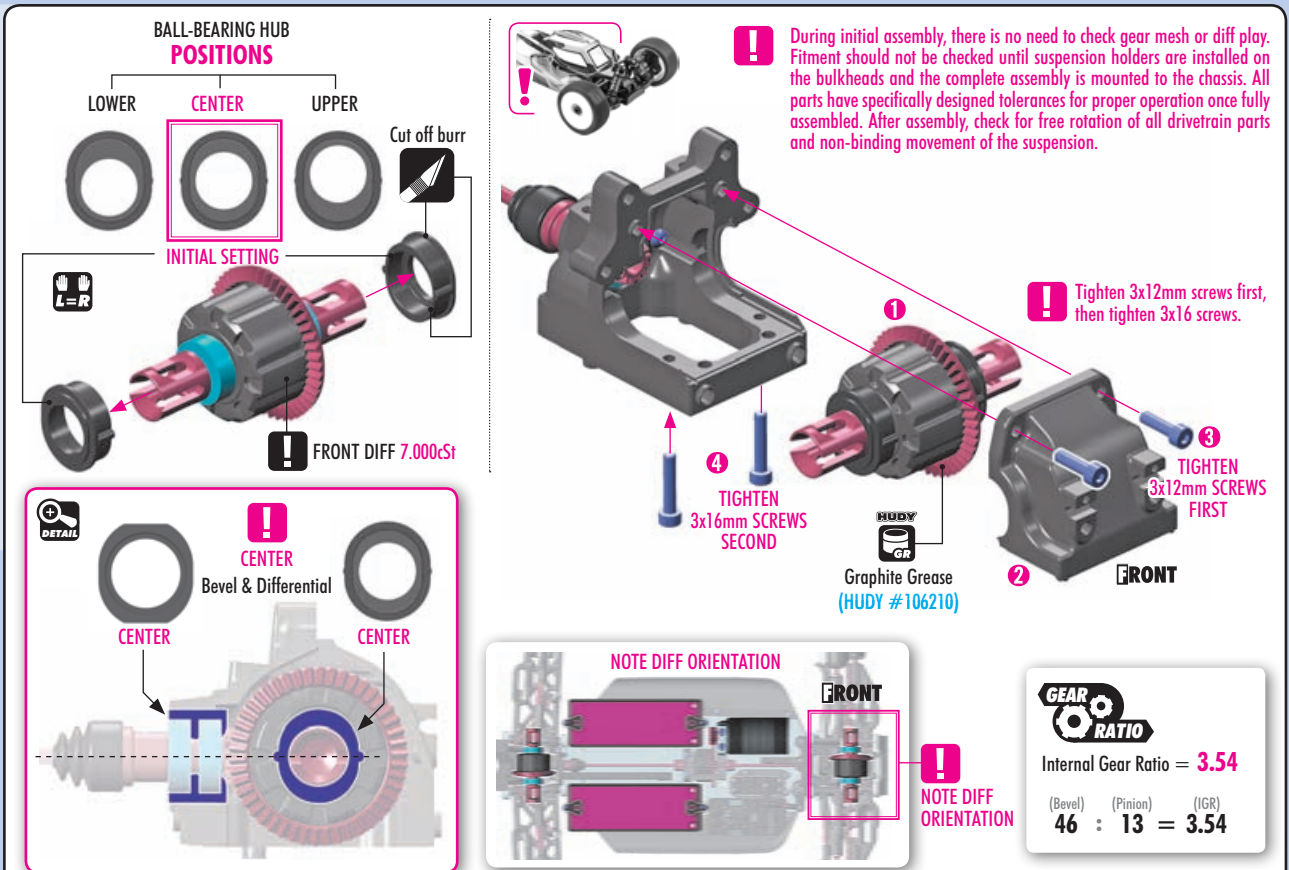
## 2. FRONT TRANSMISSION

1x 901504  
SB M5x4

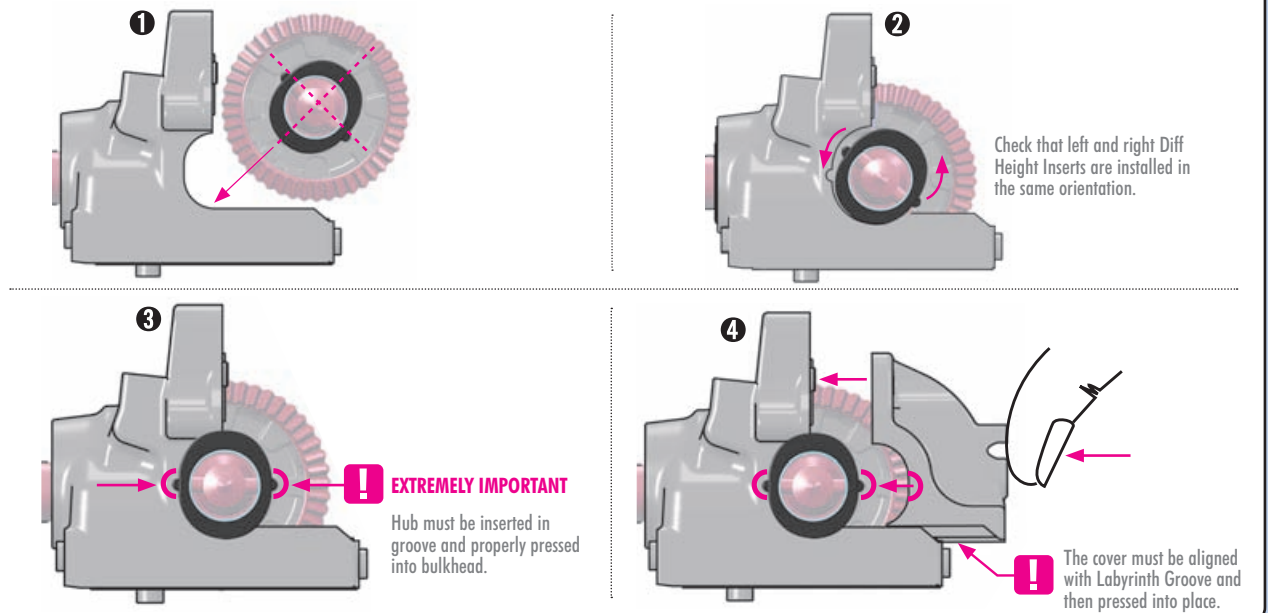


2x 908312  
SCH M3x12

2x 908316  
SCH M3x16

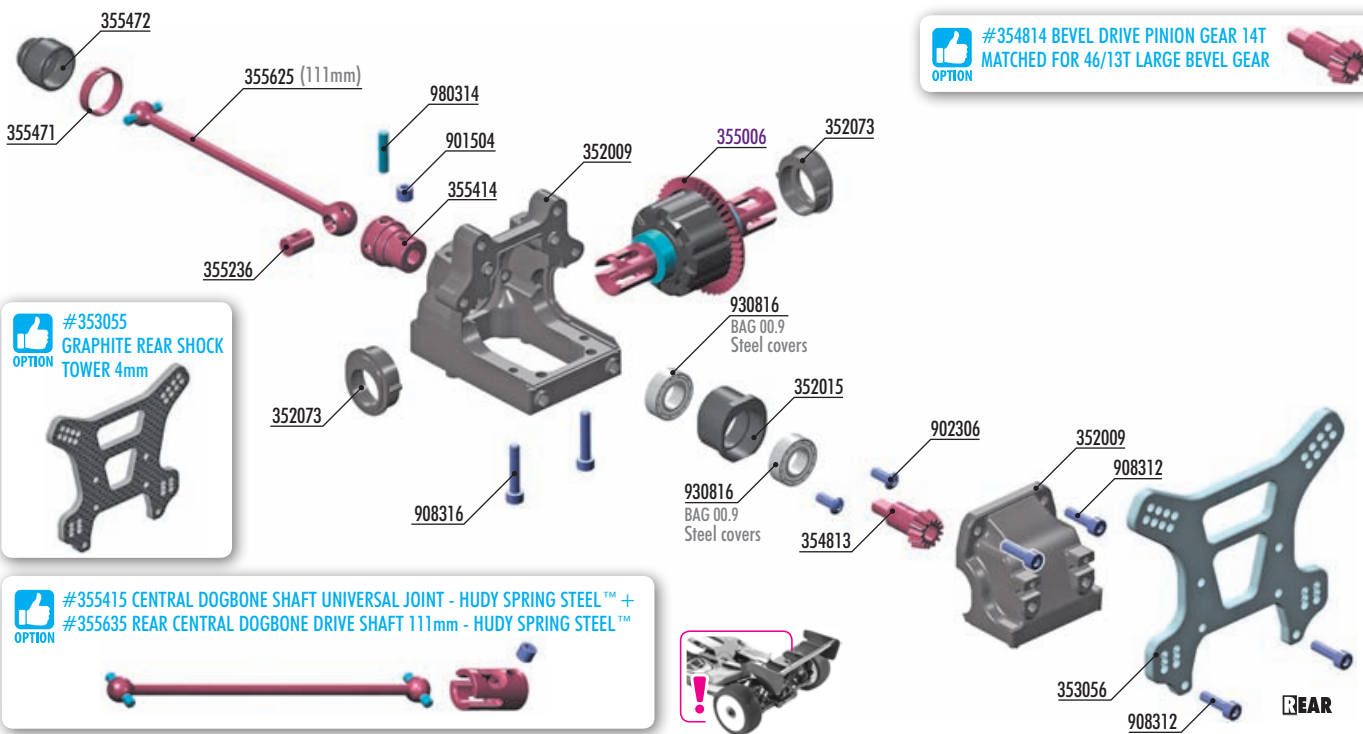


### INSTALLING THE DIFFERENTIAL WHILE FIRST TIME BUILDING THE CAR



## 2. REAR TRANSMISSION

**#354814 BEVEL DRIVE PINION GEAR 14T**  
**MATCHED FOR 46/13T LARGE BEVEL GEAR**

**#353055 GRAPHITE REAR SHOCK TOWER 4mm**



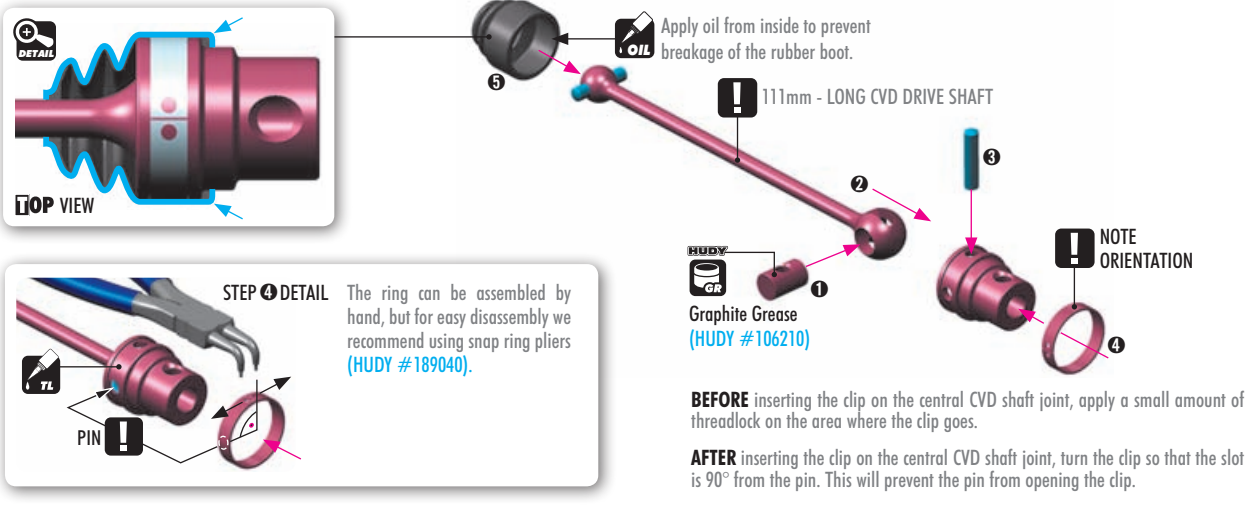
**#355415 CENTRAL DOGBONE SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™ +**  
**#355635 REAR CENTRAL DOGBONE DRIVE SHAFT 111mm - HUDY SPRING STEEL™**



**BAG**  
**02**

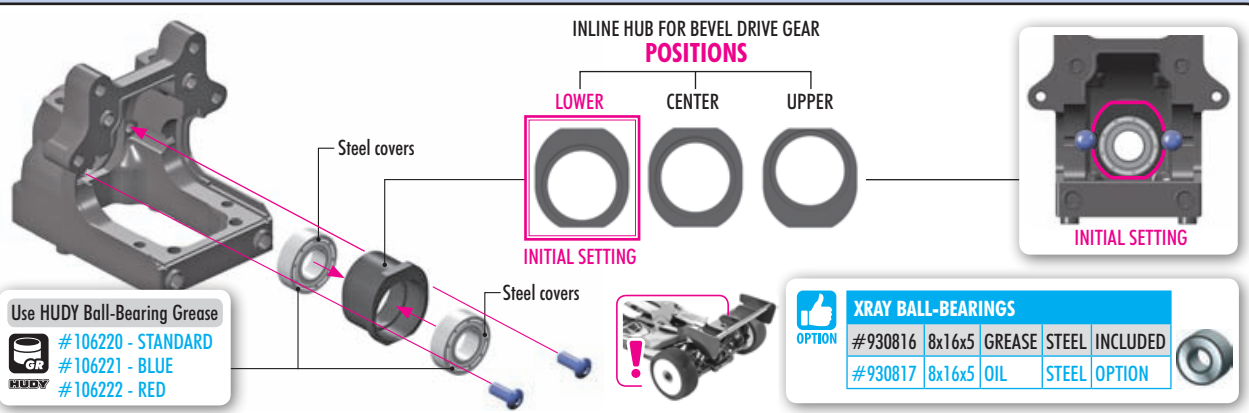
- |   |  |
|---|--|
| 352009 SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR                  | 355625 REAR CENTRAL CVD DRIVE SHAFT 111mm - HUDY SPRING STEEL™ |
| 352015 XB8 GEARBOX PINION HEIGHT INSERT (1+1)                         | 901504 HEX SCREW SB M5x4 (10)                                  |
| 352073 XB8 GEARBOX DIFF HEIGHT INSERT (2+2)                           | 902306 HEX SCREW SH M3x6 (10)                                  |
| 353056 XB8 ALU REAR SHOCK TOWER FOR SEMI-SPLIT BULKHEAD (4mm)         | 908312 HEX SCREW SOCKET HEAD CAP SCH M3x12 (10)                |
| 354813 BEVEL DRIVE PINION GEAR 13T - MATCHED FOR 46T LARGE BEVEL GEAR | 908316 HEX SCREW SOCKET HEAD CAP SCH M3x16 (10)                |
| 355236 CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™                  | 930816 BALL-BEARING 8x16x5 STEEL SEALED - GREASE (2)           |
| 355414 CENTRAL CVD SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™         | 980314 PIN 3x14 (10)   |
| 355471 DRIVE SHAFT LOCKING RING (2)                                   |  |
| 355472 DRIVE SHAFT BOOT (2)   |  |
- 355006 DIFFERENTIAL 46T - MATCHED FOR 13T PINION GEAR - SET**

**1x 980314**  
**P 3x14**



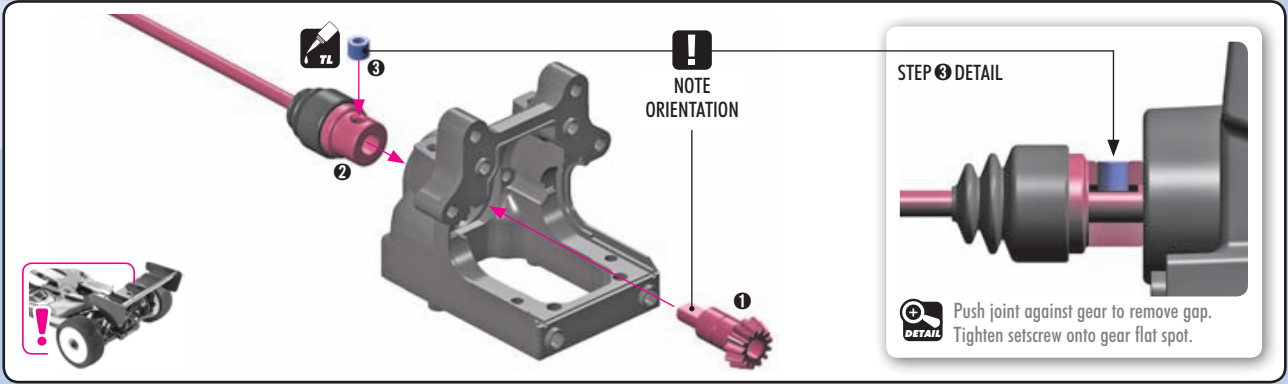
**2x 902306**  
**SH M3x6**

**2x 930816**  
**BB 8x16x5**  
**(Steel covers)**



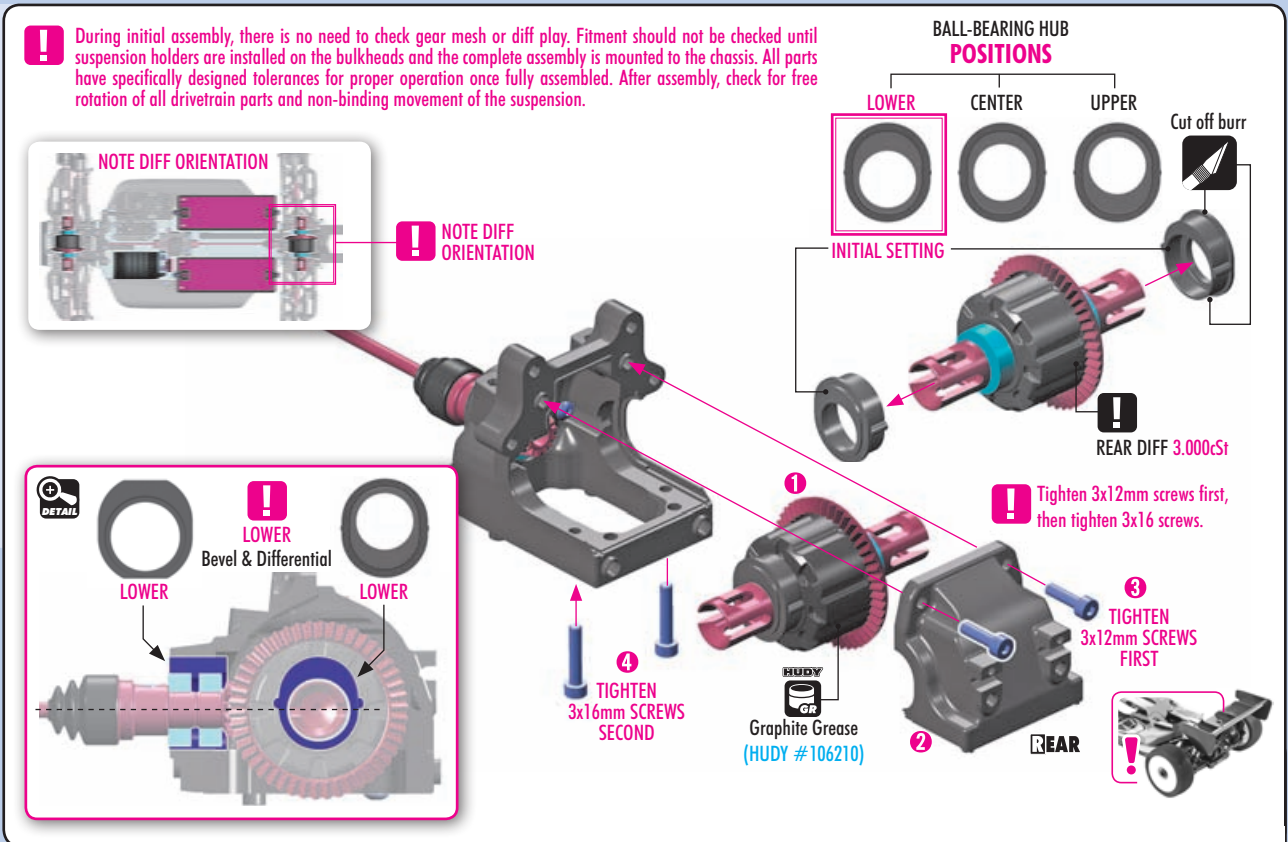
## 2. REAR TRANSMISSION

1x 901504  
SB M5x4

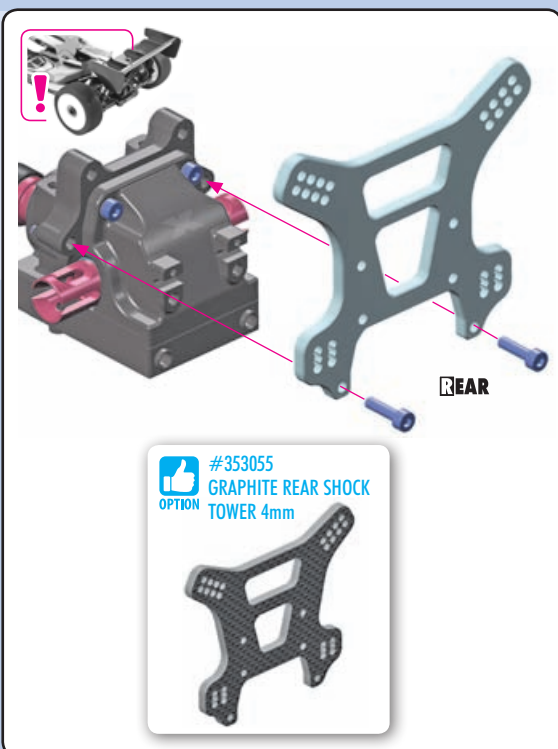


2x 908312  
SCH M3x12

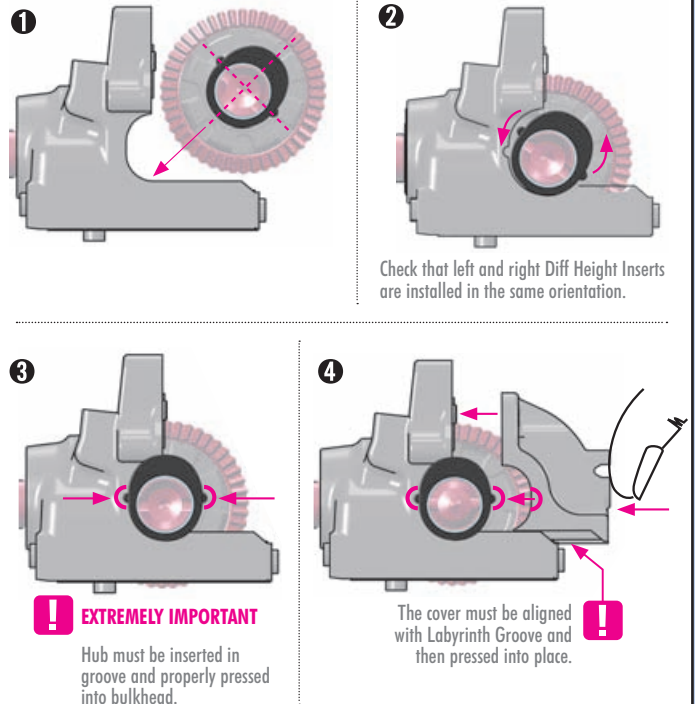
2x 908316  
SCH M3x16




2x 908312  
SCH M3x12




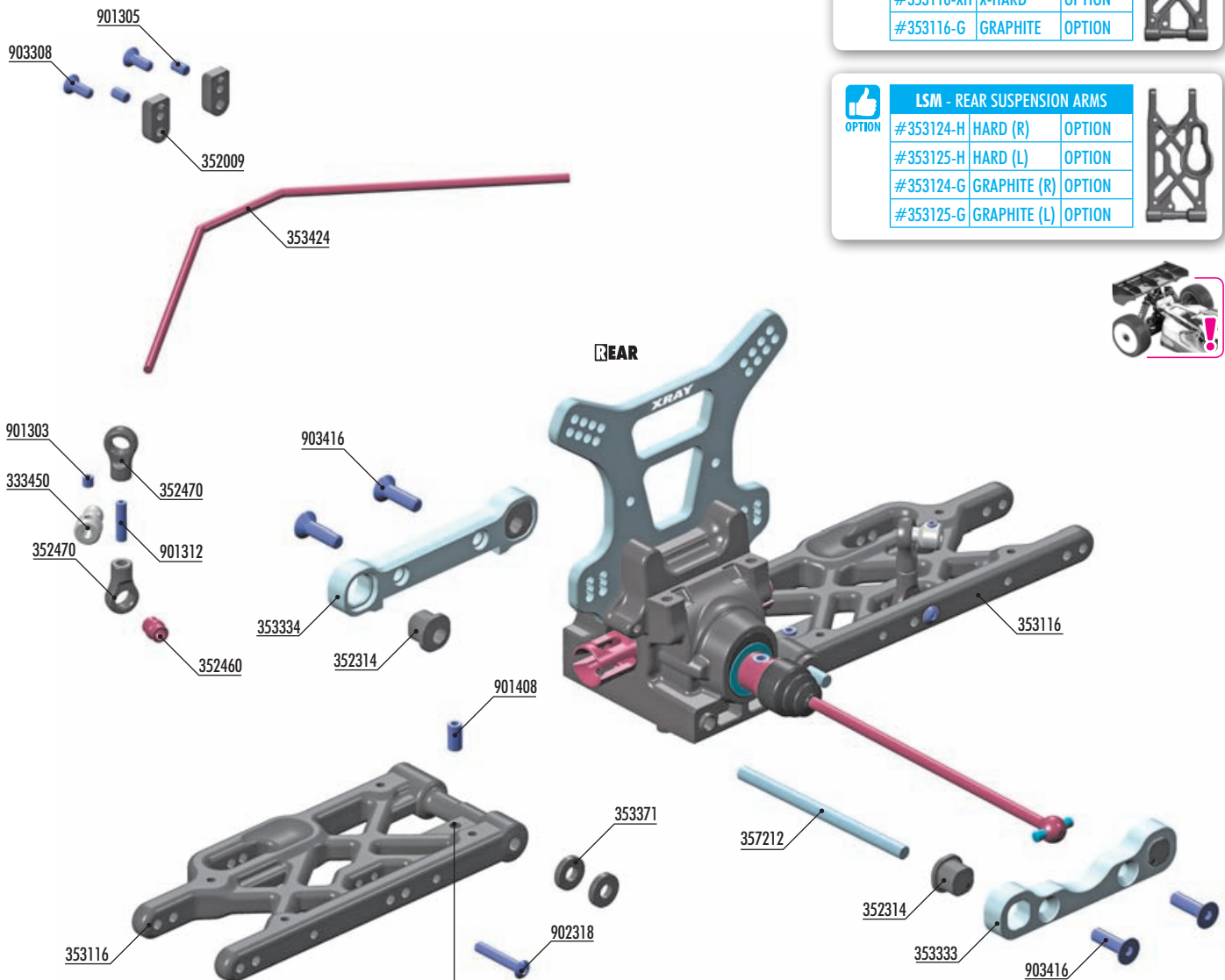
### INSTALLING THE DIFFERENTIAL WHILE FIRST TIME BUILDING THE CAR



# 3. REAR SUSPENSION

OPTION	FLAT - REAR SUSPENSION ARMS		
#353115	MEDIUM	OPTION	
#353116	HARD	INCLUDED	
#353116-XH	X-HARD	OPTION	
#353116-G	GRAPHITE	OPTION	


OPTION	LSM - REAR SUSPENSION ARMS		
#353124-H	HARD (R)	OPTION	
#353125-H	HARD (L)	OPTION	
#353124-G	GRAPHITE (R)	OPTION	
#353125-G	GRAPHITE (L)	OPTION	



**#902407**  
HEX SCREW SH M4x7 WITH HEX FROM BOTTOM (4)

**#902409**  
HEX SCREW SH M4x10 WITH HEX FROM BOTTOM (4)

**#333451**  
ALU ANTI-ROLL BAR PIVOT BALL 5.8mm - SWISS 7075 T6 - HARDCOATED (2)

OPTION	REAR ANTI-ROLL BARS		
#353420	ø2.0mm	OPTION	
#353422	ø2.2mm	OPTION	
#353424	ø2.4mm	INCLUDED	
#353425	ø2.5mm	OPTION	
#353426	ø2.6mm	OPTION	
#353428	ø2.8mm	OPTION	
#353430	ø3.0mm	OPTION	
#353432	ø3.2mm	OPTION	



333450	ANTI-ROLL BAR BALL JOINT 5.8mm (2)	901303	HEX SCREW SB M3x3 (10)
352009	SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR	901305	HEX SCREW SB M3x5 (10)
352314	COMPOSITE ECCENTRIC BUSHINGS - V2 (2)	901312	HEX SCREW SB M3x12 (10)
352460	PIVOT BALL 5.8 (10)	901408	HEX SCREW SB M4x8 (10)
352470	BALL JOINT 5.8 (8)	902318	HEX SCREW SH M3x18 (10)
353116	COMPOSITE REAR LOWER SUSPENSION ARM - HARD	903308	HEX SCREW SFH M3x8 (10)
353333	ALU REAR LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - FRONT	903416	HEX SCREW SFH M4x16 (10)
353334	ALU REAR LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - REAR		
353371	SET OF COMPOSITE LOWER ARM SHIMS		
353424	REAR ANTI-ROLL BAR 2.4mm		
357212	LOWER INNER PIVOT PIN F+R (2)		

# 3. REAR SUSPENSION



4x 353371 SHIM 4x10x2



2x 901408 SB M4x8



4x 903416 SFH M4x16



**MEDIUM**  
SUSPENSION ARMS

RR: 1° 0.5°  
RF: 1° 0.5°

**DO NOT use INNER positions.**

**HARD**  
SUSPENSION ARMS

RR: 1° 0.5°  
RF: 1° 0.5°

**All positions are available.**

**X-HARD / GRAPHITE**  
SUSPENSION ARMS

RR: 1° 0.5°  
RF: 1° 0.5°

**DO NOT use OUTER positions.**

Push bushing into suspension holder until flush.

**REAR**

4x16mm

RR

NOTE ORIENTATION

INITIAL SETTING

RR: 1° 0.5°

4x8mm

2mm 2mm

NOTE ORIENTATION

RF

4x16mm

RF: 1° 0.5°

INITIAL SETTING

RF: 1° 0.5°

NOTE ORIENTATION

Check for free movement.

**TIP**

If the suspension arms DO NOT move freely, use a HUDY Arm Reamer to resize the holes.

(HUDY #107644)

ARM REAMER

**TOP** DOWNSTOP SETTING

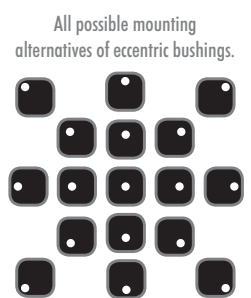
2.0mm

**BOTTOM**

#902407 HEX SCREW SH M4x7 WITH HEX FROM BOTTOM (4)

Downstop screw for fine tuning.

#902409 HEX SCREW SH M4x10 WITH HEX FROM BOTTOM (4)



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

● Middle position = 0.5 mm or 0.5° from center. ● Outer position = 1 mm or 1° from center.

**SET-UP BOOK**

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

The XRAY rear alu lower suspension holders provide even greater range of adjustment for the rear suspension. Using different combinations of eccentric bushings, fine adjustment of rear anti-squat, rear toe-in, rear roll center, and rear track-width can be obtained. For more information about the influence of rear anti-squat, rear toe-in, rear roll center and rear track width on car handling, please refer to HUDY Off-Road Set-up Book (#209099).

ANTI-SQUAT		
RR	RF	(°)
0	0	=3°
0	0.5	=4°
0	1	=2°
0.5	0	=4°
0.5	0.5	=3°
0.5	1	=5°
1	0	=2°
1	0.5	=3°
1	1	=1°

ROLL CENTER		
RR	RF	(mm)
0	0	=0mm
0	0.5	=1mm
0	1	=-1mm

TRACK-WIDTH		
RR	RF	(mm)
0	0	=308
0	0.5	=306
0	1	=310

TOE-IN		
RR	RF	(°)
0	0	=3°
0	0.5	=4°
0	1	=2°
0.5	0	=2°
0.5	0.5	=3°
0.5	1	=1°
1	0	=4°
1	0.5	=5°
1	1	=3°

The tables describe the amounts of rear anti-squat, rear toe-in, rear track-width change depending on the combinations of eccentric bushings used with 0 and 1mm, 1° offset. The 0.5mm, 0.5° represents the half change.

