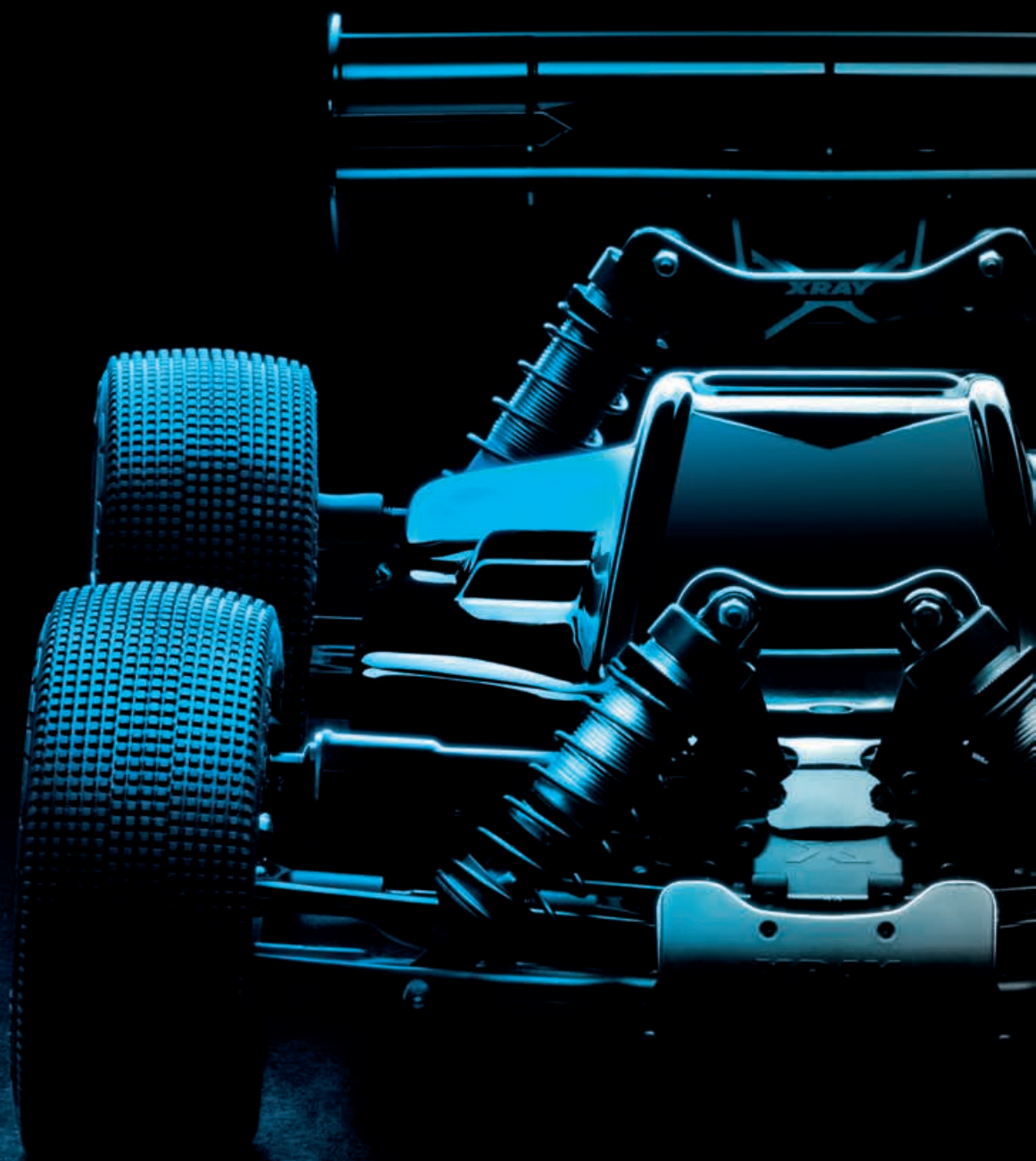


1/8 LUXURY ELECTRIC OFF-ROAD BUGGY

XRAY XB8E



INSTRUCTION MANUAL

XRAY XB8E'25

BEFORE YOU START

This is a high-competition, high-quality RC car intended for persons aged 16 years and older with previous experience building and operating RC model racing cars. This is NOT a toy; it is a precision racing model. This model racing car is not intended for use by beginners, inexperienced customers, or by children without direct supervision of a responsible, knowledgeable adult. If you DO NOT fulfill these requirements, please return the kit in unused and unassembled form back to the shop where you have purchased it.

Before building and operating your XRAY, **YOU MUST** read through all of the operating instructions and instruction manual and fully understand them to get the maximum enjoyment and prevent unnecessary damage.

CUSTOMER SUPPORT

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

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

Read carefully and fully understand the instructions before beginning assembly.

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

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

XRAY Europe

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

XRAY USA

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

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

SAFETY PRECAUTIONS

Contains:

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

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

CAUTION: CANCER HAZARD

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

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

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

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

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



IMPORTANT NOTES - GENERAL

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

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



IMPORTANT NOTES – ELECTRICAL

- Insulate any exposed electrical wiring (using heat shrink tubing or electrical tape) to prevent dangerous short circuits. Take maximum care in wiring, connecting and insulating cables. Make sure cables are always connected securely. Check connectors for if they become loose. And if so, reconnect them securely. Never use RC models with damaged wires. A damaged wire is extremely dangerous, and can cause short-circuits resulting in fire. Please have wires repaired at your local hobby shop.
- Low battery power will result in loss of control. Loss of control can occur due to a weak battery in either the transmitter or the receiver. Weak running battery may also result in an out of control car if your car's receiver power is supplied by the running battery. Stop operation immediately if the car starts to slow down.
- When not using RC model, always disconnect and remove battery.
- DO NOT disassemble battery or cut battery cables. If the running battery short-circuits, approximately 300W of electricity can be discharged, leading to fire or burns. Never disassemble battery or cut battery cables.
- Use a recommended charger for the receiver and transmitter batteries and follow the instructions correctly. Over-charging, incorrect charging, or using inferior chargers can cause the batteries to become dangerously hot. Recharge battery when necessary. Continual recharging may damage battery and, in the worst case, could build up heat leading to fire. If battery becomes extremely hot during recharging, please ask your local hobby shop for check and/or repair and/or replacement.
- Regularly check the charger for potential hazards such as damage to the cable, plug, casing or other defects. Ensure that any damage is rectified before using the charger again. Modifying the charger may cause short-circuit or overcharging leading to a serious accident. Therefore DO NOT modify the charger.
- Always unplug charger when recharging is finished.
- DO NOT recharge battery while battery is still warm. After use, battery retains heat. Wait until it cools down before charging.
- DO NOT allow any metal part to short circuit the receiver batteries or other electrical/electronic device on the model.
- Immediately stop running if your RC model gets wet as may cause short circuit.
- Please dispose of batteries responsibly. Never put batteries into fire.

R/C & BUILDING TIPS

- Make sure all fasteners are properly tightened. Check them periodically.
- Make sure that chassis screws DO NOT protrude from the chassis.
- For the best performance, it is very important that great care is taken to ensure the free movement of all parts.
- Clean all ball-bearings so they move very easily and freely.
- Tap or pre-thread the plastic parts when threading screws.

- Self-tapping screws cut threads into the parts when being tightened. DO NOT use excessive force when tightening the self-tapping screws because you may strip out the thread in the plastic. We recommended you stop tightening a screw when you feel some resistance.
- Ask your local hobby shop for any advice.

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

WARRANTY

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

Due to the high performance level of this model car you will need to periodically maintain and replace consumable components. Any and all warranty coverage will not cover replacement of any part or component damaged by neglect, abuse, or improper or unreasonable use. This includes but is not limited to damage from crashing, chemical and/or water damage, excessive moisture, improper or no maintenance, or user modifications

which compromise the integrity of components. Warranty will not cover components that are considered consumable on RC vehicles. XRAY DOES NOT pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

Limitations of Liability

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

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

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

QUALITY CERTIFICATE

XRAY MODEL RACING CARS uses only the highest quality materials, the best compounds for molded parts and the most sophisticated manufacturing processes of TQM (Total Quality Management). We guarantee that all parts of a newly-purchased kit are manufactured with the highest regard to quality. However, due to the many factors inherent in model racecar competition, we cannot guarantee any parts once you start racing the car. Products which

have been worn out, abused, neglected or improperly operated will not be covered under warranty.

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

In line with our policy of continuous product development, the exact specifications of the kit may vary. In the unlikely event of any problems with your new kit, you should contact the model shop where you purchased it, quoting the part number. We do reserve all rights to change any specification without prior notice. All rights reserved.

XB8E'25

TOOLS REQUIRED



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

Transmitter



Receiver



Speed Controller



Steering Servo



Battery Charger



Electric Motor



Pinion Gear

#355712-18 (STEEL NARROW 5mm)
#294313-18 (STEEL WIDE 7mm OPTION)
#355819-24 (ALU WIDE 7mm OPTION)



Lexan™ Paint



LiPo Battery Saddle Pack (Short)



Double-sided Tape
(HUDY #107875)



Tires & Wheels



Bearing Oil
(HUDY #106230)



Threadlock



CA glue



EQUIPMENT INCLUDED

550cSt (#106356)
HUDY Premium Silicone Oils



600cSt (#106361)
HUDY Premium Silicone Oils



3.000cSt (#106431)
HUDY Premium Silicone Oils



7.000cSt (#106471)
HUDY Premium Silicone Oils



(HUDY #106210)
Premium Graphite Grease



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

351191

355006

350912

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

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

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

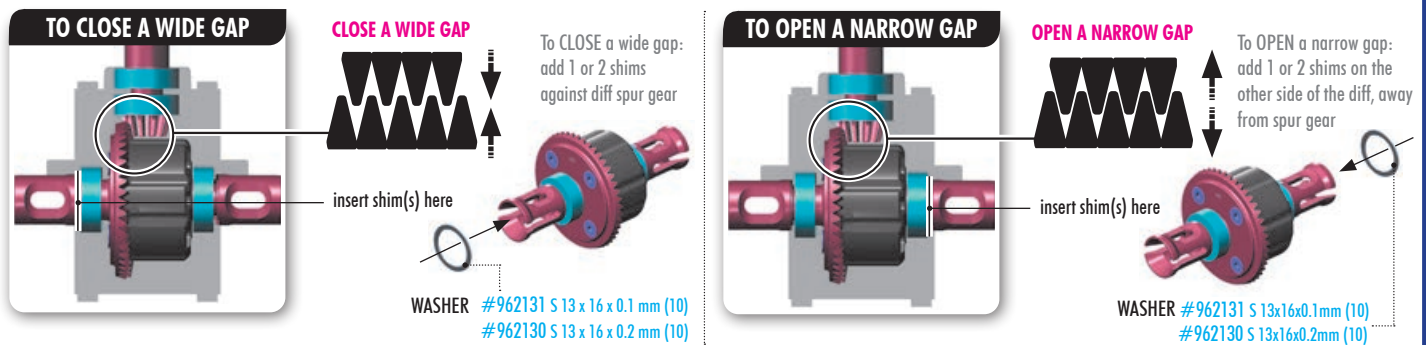
STYLE D - indicates parts that are optional.

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:



**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

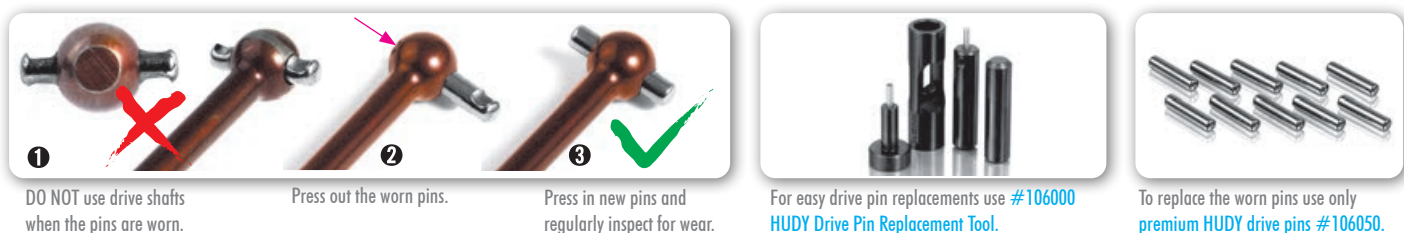
- Check suspension for free movement during building and operation, and especially after running and if you have crashed the car. If the suspension DOES NOT move freely, use the appropriate HUDY Arm Reamer to clean and resize the holes of the suspension arms.
- Regularly check the drive shaft pins (both 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.