**Anti-Squat Example:**

0(RR) - 0 (RF) = 3°

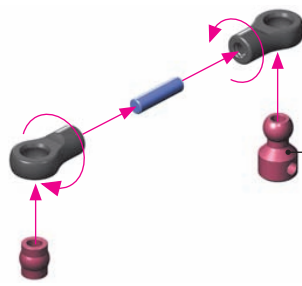
0(RR) - 0.5 (RF) = 3.5°

0(RR) - 1 (RF) = 4°

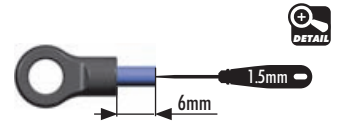
# 3. REAR SUSPENSION



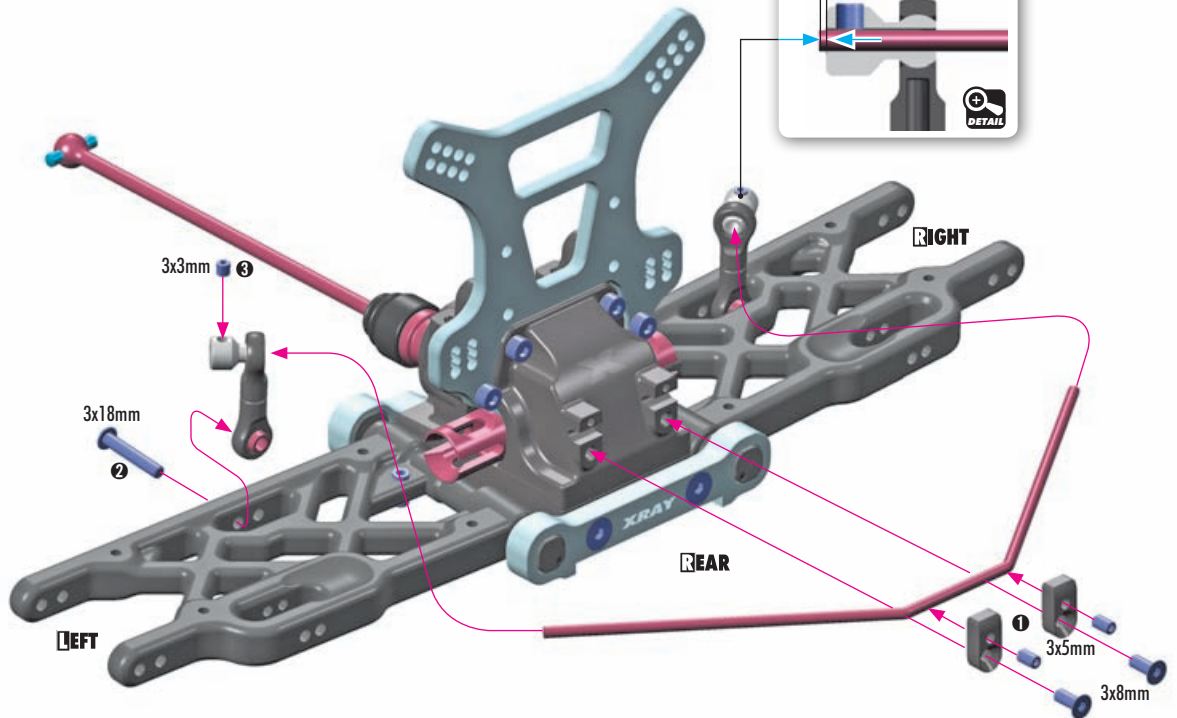
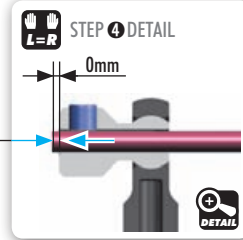
2x L=R



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

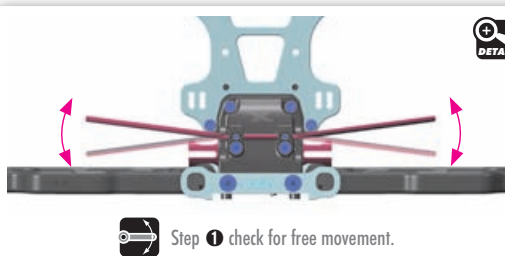
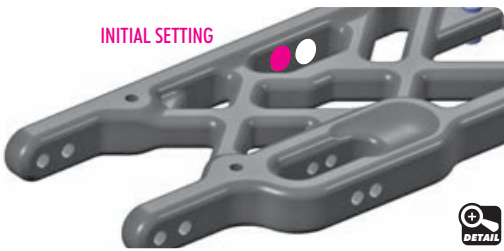


L=R

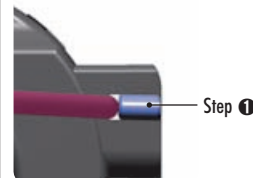


**SET-UP BOOK**  
ANTI-ROLL BAR

INITIAL SETTING



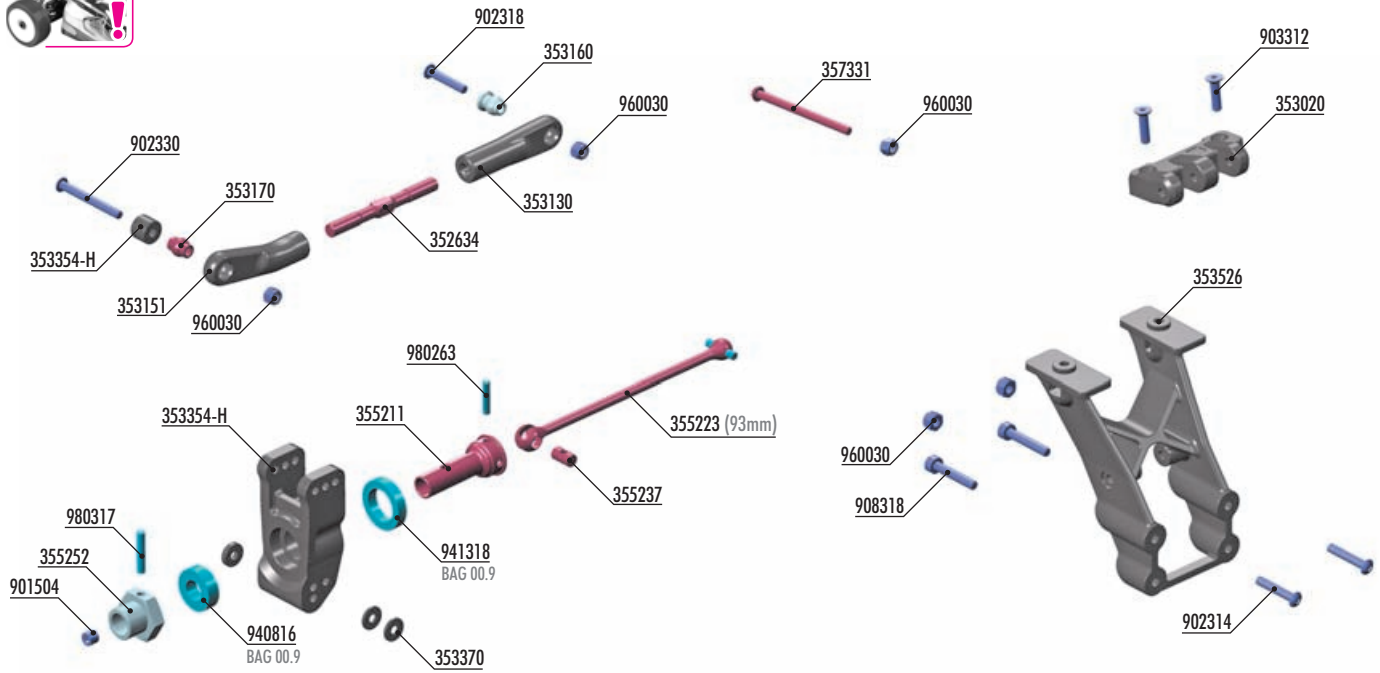
Loosen the 3x5 setscrew if the anti-roll bar DOES NOT turn freely.



OPTION	REAR ANTI-ROLL BARS	
#353420	ø2.0mm	OPTION
#353422	ø2.2mm	OPTION
#353424	ø2.4mm	INCLUDED
#353425	ø2.5mm	OPTION
#353426	ø2.6mm	OPTION
#353428	ø2.8mm	OPTION
#353430	ø3.0mm	OPTION
#353432	ø3.2mm	OPTION



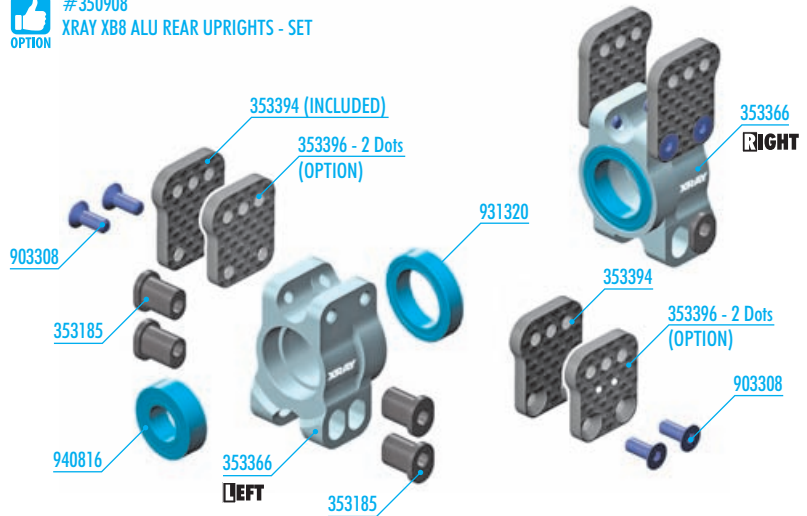
# 4. REAR SUSPENSION



REAR UPRIGHTS		
#353354	MEDIUM	OPTION
#353354-H	HARD	INCLUDED
#353354-G	GRAPHITE	OPTION
#350908	ALU-SET	OPTION

**#355215**  
OPTION CVD ADJUSTABLE DRIVE AXLE - HUDY SPRING STEEL™

**#350908**  
OPTION XRAY XB8 ALU REAR UPRIGHTS - SET



XRAY BALL-BEARINGS				
#930816	8x16x5	GREASE	STEEL	OPTION
#940816	8x16x5	GREASE	RUBBER	INCLUDED
#931318	13x19x4	GREASE	STEEL	OPTION
#941318	13x19x4	GREASE	RUBBER	INCLUDED
#930817	8x16x5	OIL	STEEL	OPTION
#940817	8x16x5	OIL	RUBBER	OPTION
#931319	13x19x4	OIL	STEEL	OPTION
#941319	13x19x4	OIL	RUBBER	OPTION




- 352634 ADJ. TURNBUCKLE M5 L/R 50mm - HUDY SPRING STEEL™ (2)
- 353020 COMPOSITE REAR BRACE HOLDER
- 353130 REAR UPPER INNER CAMBER LINK BALL JOINT (2)
- 353151 RELIEF REAR UPPER OUTER CAMBER LINK BALL JOINT (2)
- 353160 MOUNTING BALL 6.8 (4)
- 353170 PIVOT BALL 6.8 (4)
- 353354-H COMPOSITE REAR UPRIGHT - HARD
- 353370 SET OF COMPOSITE REAR HUB CARRIER SHIMS
- 353526 COMPOSITE REAR WING HOLDER FOR SEMI-SPLIT BULKHEAD
- 355211 CVD DRIVE AXLE - HUDY SPRING STEEL™
- 355223 CVD UNIVERSAL DRIVE SHAFT 93mm - HUDY SPRING STEEL™
- 355237 CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
- 355252 ALU WHEEL AXLE OFFSET " + 2mm" - BLACK COATED (2)

- 357331 REAR LOWER OUTER PIVOT PIN SCREW 3mm (2)
- 901504 HEX SCREW SB M5x4 (10)
- 902314 HEX SCREW SH M3x14 (10)
- 902318 HEX SCREW SH M3x18 (10)
- 902330 HEX SCREW SH M3x30 (10)
- 903312 HEX SCREW SFH M3x12 (10)
- 908318 HEX SCREW SOCKET HEAD CAP SCH M3x18 (10)
- 940816 BALL-BEARING 8x16x5 RUBBER SEALED - GREASE (2)
- 941318 BALL-BEARING 13x19x4 RUBBER SEALED - GREASE (2)
- 960030 NUT M3 (10)
- 980263 PIN 2.5x13 (10)
- 980317 PIN 3x17 (10)

# 4. REAR SUSPENSION

-  2x 901504 SB M5x4
-  2x 940816 BB 8x16x5
-  2x 941318 BB 13x19x4
-  2x 980263 P 2.5x13
-  2x 980317 P 3x17

**2x** 




**NOTE ORIENTATION**

93mm SHORT CVD DRIVE SHAFT


2.5x13mm

Graphite Grease (HUDY #106210)


Use HUDY Ball-Bearing Grease

-  #106220 - STANDARD
-  #106221 - BLUE
-  #106222 - RED

**REAR UPRIGHTS**

OPTION	REAR UPRIGHTS		
#353354	MEDIUM	OPTION	
#353354-H	HARD	INCLUDED	
#353354-G	GRAPHITE	OPTION	
#350908	ALU-SET	OPTION	

**OFFSET WHEEL AXLES**

OPTION	OFFSET WHEEL AXLES		
#355250	0mm	OPTION	
#355251	+1mm	OPTION	
#355252	+2mm	INCLUDED	

**#355215 CVD ADJUSTABLE DRIVE AXLE - HUDY SPRING STEEL™**

Drive shaft position: 4 | 3 | 2 | 1

**TIP** To tighten the setscrew you can also use the HUDY 17mm Wheel Nut Tool #107570.




2.5mm

**DETAIL**


**#355215 CVD ADJUSTABLE DRIVE AXLE - HUDY SPRING STEEL™**

1 2 3 4

Drive shaft position: 4 | 3 | 2 | 1

-  4x 353370 SHIM 3x9x1
-  2x 353370 SHIM 3x9x2
-  2x 960030 N M3

**TIP** Before tightening the pivot pin locknut, ensure the rear upright moves freely. If it DOES NOT move freely, lightly sand both wheelbase shims and recheck for bind.

**2x** 


2mm

Shims for wheelbase adjustment 1 + 1mm

**REAR** **LEFT**

**RIGHT**


**DO NOT** overtighten the self-locking nut. Overtightening may result in suspension bind.

**TIP**  **ARM REAMER** (HUDY #107643)

If the rear upright DOES NOT move freely, use a HUDY Arm Reamer to resize the hole.

**INITIAL SETTING**

**Check for free movement.**

**2x** 

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

**NOTE ORIENTATION**

**RIGHT THREAD**

**LEFT THREAD**

**NOTE ORIENTATION**

Use tools to tighten as shown.

Special Tool for all turnbuckles & nuts (HUDY #181090) or Turnbuckle Wrench 5mm (HUDY #181050).


LEFT THREAD 26.5mm RIGHT THREAD


RIGHT THREAD 26.5mm LEFT THREAD


**RIGHT** **LEFT**


**SET-UP BOOK**  
CAMBER


# 4. REAR SUSPENSION

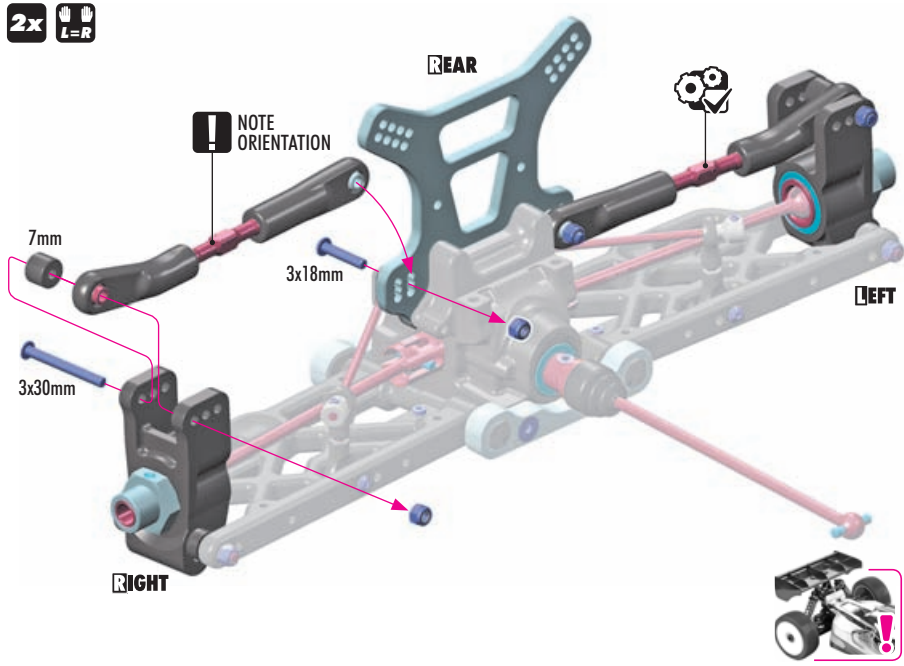
**2x**  353354-H  
SHIM 3x9x7

**2x**  902318  
SH M3x18

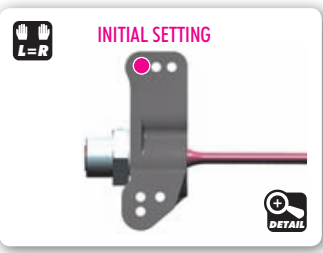
**2x**  902330  
SH M3x30

**4x**  960030  
N M3


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




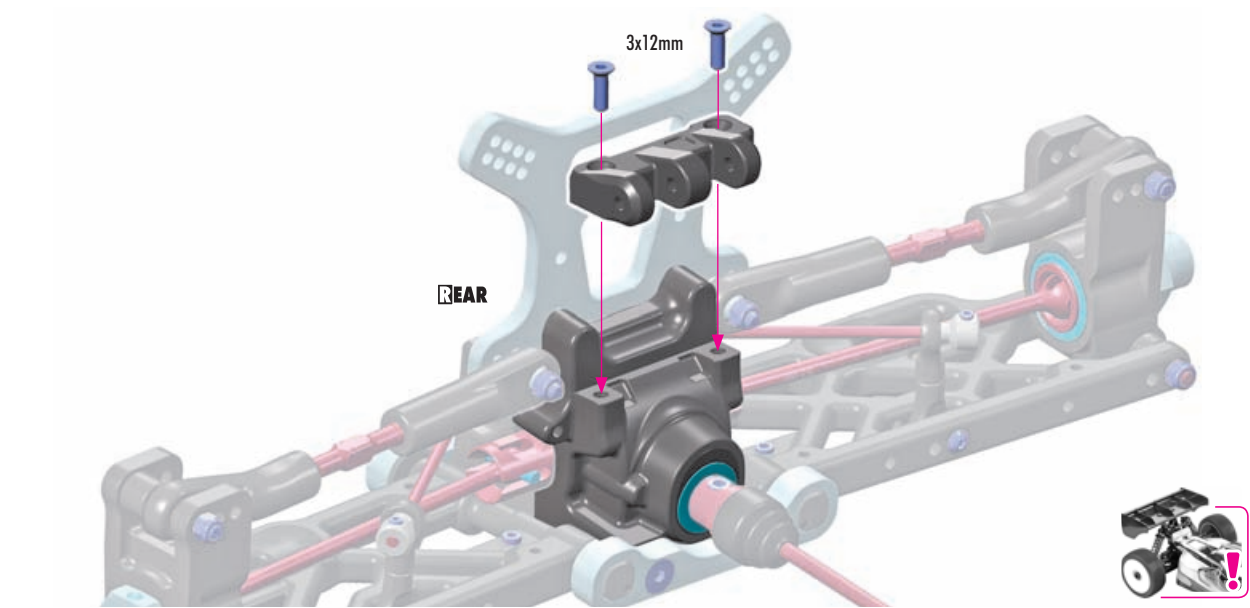
**L=R** **INITIAL SETTING**





**INITIAL SETTING**




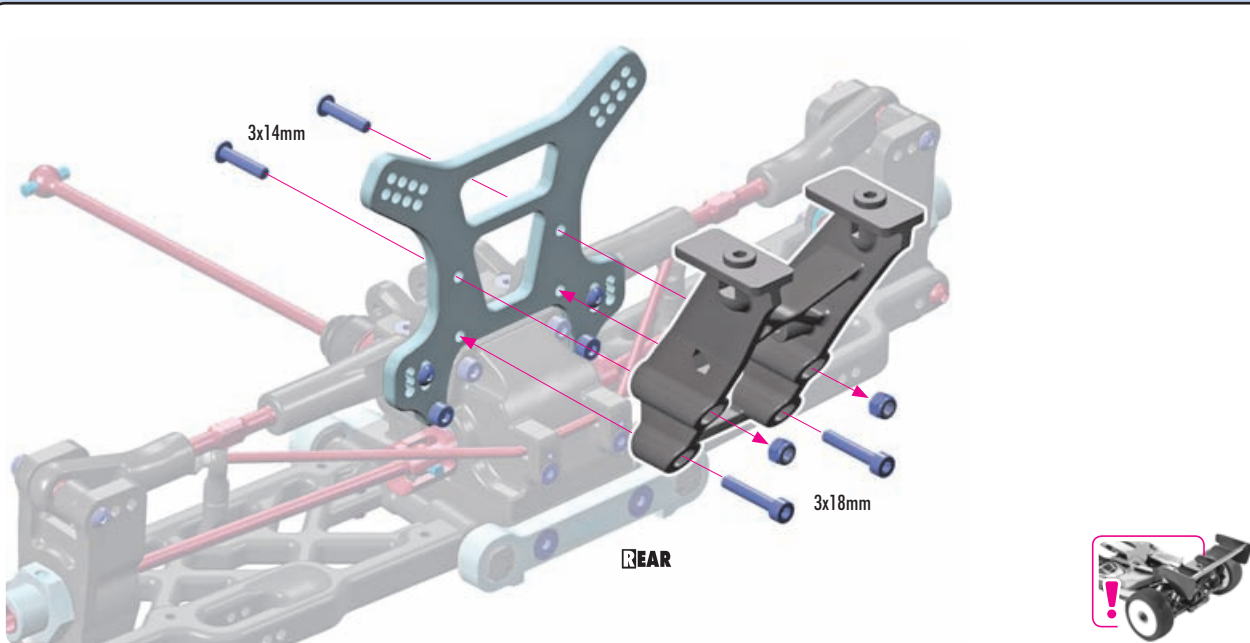
**2x**  903312  
SFH M3x12



**2x**  902314  
SH M3x14

**2x**  908318  
SCH M3x18

**2x**  960030  
N M3



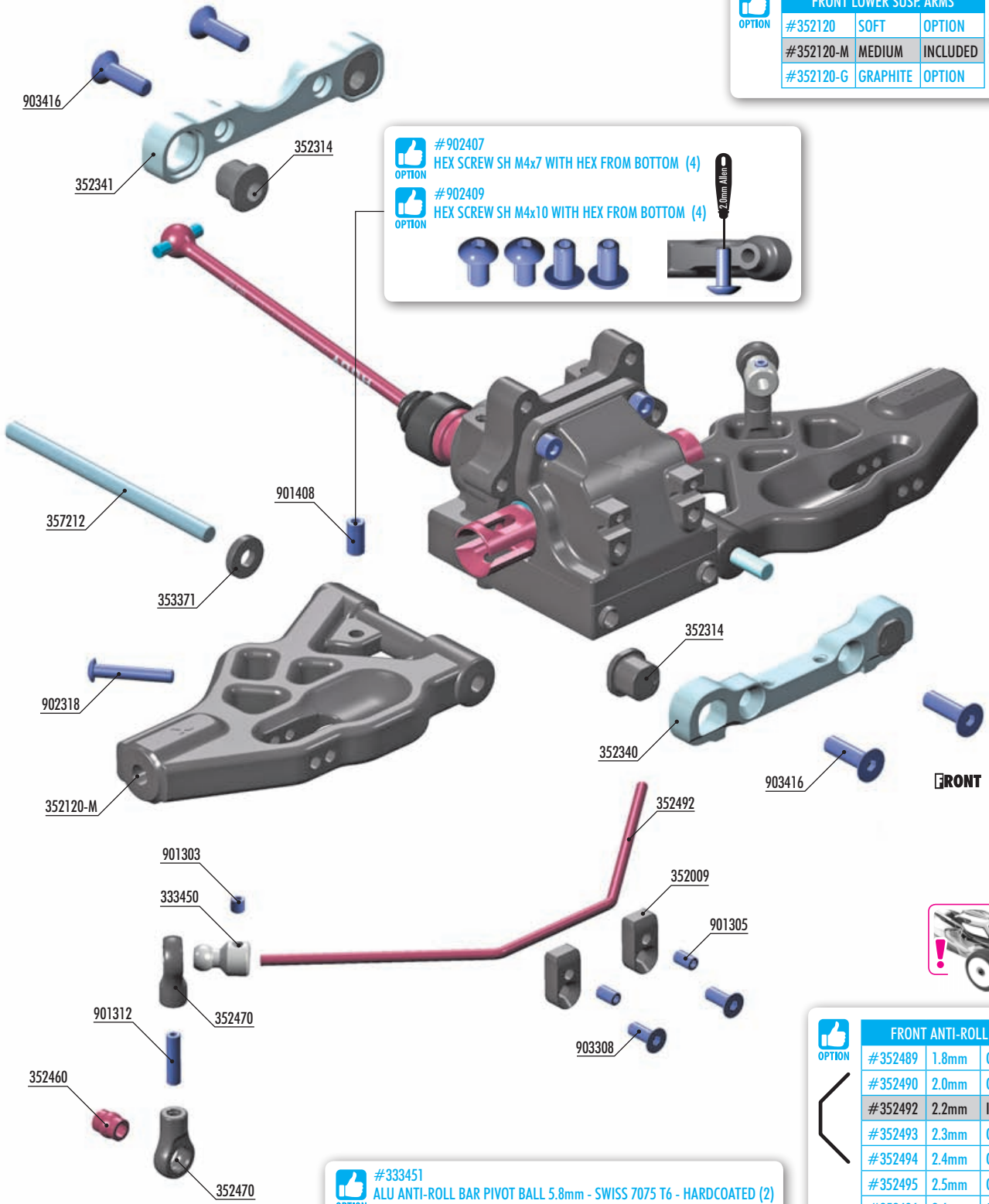
# 5. FRONT SUSPENSION

FRONT LOWER SUSP. ARMS		
#352120	SOFT	OPTION
#352120-M	MEDIUM	INCLUDED
#352120-G	GRAPHITE	OPTION



**#902407**  
 OPTION  
 HEX SCREW SH M4x7 WITH HEX FROM BOTTOM (4)

**#902409**  
 OPTION  
 HEX SCREW SH M4x10 WITH HEX FROM BOTTOM (4)



FRONT ANTI-ROLL BARS		
#352489	1.8mm	OPTION
#352490	2.0mm	OPTION
#352492	2.2mm	INCLUDED
#352493	2.3mm	OPTION
#352494	2.4mm	OPTION
#352495	2.5mm	OPTION
#352496	2.6mm	OPTION
#352498	2.8mm	OPTION

**#333451**  
 OPTION  
 ALU ANTI-ROLL BAR PIVOT BALL 5.8mm - SWISS 7075 T6 - HARDCOATED (2)



- |          |  |        |                               |
|----------|--|--------|-------------------------------|
| 333450   | ANTI-ROLL BAR BALL JOINT 5.8mm (2)                           | 357212 | LOWER INNER PIVOT PIN F+R (2) |
| 352009   | SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR                | 901303 | HEX SCREW SB M3x3 (10)        |
| 352120-M | COMPOSITE FRONT LOWER SUSPENSION ARM - MEDIUM                | 901305 | HEX SCREW SB M3x5 (10)        |
| 352314   | COMPOSITE SQUARE ADJ. ROLL CENTER BUSHINGS - V2 (2)          | 901312 | HEX SCREW SB M3x12 (10)       |
| 352340   | ALU FRONT LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - FRONT | 901408 | HEX SCREW SB M4x8 (10)        |
| 352341   | ALU FRONT LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - REAR  | 902318 | HEX SCREW SH M3x18 (10)       |
| 352460   | PIVOT BALL 5.8 (10)  | 903308 | HEX SCREW SFH M3x8 (10)       |
| 352470   | BALL JOINT 5.8 (8)   | 903416 | HEX SCREW SFH M4x16 (10)      |
| 352492   | FRONT ANTI-ROLL BAR 2.4mm                                    |        |                               |
| 353371   | SET OF COMPOSITE LOWER ARM SHIMS                             |        |                               |

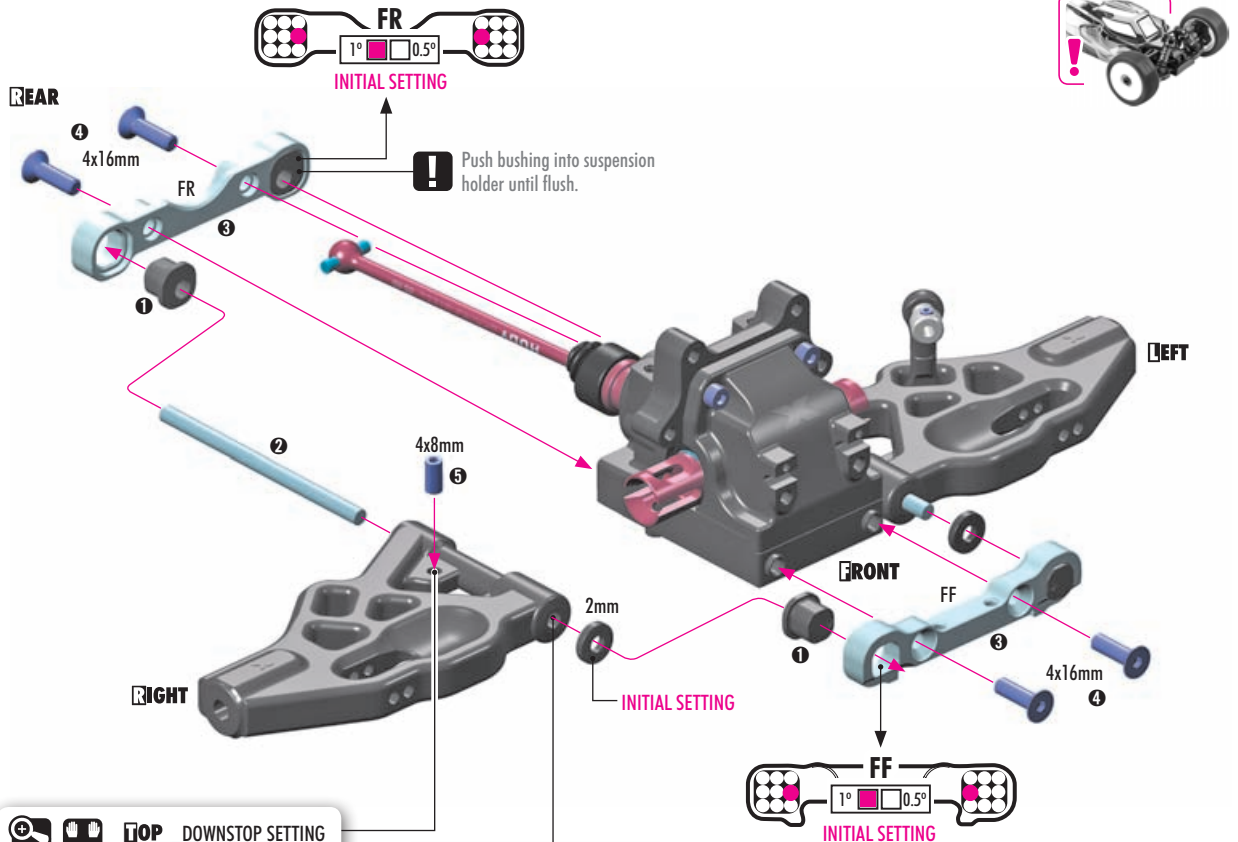
# 5. FRONT SUSPENSION

**10**

2x 353371 SHIM 4x10x2

2x 901408 SB M4x8

4x 903416 SFH M4x16



**TOP** DOWNSTOP SETTING

**DETAIL** **L=R**

0.0mm

**OPTION** #902407 HEX SCREW SH M4x7 WITH HEX FROM BOTTOM (4)

Downstop screw for fine tuning.

**OPTION** #902409 HEX SCREW SH M4x10 WITH HEX FROM BOTTOM (4)

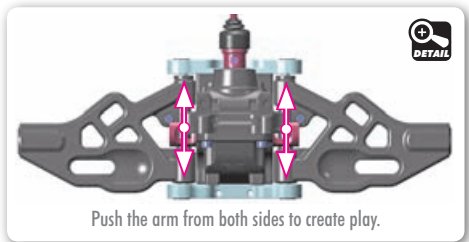
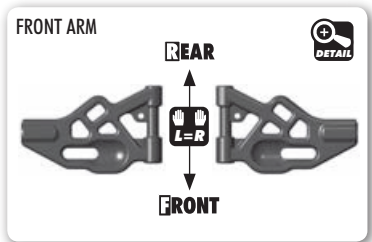
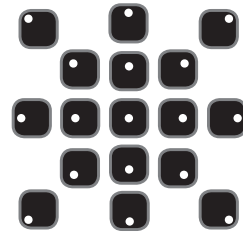
**TIP** **L=R** **DETAIL**

If suspension arms DO NOT pivot freely after checking eccentric bushings, a HUDY arm reamer can eliminate any remaining bind.

(HUDY #107644)

ARM REAMER

All possible mounting alternatives of eccentric bushings.



Eccentric bushings have two different offsets from the center.

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

TRACK-WIDTH			(mm)
FF	FR		
			= 308
			= 306
			= 310*

ROLL CENTER			(mm)
FF	FR		
			= 1
			= 0
			= -1

The XRAY alu front lower suspension holders provide even greater range of adjustment for the front suspension. Using different combinations of eccentric bushings, fine adjustment of front kick-up, roll center, and front track-width can be obtained. For more information about the influence of kick-up, front track-width, and roll centers on car handling, please refer to HUDY Off-Road Set-up Book (#209099).

The tables above describe the changes to kick-up and front track width when using the 0 and 1mm/1deg offset bushings. The .5mm/.5deg bushings reduce setting changes by half.

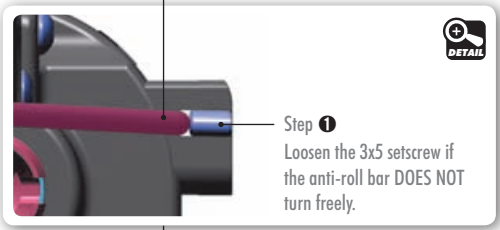
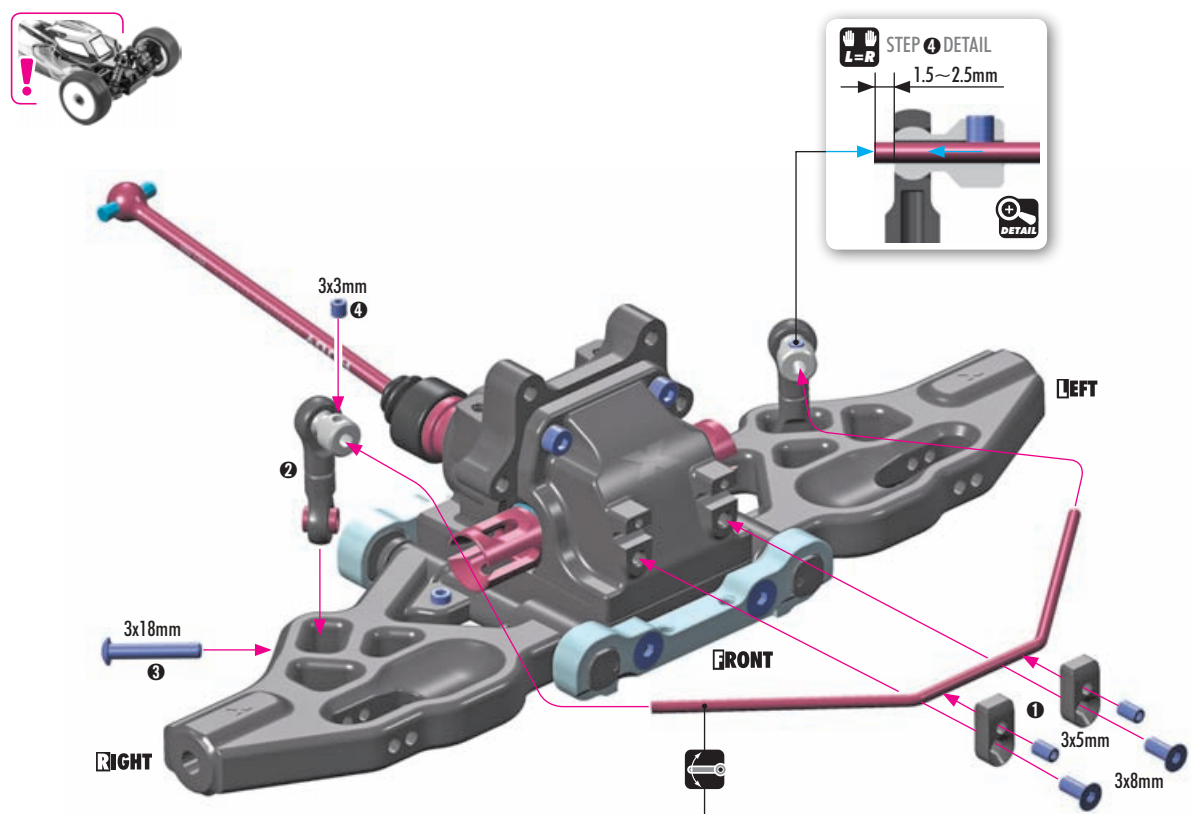
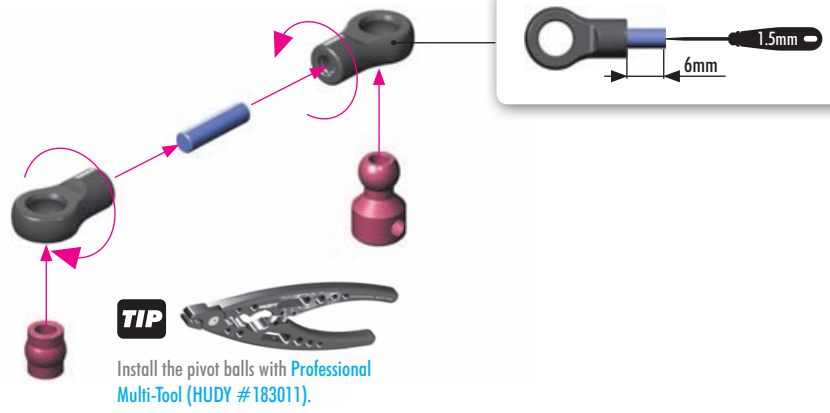
\* NOT recommended to use this setting.

**SET-UP BOOK**  
KICK UP  
ROLL CENTER DOWNSTOP  
WHEELBASE  
TRACK WIDTH

# 5. FRONT SUSPENSION



2x L=R



OPTION	FRONT ANTI-ROLL BARS		
	#352489	1.8mm	OPTION
	#352490	2.0mm	OPTION
	#352492	2.2mm	INCLUDED
	#352493	2.3mm	OPTION
	#352494	2.4mm	OPTION
	#352495	2.5mm	OPTION
	#352496	2.6mm	OPTION
	#352498	2.8mm	OPTION



**SET-UP BOOK**  
ANTI-ROLL BAR

# 6. FRONT SUSPENSION

**#357253**  
BRASS ADJUSTING NUT M15x1

**#350910**  
C-HUB FRONT SUSPENSION CONVERSION SET

**FRONT UPPER SUSP. ARMS**

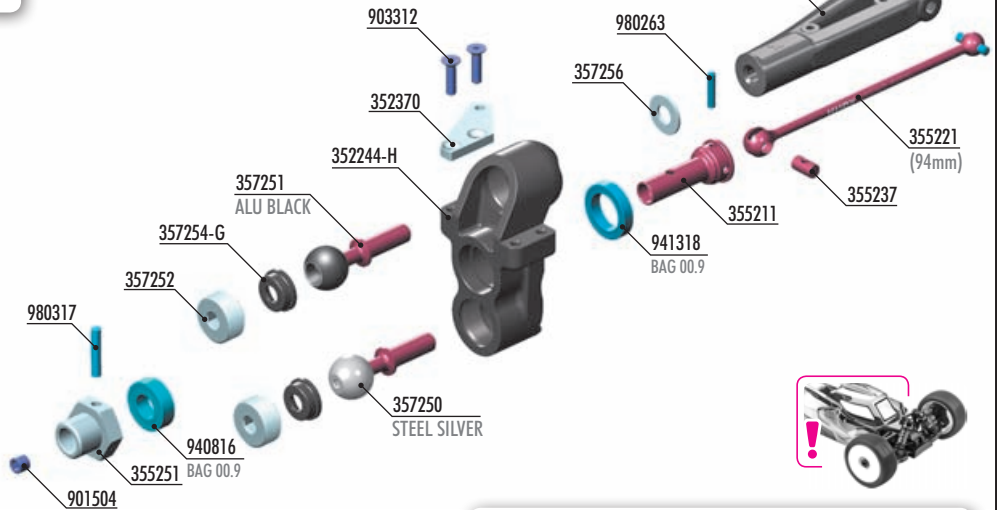
#352135	SOFT	OPTION
#352135-M	MEDIUM	INCLUDED
#352135-G	GRAPHITE	OPTION

**OFFSET WHEEL AXLES**

#355250	0mm	OPTION
#355251	+1mm	INCLUDED
#355252	+2mm	OPTION

**STEERING BLOCKS**

#352244	MEDIUM	OPTION
#352244-H	HARD	INCLUDED
#352244-G	GRAPHITE	OPTION



**FRONT ARM WINGS**

#352194	LEXAN®	OPTION
#352195	CARBON	OPTION

**ALU STEERING PLATE**

#352372	1 DOTS	OPTION
#352370	2 DOTS	INCLUDED

**XRAY BALL-BEARINGS**

#930816	8x16x5	GREASE	STEEL	OPTION
#940816	8x16x5	GREASE	RUBBER	INCLUDED
#931318	13x19x4	GREASE	STEEL	OPTION
#941318	13x19x4	GREASE	RUBBER	INCLUDED
#930817	8x16x5	OIL	STEEL	OPTION
#940817	8x16x5	OIL	RUBBER	OPTION
#931319	13x19x4	OIL	STEEL	OPTION
#941319	13x19x4	OIL	RUBBER	OPTION

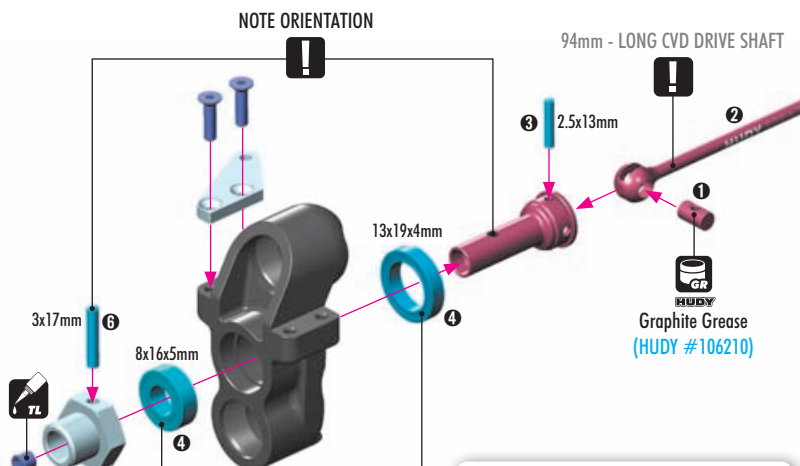


- 352135-M FRONT UPPER ARM - MEDIUM
- 352244-H PB STEERING BLOCK LB - HARD
- 352370 ALU STEERING PLATE - SWISS 7075 T6 (L+R)
- 355211 CVD DRIVE AXLE - HUDY SPRING STEEL™
- 355221 CVD UNIVERSAL DRIVE SHAFT 94mm - HUDY SPRING STEEL™
- 355237 CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
- 355251 ALU WHEEL AXLE OFFSET "+1mm" - HARD COATED (2)
- 357250 STEEL PIVOT BALL 13.7mm (2)
- 357251 ALU PIVOT BALL 13.7mm WITH STEEL SCREW (2)

- 357252 ALU ADJUSTING NUT M15x1 (2)
- 357254-G COMPOSITE BALL CUP 13.9mm - GRAPHITE (2)
- 357256 ALU SHIM 6x13x1 (2)
- 901504 HEX SCREW SB M5x4 (10)
- 903312 HEX SCREW SFH M3x12 (10)
- 940816 BALL-BEARING 8x16x5 RUBBER SEALED - GREASE (2)
- 941318 BALL-BEARING 13x19x4 RUBBER SEALED - GREASE (2)
- 980263 PIN 2.5x13 (10)
- 980317 PIN 3x17 (10)

- 2x 901504 SB M5x4
- 2x 940816 BB 8x16x5
- 2x 941318 BB 13x19x4
- 2x 980263 P 2.5x13
- 2x 980317 P 3x17

2x L-R



**#355222**  
UNIVERSAL DRIVE SHAFT - HUDY SPRING STEEL™

**OFFSET WHEEL AXLES**

#355250	0mm	OPTION
#355251	+1mm	INCLUDED
#355252	+2mm	OPTION

**STEERING BLOCKS**

#352244	MEDIUM	OPTION
#352244-H	HARD	INCLUDED
#352244-G	GRAPHITE	OPTION

**ALU STEERING PLATE**

#352372	1 DOTS	OPTION
#352370	2 DOTS	INCLUDED

**TIP**  
To tighten the setscrew you can also use the (HUDY 17mm Wheel Nut Tool #107570).

# 6. FRONT SUSPENSION

**2x**

**!** ALU pivot ball  
BLACK color

**!** STEEL pivot ball  
SILVER color

**TIP** Tighten hex nuts using HUDY tool #107581.

**OPTION** #357253 Brass Adjusting Nut M15x1

**DETAIL**

**PIVOT BALLS MUST MOVE FREELY**  
During initial assembly, tighten each hex nut until the pivot ball starts to bind, then loosen slightly. Verify that the pivot balls move freely.

**2x**

**357256**  
SHIM 6x13x1

**2x**

**Wings (NOT INCLUDED)**

**!** #352195  
XB8 CARBON FIBER FRONT UPPER ARM WINGS - SET

**OPTION** #352194  
XB8 LEXAN® FRONT UPPER ARM WINGS IFMAR LEGAL - SET

**TIP** 2.5mm  
HUDY Tool Allen 2.5mm

**OPTION** #352135 SOFT OPTION

**OPTION** #352135-M MEDIUM INCLUDED

**OPTION** #352135-G GRAPHITE OPTION

FRONT UPPER SUSP. ARMS		
#352135	SOFT	OPTION
#352135-M	MEDIUM	INCLUDED
#352135-G	GRAPHITE	OPTION

**SET-UP BOOK**  
CAMBER  
TRACK-WIDTH

**2x**

**!**

**FRONT**

**LEFT**

**RIGHT**

**TIP** 2.5mm  
HUDY Tool Allen 2.5mm

**!**

**SET-UP BOOK**  
ROLL CENTER



# 6. FRONT & REAR ASSEMBLY

**#353280**  
GRAPHITE BRACES FOR REAR COMPOSITE BRACE - SET  
OPTION

**LONGER CONFIGURATION**

**#351117**  
XB8E ALU CHASSIS - SWISS 7075 T6 (3mm)  
OPTION  
(LONGER + 4mm)

**#355627**  
REAR CENTRAL CVD DRIVE SHAFT 115mm  
OPTION

**#355415 CENTRAL DOGBONE SHAFT UNIVERSAL JOINT + #355632 REAR CENTRAL DOGBONE DRIVE SHAFT 116mm**  
OPTION

<b>BAG</b> 	<b>351203</b> COMPOSITE FRONT BUMPER FOR SEMI-SPLIT BULKHEAD <b>353082</b> COMPOSITE REAR BRACE - MEDIUM - M <b>353580</b> COMPOSITE WING HOLDER BRACE WITH REAR BODY POST	<b>902340</b> HEX SCREW SH M3x40 (10) <b>903412</b> HEX SCREW SFH M4x12 (10) <b>960030</b> NUT M3 (10) <b>960040</b> NUT M4 (10)
	<b>902308</b> HEX SCREW SH M3x8 (10) <b>902335</b> HEX SCREW SH M3x35 (10)	<b>351119</b> XB8E ALU CHASSIS - SWISS 7075 T6 (3MM) - SHORT



**4x 903412**  
SFH M4x12

**#293084**  
PRECISION BALANCING CHASSIS WEIGHTS 10G (4)  
OPTION

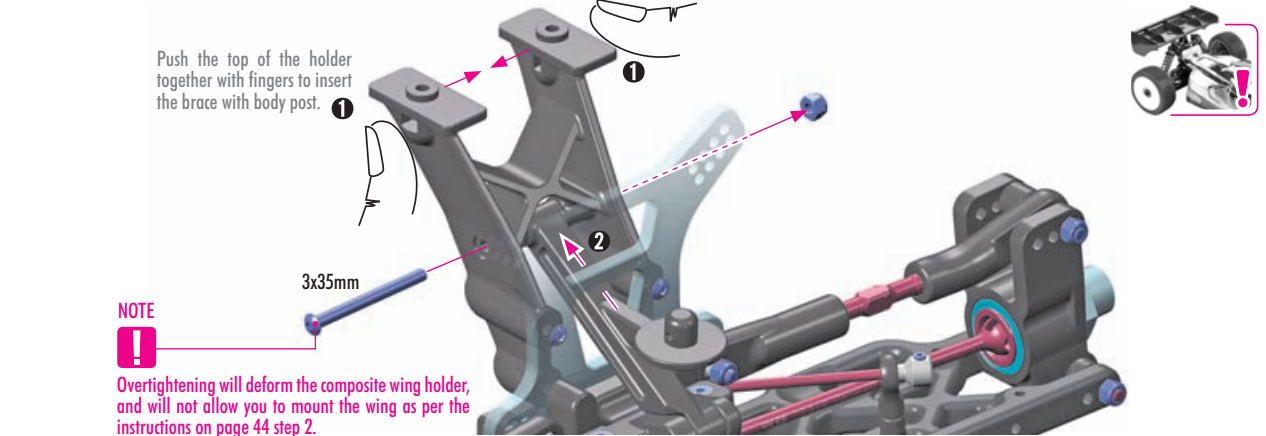
**903308**  
SFH M3x8

During initial assembly, there is no need to check gear mesh or diff play. Fitment should not be checked until suspension holders are installed on the bulkheads and the complete assembly is mounted to the chassis. All parts have specifically designed tolerances for proper operation once fully assembled. After assembly, check for free rotation of all drivetrain parts and non-binding movement of the suspension.





# 6. FRONT & REAR ASSEMBLY

-  902335 SH M3x35 1x
-  960030 N M3 1x

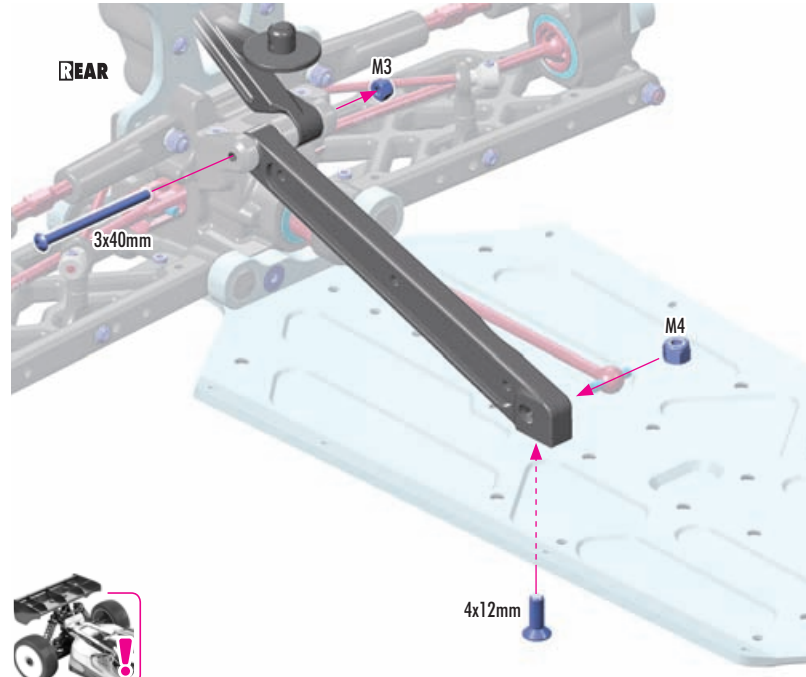
Push the top of the holder together with fingers to insert the brace with body post. ①



**NOTE**  
Overtightening will deform the composite wing holder, and will not allow you to mount the wing as per the instructions on page 44 step 2.

-  902340 SH M3x40 1x
-  903412 SFH M4x12 1x
-  960030 N M3 1x
-  960040 N M4 1x

**REAR**





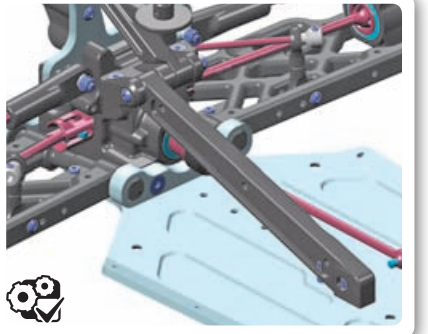
3x40mm

M3

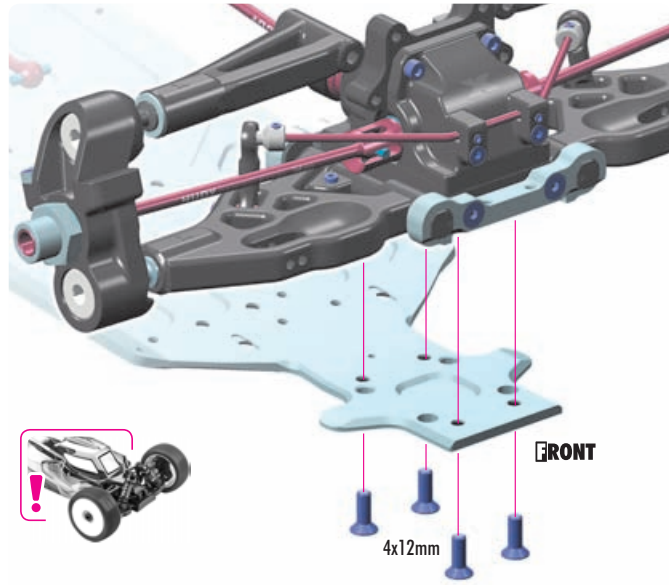
M4

4x12mm

 #353280 GRAPHITE BRACE SET for extra stiffness adjustment.  
OPTION

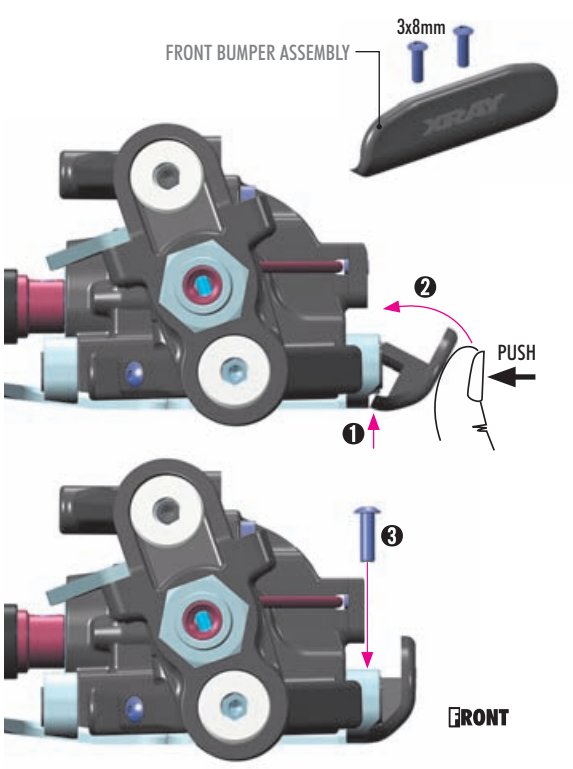
-  2x 902308 SH M3x8
-  4x 903412 SFH M4x12



**FRONT**

4x12mm

**FRONT BUMPER ASSEMBLY**



3x8mm

①

②

PUSH

③

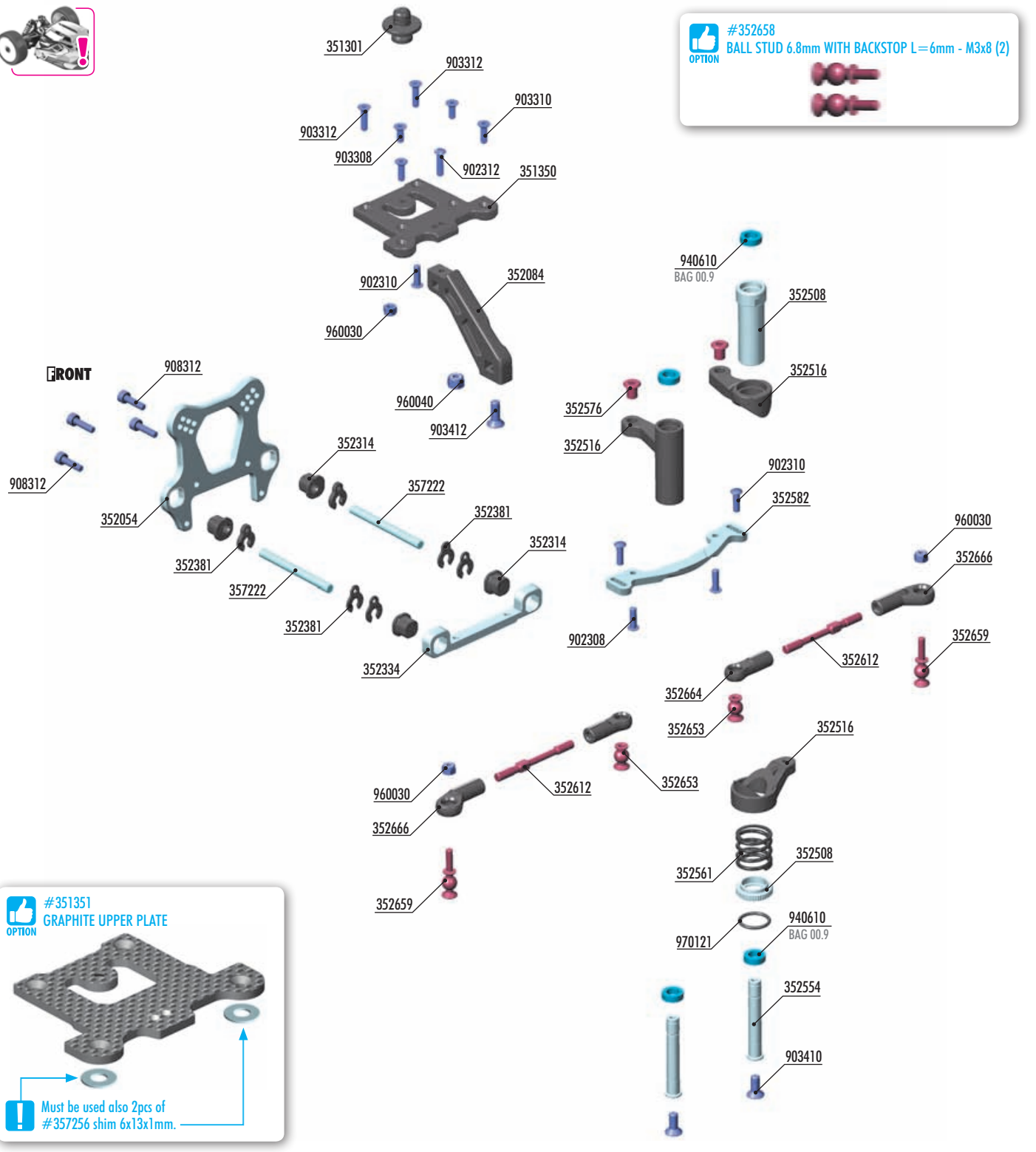
**FRONT**

**!** During initial assembly, there is no need to check gear mesh or diff play. Fitment should not be checked until suspension holders are installed on the bulkheads and the complete assembly is mounted to the chassis. All parts have specifically designed tolerances for proper operation once fully assembled. After assembly, check for free rotation of all drivetrain parts and non-binding movement of the suspension.

# 7. STEERING



**#352658**  
**BAG OPTION**  
 BALL STUD 6.8mm WITH BACKSTOP L=6mm - M3x8 (2)



**#351351**  
**BAG OPTION**  
 GRAPHITE UPPER PLATE

Must be used also 2pcs of #357256 shim 6x13x1mm.

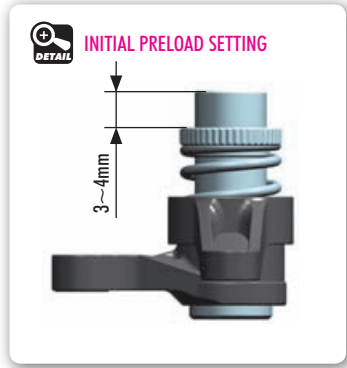
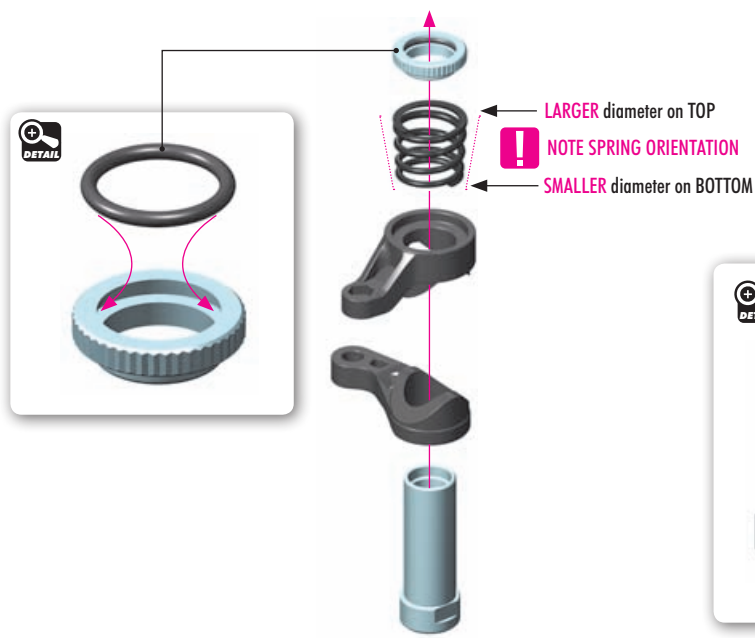
**BAG**  
**07**

351301	BODY POSTS	352666	COMPOSITE RELIEF STEERING BALL JOINT 6.8mm (2)
351350	COMPOSITE UPPER PLATE WITH TWO BRACE POSITIONS	357222	FRONT UPPER PIVOT PIN 4x45 (2)
352054	ALU FRONT SHOCK TOWER FOR SEMI-SPLIT BULKHEAD (4mm)	902308	HEX SCREW SH M3x8 (10)
352084	COMPOSITE FRONT BRACE	902310	HEX SCREW SH M3x10 (10)
352314	COMPOSITE SQUARE ADJ. ROLL CENTER BUSHINGS - V2 (2)	902312	HEX SCREW SH M3x12 (10)
352334	ALU FRONT UPPER ARM HOLDER FOR SEMI-SPLIT BULKHEAD	903308	HEX SCREW SFH M3x8 (10)
352381	CASTER CLIPS (2)	903310	HEX SCREW SFH M3x10 (10)
352508	SERVO SAVER FOR SEMI-SPLIT BULKHEAD - GRAPHITE - SET	903312	HEX SCREW SFH M3x12 (10)
352516	COMPOSITE SERVO SAVER FOR SEMI-SPLIT BULKHEAD - GRAPHITE	903410	HEX SCREW SFH M4x10 (10)
352554	ALU SERVO SAVER PIVOT SHAFT WITH CHASSIS LOCK (2)	903412	HEX SCREW SFH M4x12 (10)
352561	SERVO SAVER SPRING PROGRESSIVE	908312	HEX SCREW SOCKET HEAD CAP SCH M3x12 (10)
352576	STEERING PLATE BUSHING (2)	940610	BALL-BEARING 6x10x3 RUBBER SEALED - OIL (2)
352582	ALU STEERING PLATE FOR SEMI-SPLIT BULKHEAD - SWISS 7075 T6	960030	NUT M3 (10)
352612	ADJ. TURNBUCKLE M4 L/R 45mm - HUDY SPRING STEEL™ (2)	960040	NUT M4 (10)
352653	BALL STUD 6.8mm WITH BACKSTOP - M3 (2)	970121	O-RING 12.1 x 1.6 (10)
352659	BALL STUD 6.8mm WITH BACKSTOP L=6mm - M3x11 (2)		
352664	COMPOSITE STEERING BALL JOINT 6.8mm - V3 (2)		

# 7. STEERING



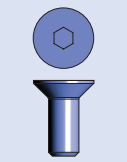
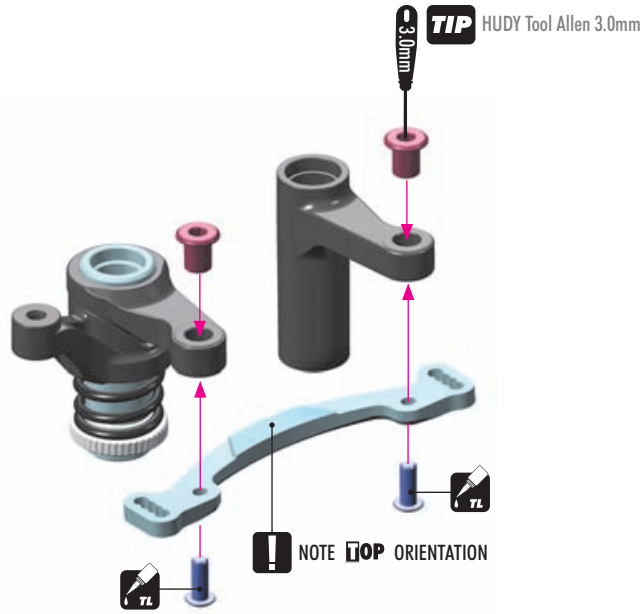
1x 970121  
O 12.1x1.6



**SET-UP BOOK**  
SERVO SAVER



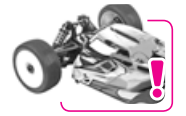
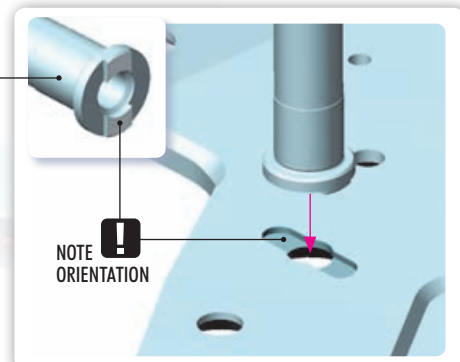
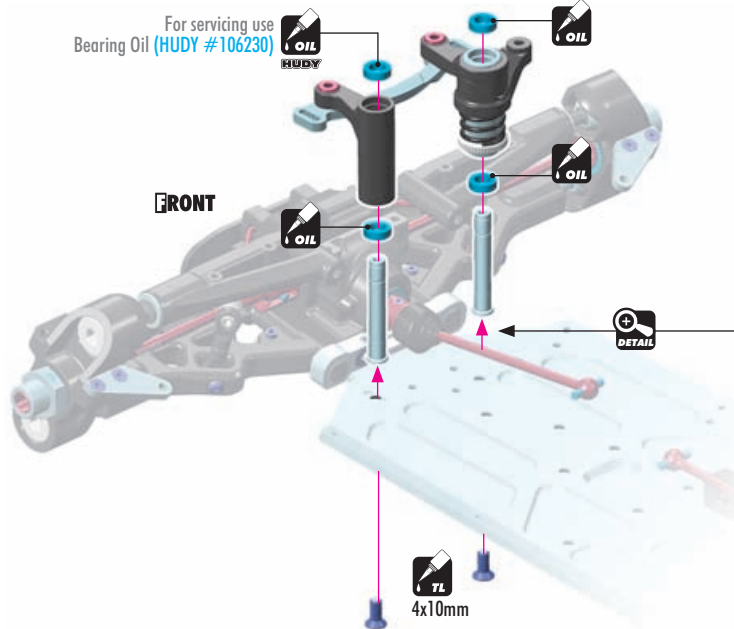
2x 902308  
SH M3x8

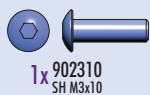


2x 903410  
SFH M4x10



4x 940610  
BB 6x10x3



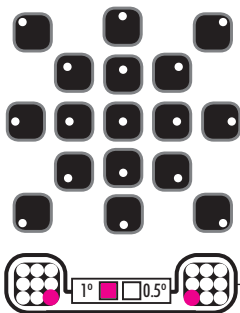


1x 902310  
SH M3x10

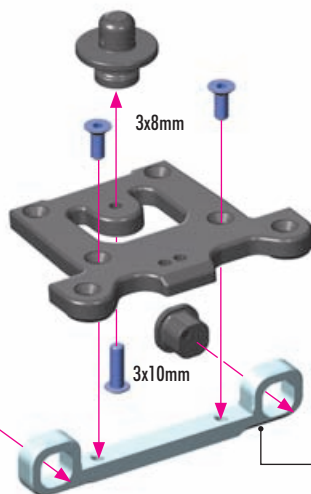


2x 903308  
SFH M3x8

All possible mounting alternatives of eccentric bushings.