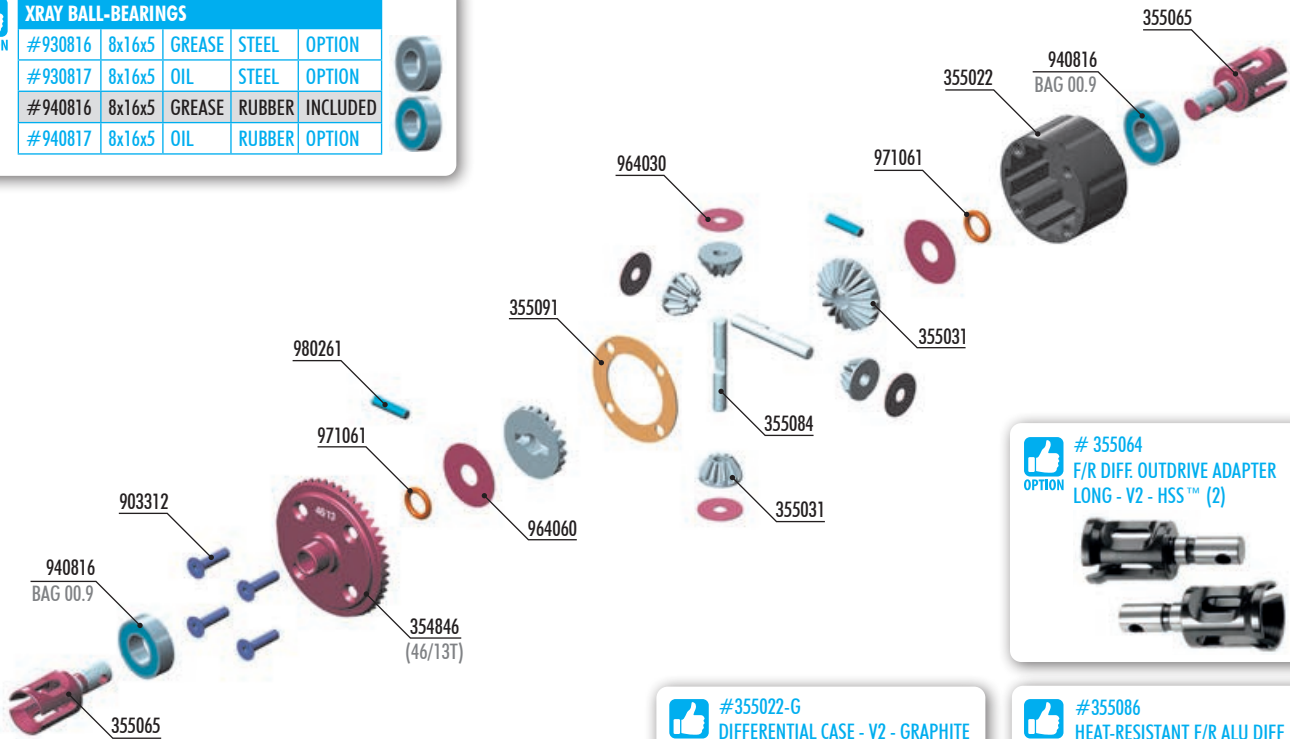
1. FRONT & REAR DIFFERENTIALS



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





OPTION

355064
F/R DIFF. OUTDRIVE ADAPTER
LONG - V2 - HSS™ (2)





OPTION

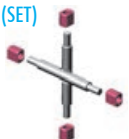
#355022-G
DIFFERENTIAL CASE - V2 - GRAPHITE





OPTION

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



BAGS

01.1

2x

- | | | | |
|--------|---|--------|--|
| 354846 | F/R DIFF 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 DIFF BEVEL & SATELLITE GEARS - V2 (2+4) | 964060 | WASHER S 6x18x0.2 (10) |
| 355065 | DIFF OUTDRIVE ADAPTER - V2 - HUDY SPRING STEEL™ (2) | 971061 | SILICONE O-RING 6x1.55 (10) |
| 355084 | F/R DIFF PIN (2) | 980261 | PIN 2.5x11.5 (10) |
| 355091 | F/R DIFF GASKET (4) | | |

Numbers in parentheses () refer to quantities when purchased separately.



2x 940816
BB 8x16x5



2x 964060
S 6x18x0.2



2x 971061
O 6x1.55

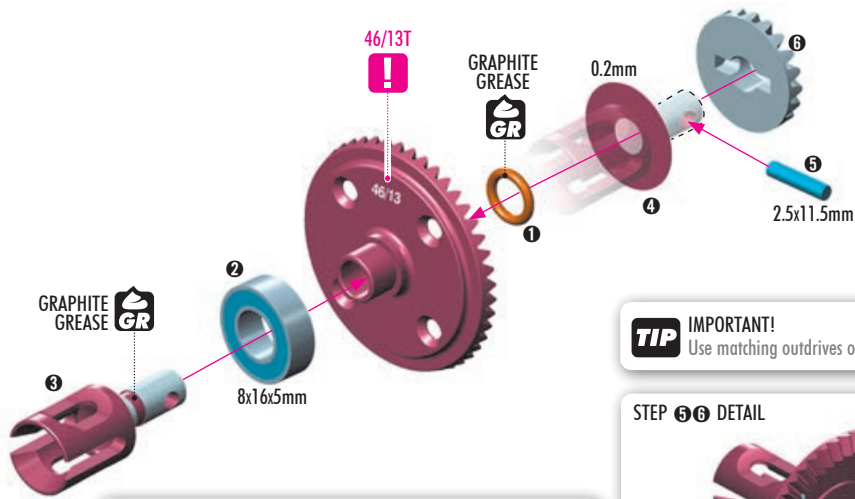


2x 980261
P 2.5x11.5

SET-UP BOOK

DIFFERENTIAL GEARS

2x





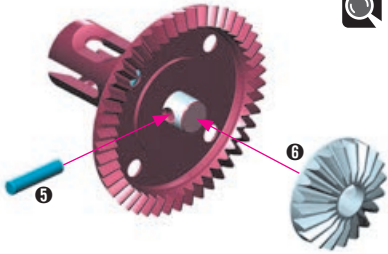
OPTION

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

TIP IMPORTANT!

Use matching outdrives on left and right sides of a diff.

STEP 5 6 DETAIL



1. FRONT & REAR DIFFERENTIALS



2x 940816
BB 8x16x5



2x 964060
S 6x18x0.2



2x 971061
O 6x1.55



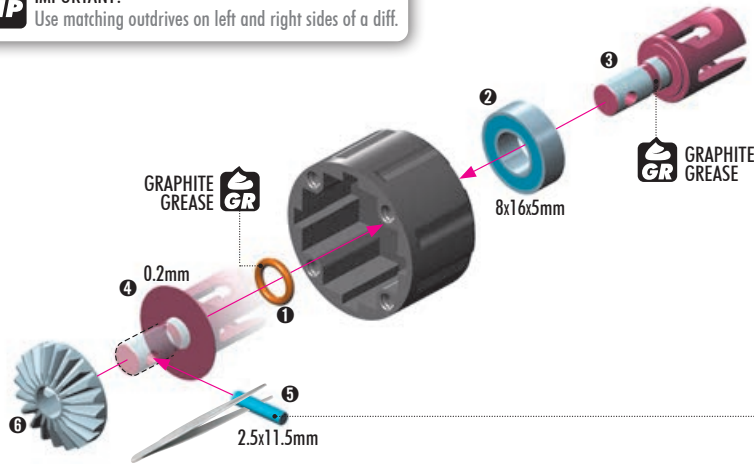
2x 980261
P 2.5x11.5

2x

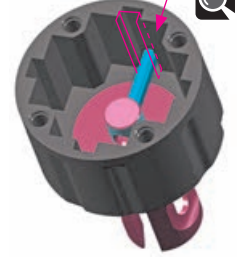
TIP

IMPORTANT!

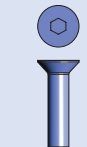
Use matching outdrives on left and right sides of a diff.



STEP 5 DETAIL



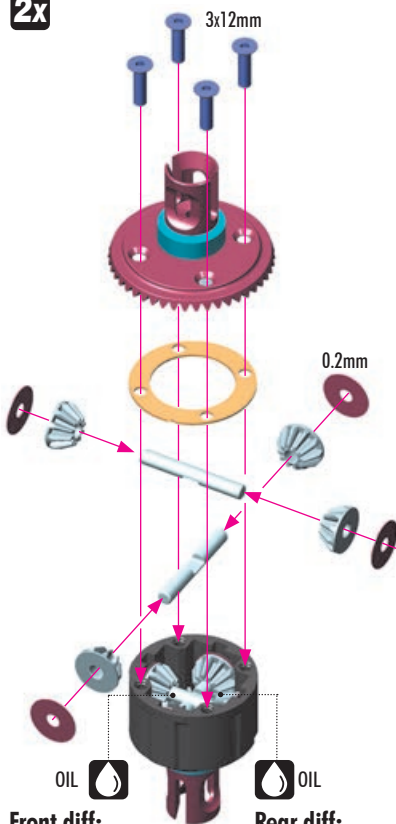
2x



4x 903312
SFH M3x12



4x 964030
S 3.5x12x0.2



OIL

Front diff:

Silicone oil 7.000cSt

Fill just above the satellite gears.

OIL

Rear diff:

Silicone oil 3.000cSt

Fill just above the satellite gears.

VERY IMPORTANT!

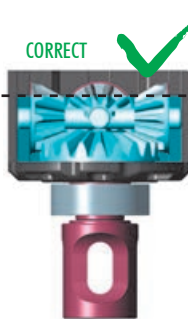
Use the following silicone oils included in the kit for initial settings:

FRONT diff: 7.000cSt / REAR diff: 3.000cSt



Fill the differentials with oil just above the satellite gears.

CORRECT



INCORRECT



IMPORTANT!

DO NOT overfill the differential. If there is too much oil in the differential, it may leak after it cools down after use.

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

OPTION



REAR 39.30g
FRONT 39.30g



REAR 41.90g
FRONT 41.90g

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

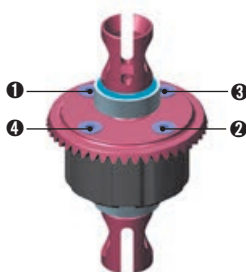
$$\text{REAR DIFF } 39.30\text{g} + 2.60\text{g} = 41.90\text{g}$$

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

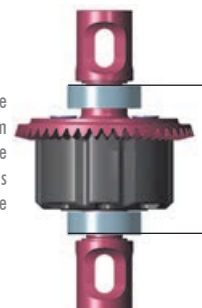
Tighten the screws equally.



Finish tightening in this order:



After assembly the differentials should have a length of 32.3~32.7 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.

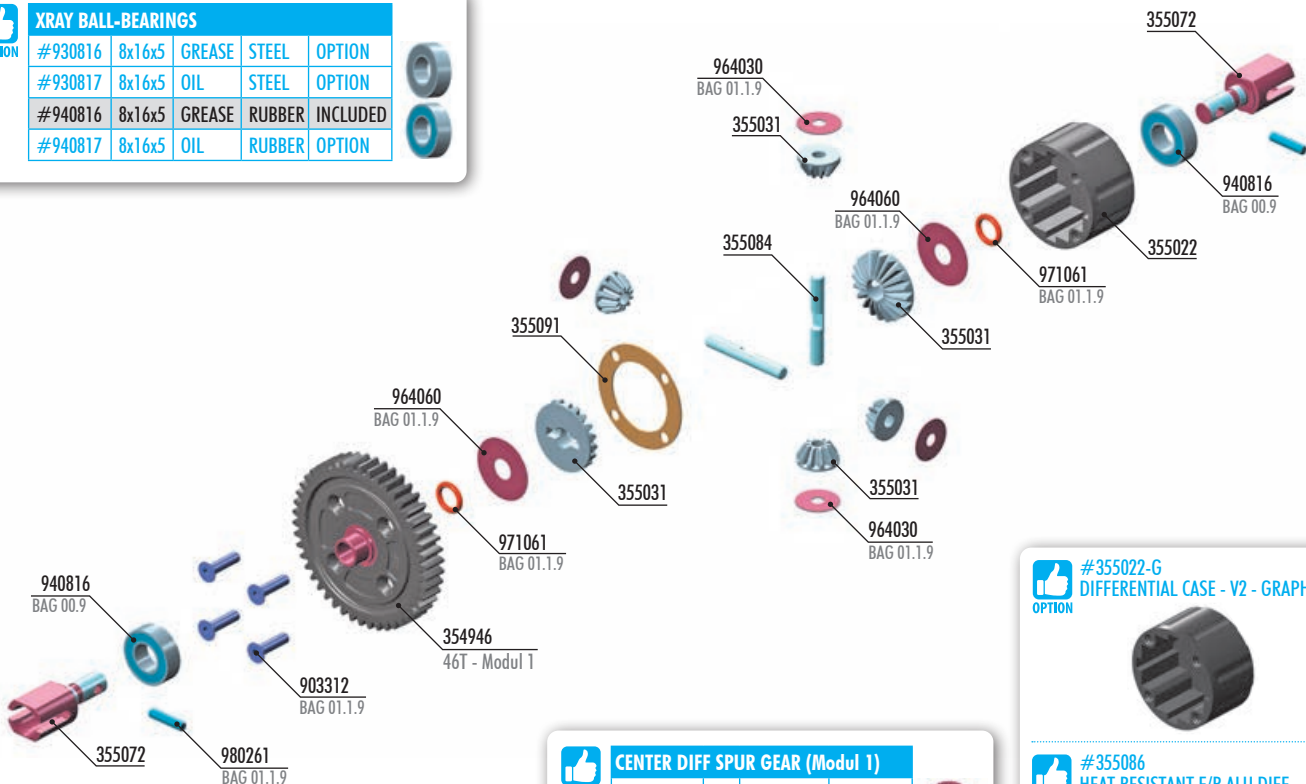


32.3~32.7 mm

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 GEAR (Modul 1)				
#355052	44T	STEEL	OPTION	
#355051	45T	STEEL	OPTION	
#355050	46T	STEEL	OPTION	
#354946	46T	COMPOSITE	INCLUDED	
#354946-G	46T	GRAPHITE	OPTION	
#355048	48T	STEEL	OPTION	



#355022-G
DIFFERENTIAL CASE - V2 - GRAPHITE



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



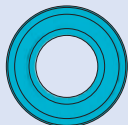
BAG

01.3

- 355014 CENTER DIFFERENTIAL SMALL WITH COMPOSITE SPUR GEAR 46T - SET
- 355022 DIFFERENTIAL CASE - V2
- 355031 STEEL DIFF BEVEL & SATELLITE GEARS - V2 (2+4)
- 354946 COMPOSITE CENTER DIFF SPUR GEAR WITH MOULDED-IN STEEL BUSHING 46T
- 355072 LARGE CENTER DIFF OUTDRIVE ADAPTER - HUDY STEEL (2)
- 355084 DIFF PIN (2)
- 355091 DIFF GASKET (4)

- 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)

Numbers in parentheses () refer to quantities when purchased separately.