INITIAL SETTING



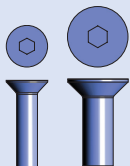
**SET-UP BOOK**  
ROLL CENTER



1x 902312  
SH M3x12



2x 903310  
SFH M3x10



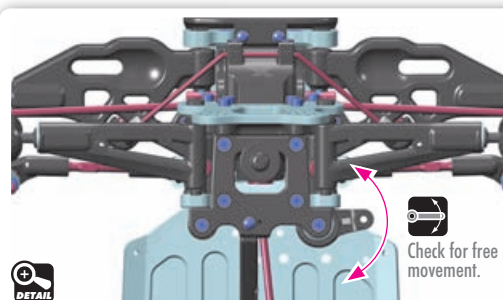
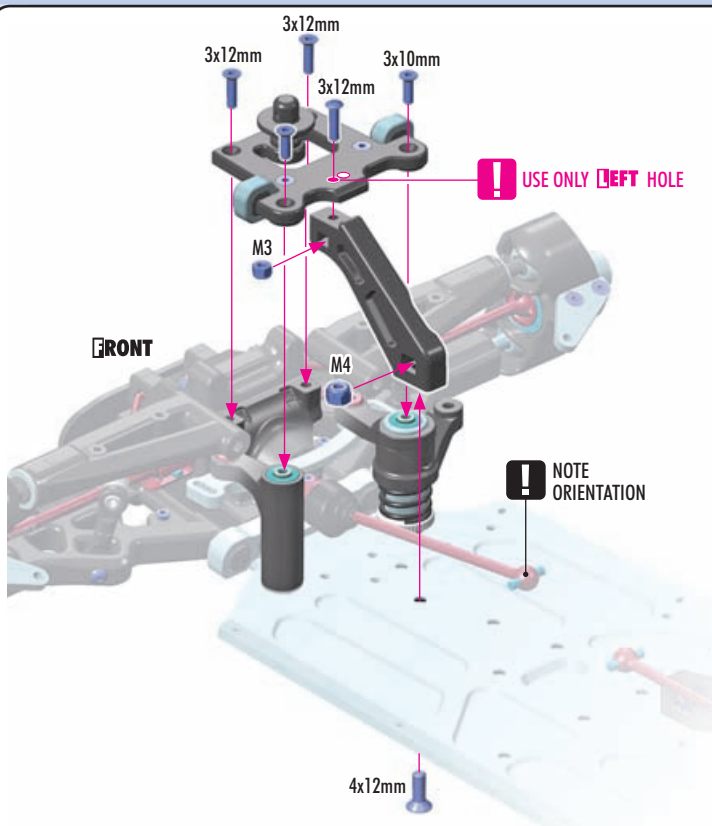
2x 903312 SFH M3x12  
1x 903412 SFH M4x12



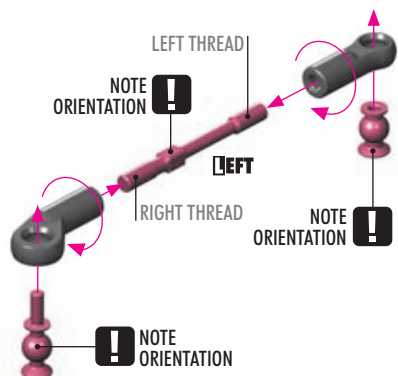
1x 960030  
N M3



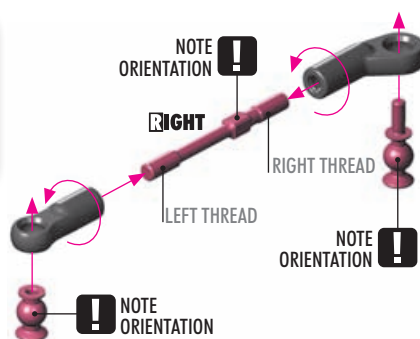
1x 960040  
N M4



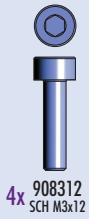
After the top deck assembly check for free movement of steering system.



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



# 7. STEERING



4x 908312  
SCH M3x12

**RIGHT** **LEFT** **FRONT**

1+1mm 2mm 1mm 1mm 2mm 3x12mm

**INITIAL SETTING**  
1° 0.5°

All possible mounting alternatives of eccentric bushings.

**UPPER CLIP**  
Behind arm

**LOWER SHIM**  
Behind arm

**CASTER**

CASTER	
UPPER CLIP (Behind arm)	LOWER SHIM (Behind arm)
	2mm
4mm	21°
3mm	22.5°
2mm	24°
1mm	25.5°
0	27°

**SET-UP BOOK**  
ROLL CENTER  
CASTER



2x 902310  
SH M3x10



2x 960030  
N M3

**FRONT** **RIGHT** **LEFT**

2x **L=R**

3x10mm

**INITIAL SETTING**  
1° 0.5°

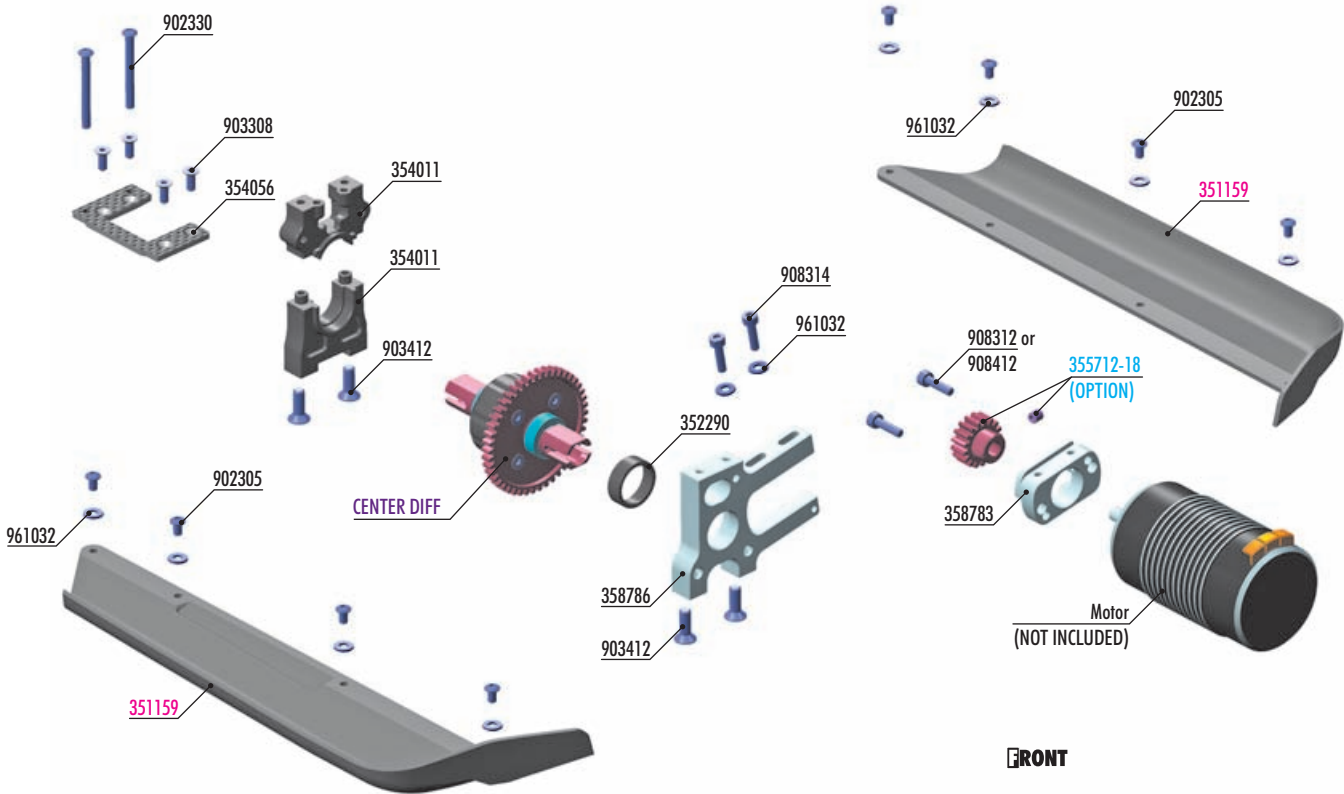
**NOTE ORIENTATION**  
Adjustment block towards outside.

**NOTE ORIENTATION**  
Adjustment block towards outside.

Check for free movement. Check for free movement.

**SET-UP BOOK**  
ACKERMANN  
BUMPS STEER  
TOE-IN

# 8. CENTER DIFF & MOTOR



FRONT

**OPTION**

XRAY PINION GEAR (MODUL 1)			
#355712	12T	OPTION	
#355713	13T	OPTION	
#355714	14T	OPTION	
#355715	15T	OPTION	
#355716	16T	OPTION	
#355717	17T	OPTION	
#355718	18T	OPTION	

**OPTION** #351159-S COMPOSITE CHASSIS SIDE GUARD L+R - SOFT

**OPTION** #351160 CARBON FIBER CHASSIS SIDE GUARD L+R

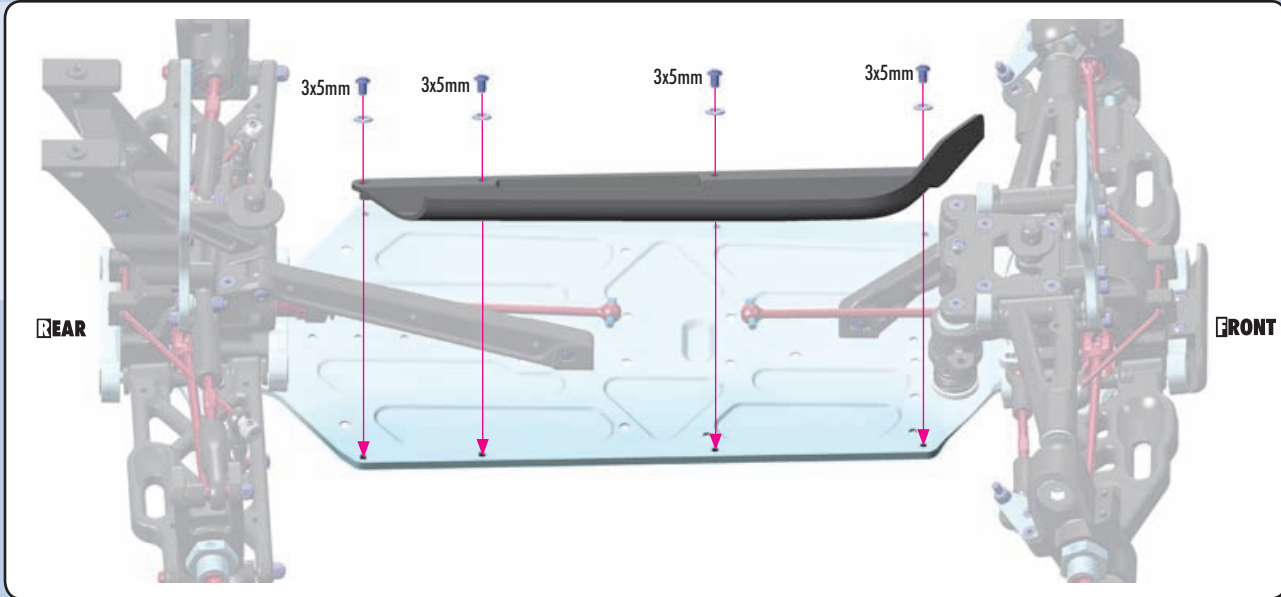


**OPTION** #353250 XB8 GRAPHITE BRACE FOR CHASSIS SIDE GUARDS - SET

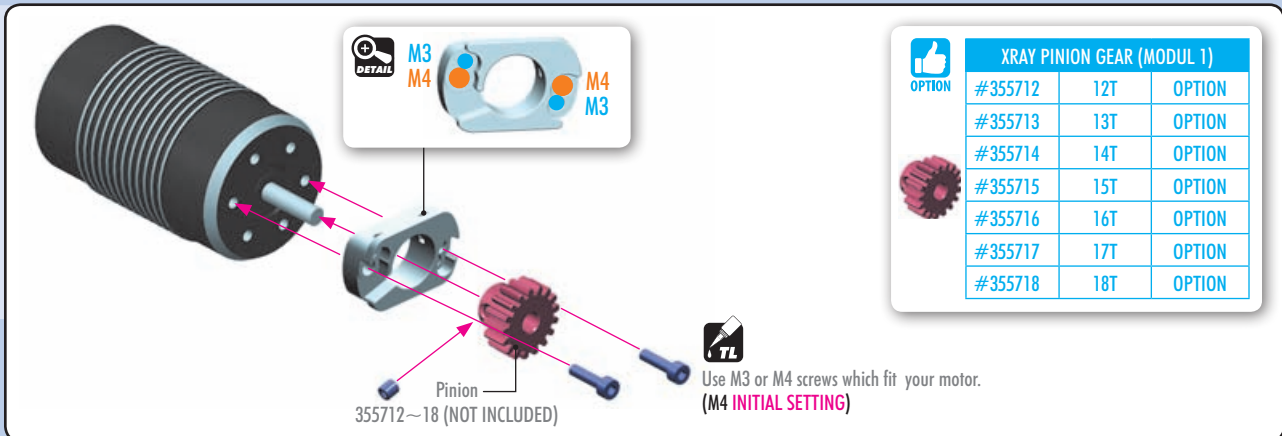
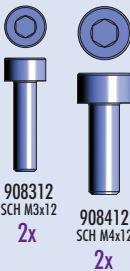
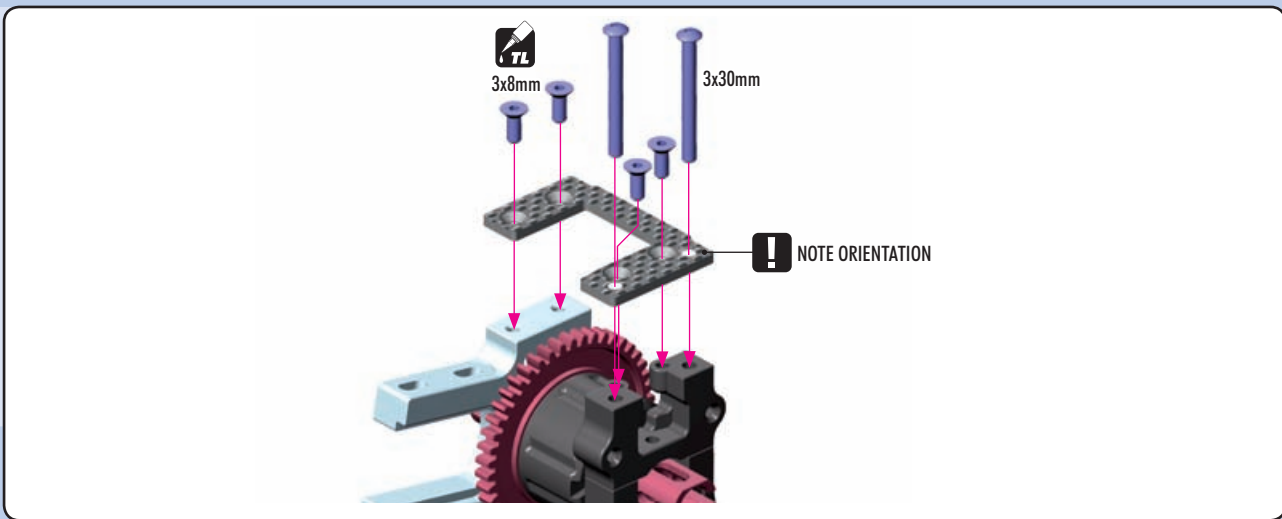
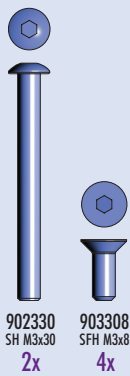
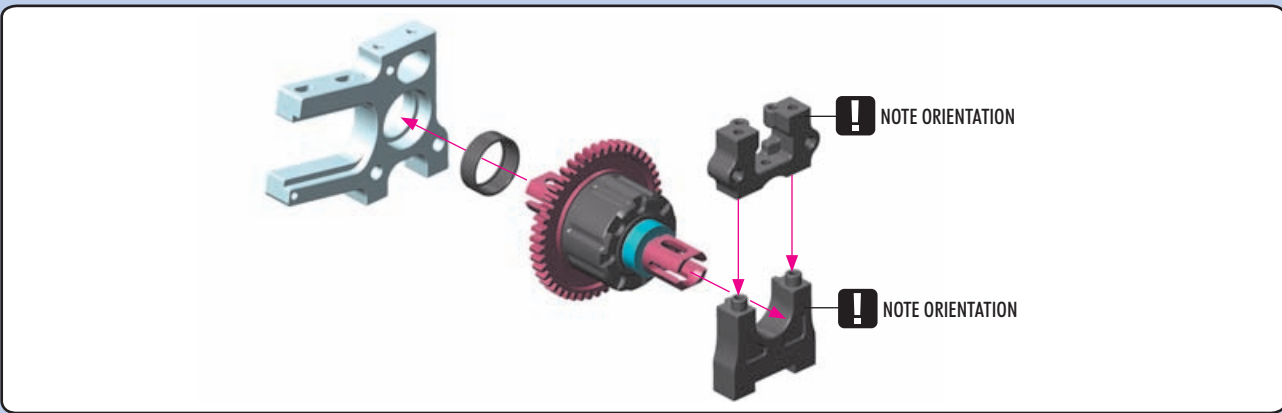
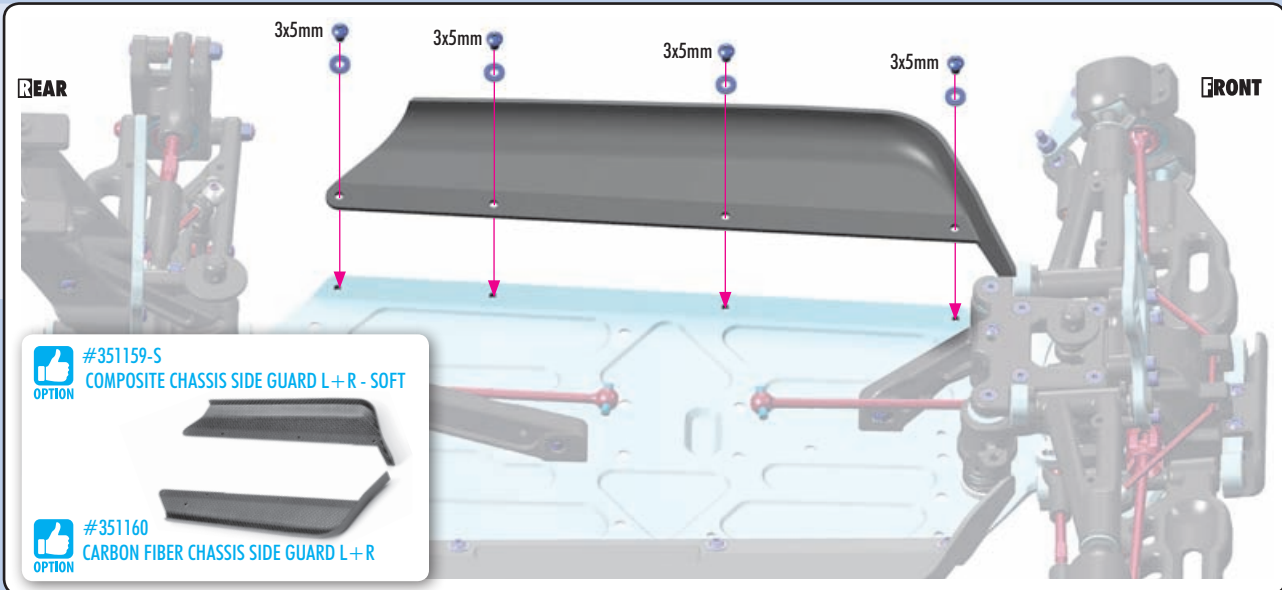
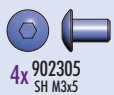
**BAG**  
**08**

- |           |  |        |                                      |
|-----------|--|--------|--------------------------------------|
| 352290    | COMPOSITE BUSHING FOR ALU STEERING BLOCK (4) | 903308 | HEX SCREW SFH M3x8 (10)              |
| 354011    | CENTER DIFF MOUNTING PLATE SET - HIGHER      | 903412 | HEX SCREW SFH M4x12 (10)             |
| 354056    | GRAPHITE CENTER DIFF MOUNTING PLATE          | 908312 | HEX SCREW SOCKET HEAD CAP M3x12 (10) |
| 355712~18 | XRAY 12~18T PINION GEAR (OPTION)             | 908314 | HEX SCREW SOCKET HEAD CAP M3x14 (10) |
| 358783    | ALU MOTOR MOUNT PLATE - V2                   | 908412 | HEX SCREW SOCKET HEAD CAP M4x12 (10) |
| 358786    | XB8E/XT8E ALU MOTOR MOUNT                    | 961032 | WASHER S 3.2 (10)                    |
| 902305    | HEX SCREW SH M3x5 (10)                       |        |                                      |
| 902330    | HEX SCREW SH M3x30 (10)                      | 351159 | CHASSIS SIDE GUARDS L+R              |

- 4x 902305 SH M3x5
- 4x 961032 S 3.2



# 8. CENTER DIFF & BRAKE

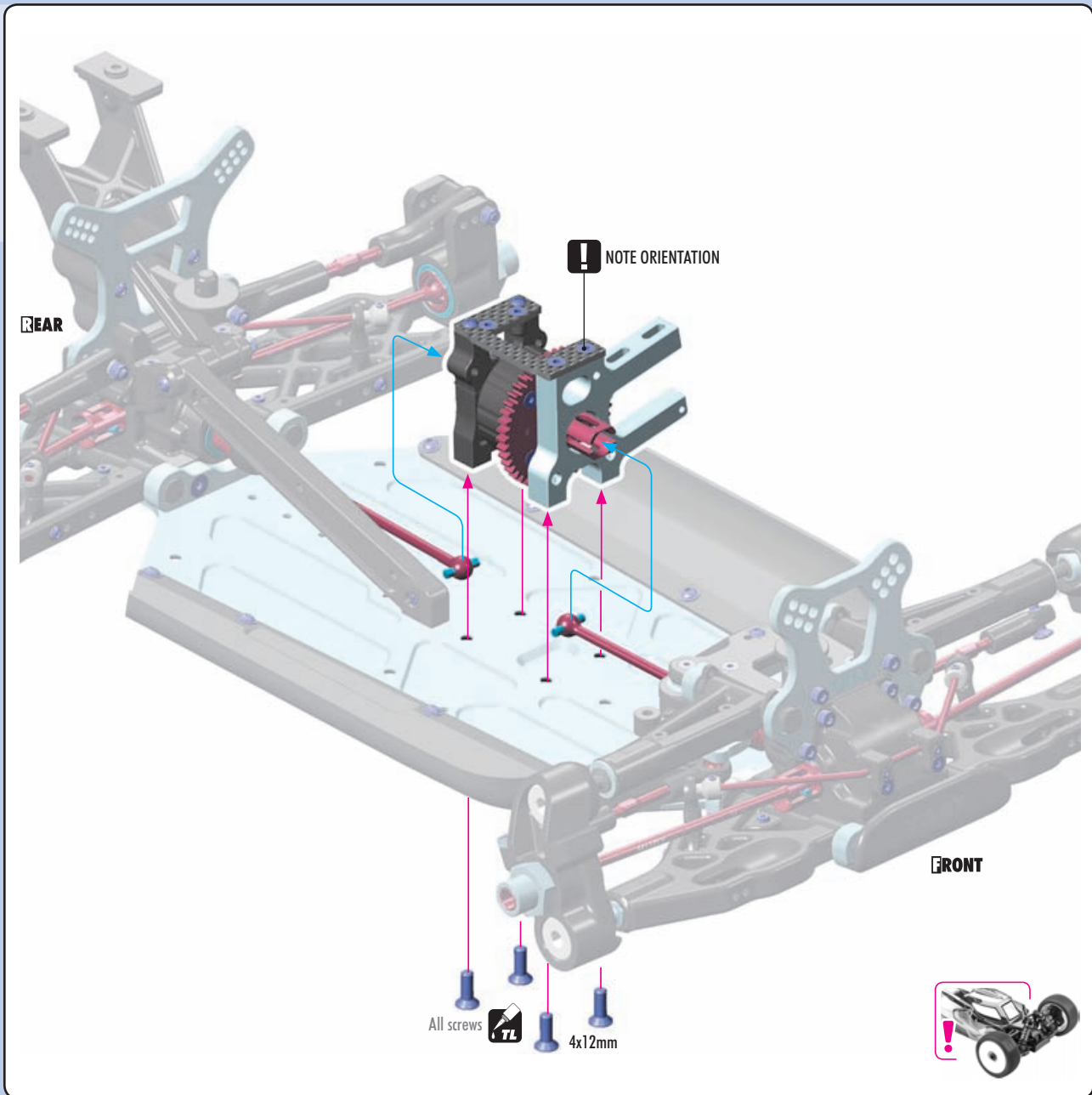




# 8. CENTER DIFF & BRAKE



4x 903412  
SFH M4x12



All screws 4x12mm

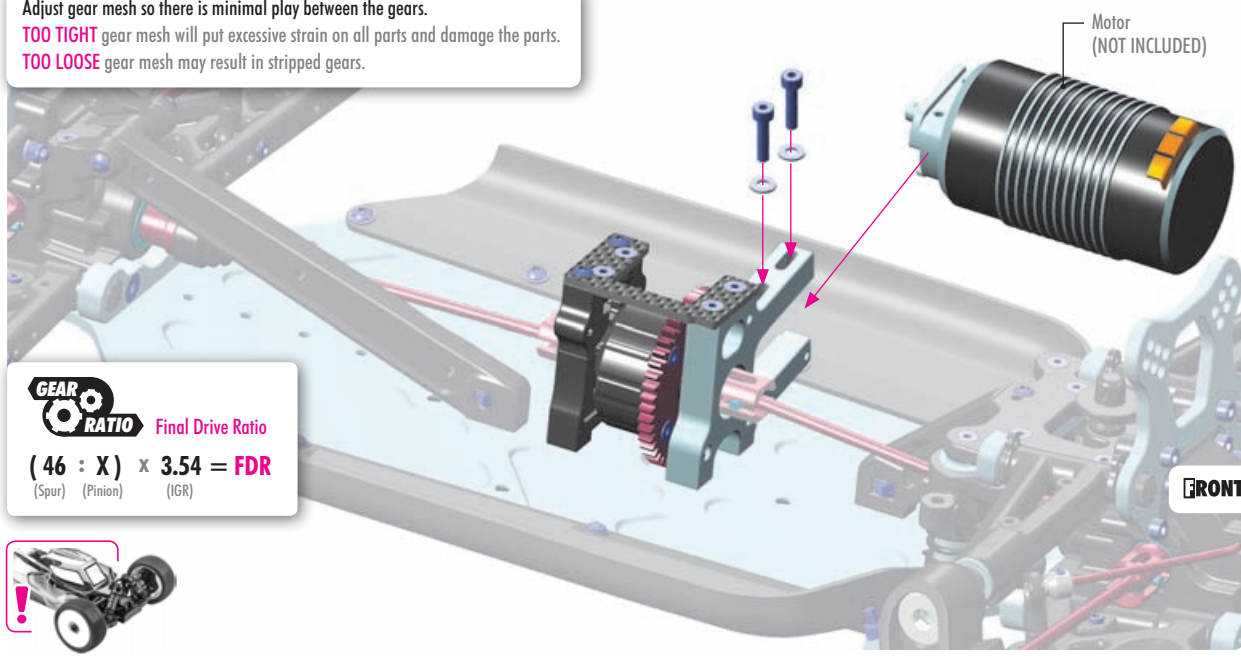


2x 908314  
SCH M3x14



2x 961032  
S3.2

Adjust gear mesh so there is minimal play between the gears.  
**TOO TIGHT** gear mesh will put excessive strain on all parts and damage the parts.  
**TOO LOOSE** gear mesh may result in stripped gears.

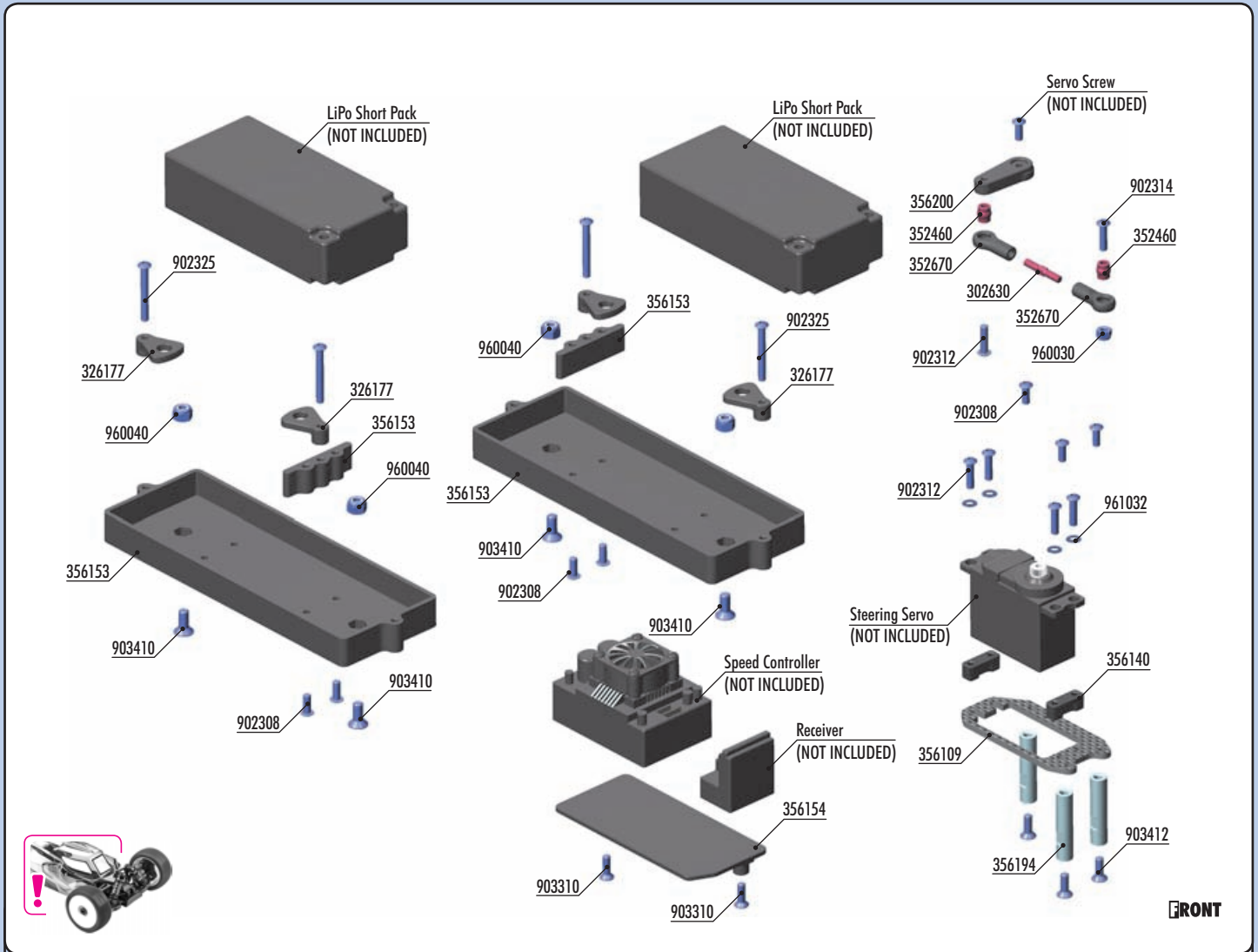


**GEAR RATIO** Final Drive Ratio

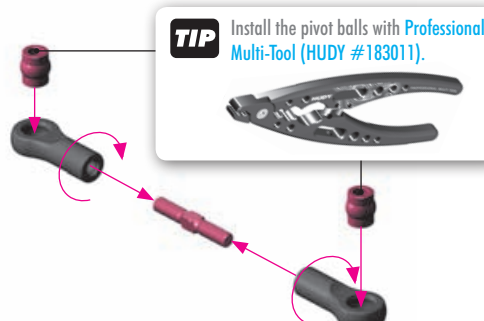
$$(46 : X) \times 3.54 = \text{FDR}$$

(Spur) (Pinion) (IGR)

# 10. RADIO CASE



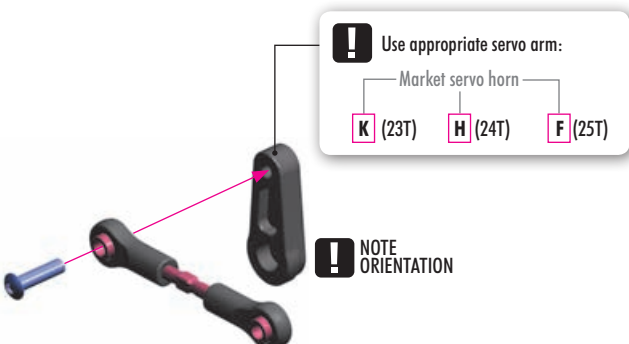
	302630	ADJ. TURNBUCKLE L/R 20mm - HUDY SPRING STEEL™ (2)	902308	HEX SCREW SH M3x8 (10)
	352460	PIVOT BALL 5.8 (10)	902312	HEX SCREW SH M3x12 (10)
	352670	SERVO BALL JOINT 5.8mm (4)	902314	HEX SCREW SH M3x14 (10)
	356140	COMPOSITE SERVO MOUNT - SMALL (2)	903412	HEX SCREW SFH M4x12 (10)
	356194	ALU MOUNT FOR RECEIVER BOX	960030	NUT M3 (10)
	356200	BRAKE/THROTTLE ARMS & STEERING SERVO ARMS - SET	961032	WASHER S 3.2 (10)
	326177	COMPOSITE BATTERY CLAMP (2)	902308	HEX SCREW SH M3x8 (10)
	356109	XB8E/GTXE/XT8E SADDLE PACK GRAPHITE SERVO HOLDER	902325	HEX SCREW SH M3x25 (10)
	356153	XB8E/GTXE/XT8E BATTERY BOX FOR STANDARD & SHORT BATTERY PACK (2)	903310	HEX SCREW SFH M3x10 (10)
	356154	COMPOSITE SPEEDO PLATE	903410	HEX SCREW SFH M4x10 (10)
			960040	NUT M4 (10)



**2x** 902312 SH M3x12

approx. 7mm

The length of the linkages varies according to the type of servo.