1x 940816
BB 8x16x5



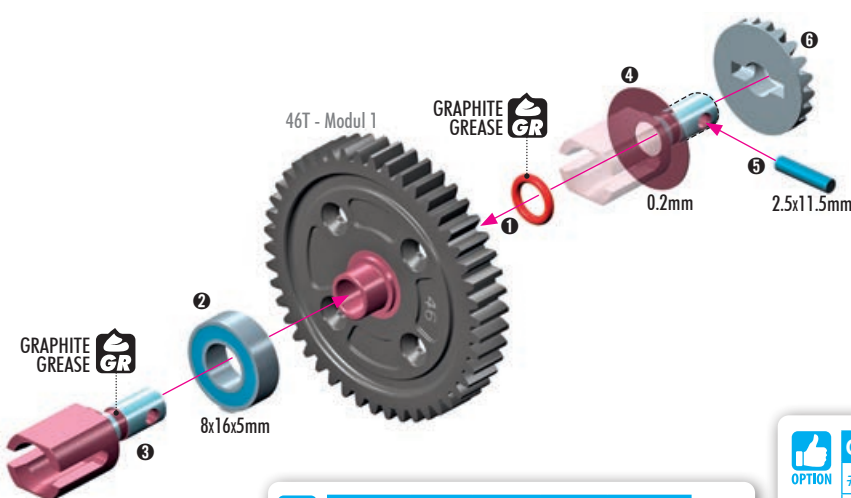
1x 964060
S 6x18x0.2



1x 971061
O 6x1.55



1x 980261
P 2.5x11.5



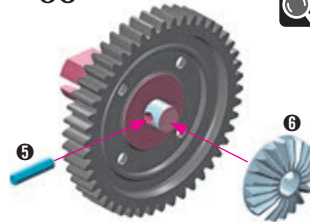
XRAY BALL-BEARINGS				
#930816	8x16x5	GREASE	STEEL	OPTION
#930817	8x16x5	OIL	STEEL	OPTION
#940816	8x16x5	GREASE	RUBBER	INCLUDED
#940817	8x16x5	OIL	RUBBER	OPTION



CENTER DIFF SPUR GEAR (Modul 1)				
#355052	44T	STEEL	OPTION	
#355051	45T	STEEL	OPTION	
#355050	46T	STEEL	OPTION	
#354946	46T	COMPOSITE	INCLUDED	
#354946-G	46T	GRAPHITE	OPTION	
#355048	48T	STEEL	OPTION	



STEP 5 6 DETAIL



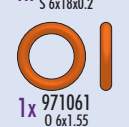
1. CENTER DIFFERENTIAL



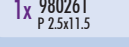
1x 940816
BB 8x16x5



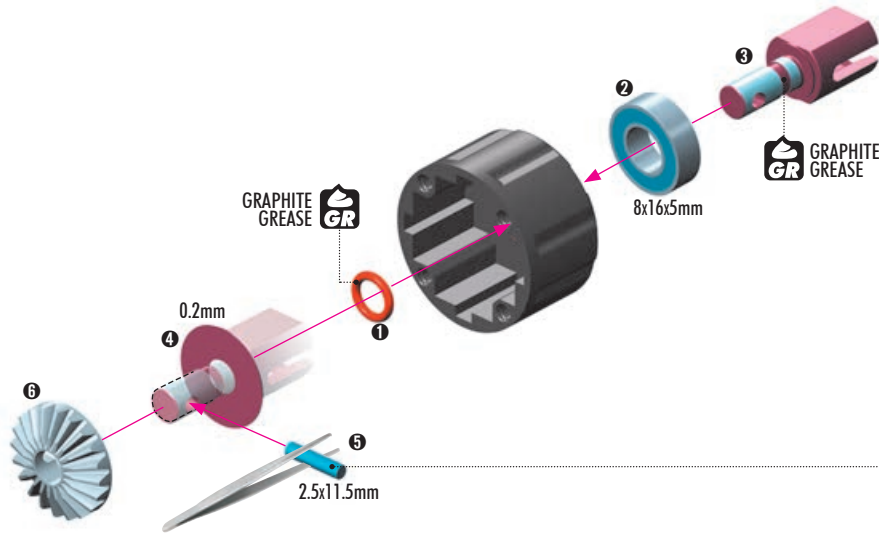
1x 964060
S 6x18x0.2



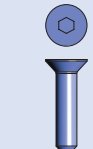
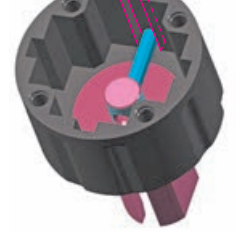
1x 971061
O 6x1.55



1x 980261
P 2.5x11.5



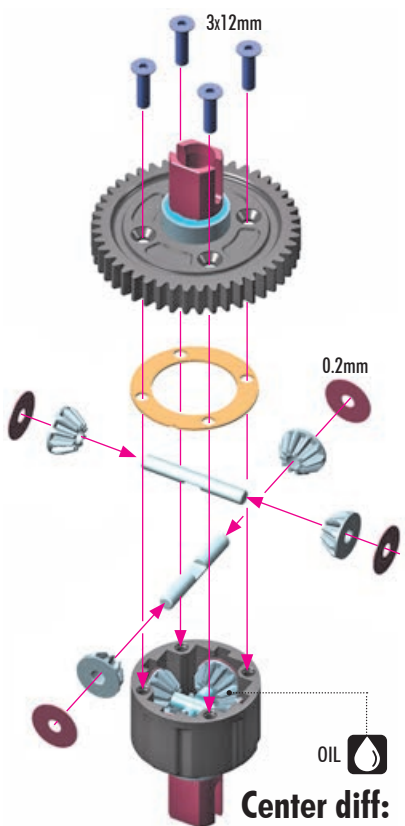
STEP 5 DETAIL



4x 903312
SFH M3x12



4x 964030
S 3.5x12x0.2



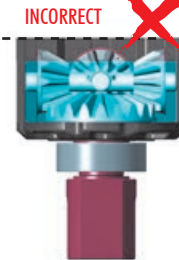
Center diff:

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

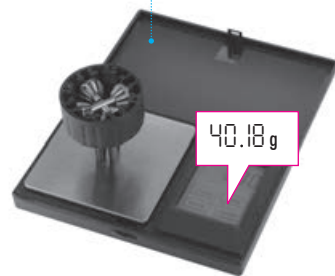
OIL
Fill the differentials with oil just above the satellite gears.



IMPORTANT!
DO NOT overfill the differential. If there is too much oil in the differential, it may leak after it cools down after use.

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 40.18g).

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 42.78g.

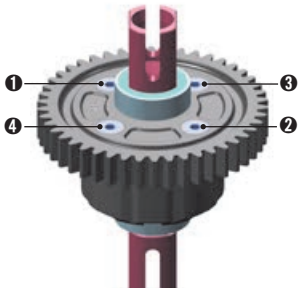
$$\text{CENTER DIFF } 40.18\text{g} + 2.60\text{g} = 42.78\text{g}$$

SET-UP BOOK
DIFFERENTIAL OIL

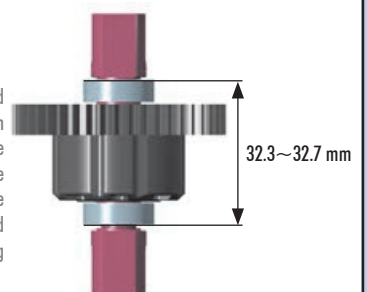
Tighten the screws equally.



Finish tightening in this order:



After assembly the differential should have a length of 32.3~32.7mm 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.



FRONT & REAR DIFF ORIENTATION



The XRAY XB8E chassis offers two options for mounting the front and rear differentials. To increase traction we recommend using the initial setting, which requires configuring the ESC to rotate in the opposite direction of the motor.

ALTERNATIVE 1

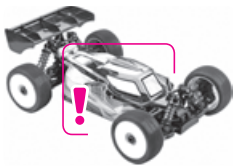
✓ INITIAL SETTING

REAR
DIFF ORIENTATION
✓ INITIAL SETTING
!

THIS CONFIGURATION GENERATES MORE TRACTION.

! ESC Setup needs motor rotation = REV Reverse Motor Rotation only.

! DIFF ORIENTATION
✓ INITIAL SETTING
FRONT

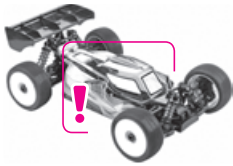


ALTERNATIVE 2

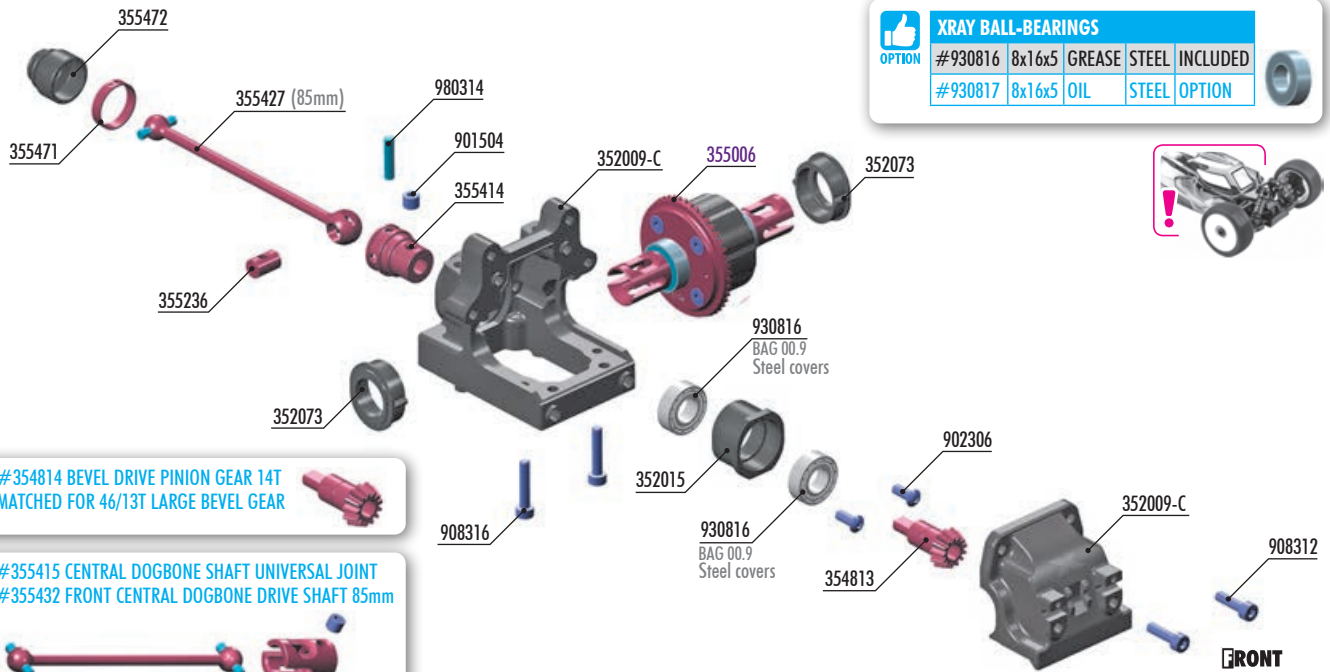
REAR
DIFF ORIENTATION
!