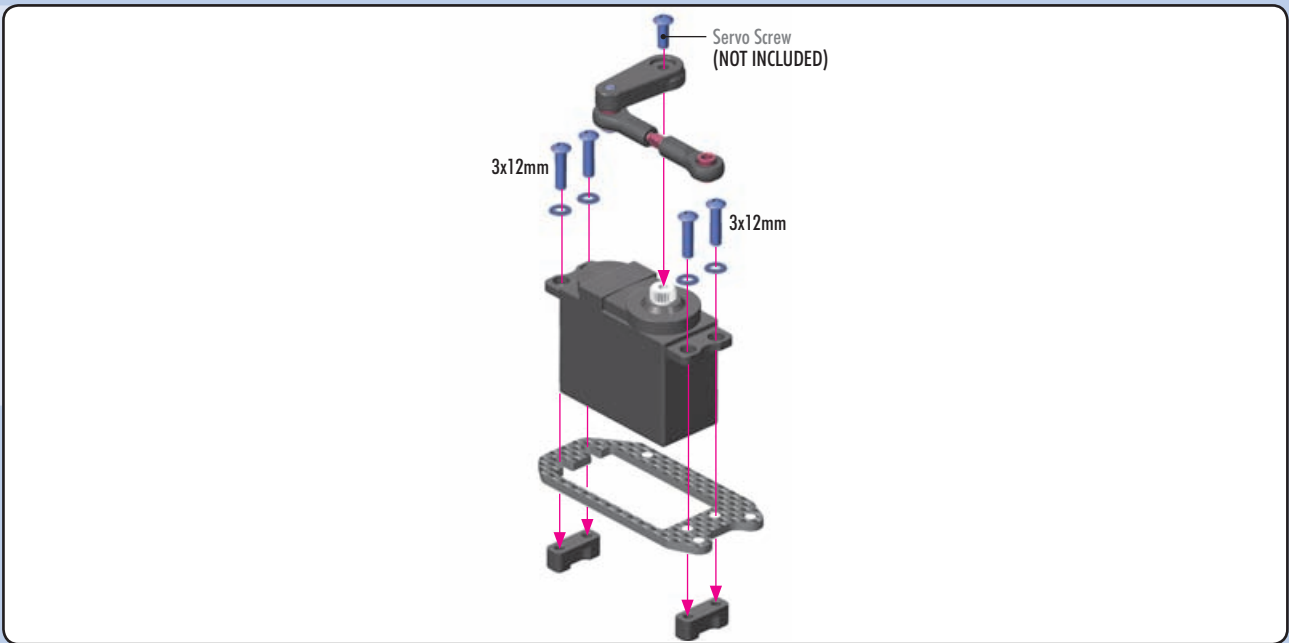
NOTE ORIENTATION

ALU SERVO HORNS		
#293501	23T	OPTION
#293502	24T	OPTION
#293503	25T	OPTION

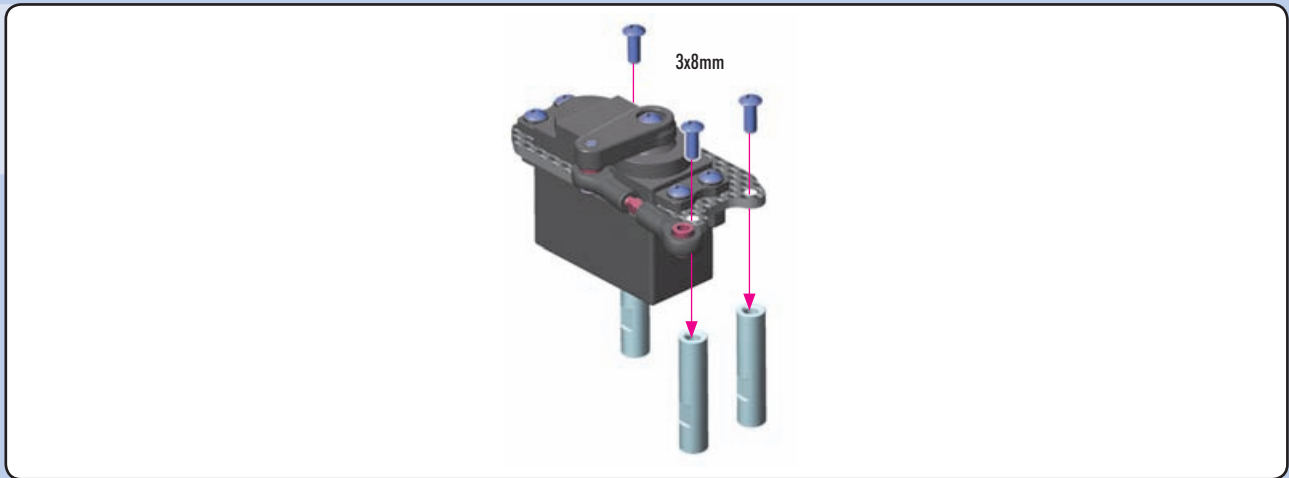
CLAMP ALU SERVO HORNS		
#293407	23T	OPTION
#293408	24T	OPTION
#293409	25T	OPTION

# 10. RADIO CASE

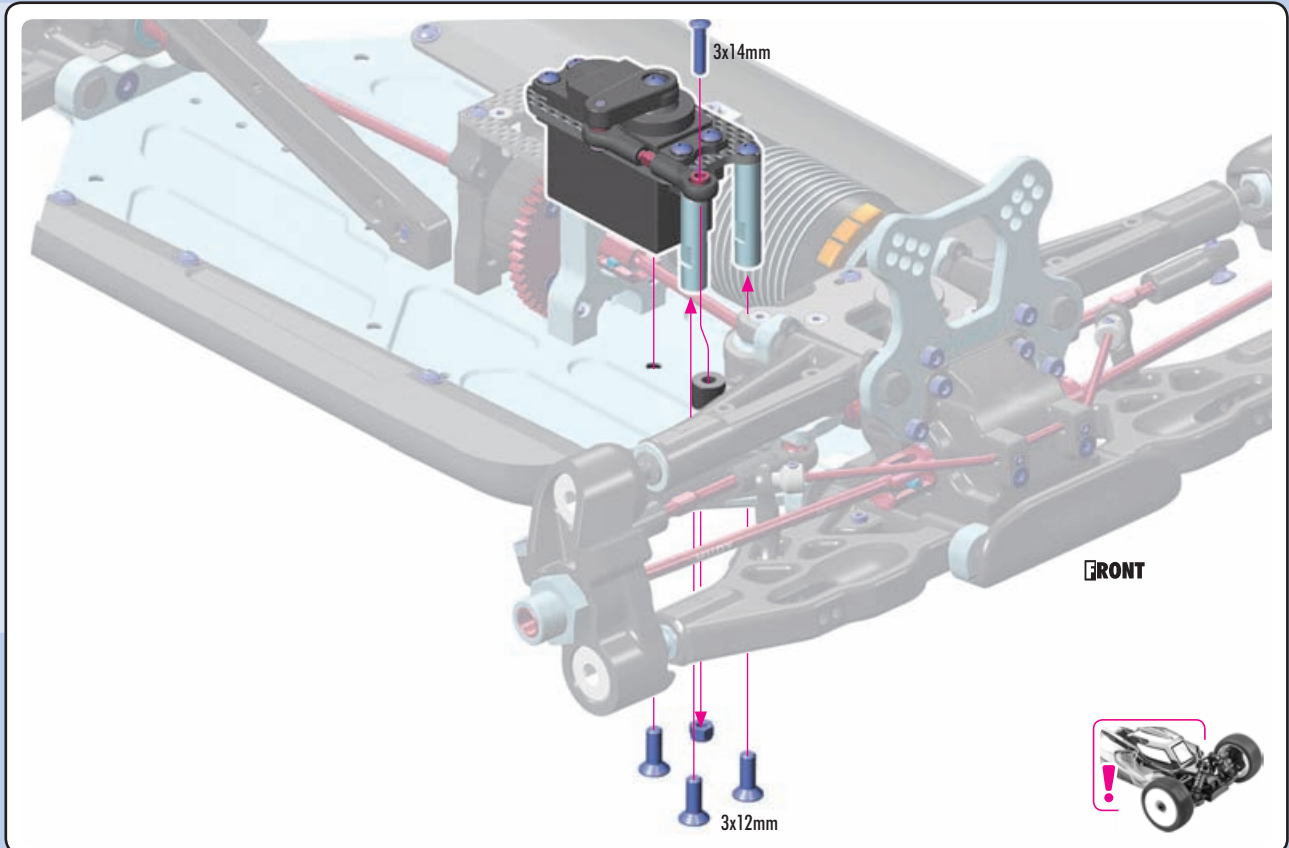
-  4x 902312  
SH M3x12
-  4x 961032  
S3.2



-  3x 902308  
SH M3x8



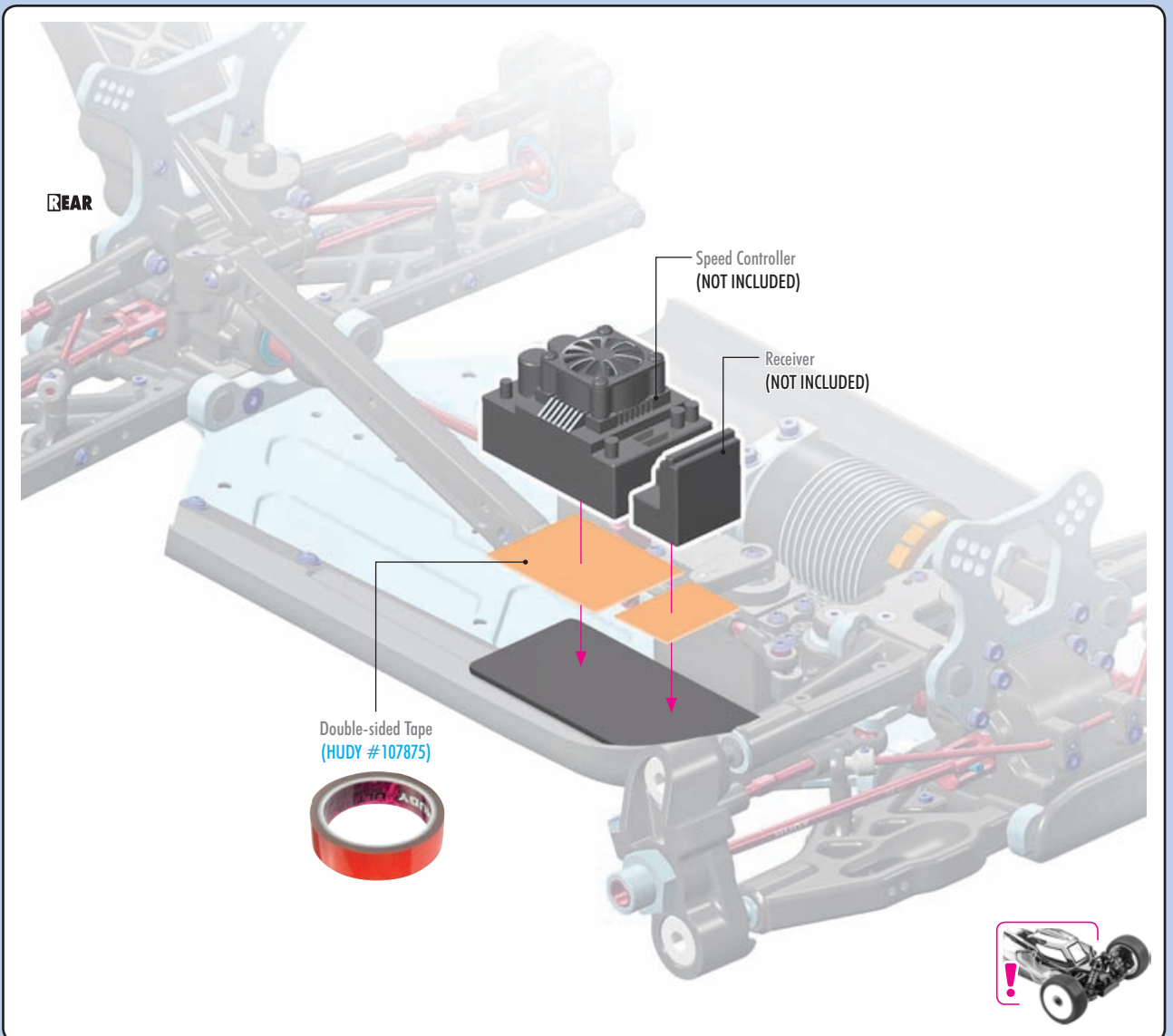
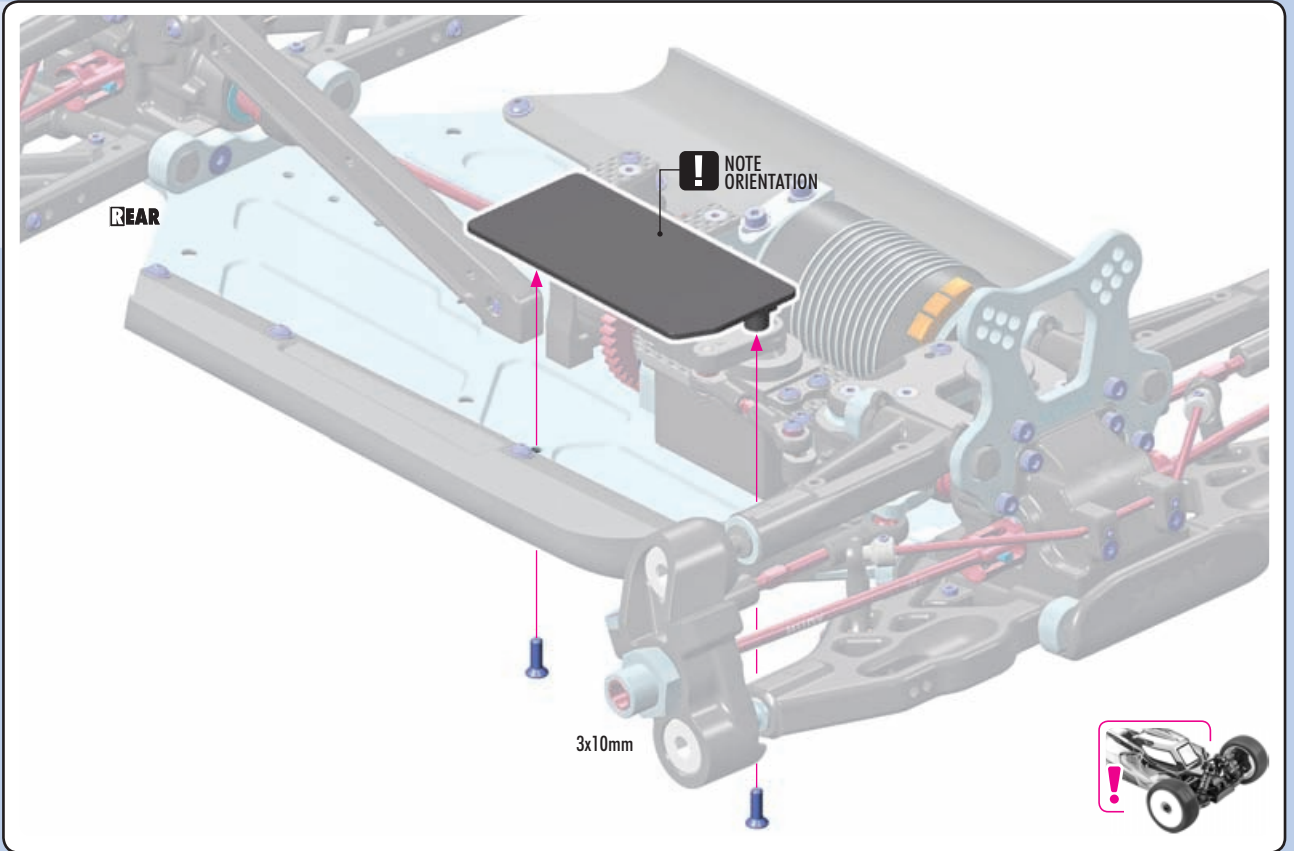
-  1x 902314  
SH M3x14
-  3x 903412  
SFH M4x12
-  1x 960030  
N M3



# 10. RADIO CASE

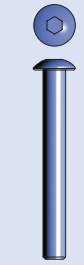


2x 903310  
SFH M3x10

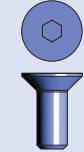


## ALTERNATIVE 1

CONFIGURATION FOR STANDARD BATTERY PACK  
(INITIAL SETTING)



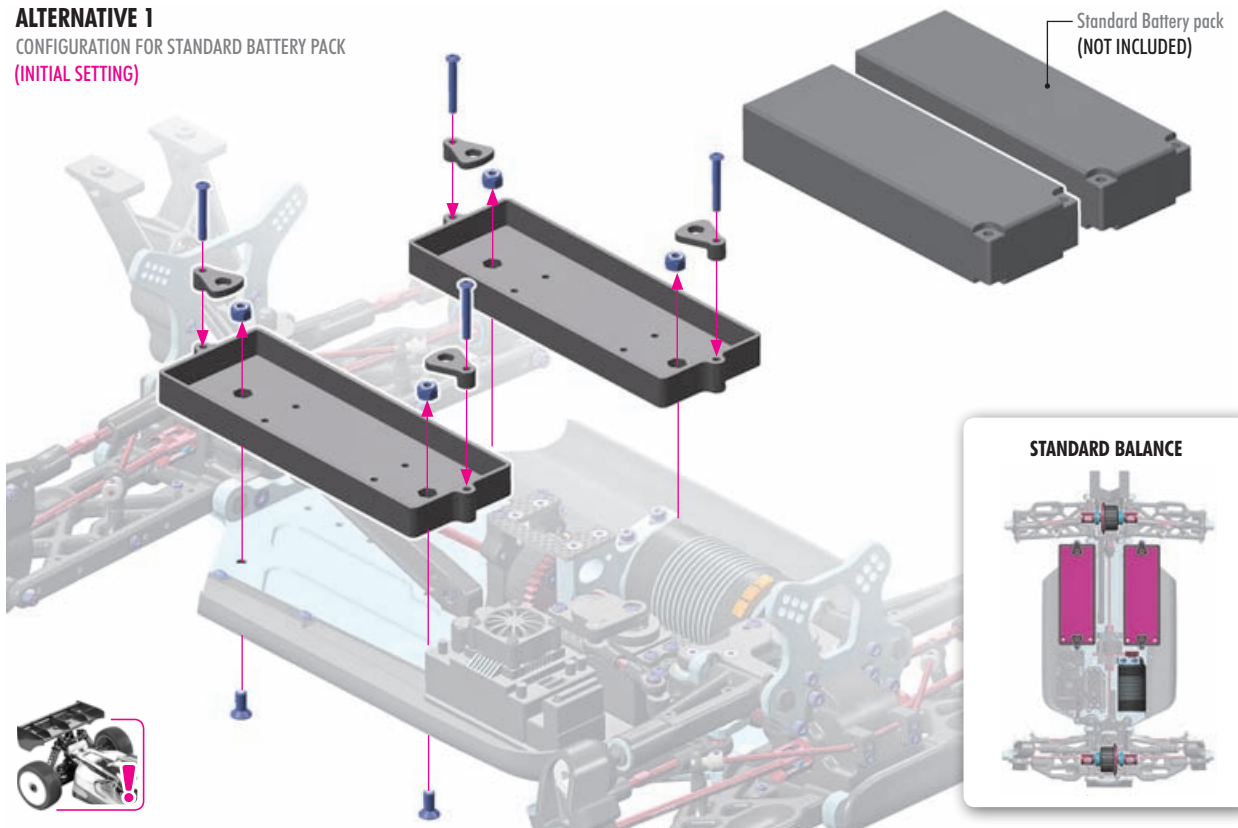
4x 902325  
SH M3x25



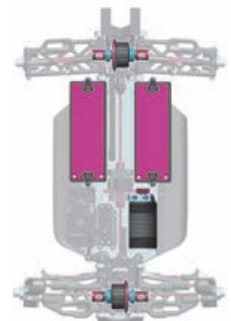
4x 903410  
SFH M4x10



4x 960040  
N M4

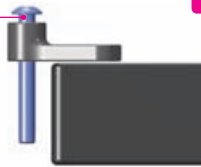


### STANDARD BALANCE



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

ORIENTATION FOR  
LOW BATTERY  
PACK



ORIENTATION FOR  
STANDARD BATTERY  
PACK

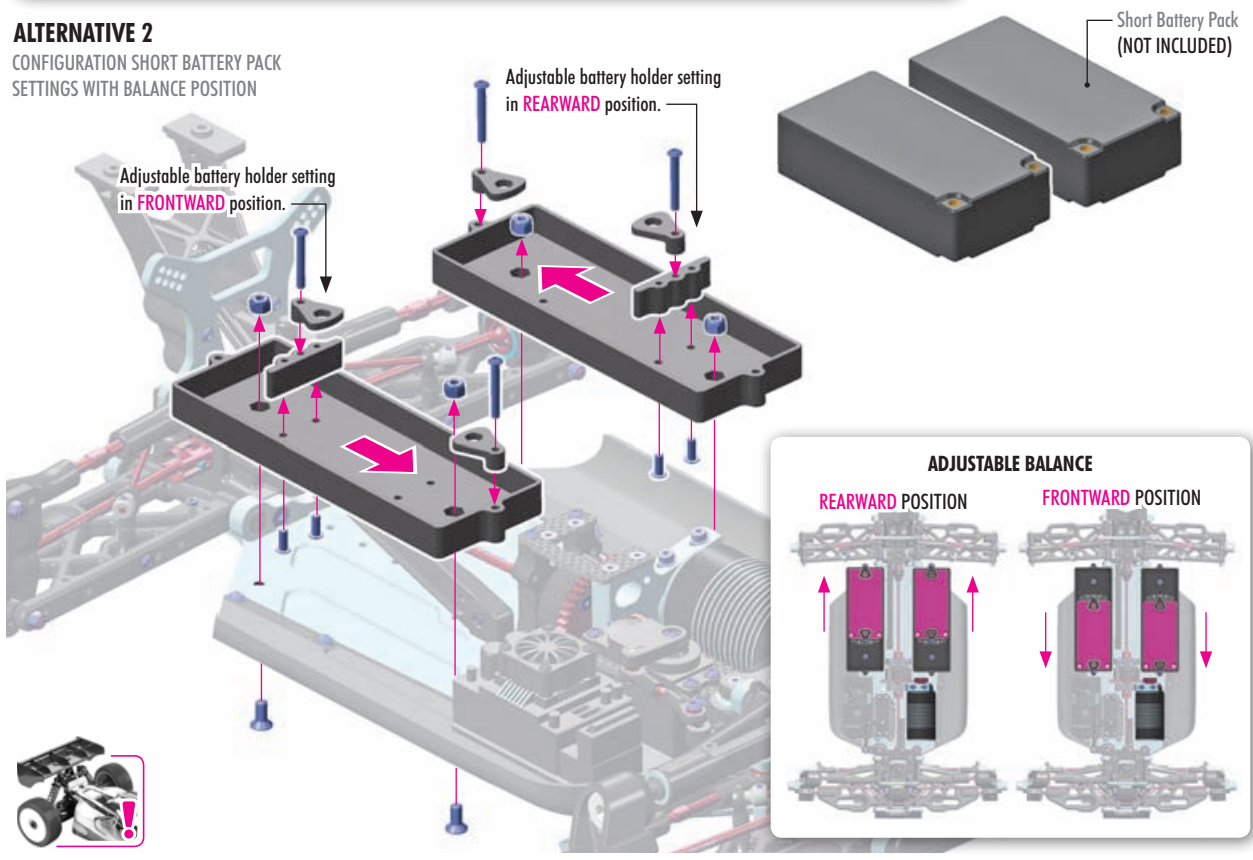


HEIGHT ADJUSTMENT  
1 turn = 0.5mm



## ALTERNATIVE 2

CONFIGURATION SHORT BATTERY PACK  
SETTINGS WITH BALANCE POSITION



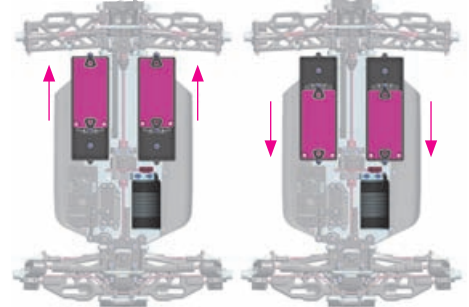
Adjustable battery holder setting  
in **FRONTWARD** position.

Adjustable battery holder setting  
in **REARWARD** position.

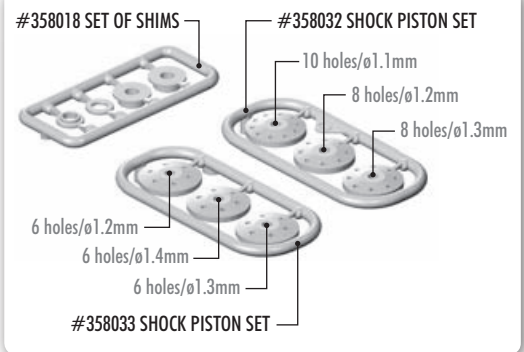
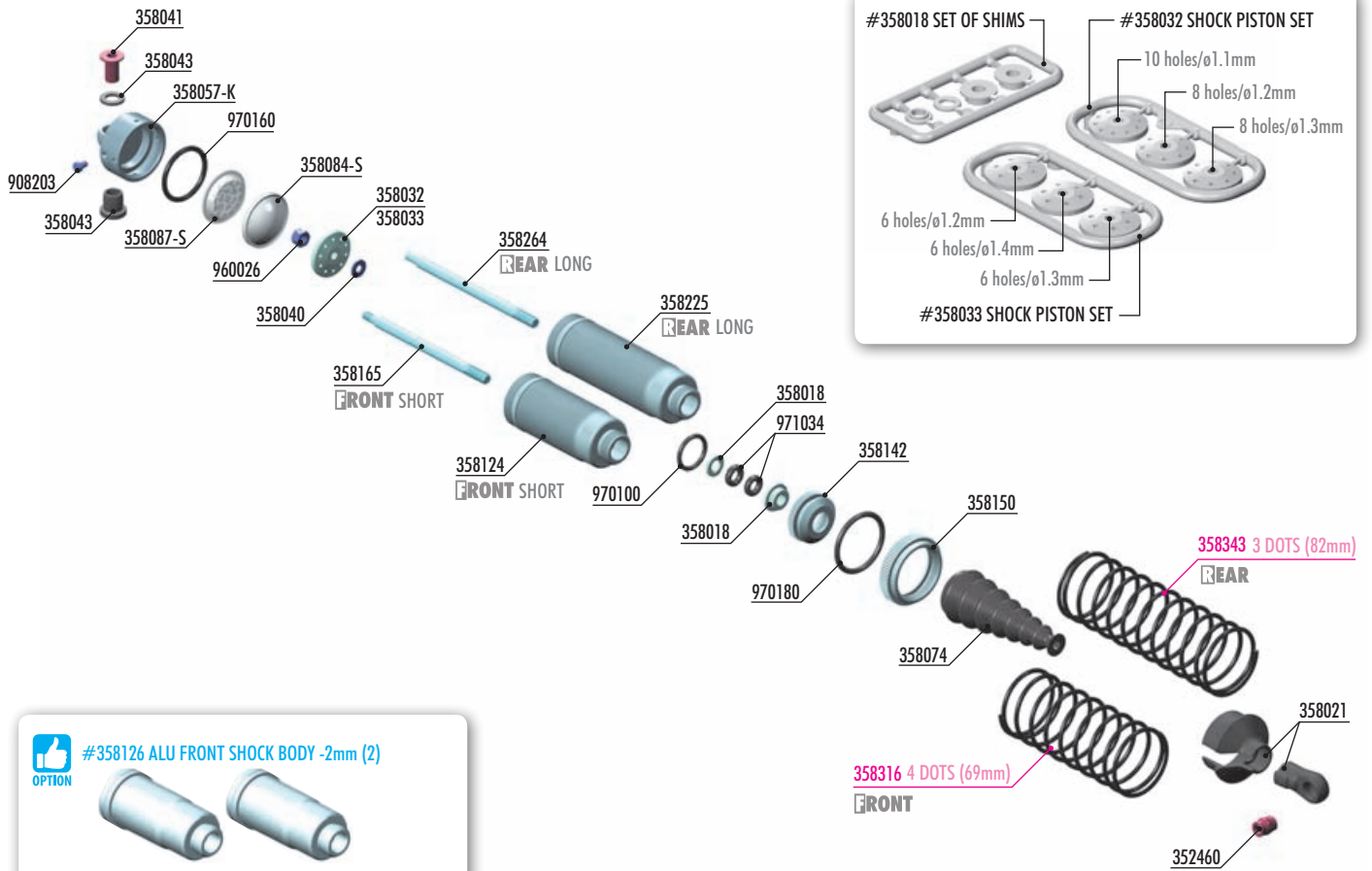
### ADJUSTABLE BALANCE

REARWARD POSITION

FRONTWARD POSITION



# 11. SHOCK ABSORBERS



**OPTION** #358126 ALU FRONT SHOCK BODY -2mm (2)



**OPTION** #358164 FRONT SHOCK SHAFT 59mm (2)  
#358265 REAR SHOCK SHAFT 71.5mm (2)



**OPTION** SHOCK RUBBER MEMBRANE (4)

#	TYPE	SOFT	INCLUDED
#358084-S	RIBBED	SOFT	INCLUDED
#358087-S	CELL	SOFT	INCLUDED
#358087-M	CELL	MEDIUM	OPTION



**OPTION** #358027 PISTON 5-HOLE (1.5mm) & 2-HOLE (1.0mm) (4)  
#358028 PISTON 6-HOLE (1.3mm) & 2-HOLE (1.1mm) (4)  
#308029 PISTON 6-HOLE (1.4mm) & 2-HOLE (1.1mm) (4)  
#358030 PISTON 8-HOLE (1.2mm) & 2-HOLE (1.2mm) (4)  
#358031 PISTON 8-HOLE (1.3mm) & 2-HOLE (1.2mm) (4)



**OPTION** SHOCK SPRINGS

#	C	DOTS	LENGTH	LOCATION	STATUS
#358315	C=0.77-0.80	3 DOTS	69mm	FRONT	OPTION
#358316	C=0.80-0.83	4 DOTS	69mm	FRONT	INCLUDED
#358317	C=0.83-0.86	5 DOTS	69mm	FRONT	OPTION
#358334	C=0.66-0.68	2 DOTS	85mm	REAR	OPTION
#358335	C=0.68-0.70	3 DOTS	85mm	REAR	OPTION
#358343	C=0.68-0.70	3 DOTS	82mm	REAR	INCLUDED
#358344	C=0.70-0.73	4 DOTS	82mm	REAR	OPTION

**OPTION** #358107 XB8 FRONT SHOCK ABSORBERS ZERO REBOUND SET (2)  
#358207 XB8 REAR SHOCK ABSORBERS ZERO REBOUND SET (2)



**OPTION** #104005 HUDY AIR VAC - VACUUM PUMP - 1/8 OFF-ROAD



## BAGS

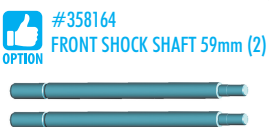
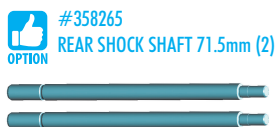
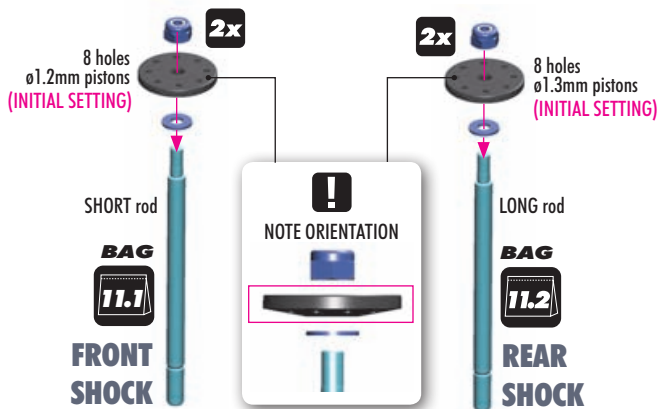


- 352460 PIVOT BALL 5.8 - V3 (10)
- 358018 COMPOSITE SET OF SHIMS FOR SHOCKS - V2 (2)
- 358021 COMPOSITE SHOCK PARTS WITH KEYED BALL JOINTS
- 358032 SHOCK PISTON SET 8-HOLE (1.2; 1.3) 10-H. (1.1mm) - DELRIN - V3
- 358033 COMPOSITE SHOCK 6-HOLE PISTON SET (1.2; 1.3; 1.4mm) - DELRIN - V3
- 358040 HARDENED SHOCK SHIMS (4)
- 358041 STEEL SHOCK BUSHING (2)
- 358043 COMPOSITE SHOCK BUSHING & SHIM (2+2)
- 358057-K MULTI ADJ. 3-IN-1 ALU SHOCK CAP - SWISS 7075 T6 (2)
- 358074 FOLDING SHOCK BOOT (4)
- 358084-S SHOCK RUBBER MEMBRANE BOTTOM RIBBED - SOFT (4)
- 358087-S SHOCK RUBBER MEMBRANE CELL - SOFT (4)
- 358124 ALU FRONT SHOCK BODY - HARD COATED - V2 (2)
- 358142 ALU SHOCK BODY NUT FOR SHOCK BOOT (2)

- 358150 ALU SHOCK BODY ADJ. NUT (2)
- 358165 FRONT SHOCK SHAFT 61mm (2)
- 358225 ALU REAR SHOCK BODY - HARD COATED - V2 (2)
- 358264 REAR SHOCK SHAFT 67.5mm (2)
- 908203 HEX SCREW SOCKET HEAD CAP M2x3 (10)
- 960026 NUT M2.5 - SHORT (10)
- 970100 O-RING 10 x 1.5 (10)
- 970160 O-RING 16 x 2.0 (10)
- 970180 O-RING 18 x 1.8 (10)
- 971034 SILICONE O-RING 3.5x2 (10)

- 358316 XRAY FRONT SPRING 69mm - 4 DOTS (2)
- 358343 XRAY REAR SPRING 82mm - 3 DOTS (2)

# 11. SHOCK ABSORBERS



**DO NOT OVERTIGHTEN**  
The self-locking nut is overtightened, causing distortion of the piston. This will negatively affect the free movement of the piston in the shock body.



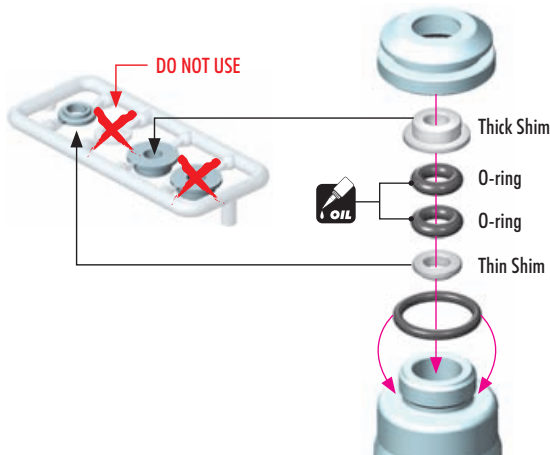
**TIGHTEN GENTLY**  
The self-locking nut is gently tightened. The piston remains undistorted and fits inside the shock body perfectly, ensuring smooth movement of the piston.

**SET-UP BOOK**  
SHOCK DAMPING  
SHOCK PISTONS

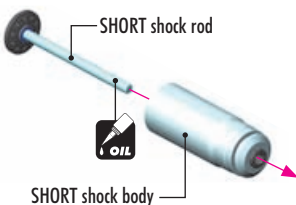


- 2x FRONT SHOCKS (SHORT)
- 2x REAR SHOCKS (LONG)

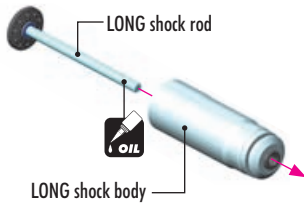
There are two different thickness shims, use them as shown. Use the same procedure when building both front and rear shocks.



- 2x FRONT SHOCKS

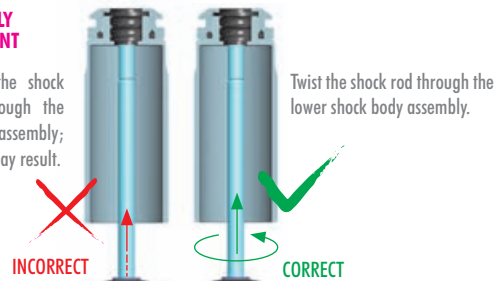


- 2x REAR SHOCKS

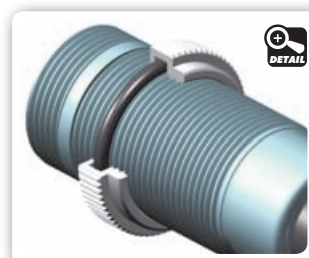
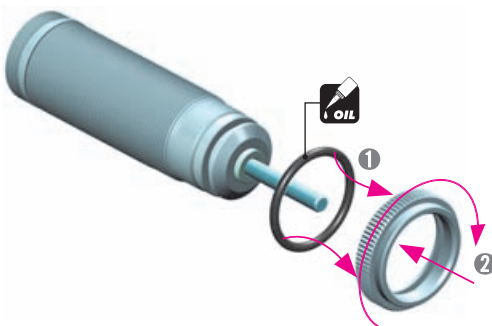


**EXTREMELY IMPORTANT**

DO NOT push the shock rod straight through the lower shock body assembly; O-ring damage may result.



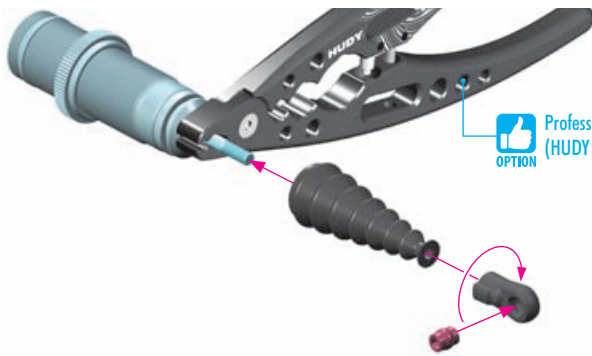
- 2x FRONT SHOCKS
- 2x REAR SHOCKS



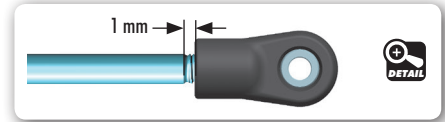
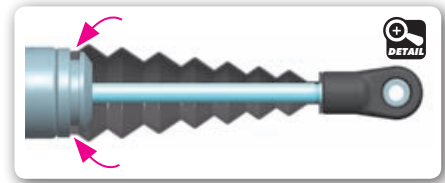
# 11. SHOCK ABSORBERS

**2x** FRONT SHOCKS

**2x** REAR SHOCKS



**OPTION** Professional Multi-Tool (HUDY #183011).



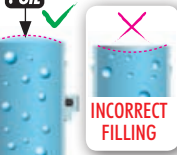
**SHOCK TYPE: CELL MEMBRANE**

for LOW GRIP

Follow the steps below to set the shock rebound to the default setting of 0%.

Oil level after filling

**CORRECT FILLING**



**INCORRECT FILLING**



FRONT (SHORT)  
Oil 600cSt  
REAR (LONG)  
Oil 550cSt

**1** Extend the shock shaft completely. Fill the shock body with the shock oil.

**2** Move the shock shaft up and down a few times to release the air bubbles trapped beneath the piston.

**3** Orient the filled shock vertically for several minutes with the shock shaft fully extended. The remaining air bubbles will release.

**4x** 908203 SCH M2x3



Cell Membrane



**4** Install the CELL shock membrane and screw into the groove in the upper shock cap.

**SHOCK CAP HALF 50% TIGHTEN**



**5** Gently place the shock cap assembly onto the filled shock body. **2** Slowly compress the shock shaft towards the top of the shock body and hold in this position. Excess oil will be expelled from the shock.

**SHOCK CAP 100% TIGHTEN FULLY**



**6** While still holding the shock shaft in position, fully tighten the shock cap.

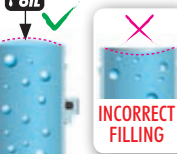
**SHOCK TYPE: RIBBED MEMBRANE**

for BUMPY - HIGH GRIP

Follow the steps below to set the shock rebound to the default setting of 0%.

Oil level after filling

**CORRECT FILLING**



**INCORRECT FILLING**



FRONT (SHORT)  
Oil 600cSt  
REAR (LONG)  
Oil 550cSt

**1** Extend the shock shaft completely. Fill the shock body with the shock oil.

**2** Move the shock shaft up and down a few times to release the air bubbles trapped beneath the piston.

**3** Orient the filled shock vertically for several minutes with the shock shaft fully extended. The remaining air bubbles will release.

**4x** 908203 SCH M2x3

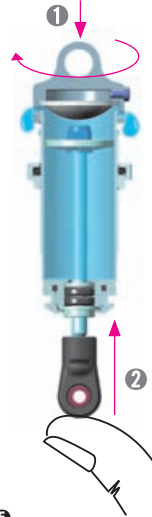


Ribbed Membrane



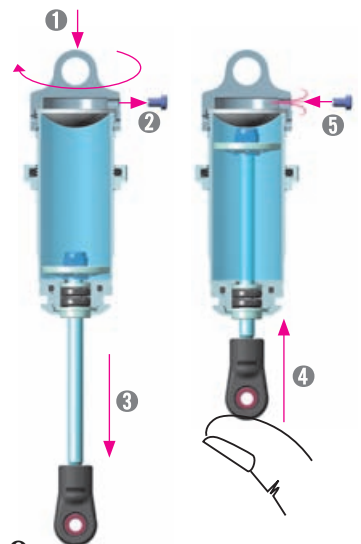
**4** Install the RIBBED shock membrane and screw into the groove in the upper shock cap.

**SHOCK CAP HALF 50% TIGHTEN**



**5** Gently place the shock cap assembly onto the filled shock body. **2** Slowly compress the shock shaft towards the top of the shock body and hold in this position. Excess oil will be expelled from the shock.

**SHOCK CAP 100% TIGHTEN FULLY**



**6** Fully tighten the shock cap. **2** Loosen the cap screw. **3** Extend the shock shaft. **4** Slowly compress shock shaft completely into shock body, forcing air from the cap. **5** While still holding the shock shaft in compressed position, re-tighten screw to seal cap.



# 11. SHOCK ABSORBERS

SHOCK TYPE: **EMULSION**

for DEFAULT STANDARD

Follow the steps below to set the shock rebound to the default setting of 0%.

**Oil level after filling**  
**CORRECT FILLING**

**INCORRECT FILLING**

**FRONT (SHORT)**  
Oil 600cSt

**REAR (LONG)**  
Oil 550cSt

**1**

Extend the shock shaft completely. Fill the shock body with the shock oil.

**2**

Move the shock shaft up and down a few times to release the air bubbles trapped beneath the piston.

3~5x UP & DOWN

**3**

Orient the filled shock vertically for several minutes with the shock shaft fully extended. The remaining air bubbles will release.

**4**

4x 970160 0 16x2

O-ring

Install o-ring in the cap.

**5**

Fill the shock cap with oil up to the o-ring.

**6**

SHOCK CAP  
100% TIGHTEN FULLY

Carefully place the shock cap onto the oil filled shock body and tighten the cap. Some oil may spill from the shock during this process.

**7**

Slowly compress the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.

GENTLY PUSH

**8**

With the shock shaft still compressed, tighten the screw.

4x 908203 SCH M2.3

**9**

6x push the shaft up and down.

20x UP & DOWN

**10**

Slowly push the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.

GENTLY PUSH

**11**

Gently push the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.

GENTLY PUSH

**12**

Tighten the screw.

**2x REAR SHOCKS**

LONG rear shock

LONG spring

**REAR shock PRELOAD**

approx. 2mm

**2x FRONT SHOCKS**

SHORT front shock

SHORT spring

**FRONT shock PRELOAD**

approx. 2mm

**FRONT & REAR SHOCKS**

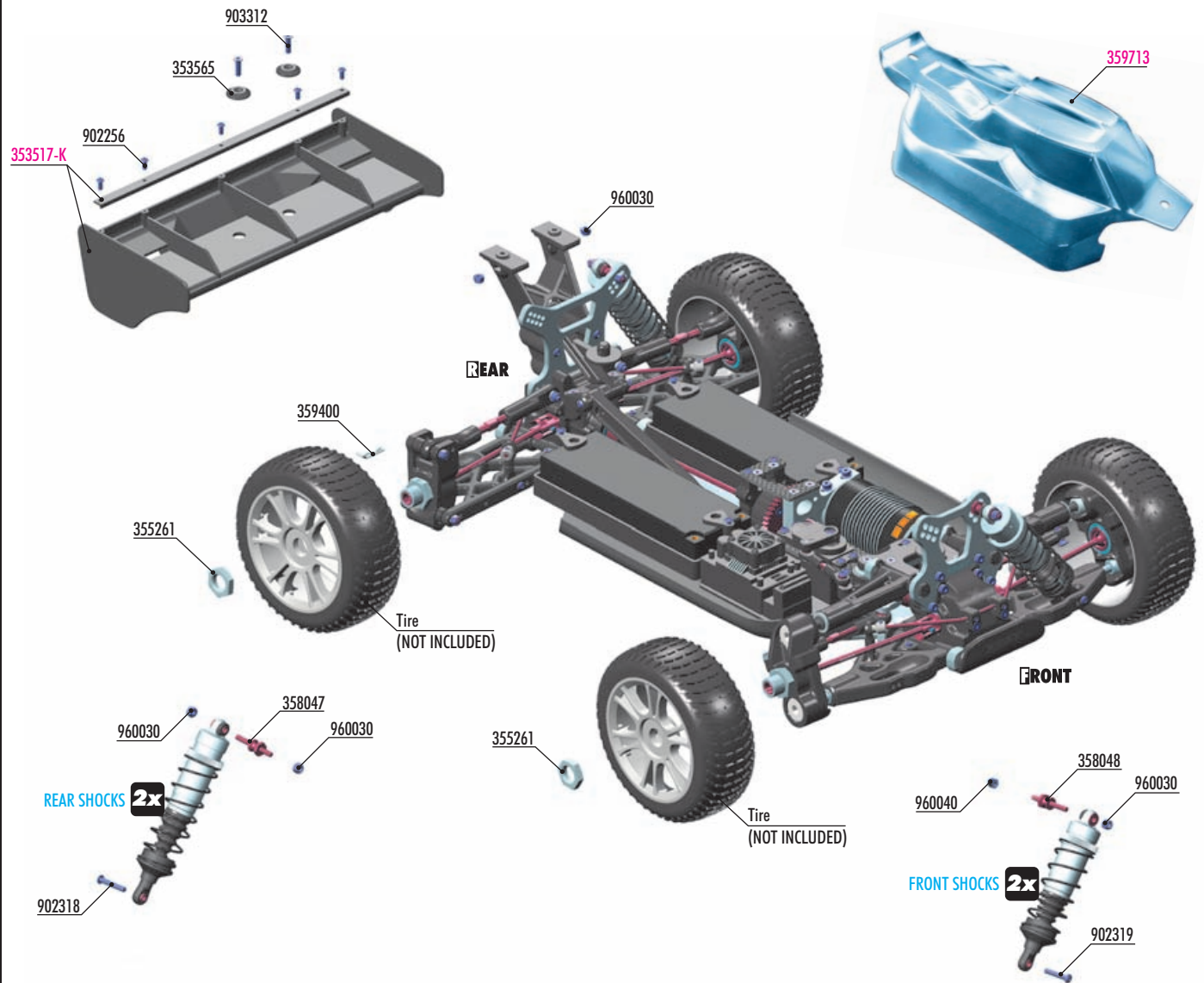
**IMPORTANT!**

Both rear shocks must be the same overall length.

**IMPORTANT!**


Both front shocks must be the same overall length.

# 12. FINAL ASSEMBLY




**OPTION** **XRAY STARBURST WHEELS**

#359808	Pink	OPTION
#359809	Yellow	OPTION



**OPTION** **WHEEL NUTS**

#355261	OPEN RIBBED	INCLUDED
#293560	COVERED RIBBED	OPTION
#355265	COVERED RIBBED	OPTION



**OPTION** **HUDY REAR WING SHIM**

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




**OPTION** **WINGS**

#353517-K	BLACK	INCLUDED
#353517	WHITE	OPTION
#353517-Y	YELLOW	OPTION
#353512	LEXAN®	OPTION



**OPTION** **XB8 BODIES**

#359712	HIGH-SPEED LIGHTWEIGHT	OPTION
#359713	"EAZY"	INCLUDED
#359714	"EAZY" LIGHTWEIGHT	OPTION




- 353565 COMPOSITE REAR WING SHIM - BLACK (2)
- 355261 WHEEL NUT - RIBBED - HARD COATED (2)
- 358047 STEEL SCREW SHOCK PIVOT BALL WITH HEX (2)
- 358048 STEEL M4/M3 UPPER SHOCK MOUNT STAND OFF WITH HEX (2)
- 359400 BODY CLIP (10)
- 902256 HEX SCREW SH M2.5x6 (10)
- 902318 HEX SCREW SH M3x18 (10)
- 902319 HEX SCREW SH M3x18 - LEFT THREAD (10)

- 903312 HEX SCREW SFH M3x12 (10)
- 960030 NUT M3 (10)
- 960040 NUT M4 (10)
- 353517-K WICKERBILL REAR WING - BLACK
- 359713 XRAY XB8 / XB8E "EAZY" BODY

# 12. FINAL ASSEMBLY

### FRONT SHOCKS (SHORT)

**902318**  
SH M3x18  
1x

**902319**  
SH M3x18  
LEFT thread  
1x

**2x 960030**  
N M3

**2x 960040**  
N M4

On the front right arm use the **SILVER M3x18** screw - this screw has **LEFT THREAD**.

**Shock cap**  
NOTE ORIENTATION

**INITIAL SETTING**

### REAR SHOCKS (LONG)

**902318**  
M3x18  
1x

**902319**  
SH M3x18  
LEFT thread  
1x

**2x 960030**  
N M3

On the rear left arm use the **SILVER M3x18** screw - this screw has **LEFT THREAD**.

**Shock cap**  
NOTE ORIENTATION

**INITIAL SETTING**

# 12. FINAL ASSEMBLY

- 1 Before cutting and making holes on the body, put the unpainted body on the chassis to confirm the mounting position and location for holes and cutouts.
- 2 Before painting, wash the inside of the body with mild detergent, and then rinse and dry thoroughly.
- 3 Mask all windows.
- 4 Apply paint masks as appropriate.

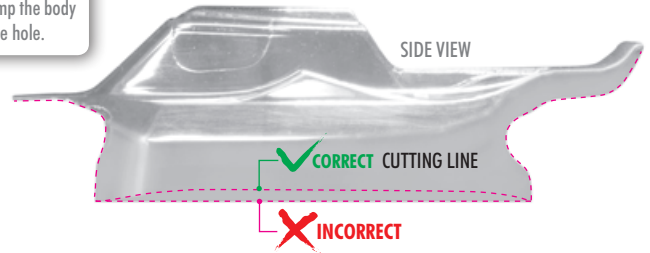
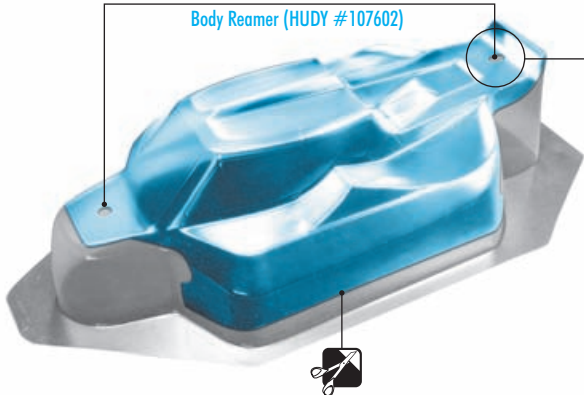


Be sure to make this rear body mount hole oval so in the case of chassis flex after a big jump the body mount will not tear up the hole.

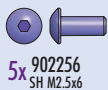
**TIP** To reinforce the body or to fix broken body use #106281 HUDY BODY FIX.



Body Reamer (HUDY #107602)



XB8 BODIES		
#359712	HIGH-SPEED LIGHTWEIGHT	OPTION
#359713	"EAZY"	INCLUDED
#359714	"EAZY" LIGHTWEIGHT	OPTION



5x 902256 SH M2.5x6

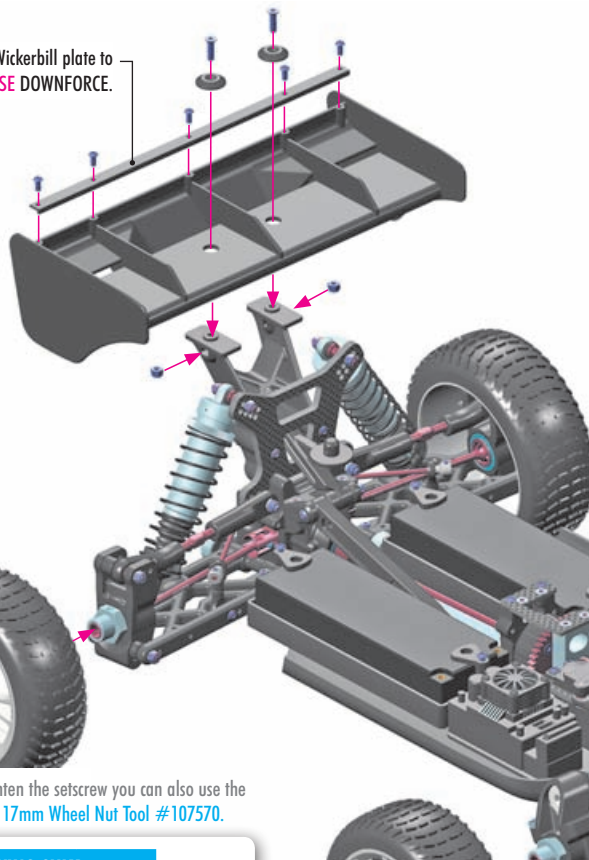


2x 903312 SFH M3x12



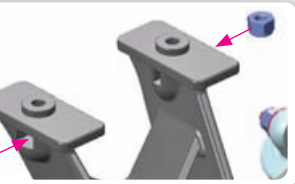
2x 960030 N M3

Wickerbill plate to INCREASE DOWNFORCE.



#107601 HUDY Reamer for Body 0-9mm + Cover - Small  
#107602 HUDY Reamer for Body 0-18mm + Cover - Large

Premarked holes to REDUCE DOWNFORCE.



WINGS		
#353517-K	BLACK	INCLUDED
#353517	WHITE	OPTION
#353517-Y	YELLOW	OPTION
#353512	LEXAN®	OPTION



**TIP** 4x To tighten the setscrew you can also use the HUDY 17mm Wheel Nut Tool #107570.



HUDY REAR WING SHIM		
#293561	SILVER	OPTION
#293561-O	ORANGE	OPTION
#293561-K	BLACK	OPTION
#353561	SILVER	OPTION



WHEEL NUTS		
#355261	OPEN RIBBED	INCLUDED
#293560	COVERED RIBBED	OPTION
#355265	COVERED RIBBED	OPTION

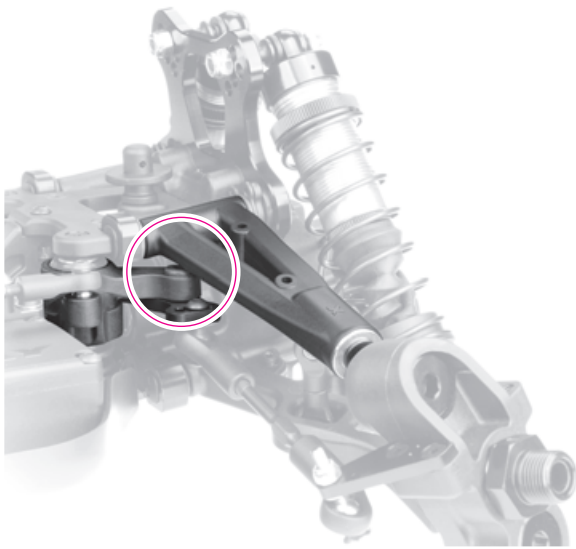


XRAY STARBURST WHEELS		
#359808	Pink	OPTION
#359809	Yellow	OPTION



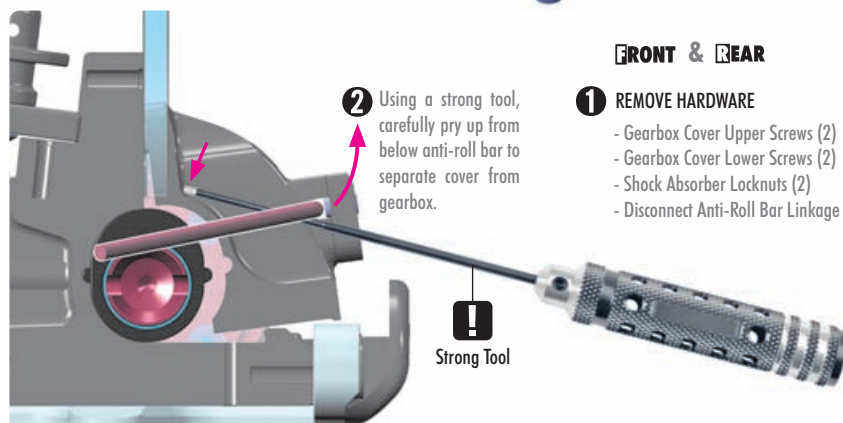
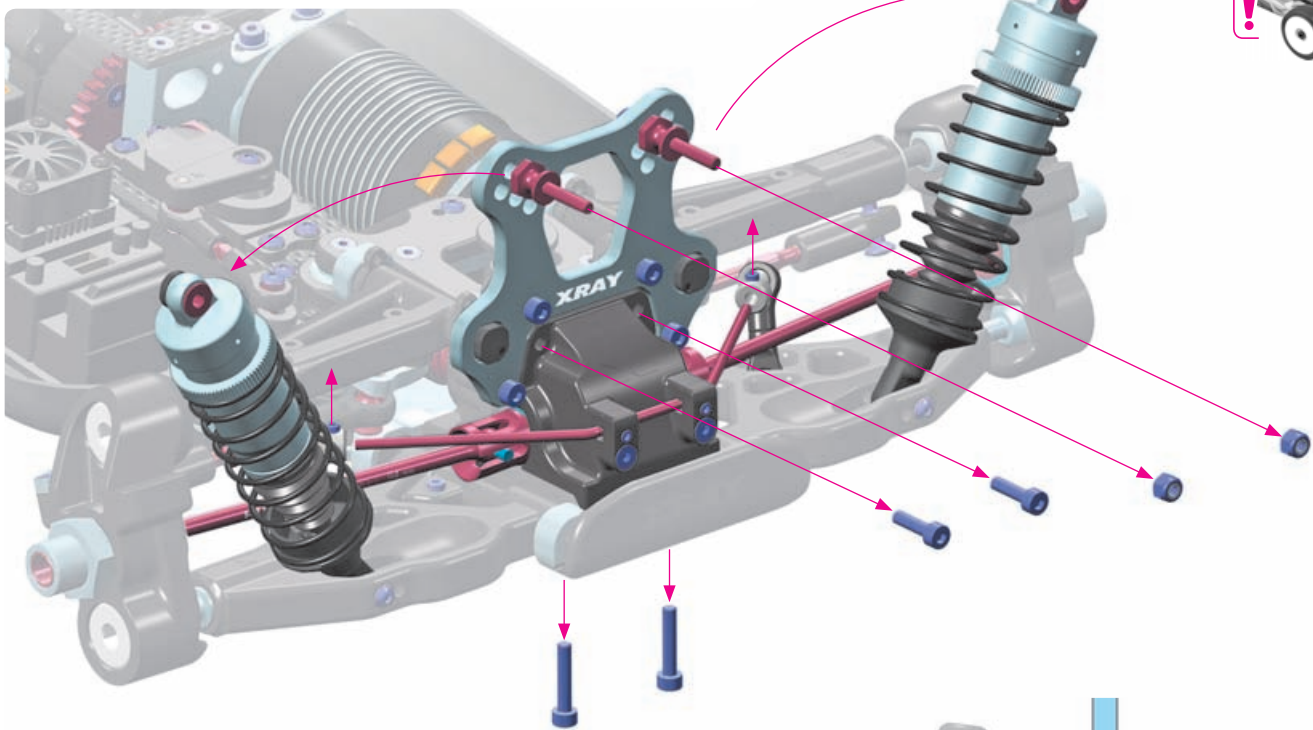
If more than 104-105mm front droop is used, certain set-up configurations may result in the upper arm contacting the steering bellcranks.

This will have limited impact on handling, but material can be removed from the bottom of the upper arm to avoid contact with the steering assembly if using additional droop.



## DIFF MAINTENANCE

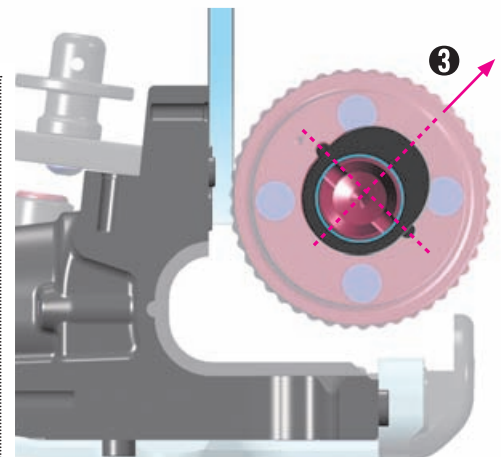
### REMOVING THE DIFFERENTIAL WHEN CAR IS ASSEMBLED



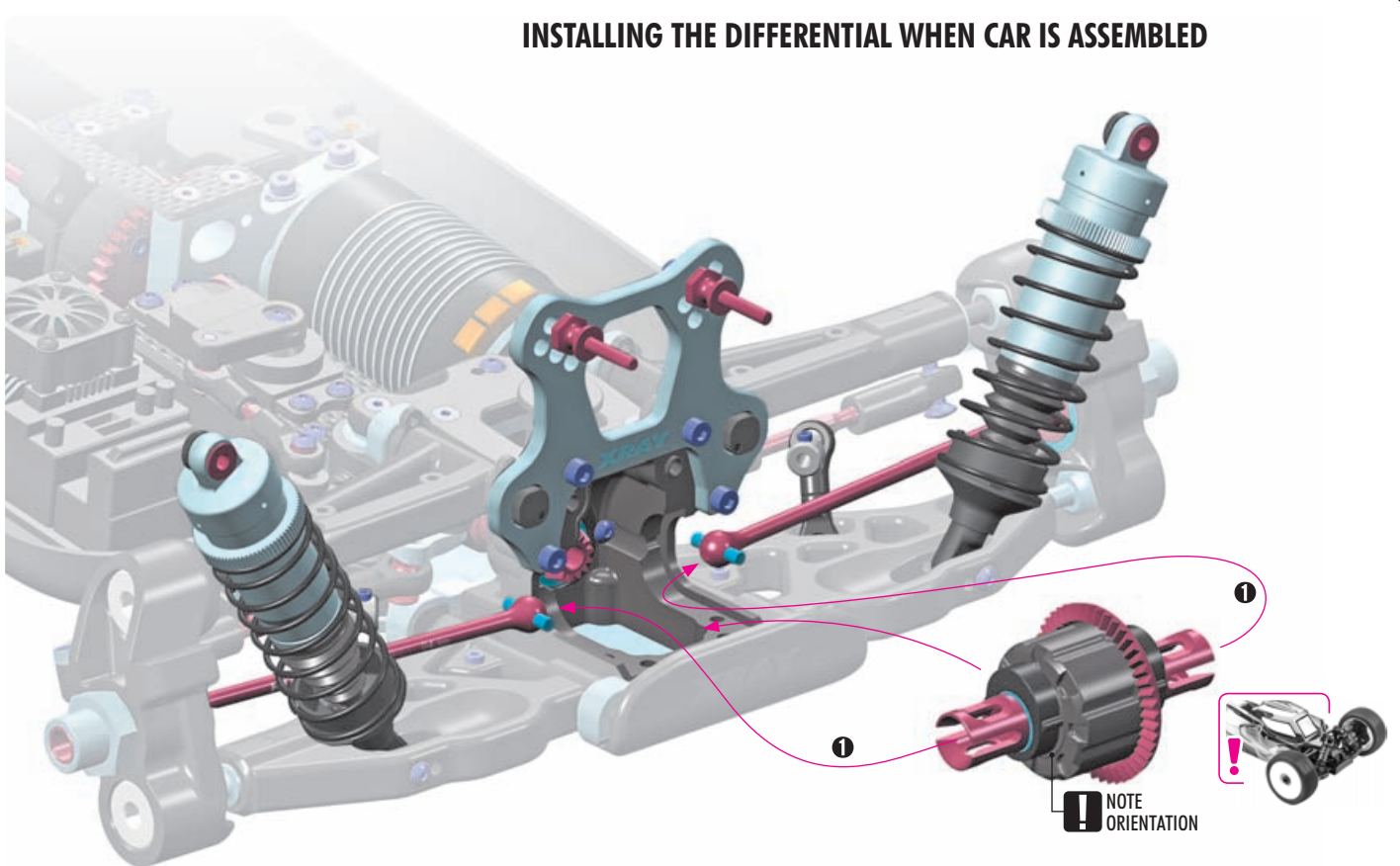
#### FRONT & REAR

#### 1 REMOVE HARDWARE

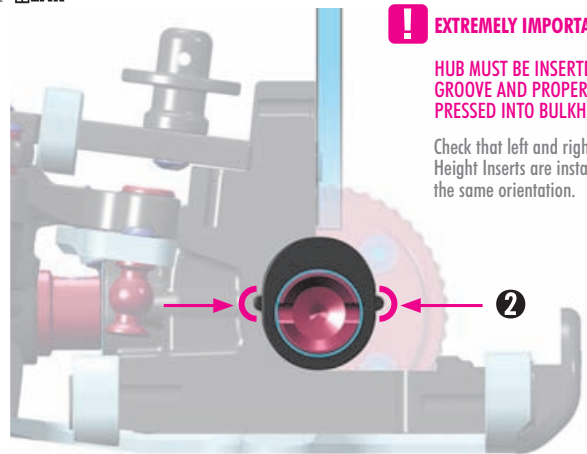
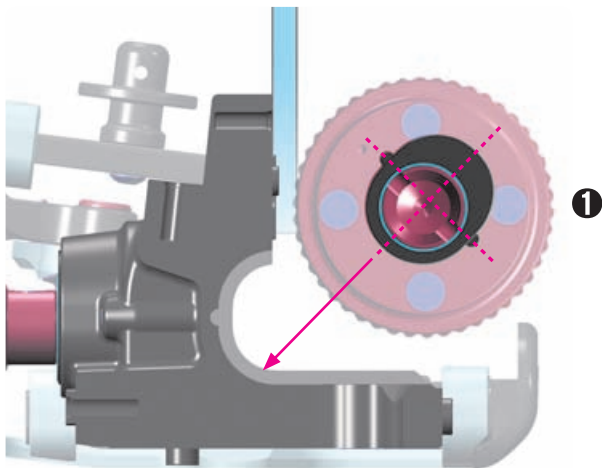
- Gearbox Cover Upper Screws (2)
- Gearbox Cover Lower Screws (2)
- Shock Absorber Locknuts (2)
- Disconnect Anti-Roll Bar Linkage



## INSTALLING THE DIFFERENTIAL WHEN CAR IS ASSEMBLED



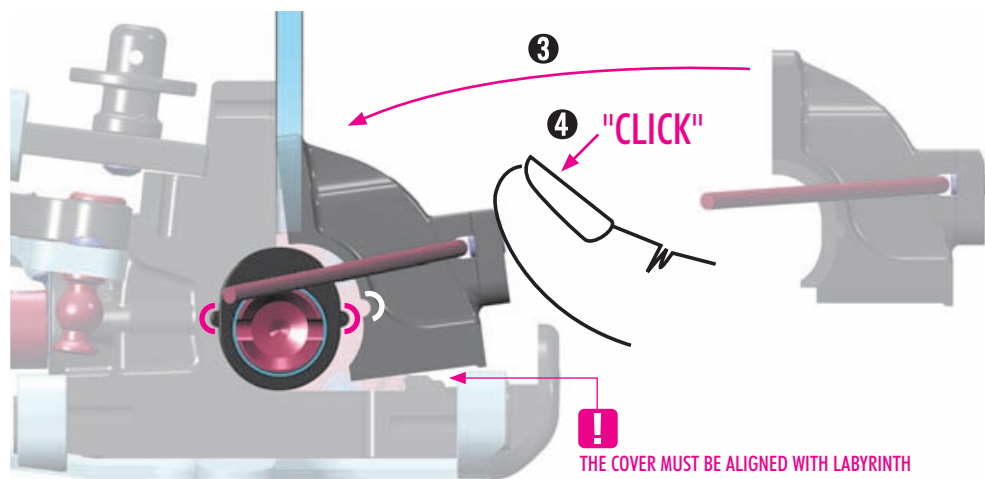
### FRONT & REAR



### EXTREMELY IMPORTANT

HUB MUST BE INSERTED IN GROOVE AND PROPERLY PRESSED INTO BULKHEAD.