! ESC Setup needs motor rotation = NOR - NORMAL Rotation.
(DEFAULT ESC SETTING)

! DIFF ORIENTATION
FRONT



2. FRONT TRANSMISSION



BAG

02

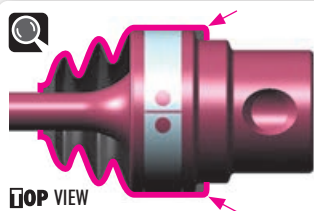
352009-C SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR FOR COLLAR
352015 GEARBOX PINION HEIGHT INSERT (1+1)
352073 GEARBOX DIFF HEIGHT INSERT (2+2)
354813 BEVEL DRIVE PINION GEAR 13T - MATCHED FOR 46T LARGE BEVEL GEAR
355236 CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
355414 CENTRAL CVD SHAFT UNIVERSAL 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

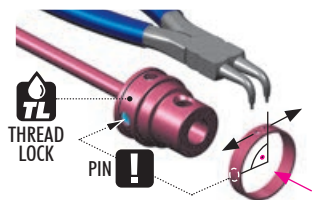
Numbers in parentheses () refer to quantities when purchased separately.

1x 980314
P 3x14



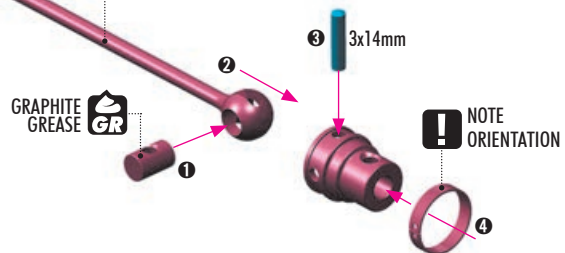
STEP 1 DETAIL

The ring can be assembled by hand, but for easy disassembly we recommend using snap ring pliers (HUDY #189040).



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

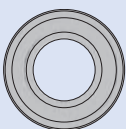
85mm - SHORT CVD DRIVE SHAFT



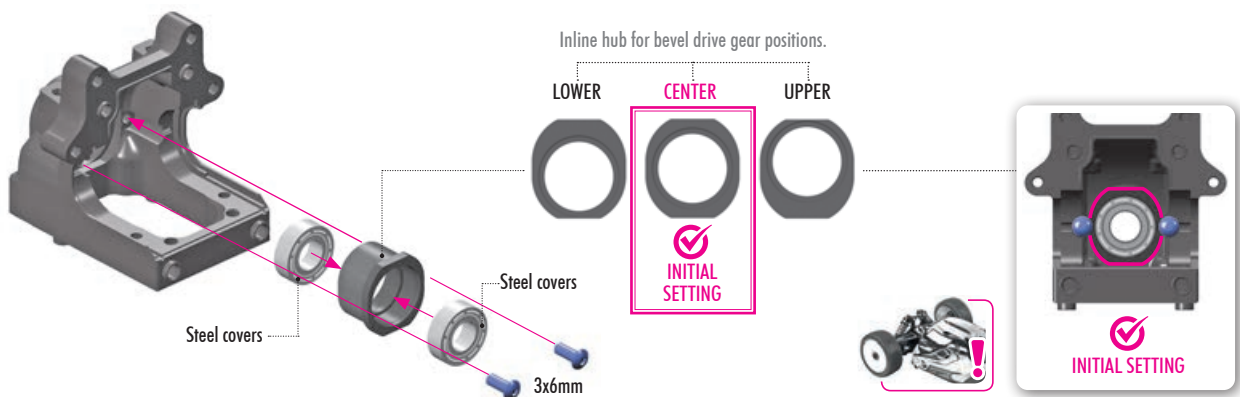
BEFORE inserting the clip on the central CVD shaft joint, apply a small amount of threadlock on the area where the clip goes.

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.

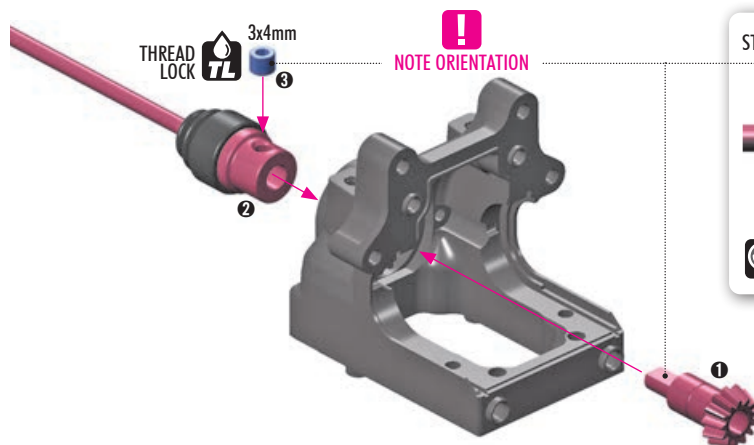
2x 902306
SH M3x6



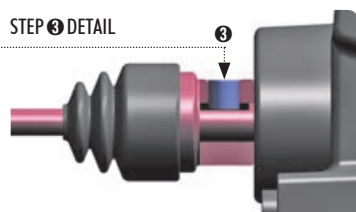
2x 930816
BB 8x16x5
(Steel covers)



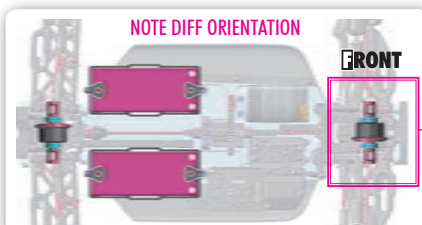
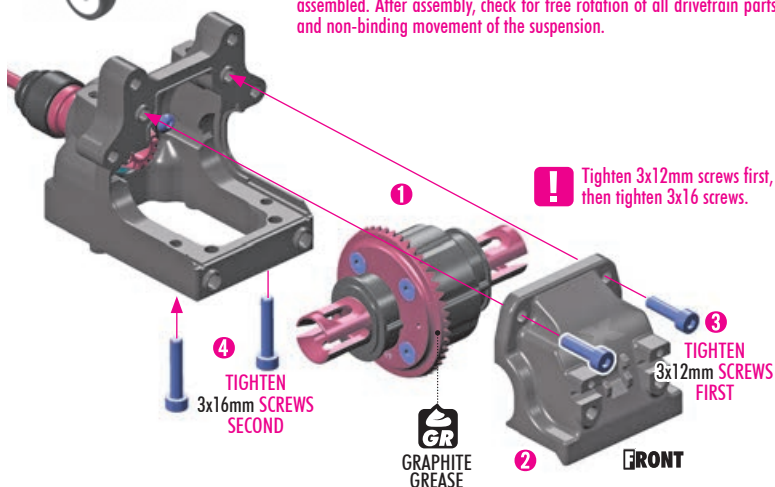
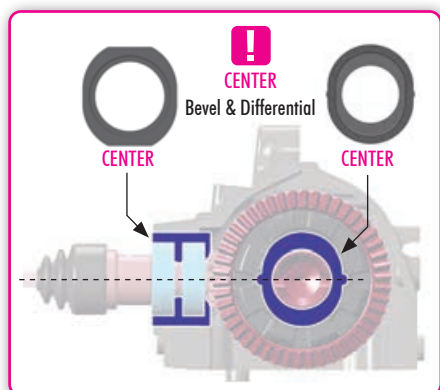
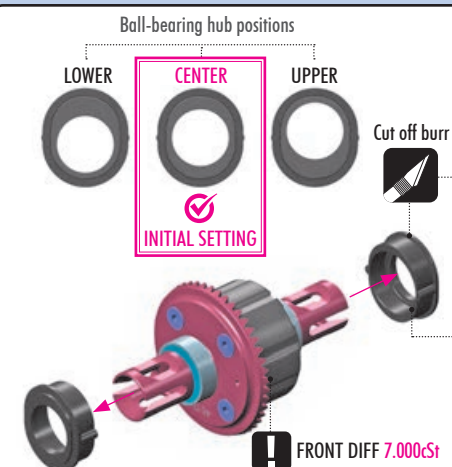
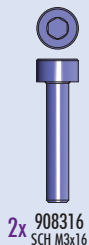
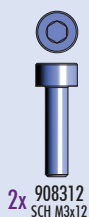
2. FRONT TRANSMISSION



STEP 2 DETAIL



Push joint against gear to remove gap.
Tighten setscrew onto gear flat spot.



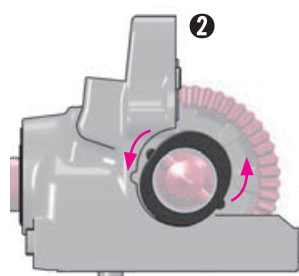
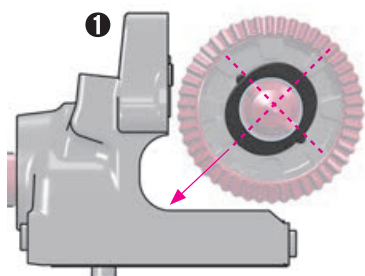
NOTE DIFF ORIENTATION



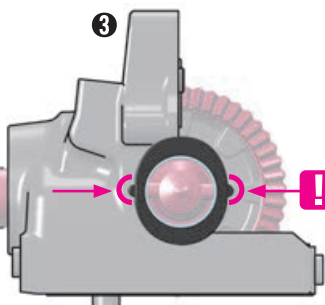
Internal Gear Ratio = 3.54

(Bevel) 46 : (Pinion) 13 = (IGR) 3.54

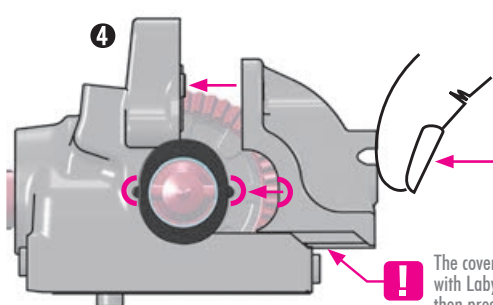
INSTALLING THE DIFFERENTIAL WHILE FIRST TIME BUILDING THE CAR



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

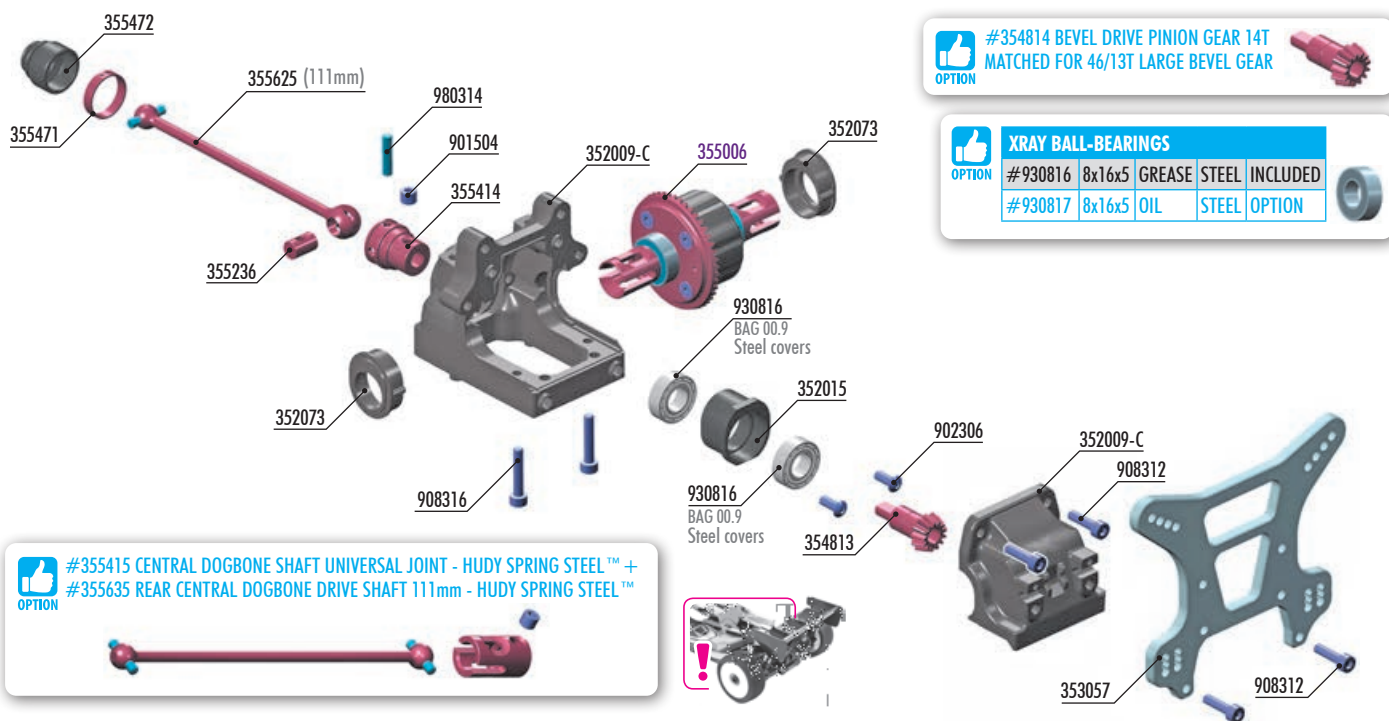


EXTREMELY IMPORTANT
Hub must be inserted in groove and properly pressed into bulkhead.



! The cover must be aligned with Labyrinth Groove and then pressed into place.

2. REAR TRANSMISSION

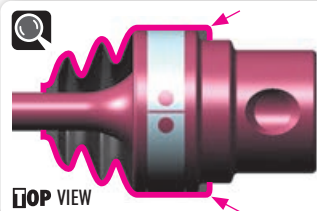


02

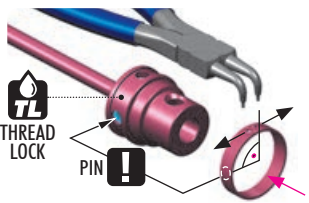
- 355625 REAR CENTRAL CVD DRIVE SHAFT 111mm - HUDY SPRING STEEL™
901504 HEX SCREW SB M5x4 (10)
902306 HEX SCREW SH M3x6 (10)
908312 HEX SCREW SOCKET HEAD CAP SCH M3x12 (10)
908316 HEX SCREW SOCKET HEAD CAP SCH M3x16 (10)
930816 BALL-BEARING 8x16x5 STEEL SEALED - GREASE (2)
980314 PIN 3x14 (10)

355006 DIFFERENTIAL 46T - MATCHED FOR 13T PINION GEAR - SET

Numbers in parentheses () refer to quantities when purchased separately.



The ring can be assembled by hand, but for easy disassembly we recommend using snap ring pliers (HUDY #189040).



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

111mm - LONG CVD DRIVE SHAFT

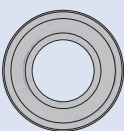
3x14mm  

100

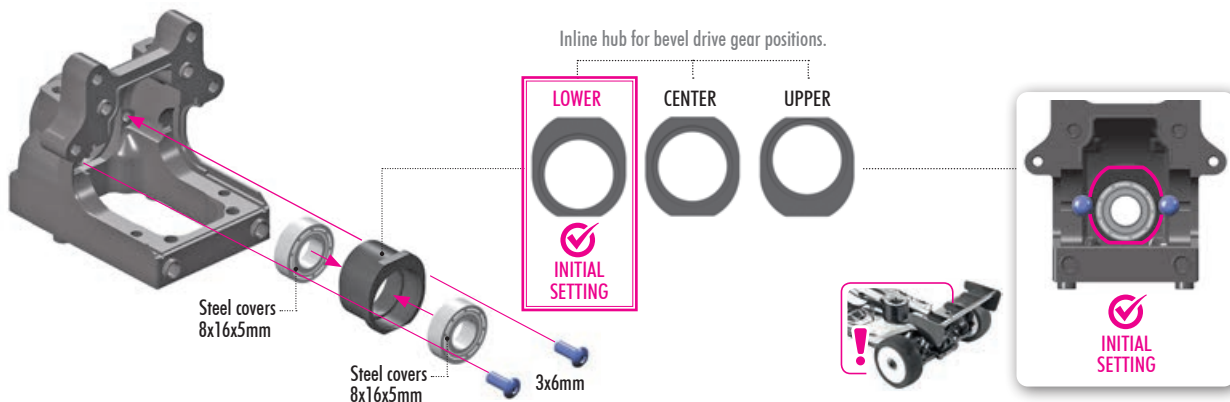
NOTE ORIENTATION

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

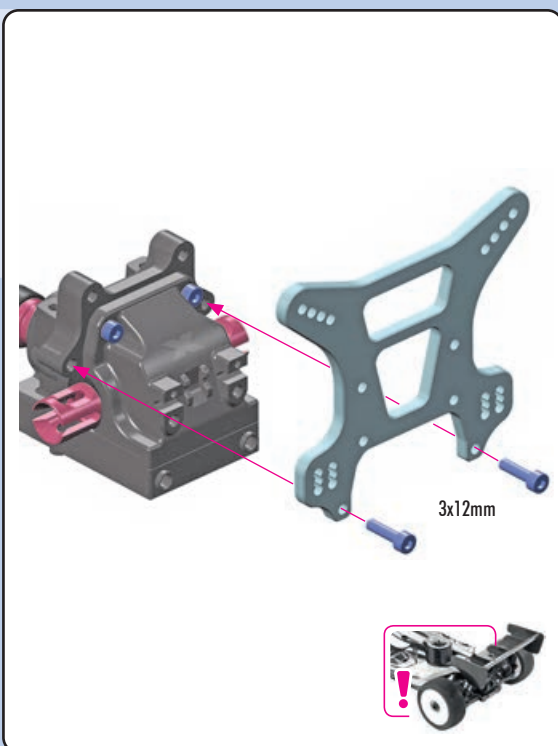
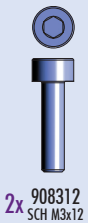
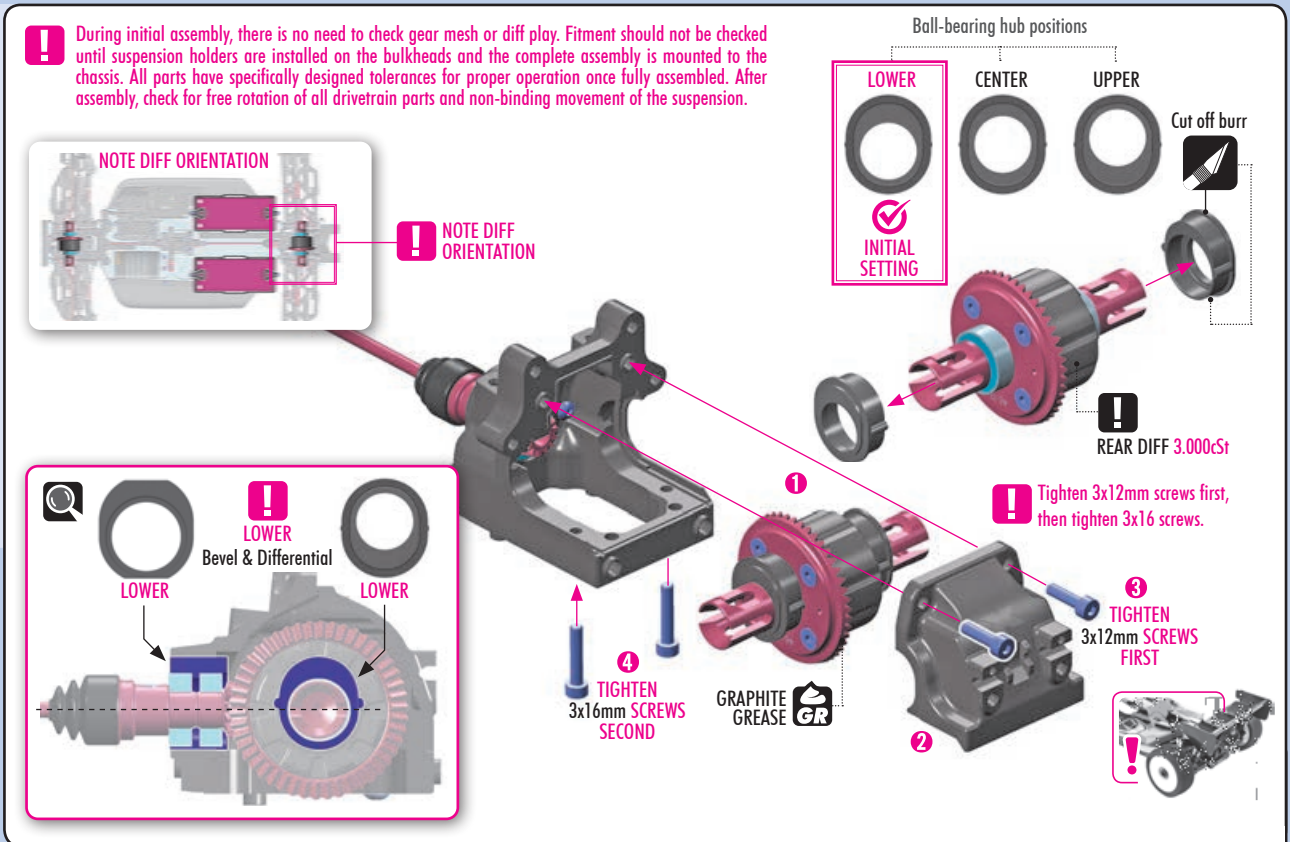
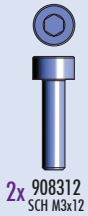
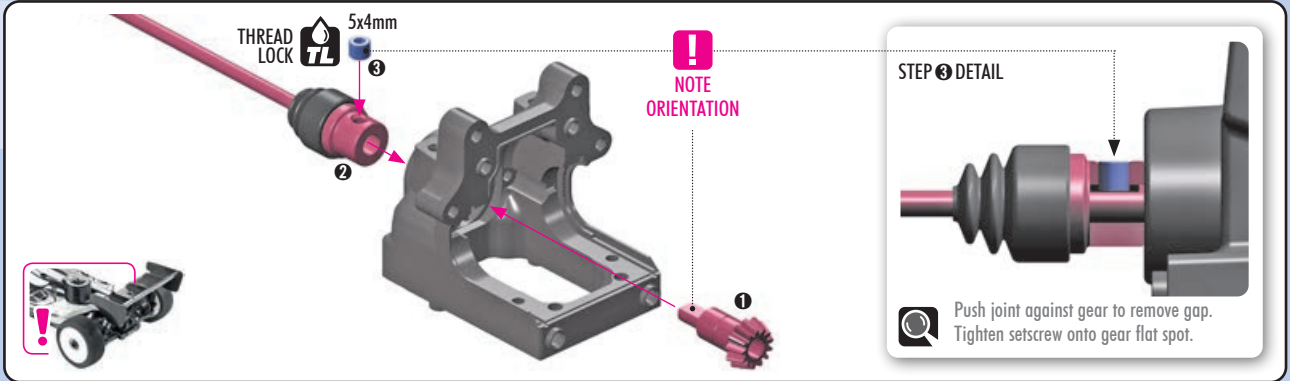
AFTER inserting the clip on the central CVD shaft joint, turn the clip so that the slot is 90° from the pin. This will prevent the pin from opening the clip.



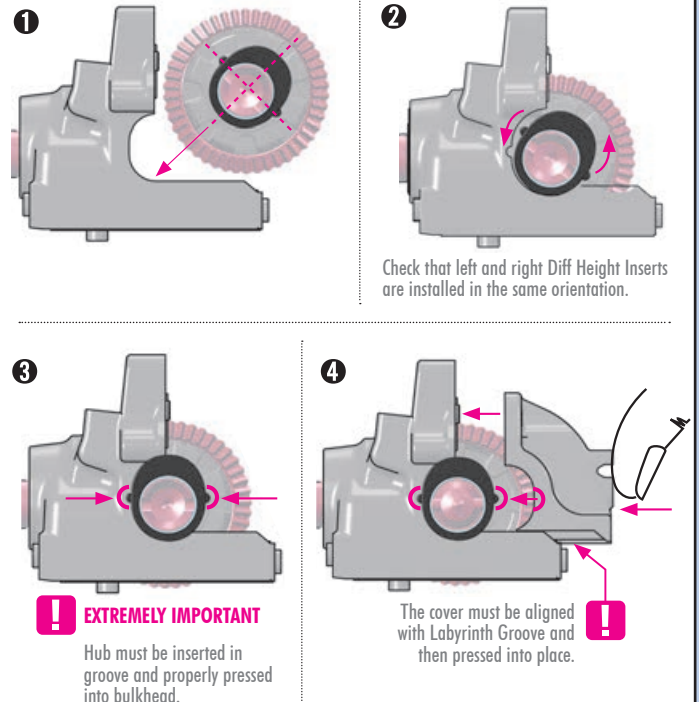
2x 930816
BB 8x16x5
(Steel covers)