Check that left and right Diff Height Inserts are installed in the same orientation.



### 5 RE-INSTALL HARDWARE

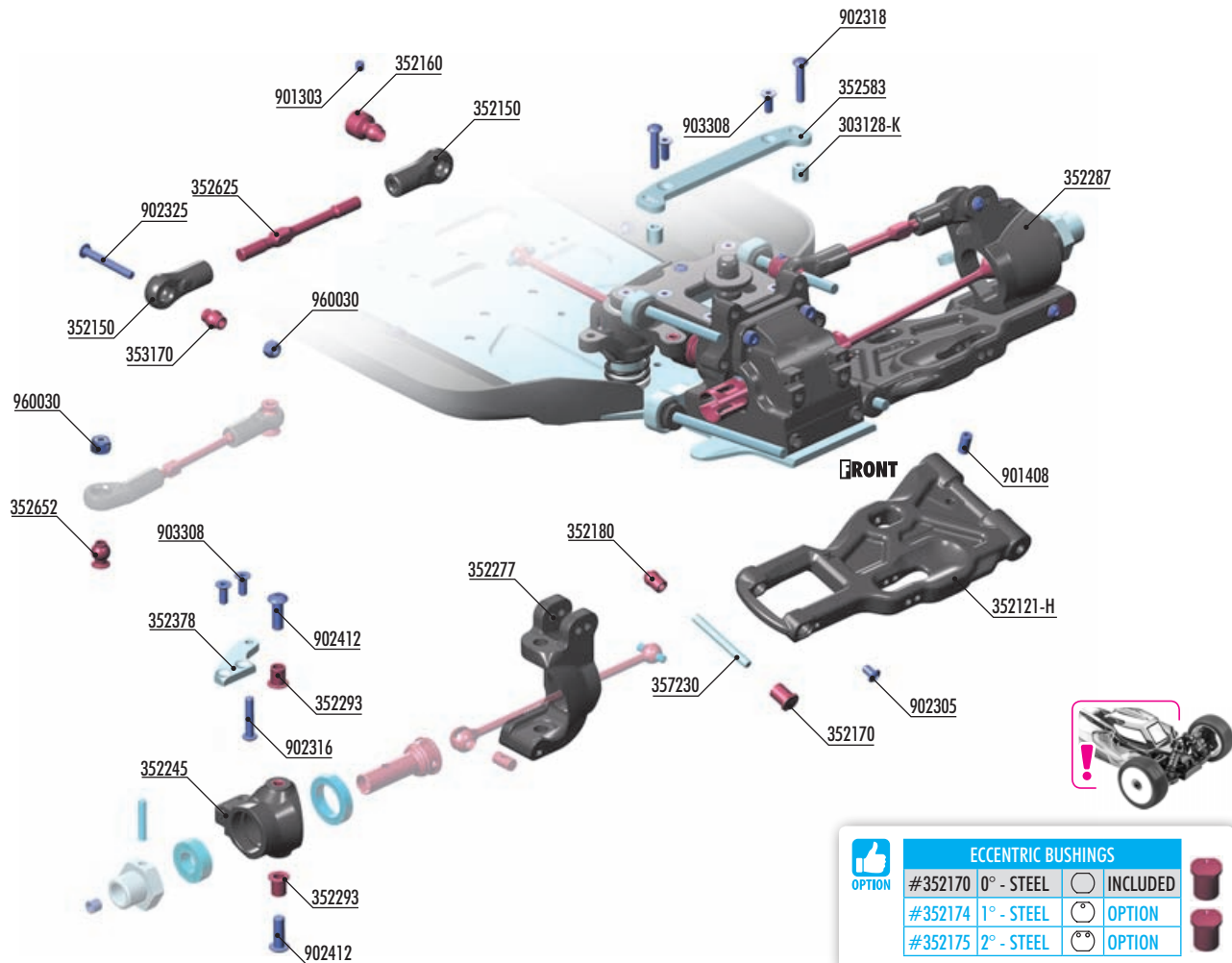
- Gearbox Cover Upper Screws (2)
- Gearbox Cover Lower Screws (2)
- Shock Absorber Locknuts (2)
- Reconnect Anti-Roll Bar Linkage

**!** THE COVER MUST BE ALIGNED WITH LABYRINTH GROOVE AND THEN PRESSED INTO PLACE

# FRONT C-HUB SUSPENSION



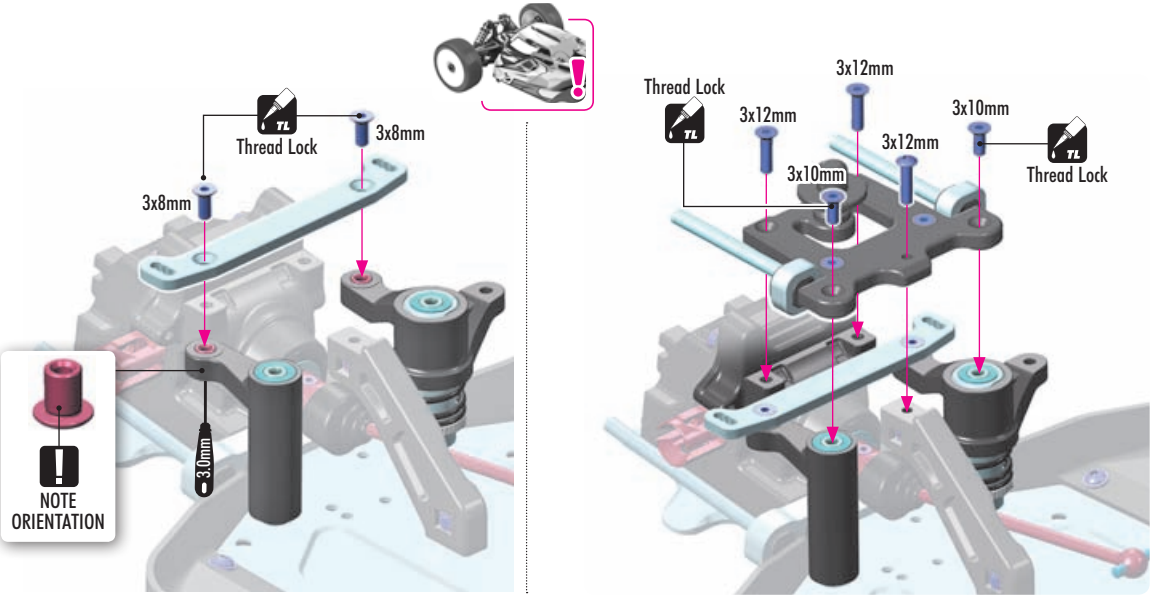
## #350910 FRONT C-HUB SUSPENSION - SET



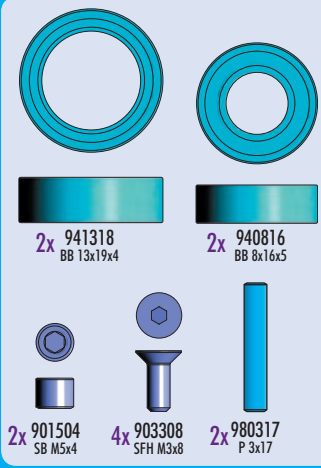
ECCENTRIC BUSHINGS			
	#352170	0° - STEEL	○ INCLUDED
	#352174	1° - STEEL	○ OPTION
	#352175	2° - STEEL	○ OPTION

- 303128-K ALU SHIM 3x6x6mm (10)
- 352121-H COMPOSITE FRONT LOWER SUSPENSION ARM - HARD
- 352150 FRONT UPPER ARM BALL JOINT (2)
- 352160 STEEL MOUNTING BALL 6.8mm (2)
- 352170 STEEL ECCENTRIC BUSHING 0° (2)
- 352180 BALL MOUNT (2)
- 352245 STEERING BLOCK
- 352277 COMPOSITE CASTER BLOCK 16° RIGHT
- 352287 COMPOSITE CASTER BLOCK 16° LEFT
- 352293 STEEL BUSHING FOR CASTER BLOCK (2)
- 352378 ALU STEERING PLATE - SWISS 7075 T6 (L+R)
- 352583 ALU STEERING PLATE - SWISS 7075 T6
- 352625 ADJ. TURNBUCKLE M5 L/R 46mm (2)
- 352652 BALL STUD 6.8mm (4)
- 353170 PIVOT BALL 6.8 (4)
- 357230 FRONT LOWER OUTER PIVOT PIN (2)
- 901303 HEX SCREW SB M3x3 (10)
- 901408 HEX SCREW SB M4x8 (10)
- 902305 HEX SCREW SH M3x5 (10)
- 902316 HEX SCREW SH M3x16 (10)
- 902318 HEX SCREW SH M3x18 (10)
- 902325 HEX SCREW SH M3x25 (10)
- 902412 HEX SCREW SH M4x12 (10)
- 903308 HEX SCREW SFH M3x8 (10)
- 960030 NUT M3 (10)

- 902312 SH M3x12 1x
- 903308 SFH M3x8 2x
- 903310 SFH M3x10 2x
- 903312 SFH M3x12 2x



# FRONT C-HUB SUSPENSION



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

**NOTE ORIENTATION** !

3x8mm

13x19x4

8x16x5

TL

**TIP** Use HUDY Ball-Bearing Grease for servicing:  
 #106220 - Standard  
 #106221 - Extra  
 #106222 - Premium

Graphite Grease (HUDY #106210)

**TIP** To tighten the setscrew you can also use the HUDY 17mm Wheel Nut Tool #107570.



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

4x12mm

Marked "R"

4x12mm

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

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

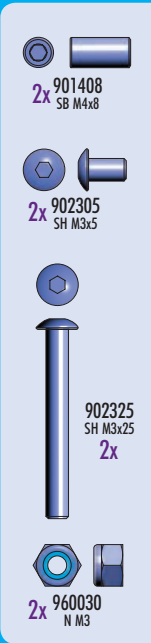
LEFT THREAD

RIGHT THREAD

21.5mm

LEFT

RIGHT



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

**NOTE ORIENTATION** !

3x25mm

4x8mm

**TIP** Press pivot ball into arm until it snaps into place.

**STEP 1 DETAIL**

**STEP 2 DETAIL**

**DOWNSTOP SETTING**

TOP

BOTTOM

0.0mm

ECCENTRIC BUSHINGS			
#352170	0° - STEEL		INCLUDED
#352174	1° - STEEL		OPTION
#352175	2° - STEEL		OPTION

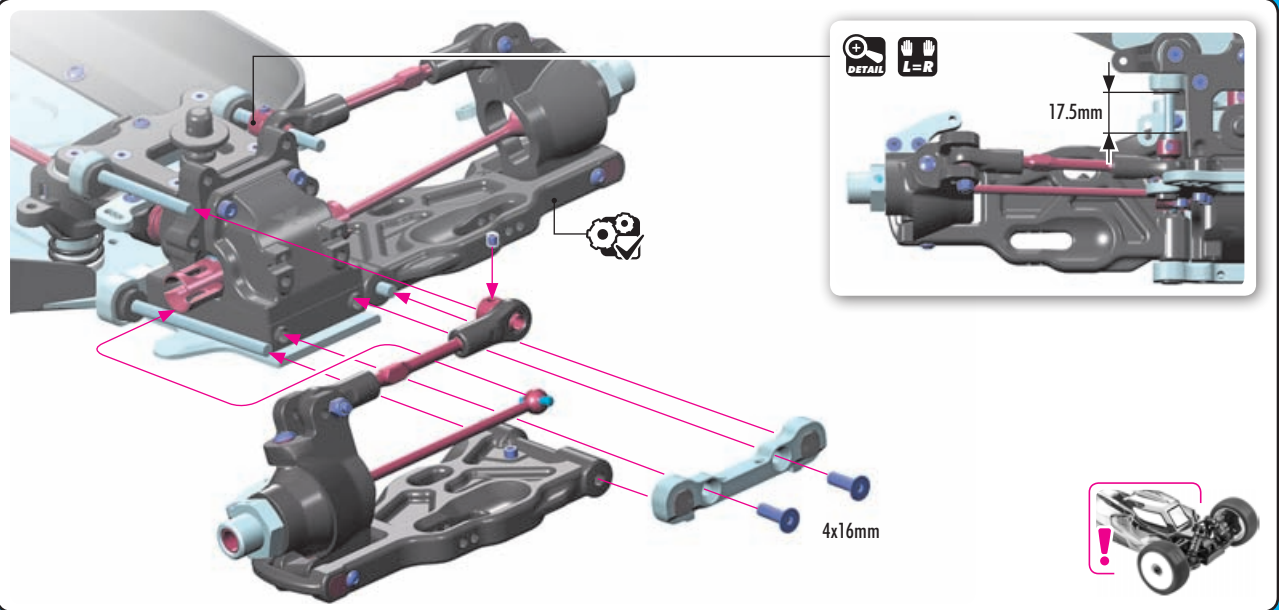


# FRONT C-HUB SUSPENSION

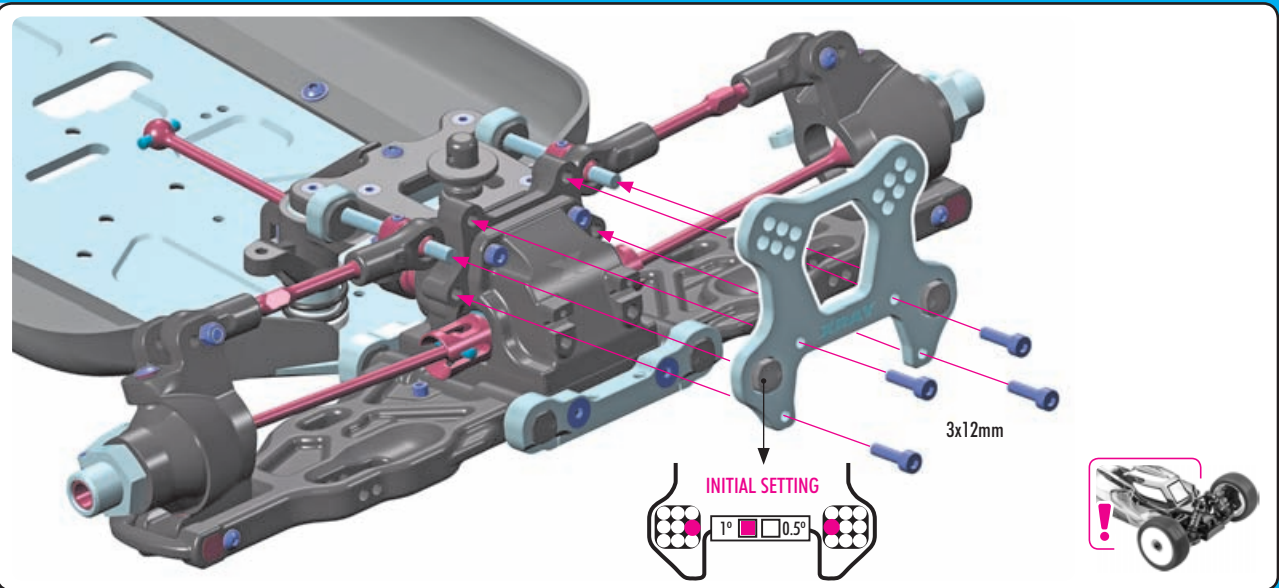
2x 901303  
SB M3x3



4x 903416  
SFH M4x16



4x 908312  
SFH M3x12



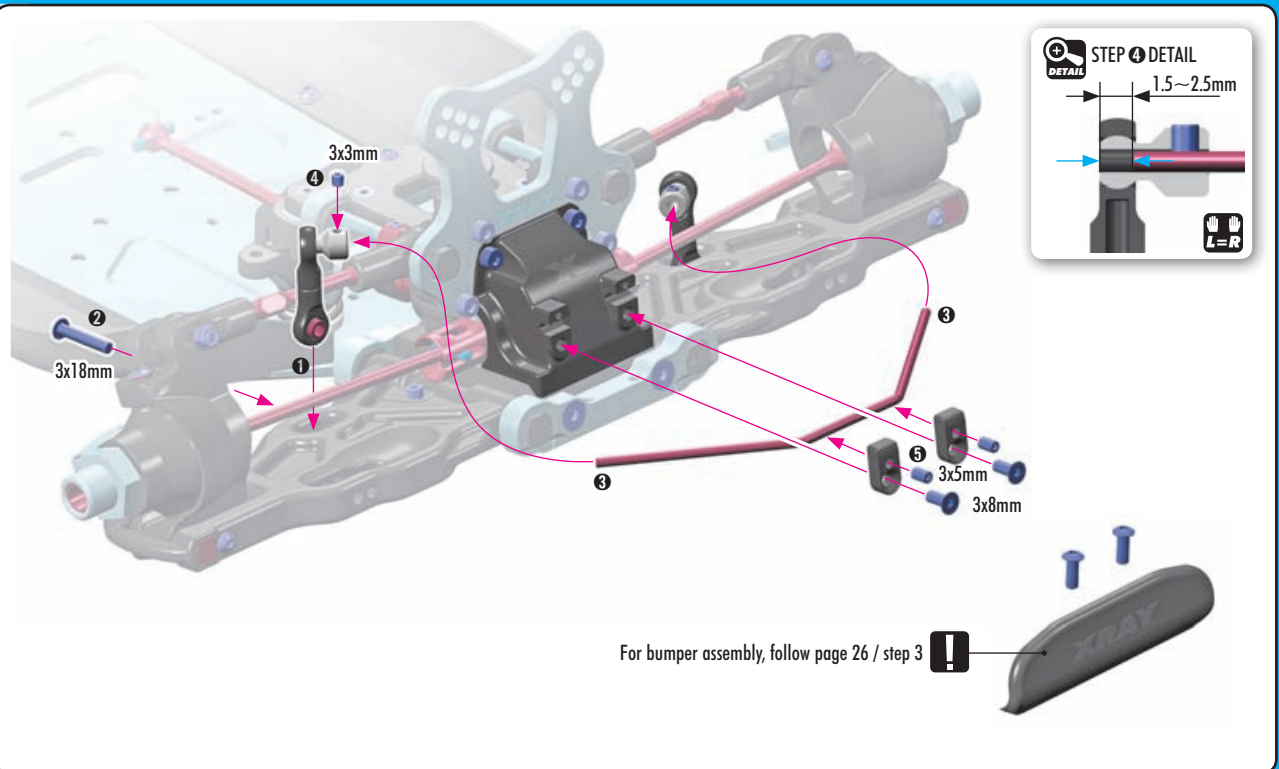
2x 901303  
SB M3x3

2x 901305  
SB M3x5

2x 902308  
SH M3x8

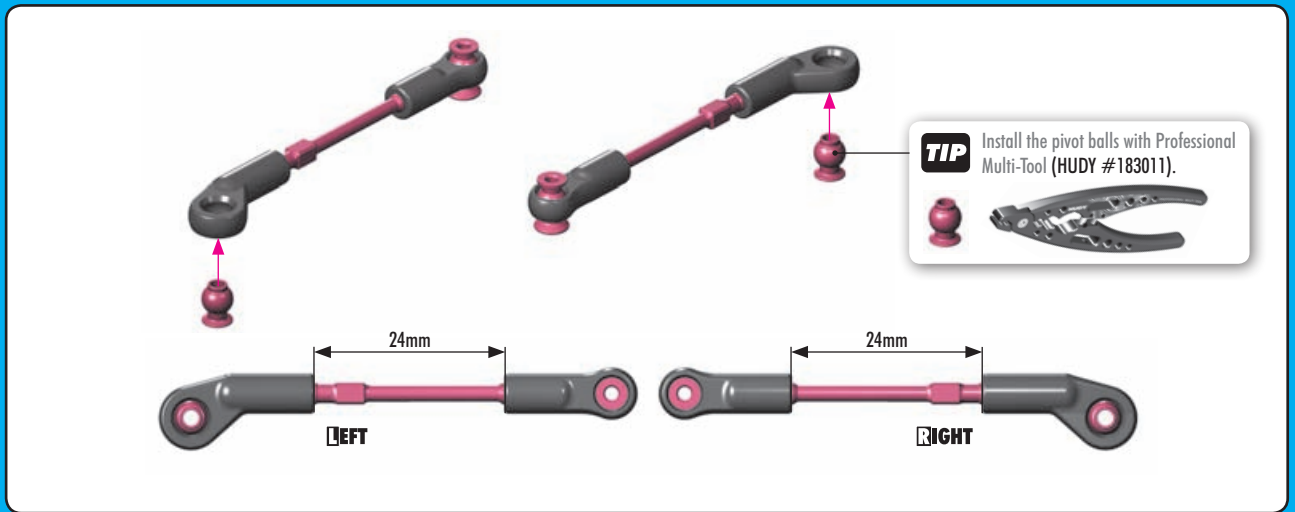
2x 902318  
SH M3x18

2x 903308  
SFH M3x8

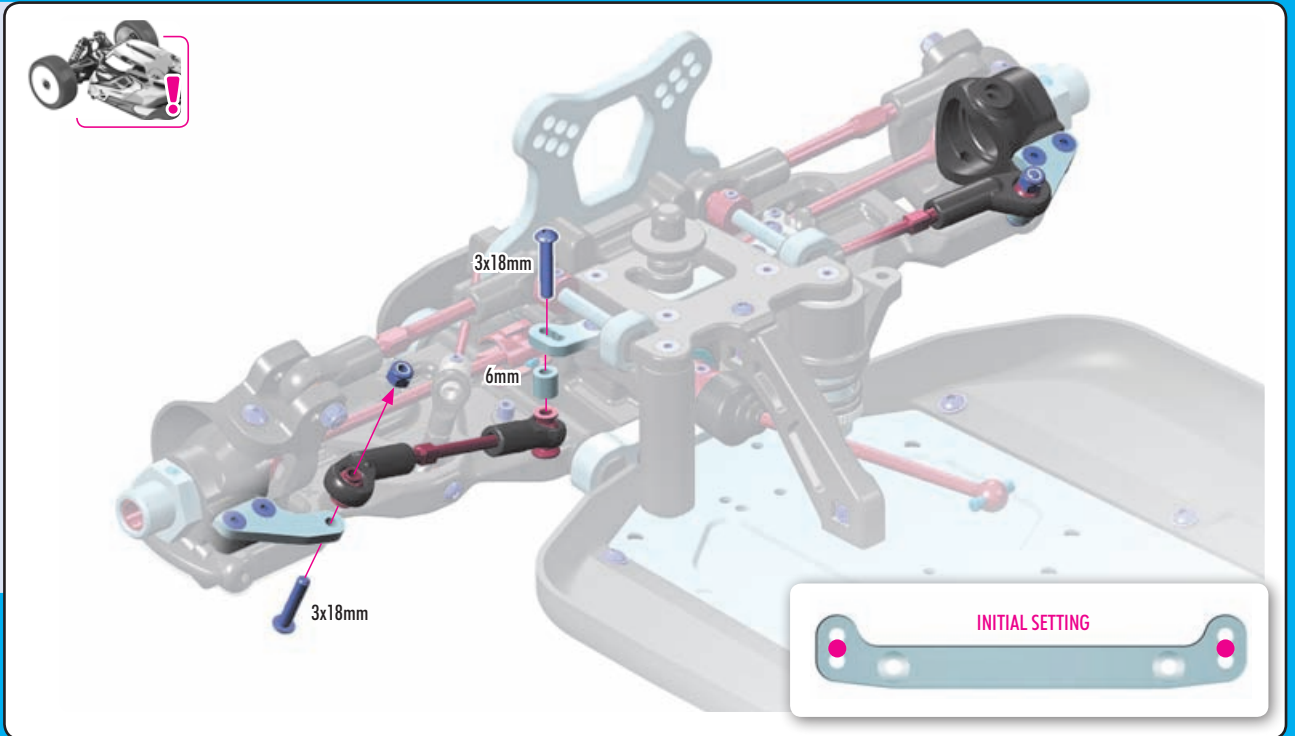


For bumper assembly, follow page 26 / step 3

# FRONT C-HUB SUSPENSION

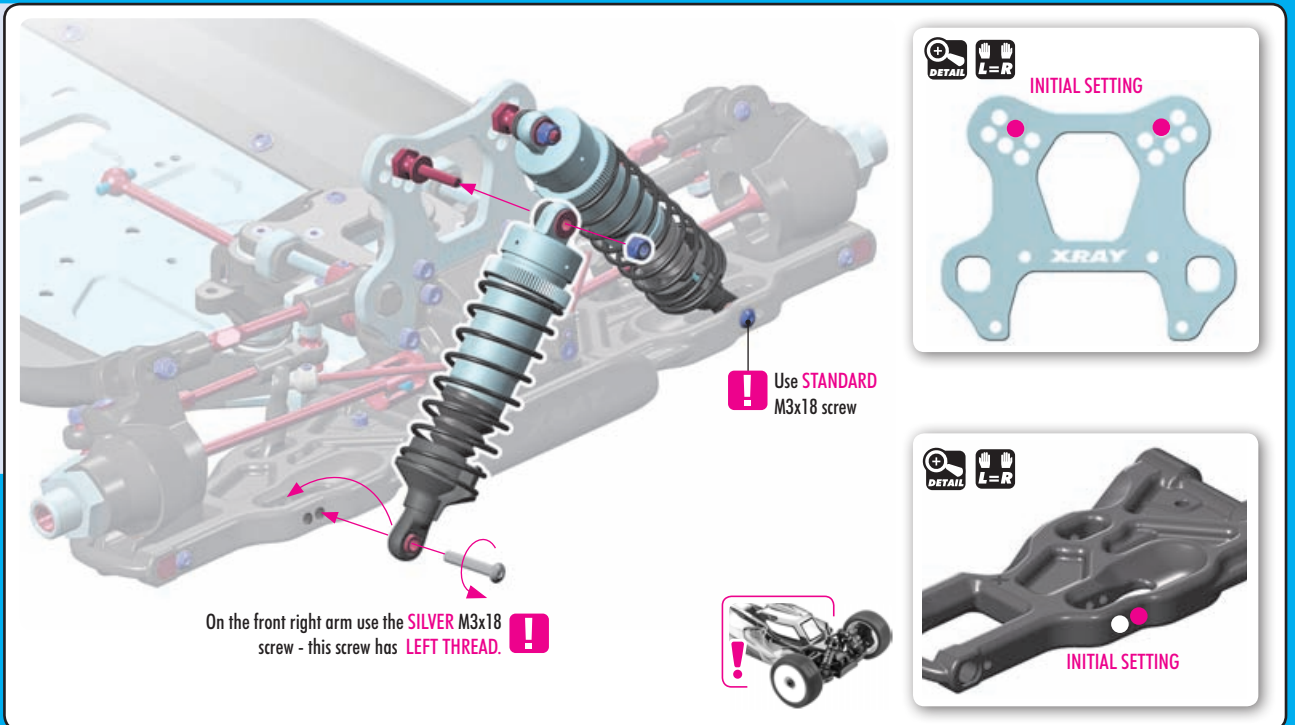


- 2x 303128-K SHIM 3x6x6
- 4x 902318 SH M3x18
- 2x 960030 N M3



- 902318 SH M3x18 1x

902319 SH M3x18 LEFT thread 1x
- 2x 960030 N M3



## SHOCK MAINTENANCE

The most important maintenance task for keeping consistent shock performance is refilling and bleeding them correctly. If built correctly, it will NOT be necessary to re-build them often. Replacing warped/hard rubber bladders and o-rings, scarred piston rods, or shaved/split/loose composite upper and lower ball joints are also important.

- For club racing, it is recommended to check the shocks for air inside before each race and only re-fill and bleed them if necessary. Before each race day, make sure you take the spring off of each shock, hold it up to your ear, and quickly compress the shock rod fully into the body while listening for any air making a "whistling" or "squishy" sound as it passes through the piston holes. If you hear any air, refill and bleed your shocks. For high-competition racing, it is recommended that the shocks be re-filled and bled before a large event.
- If building or pairing new shocks, always make sure they are the same length using a shock length measuring tool and adjust the lower ball joints as needed.
- If installing new rubber bladders, carefully trim the thin excess rubber from the edges of their lips. Curved body scissors work the best.
- Regularly inspect the amount of dirt on the felt protector in the shocks (if present) and regularly replace with a new one.
- During regular shock operation, oil naturally gets on the shock shaft and drop-by-drop slightly gets out of the shock body. Shocks should be inspected regularly after each race, and oil replaced as required.

## BEARING MAINTENANCE

Ball-bearings in an off-road car or truggy must be properly maintained for smooth operation and long lifespan.

Typically, the ball-bearings included in new cars are greased for highest lifespan and as such the drivetrain may not seem to be as free as with lightly-oiled ball-bearings. However, when the car is run the ball-bearings will become more free and the drivetrain will become very efficient.

There are several types of bearings discussed here: bearings which already come greased from the factory, bearings which must be lubricated using the HUDY Bearing Grease, and then there are also bearings in the steering system which need to be lubricated with HUDY Bearing Oil.

The following procedures are recommended to clean all of the bearings in your off-road car or truggy. For high-competition racing, we recommend doing this every 3-4 weeks, or before a major race.

1. Remove the seals on both sides of the bearing (if present). If the seals bend a little and you can see a kink, carefully flatten the kink out by hand.
2. Spray the seals with motor cleaner and blow dry with compressed air.
3. Spray the bearing on both sides with motor cleaner.
4. Spin the bearing while it is still wet to dislodge any particles with the cleaner.
5. Spray the bearing on both sides again.
6. Blow both sides of the bearing dry with compressed air to make sure particles come out.
7. Hold the inner part of the bearing with my left thumb/forefinger and spin it to make sure it spins free without any abnormal vibrations or sounds.
8. Place one drop of bearing oil into each side of the bearing.
9. Replace both seals at the same time by lining them up on each side of the bearing and lightly pressing them in all the way around the bearings circumference with your thumb and forefinger. DO NOT press too hard or use any type of tool, such as a wrench tip, to push the blue seals in as they will push in too far, bend and cause drag.

If you spin test the bearing after you have re-oiled and sealed it, it will NOT spin freely for an extended period of time. The lightest of oils may allow it to spin for 1-2 seconds. This is normal and once you have mounted the bearings in the car again, the drive train will spin freely.