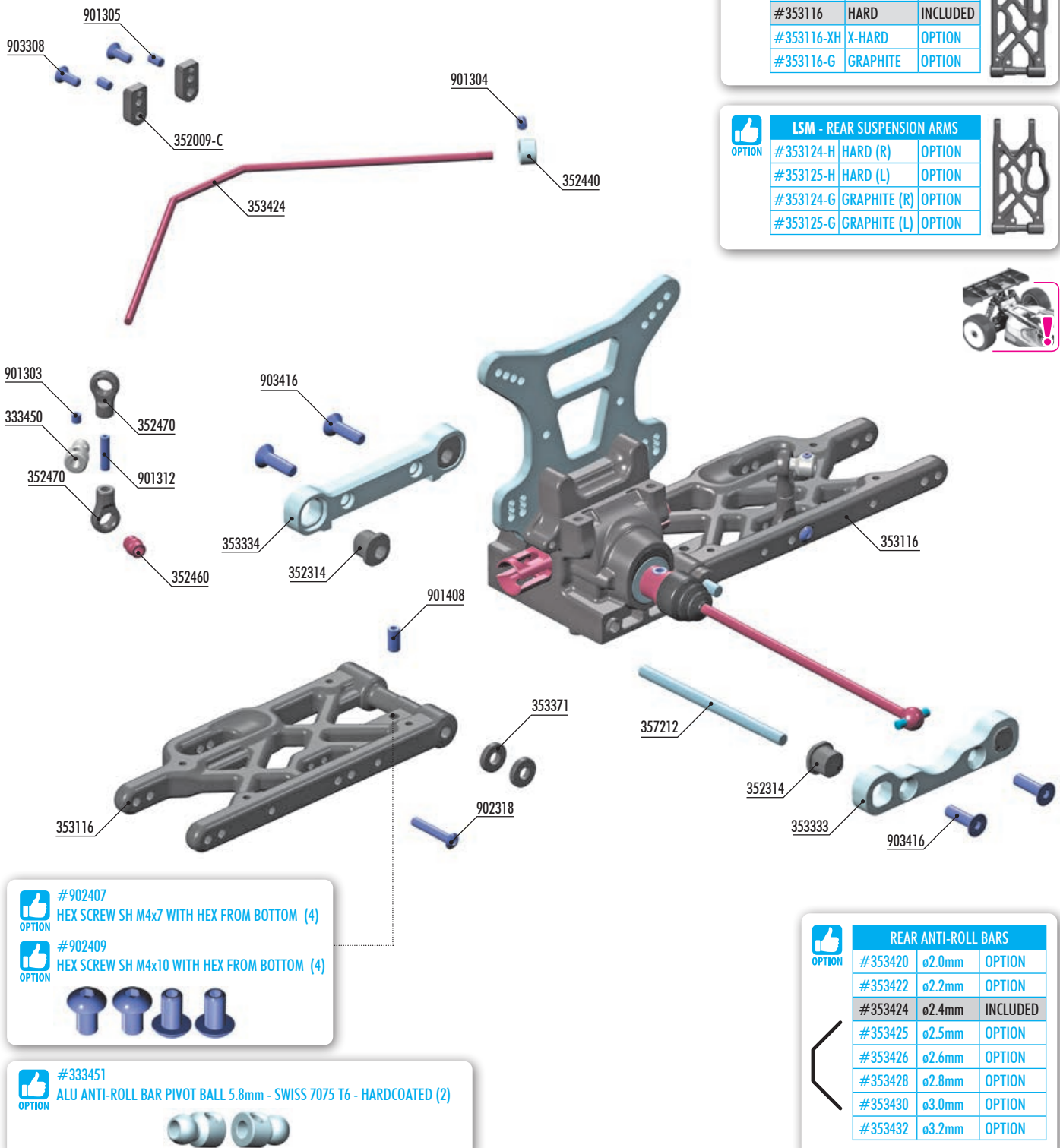
2. REAR TRANSMISSION



INSTALLING THE DIFFERENTIAL WHILE FIRST TIME BUILDING THE CAR



3. REAR SUSPENSION



BAG

03

333450 ANTI-ROLL BAR BALL JOINT 5.8mm (2)
 352009-C SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR FOR COLLAR
 352314 COMPOSITE ECCENTRIC BUSHINGS - V2 (2)
 352440 ALU ANTI-ROLL BAR COLLAR 3.5x7.8x4.9mm
 352460 PIVOT BALL 5.8 (10)
 352470 BALL JOINT 5.8 (8)
 353116 COMPOSITE REAR LOWER SUSPENSION ARM - HARD
 353333 ALU REAR LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - FRONT
 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)

901303 HEX SCREW SB M3x3 (10)
 901304 HEX SCREW SB M3x4 (10)
 901305 HEX SCREW SB M3x5 (10)
 901312 HEX SCREW SB M3x12 (10)
 901408 HEX SCREW SB M4x8 (10)
 902318 HEX SCREW SH M3x18 (10)
 903308 HEX SCREW SFH M3x8 (10)
 903416 HEX SCREW SFH M4x16 (10)

Numbers in parentheses () refer to quantities when purchased separately.

3. REAR SUSPENSION

10

4x 353371
SHIM 4x10x2



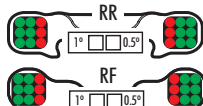
2x 901408
SB M4x8



4x 903416
SFH M4x16

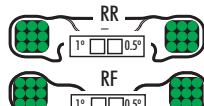


MEDIUM
SUSPENSION ARMS



DO NOT use INNER positions.

HARD
SUSPENSION ARMS

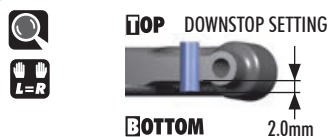
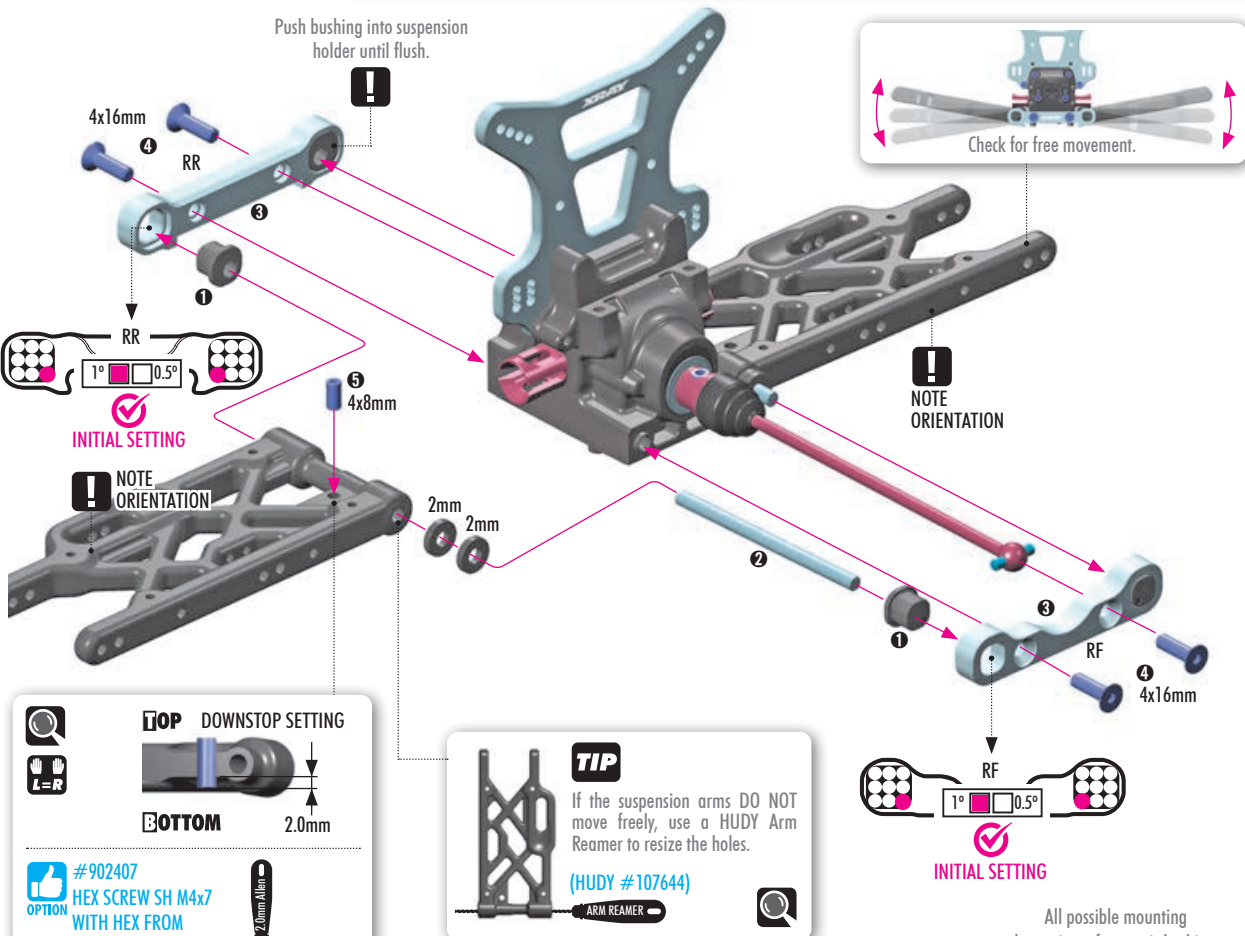


All positions are available.

X-HARD / GRAPHITE
SUSPENSION ARMS



DO NOT use OUTER positions.



#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)

TIP

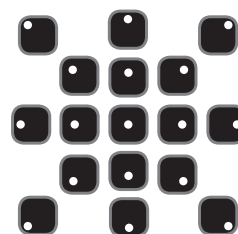
If the suspension arms **DO NOT**
move freely, use a HUDY Arm
Reamer to resize the holes.

(HUDY #107644)

ARM REAMER

INITIAL SETTING

All possible mounting
alternatives of eccentric bushings.



EOCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.



Middle position = 0.5 mm or 0.5° from center.



Outer position = 1mm or 1° from center.

The XRAY rear alu lower suspension holders provide even greater range of adjustment for the rear suspension. Using different combinations of eccentric bushings, fine adjustment of rear anti-squat, 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

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	0	= 3°
0(RR) - 0.5 (RF) = 3.5°	0	0.5	= 3.5°
0(RR) - 1 (RF) = 4°	0	1	= 4°

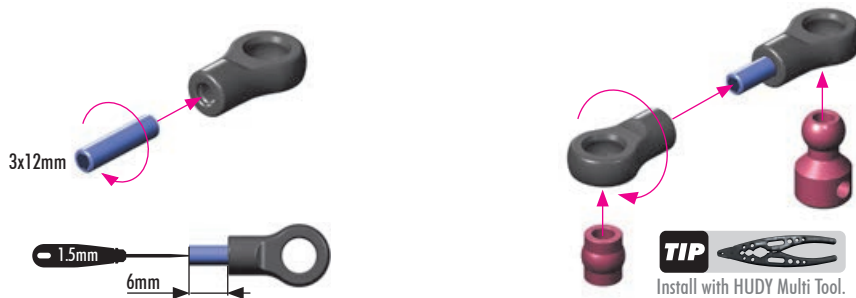
TRACK-WIDTH		
RR	RF	(mm)
0	0	= 308
0	0.5	= 306
0	1	= 310

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

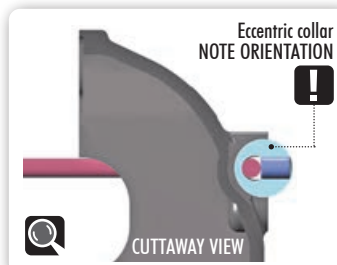
3. REAR SUSPENSION

2x 901312
SB M3x12

2x L=R



1x 901304
SB M3x4

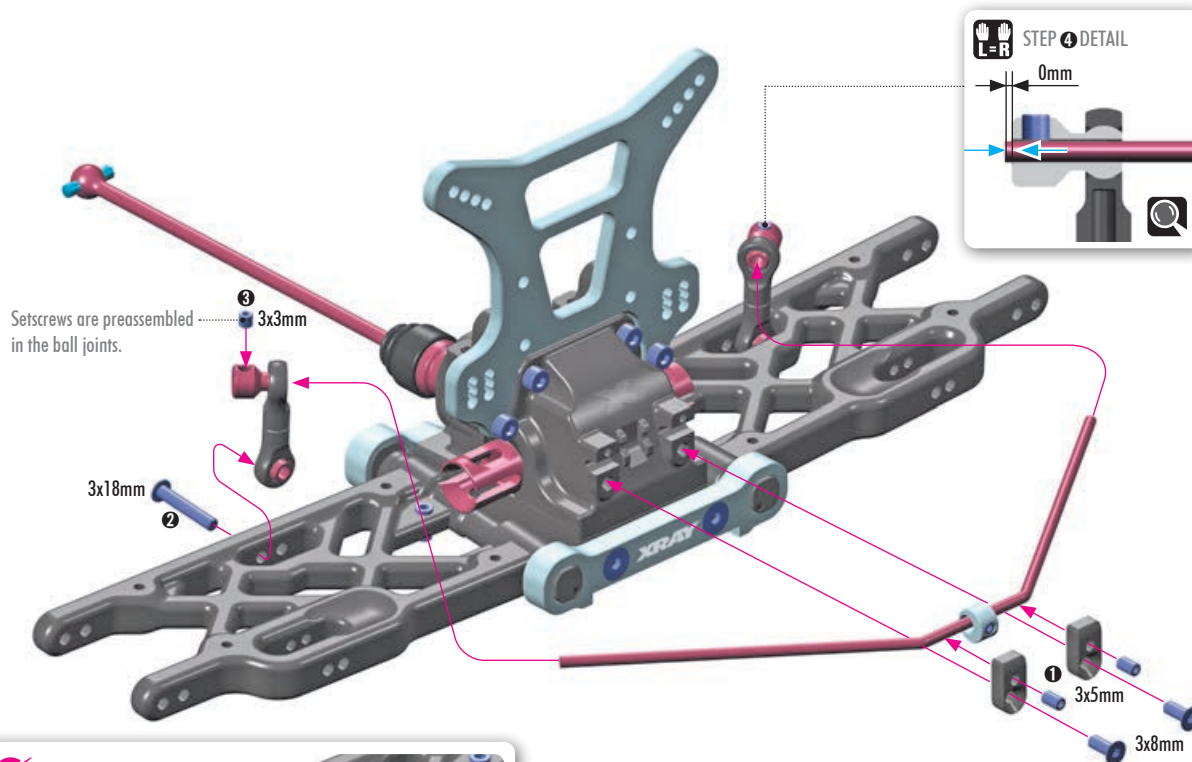


2x 901303
SB M3x3

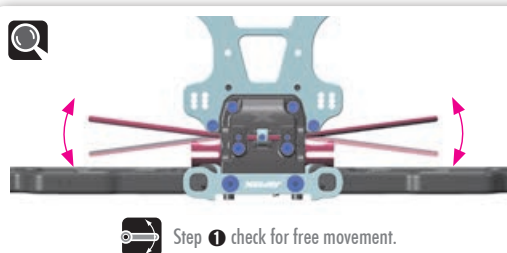
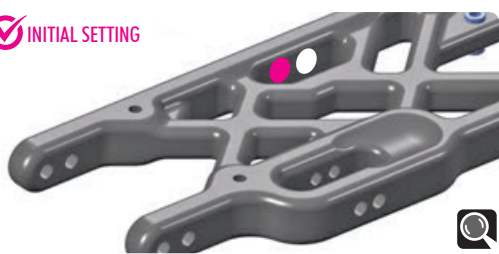
2x 901305
SB M3x5

2x 902318
SH M3x18

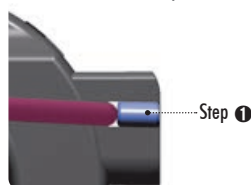
2x 903308
SFH M3x8



INITIAL SETTING



Loosen the 3x5mm setscrew if the anti-roll bar DOES NOT turn freely.



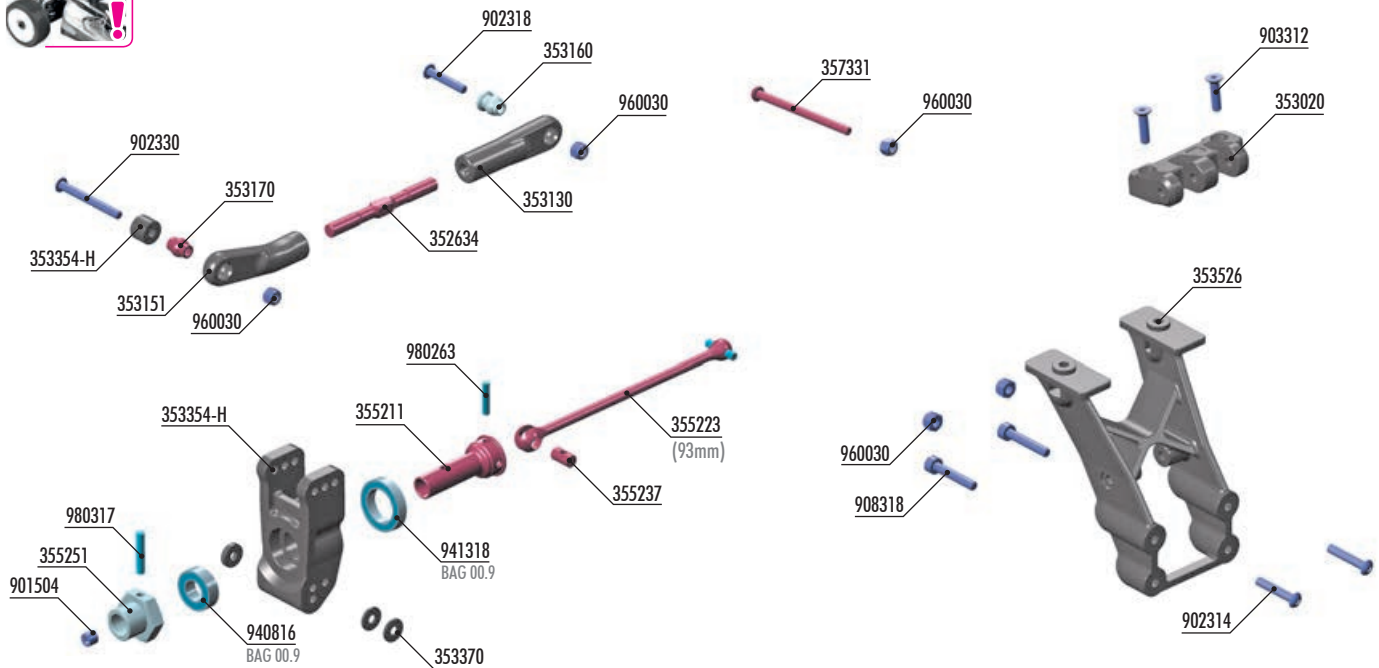
OPTION

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

SET-UP BOOK
ANTI-ROLL BAR

4. REAR SUSPENSION



OFFSET WHEEL AXLES

#	Offset	Status
#355250	0mm	OPTION
#355251	+1mm	INCLUDED
#355252	+2mm	OPTION
#355253	+3mm	OPTION
#355254	+4mm	OPTION



REAR UPRIGHTS

#	Material	Status
#353354	MEDIUM	OPTION
#353354-H	HARD	INCLUDED
#353354-G	GRAPHITE	OPTION
#350912	ALU-SET	OPTION



XRAY BALL-BEARINGS

#	Size	Lubricant	Material	Status
#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



#353130-G REAR UPPER INNER CAMBER LINK BALL JOINT - GRAPHITE (2)



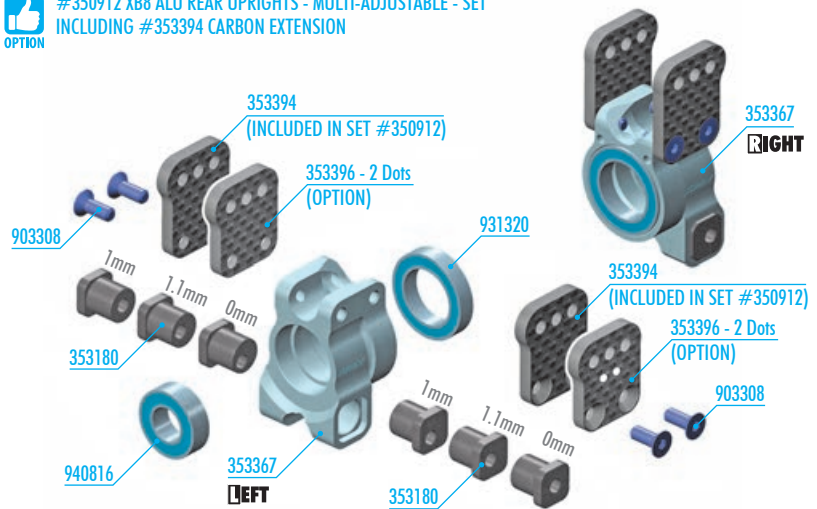
#353151-G RELIEF REAR UPPER OUTER CAMBER LINK BALL JOINT - GRAPHITE (2)



#355215 CVD ADJUSTABLE DRIVE AXLE - HUDY SPRING STEEL™



#350912 X88 ALU REAR UPRIGHTS - MULTI-ADJUSTABLE - SET INCLUDING #353394 CARBON EXTENSION



BAG

04

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™
 355251 ALU WHEEL AXLE OFFSET "+1mm" - BLACK COATED (2)

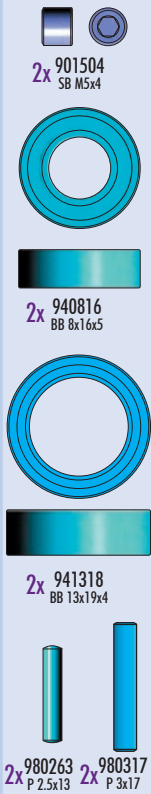
357331 REAR LOWER OUTER PIVOT PIN SCREW 3mm (2)

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)

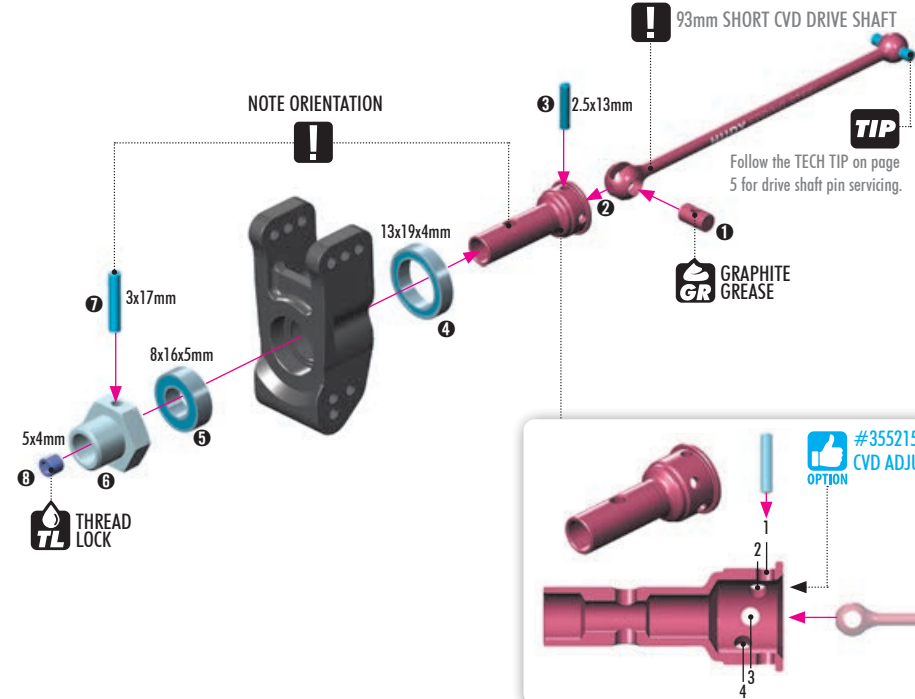
Numbers in parentheses () refer to quantities when purchased separately.

XRAY

4. REAR SUSPENSION

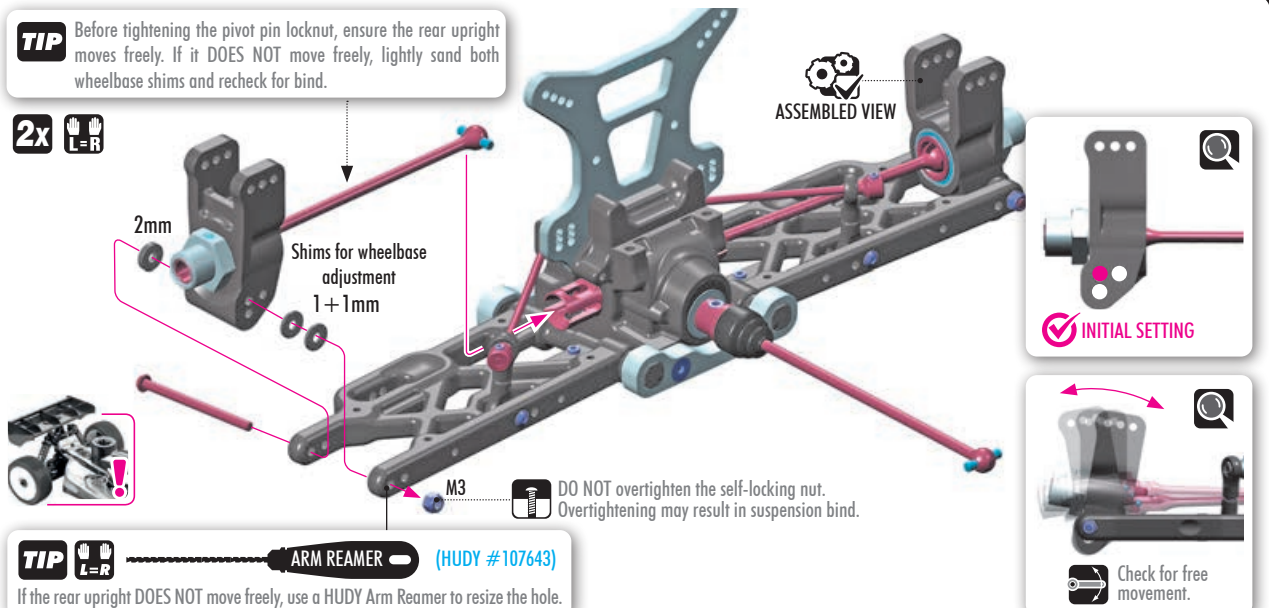


2x L=R

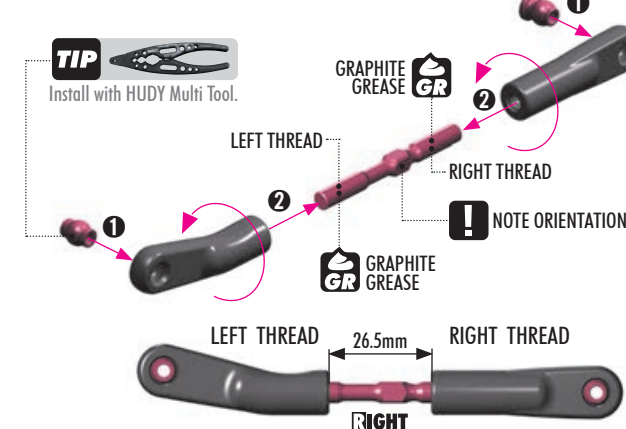


TIP Before tightening the pivot pin locknut, ensure the rear upright moves freely. If it DOES NOT move freely, lightly sand both wheelbase shims and recheck for bind.