Make sure you use a motor cleaner that DOES NOT leave a residue after it dries as this may cause drag and wear in the bearings.

## CLUTCH BEARINGS

To prolong the lifespan of the clutch bearings, they must be regularly cleaned and lubricated (preferably after each run) using a high-quality grease such as HUDY Bearing Grease. However, after some time the clutch bearings must be replaced with new ones.

## RECOMMENDED PRODUCTS

- Use HUDY Bearing Grease to regularly lubricate grease-bearing ball-bearings.
- Use HUDY Bearing Oil to lubricate the bearings of the steering system.
- Use HUDY Bearing Grease to regularly lubricate the clutch bearings.



# SET-UP SHEET

SET-UP VER.01 ©XRAY

# XRAY XB8E'24 PIVOT BALL

RACE

TRACK

NAME  DATE

TEMPERATURE AIR  TEMPERATURE TRACK

LAPS	FINAL POSITION	BEST LAP TIME	RACE LENGTH
<input type="text"/>	<input type="text"/>	<input type="text"/> /sec	<input type="text"/> /min

### TRACKS

SIZE  OPEN  MEDIUM  TIGHT

TRACTION  LOW  MEDIUM  HIGH

SURFACE  SMOOTH  MEDIUM  BUMPY

TYPE  HARD PACKED  SOFT DIRT  CLAY  
 BLUE GROVE  ASTRO TURF  GRASS

CONDITION  DRY  DUSTY  WET  MUD

### DIFFERENTIAL

FRONT		CENTER	REAR	CASE MATERIAL	
CASE MATERIAL	<input type="text"/>	<input type="text"/>	<input type="text"/>	CASE MATERIAL	<input type="text"/>
OIL	<input type="text"/>	<input type="text"/>	<input type="text"/>	OIL	<input type="text"/>
CROWN GEAR	<input type="text"/>	<input type="text"/>	<input type="text"/>	CROWN GEAR	<input type="text"/>

### GEARING

MOTOR PINION  /T  SPUR GEAR  /T

### SHOCKS

FRONT	TYPE	REAR
	SPRINGS	
	MEMBRANE	
	OIL /cSt	
	PISTONS	
<input type="checkbox"/> 6 HOLES	<input type="checkbox"/> 1.1 mm	<input type="checkbox"/> 6 HOLES
<input type="checkbox"/> 8 HOLES	<input type="checkbox"/> 1.2 mm	<input type="checkbox"/> 8 HOLES
<input type="checkbox"/> 10 HOLES	<input type="checkbox"/> 1.3 mm	<input type="checkbox"/> 10 HOLES
<input type="checkbox"/> OTHER	<input type="checkbox"/> 1.4 mm	<input type="checkbox"/> 10 HOLES
	VALVE PISTONS	
<input type="checkbox"/> 5+2 HOLES	<input type="checkbox"/> 1.5 mm	<input type="checkbox"/> 5+2 HOLES
<input type="checkbox"/> 6+2 HOLES	<input type="checkbox"/> 1.3 mm	<input type="checkbox"/> 6+2 HOLES
<input type="checkbox"/> 8+2 HOLES	<input type="checkbox"/> 1.4 mm	<input type="checkbox"/> 6+2 HOLES
	<input type="checkbox"/> 1.2 mm	<input type="checkbox"/> 8+2 HOLES
	<input type="checkbox"/> 1.3 mm	<input type="checkbox"/> 8+2 HOLES

### ANTI-ROLL BAR

FRONT  /mm THICKNESS  /mm REAR  /mm

### TIRES

FRONT	BRAND	REAR
	COMPOUND	
	INSERTS	
	WHEELS	

### ELECTRONICS

MOTOR

SPEEDO

BATTERY TYPE

STANDARD BATTERY  SHORT BATTERY

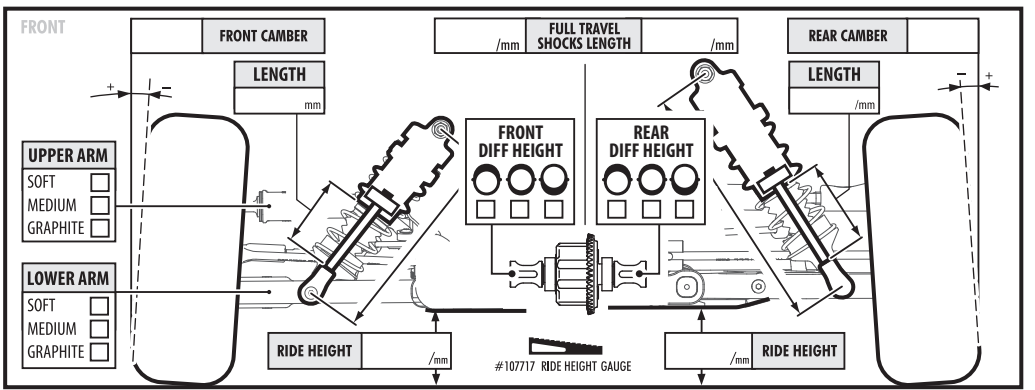
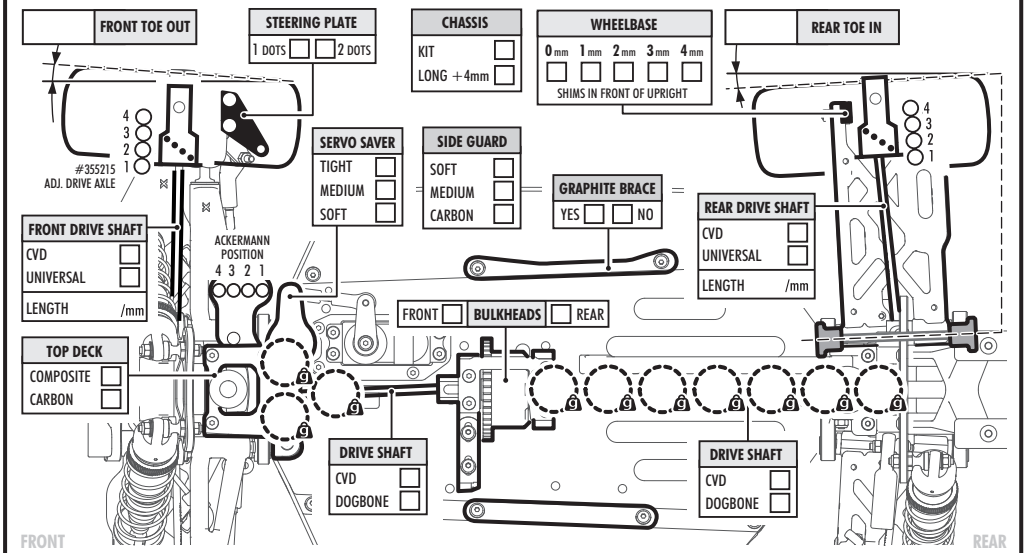
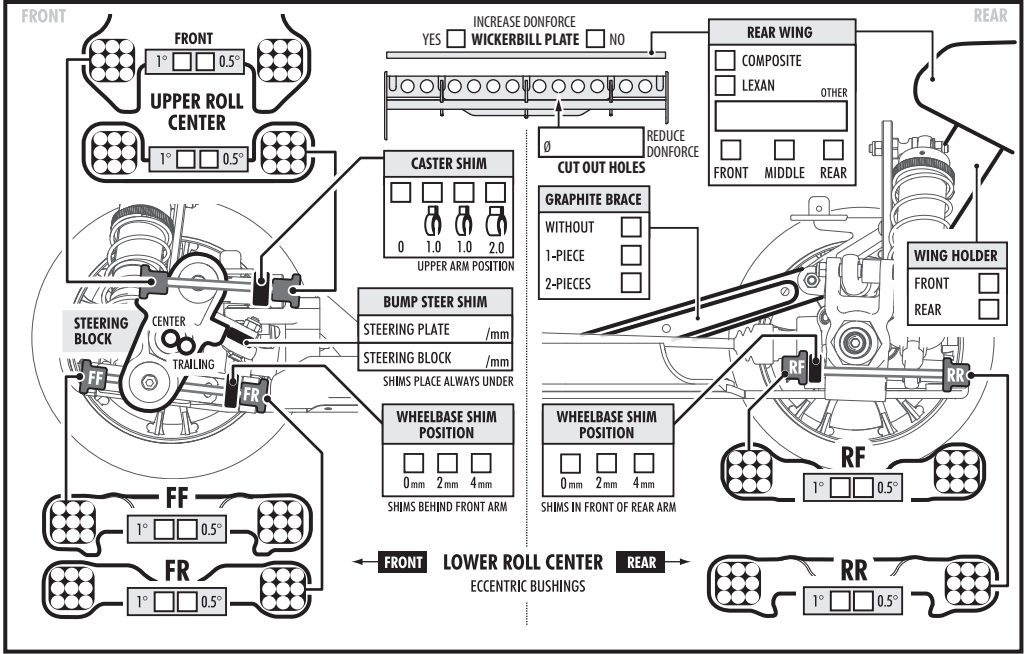
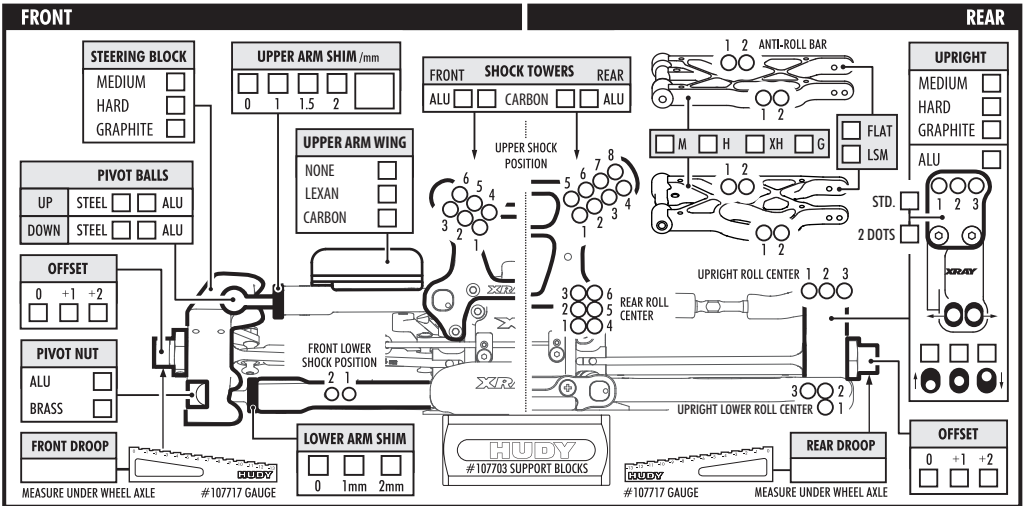
FRONT  STANDARD BATTERY  SHORT BATTERY REAR  STANDARD BATTERY  SHORT BATTERY

### BODY

EAZY  EAZY LIGHT

OTHER

TOTAL WEIGHT  /g



RACE

TRACK

NAME  DATE

TEMPERATURE AIR  TEMPERATURE TRACK

LAPS  FINAL POSITION  BEST LAP TIME  RACE LENGTH

/sec /min

**TRACKS**

SIZE  OPEN  MEDIUM  TIGHT

TRACTION  LOW  MEDIUM  HIGH

SURFACE  SMOOTH  MEDIUM  BUMPY

TYPE  HARD PACKED  SOFT DIRT  CLAY  
 BLUE GROVE  ASTRO TURF  GRASS

CONDITION  DRY  DUSTY  WET  MUD

**DIFFERENTIAL**

CASE MATERIAL	FRONT	CENTER	REAR	CASE MATERIAL
OIL				OIL
CROWN GEAR				CROWN GEAR

**GEARING**

MOTOR PINION  /  SPUR GEAR  /

**SHOCKS**

FRONT	TYPE	REAR
	SPRINGS	
	MEMBRANE	
	OIL	
	PISTONS	
<input type="checkbox"/> 6 HOLES	<input type="checkbox"/> 1.1 mm	<input type="checkbox"/> 6 HOLES
<input type="checkbox"/> 8 HOLES	<input type="checkbox"/> 1.2 mm	<input type="checkbox"/> 8 HOLES
<input type="checkbox"/> 10 HOLES	<input type="checkbox"/> 1.3 mm	<input type="checkbox"/> 10 HOLES
<input type="checkbox"/> OTHER	<input type="checkbox"/> 1.4 mm	<input type="checkbox"/> OTHER
<b>VALVE PISTONS</b>		
<input type="checkbox"/> 5+2 HOLES	<input type="checkbox"/> 1.5 mm	<input type="checkbox"/> 5+2 HOLES
<input type="checkbox"/> 6+2 HOLES	<input type="checkbox"/> 1.3 mm	<input type="checkbox"/> 6+2 HOLES
<input type="checkbox"/> 8+2 HOLES	<input type="checkbox"/> 1.4 mm	<input type="checkbox"/> 8+2 HOLES
	<input type="checkbox"/> 1.2 mm	<input type="checkbox"/> 8+2 HOLES
	<input type="checkbox"/> 1.3 mm	

**ANTI-ROLL BAR**

FRONT  /mm THICKNESS REAR  /mm

**TIRES**

FRONT	BRAND	REAR
	COMPOUND	
	INSERTS	
	WHEELS	

**ELECTRONICS**

MOTOR

SPEEDO

BATTERY TYPE

STANDARD BATTERY  SHORT BATTERY

FRONT  REAR

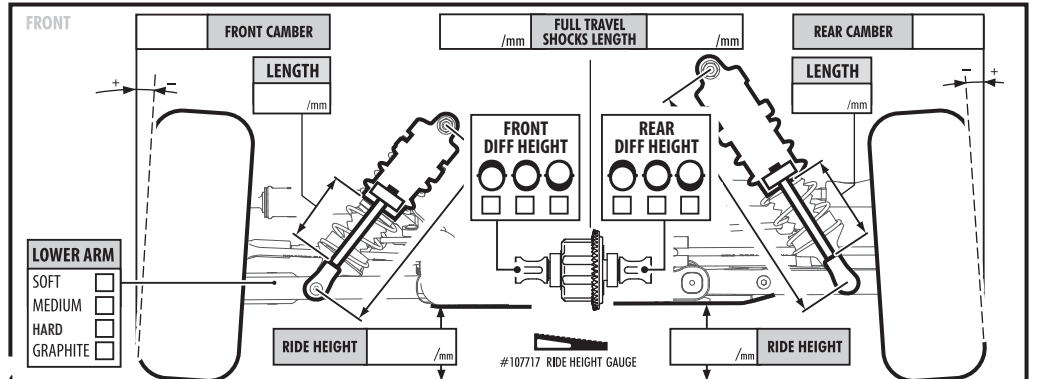
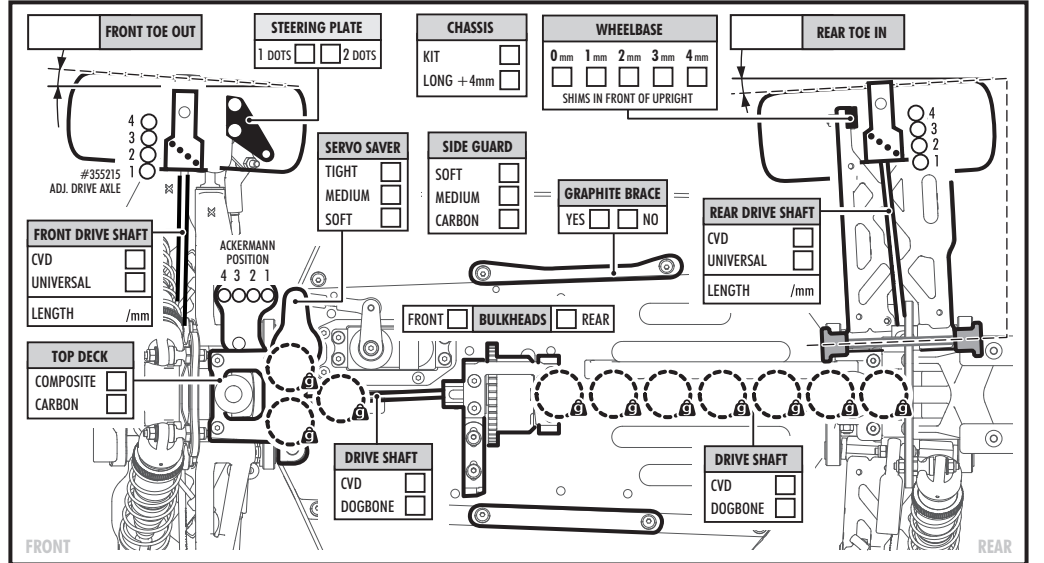
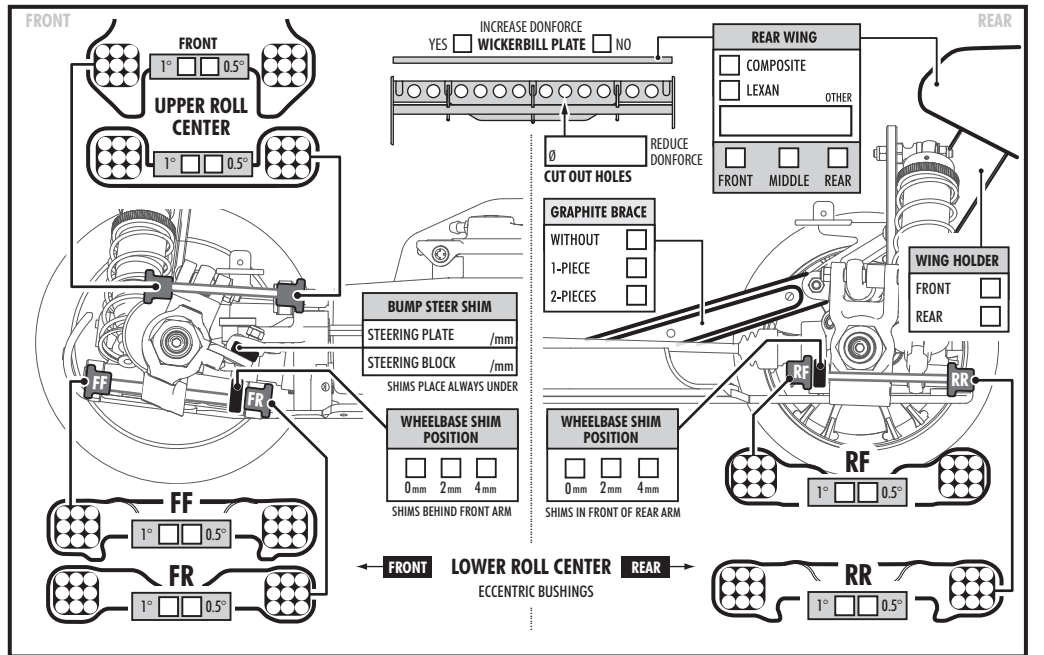
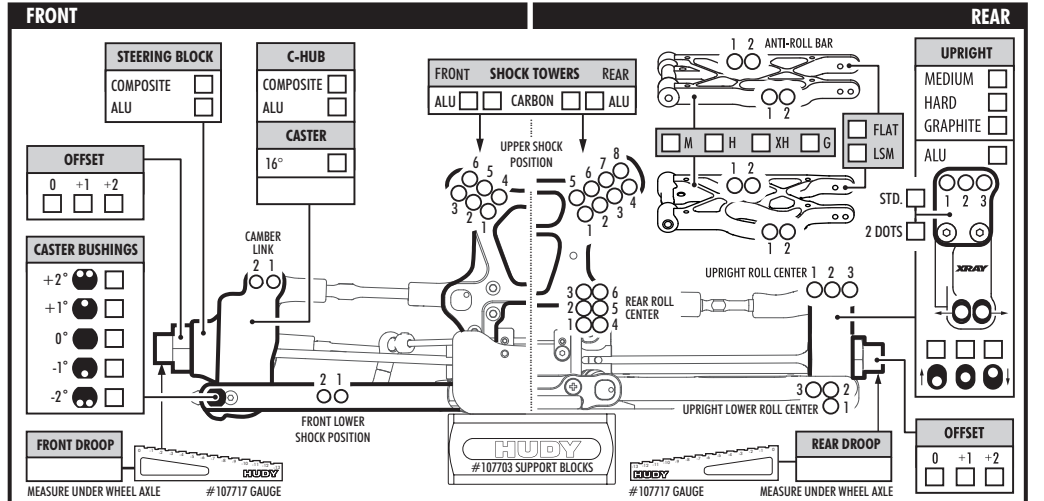
STANDARD BATTERY  SHORT BATTERY

**BODY**

EAZY  EAZY LIGHT

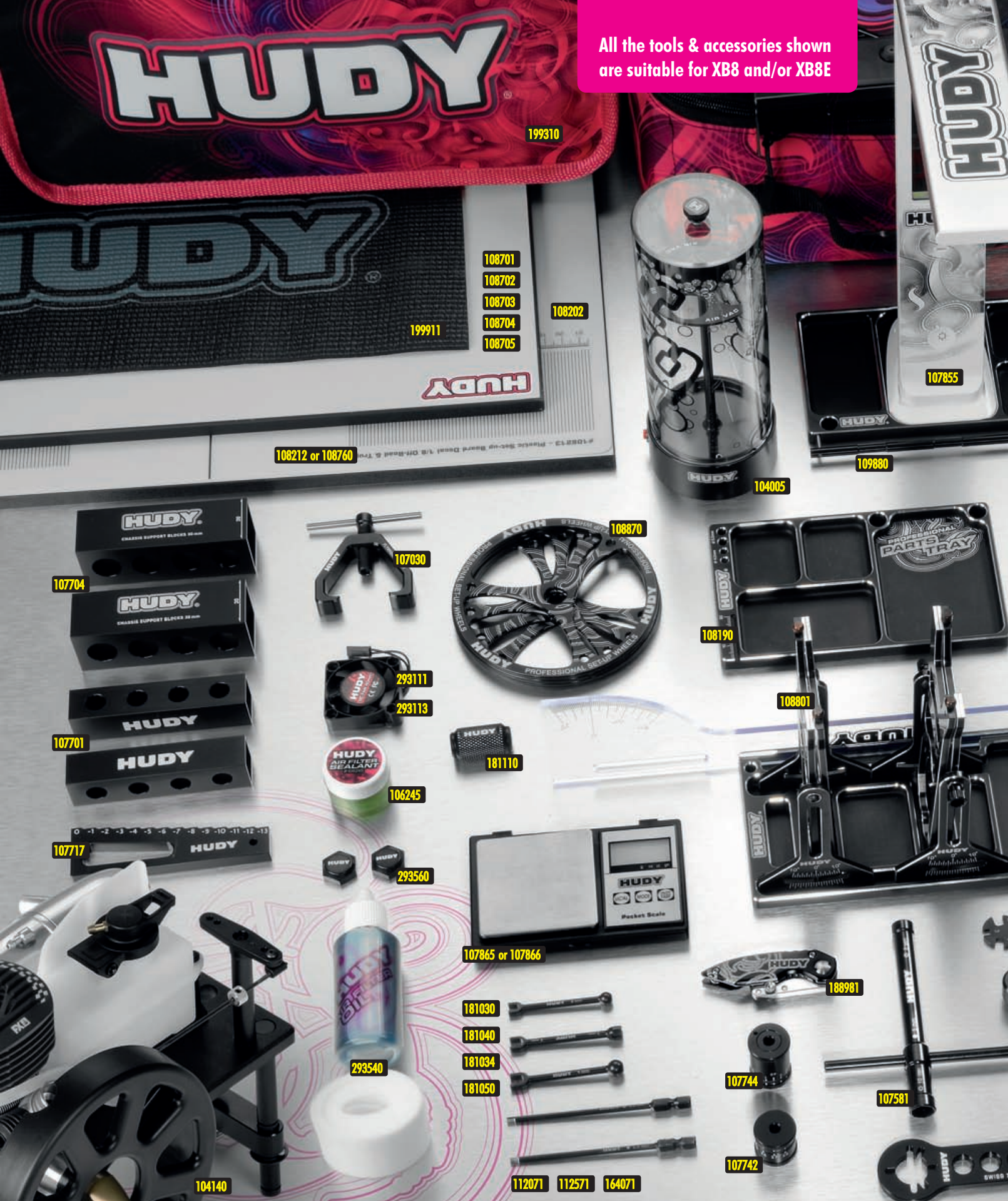
OTHER

**TOTAL WEIGHT**  /g



# HUDY

All the tools & accessories shown are suitable for XB8 and/or XB8E



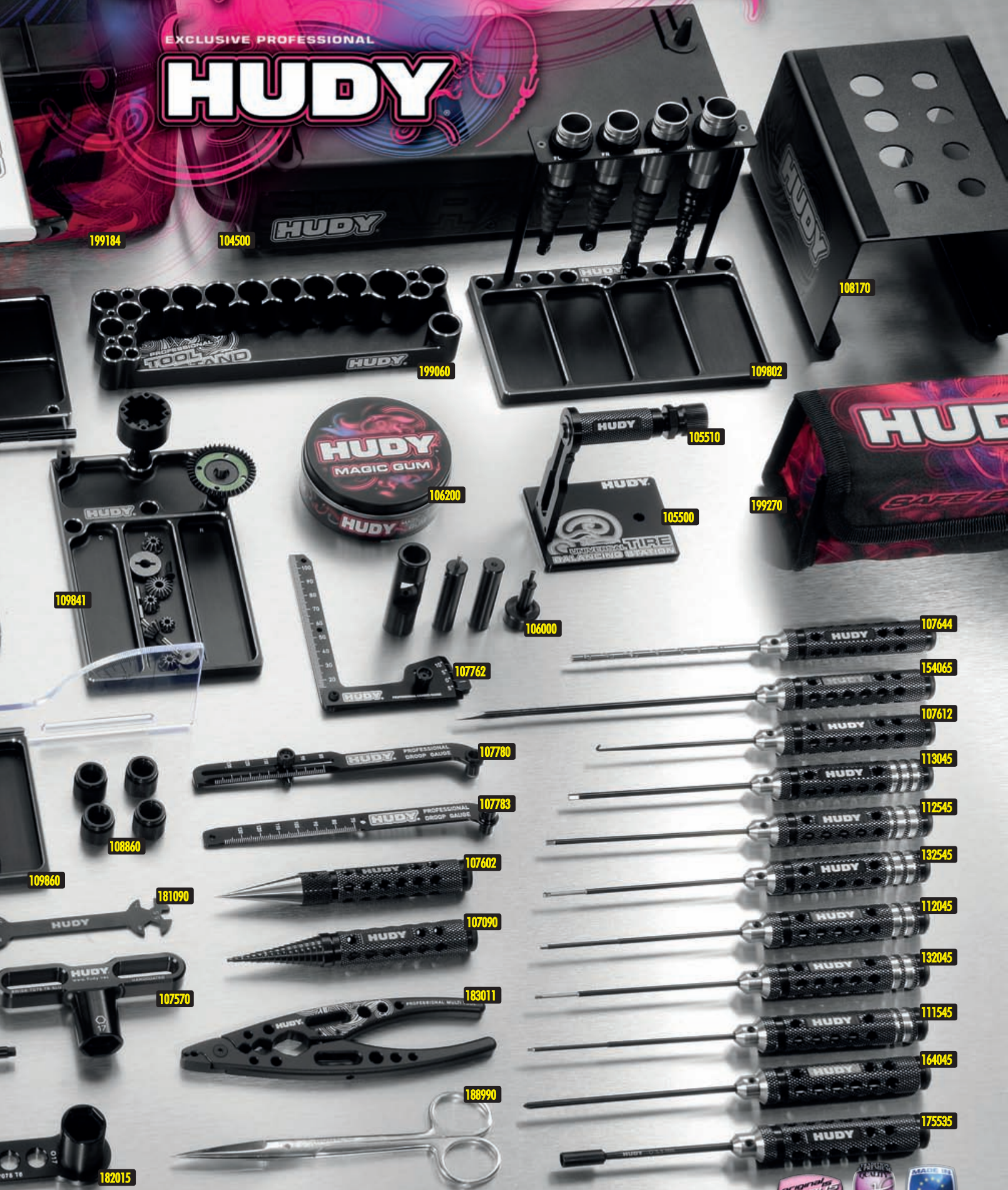
- #104005 HUDY Air Vac - Vacuum Pump - 1/8 Off-Road
- #104140 HUDY Engine Break-In Bench
- #104500 HUDY Star-Box 1/8 Off-Road
- #105500 HUDY Universal Tire Balancing Station
- #105510 Wheel Adapter for 1/8 Off-Road Cars, Truggy & Rally Game
- #106000 HUDY Drive Pin Replacement Tool (for 3mm Pins)
- #106200 HUDY Magic Cleaning Gum
- #106245 HUDY Air Filter Sealant
- #107030 HUDY Flywheel Puller
- #107090 HUDY Bearing Check Tool
- #107570 HUDY 17mm Off-Road Wheel Nut Tool
- #107581 HUDY Cross Wrench Glowplug # 8mm / Clutchnut # 10mm
- #107602 Limited Edition - Reamer for Body 0-18mm + Cover - Large
- #107612 Limited Edition - Exhaust Spring / Caster Clip Remover

- #107644 Limited Edition - Arm Reamer # 4.0mm
- #107701 Chassis Droop Gauge Support Blocks 20mm for 1/8 - LW(2)
- #107704 Chassis Droop Gauge Support Blocks 30mm 1/8 Off-Road - LW (2)
- #107717 Chassis Droop Gauge 0 to -13 mm for 1/8 Off-Road
- #107742 HUDY Adjustable Ride Height Gauge 20-30mm
- #107744 HUDY Adjustable Ride Height Gauge 30-45mm
- #107762 HUDY Adjustable Camber Gauge 110mm
- #107780 HUDY Adjustable Droop Gauge 80-140mm
- #107783 HUDY Droop Gauge 70-140mm
- #107855 HUDY Pit LED
- #107865 HUDY Ultimate Digital Pocket Scale 300g/0.01g
- #107866 HUDY Professional Digital Pocket Scale 3000g/0.1g
- #108170 HUDY Off-Road & Truggy Car Stand
- #108190 HUDY Alu Tray for Parts

- #108202 Flat Set-Up Board for 1/8 Off-Road & Truggy
- #108212 Plastic Set-up Board Decal for 1/8 Off-Road & Truggy
- #108701 Flat Set-Up Board 1/8 Off-Road & GT - Lightweight - Grey
- #108702 Flat Set-Up Board 1/8 Off-Road & GT - Lightw. - Silver Grey
- #108703 Flat Set-Up Board 1/8 Off-Road & GT - Lightw. - Dark Grey
- #108704 Flat Set-Up Board 1/8 Off-Road & GT - Lightweight - Titan
- #108705 Flat Set-Up Board 1/8 Off-Road & GT - Lightweight - Black
- #108760 Plastic Set-Up Board Decal 399x545mm - 1/8 Off-Road & GT
- #108801 HUDY Set-Up Station for 1/8 Off-Road Cars & Truggy
- #108841 Upside Measure Plate for 1/8 Truggy
- #108860 Alu Nut for 1/8 Off-Road System (4)
- #108870 Alu Set-up Wheel for 1/8 Off-Road Cars - V2 (4)
- #109802 HUDY Alu Tray for 1/8 Off-Road Diff & Shocks
- #109841 HUDY Alu Tray for 1/8 Off-Road Diff Assembly

EXCLUSIVE PROFESSIONAL

# HUDY



- #109860 HUDY Alu Tray for Set-Up System
- #109880 HUDY Alu Tray for Accessories & Pit LED
- #111545 Limited Edition - Allen Wrench # 1.5mm
- #112045 Limited Edition - Allen Wrench # 2.0mm
- #112071 Power Tool Tip Allen 2.0 x 90 mm
- #112545 Limited Edition - Allen Wrench # 2.5mm
- #112571 Power Tool Tip Allen 2.5 x 90 mm
- #113045 Limited Edition - Allen Wrench # 3.0mm
- #132045 Limited Edition - Allen Wrench + Ball Repl. Tip # 2.0mm
- #132545 Limited Edition - Allen Wrench + Ball Repl. Tip # 2.5mm
- #154065 Limited Edition -Sl. Screwdriver for Engine #4.0mm - Long
- #164045 Limited Edition - Phillips Screwdriver # 4.0mm
- #164071 Power Tool Tip Phillips 4.0 x 90 mm
- #175535 Limited Edition - Socket Driver # 5.5mm

- #181030 HUDY Spring Steel Turnbuckle Wrench 3 mm
- #181034 HUDY Spring Steel Turnbuckle Wrench 3 & 4mm
- #181040 HUDY Spring Steel Turnbuckle Wrench 4 mm
- #181050 HUDY Spring Steel Turnbuckle Wrench 5 mm
- #181090 HUDY Special Tool For Turnbuckles & Nuts
- #181110 HUDY Ball Joint Wrench
- #182016 HUDY Wheel Nut & 3/4 Shoe Flywheel MultiTool 1/8 Buggy
- #183011 HUDY Professional Multi Tool
- #188981 HUDY Pocket Hobby Knife
- #188990 HUDY Professional Body Scissors
- #199060 HUDY Alu Tool Stand
- #199184 HUDY Car Bag - 1/8 & 1/10 Off-Road
- #199270 HUDY LiPo Safety Bag
- #199310 HUDY Pit Bag - Compact

- #199911 HUDY Pit Mat Roll 750x1200mm with Printing
- #293111 HUDY Brushless RC Fan 40mm
- #293113 HUDY Brushless RC Fan 40mm with Internal Soldering Tabs
- #293540 Air Filter Foam & Oil (10) - XRAY XB8 Low Profile Style
- #293560 HUDY Alu Wheel Nut with Cover - Ribbed (2)

For more information about tools, set-up equipment and accessories suitable for your car please visit:

[www.hudy.net](http://www.hudy.net)



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

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