2x L=R



- 1 Install pivot balls with HUDY Multi Tool.
- 2 Install ball joints on turnbuckle.



SET-UP BOOK
CAMBER

4. REAR SUSPENSION



2x 353354-H
SHIM 3x9x7



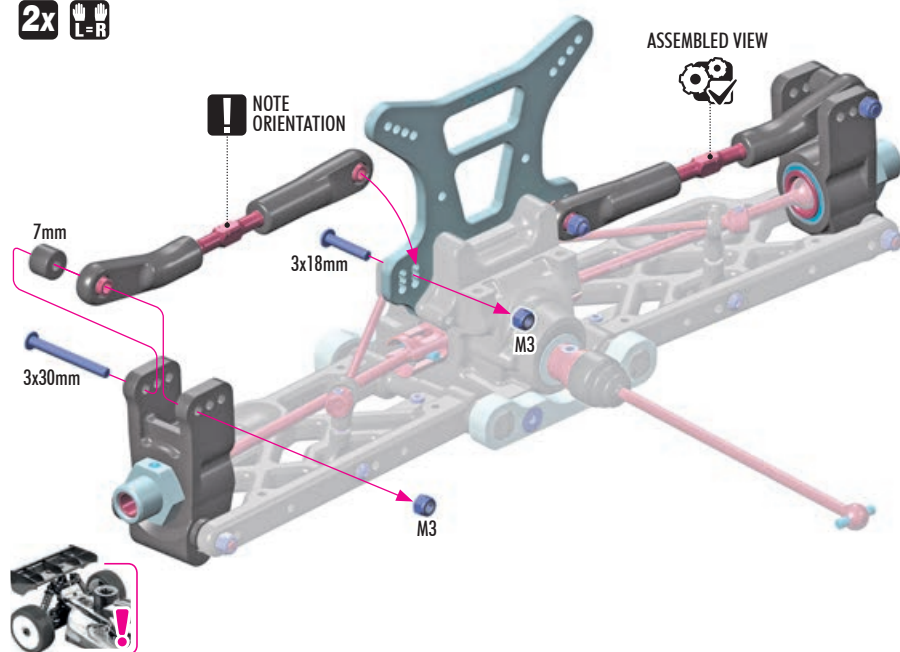
2x 902318
SH M3x18

2x 902330
SH M3x30



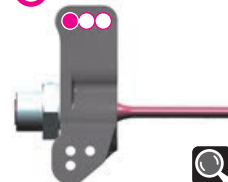
4x 960030
N M3

2x L=R



L=R

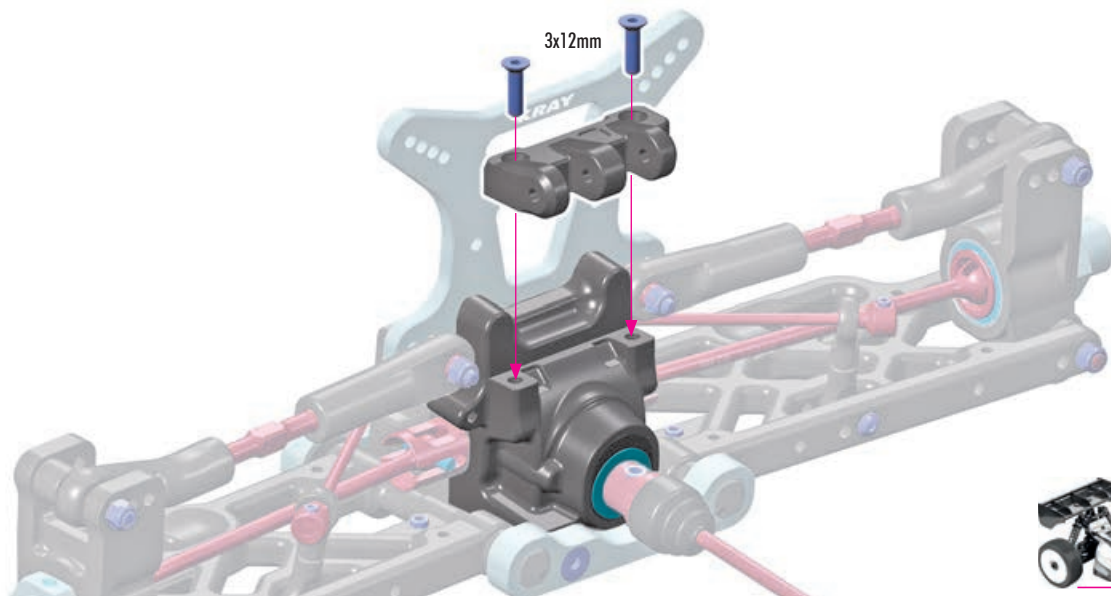
✓ INITIAL SETTING



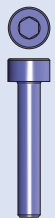
✓ INITIAL SETTING



2x 903312
SFH M3x12



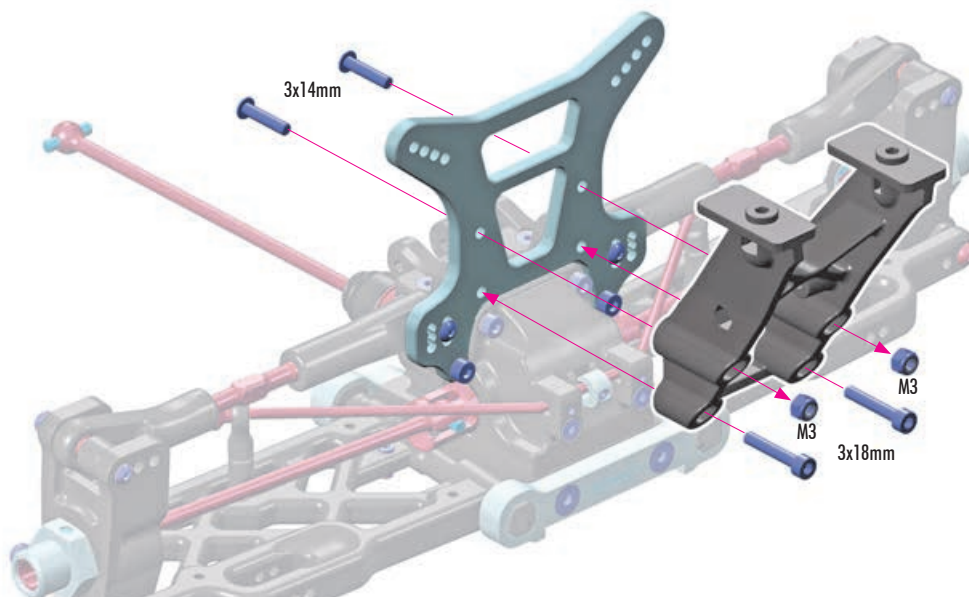
2x 902314
SH M3x14



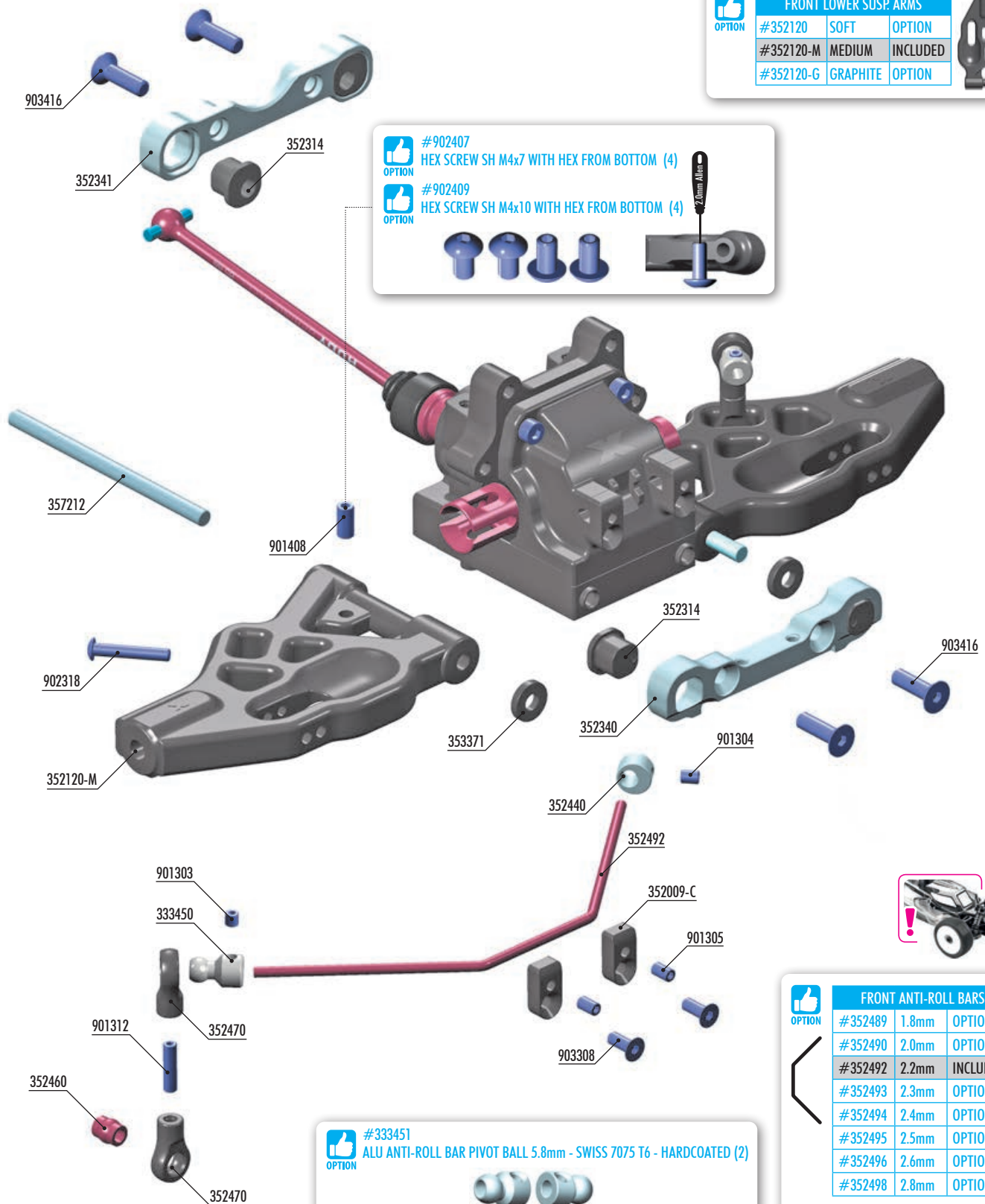
2x 908318
SCH M3x18



2x 960030
N M3



5. FRONT SUSPENSION



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

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

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

BAG

05

333450	ANTI-ROLL BAR BALL JOINT 5.8mm (2)	357212	LOWER INNER PIVOT PIN F+R (2)
352009-C	SEMI-SPLIT DIFF BULKHEAD BLOCK SET FRONT/REAR FOR COLLAR		
352120-M	COMPOSITE FRONT LOWER SUSPENSION ARM - MEDIUM	901303	HEX SCREW SB M3x3 (10)
352314	COMPOSITE SQUARE ADJ. ROLL CENTER BUSHINGS - V2 (2)	901304	HEX SCREW SB M3x4 (10)
352340	ALU FRONT LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - FRONT	901305	HEX SCREW SB M3x5 (10)
352341	ALU FRONT LOWER SUSP. HOLDER FOR SEMI-SPLIT BULKHEAD - REAR	901312	HEX SCREW SB M3x12 (10)
352440	ALU ANTI-ROLL BAR COLLAR 3.5x7.8x4.9mm (2)	901408	HEX SCREW SB M4x8 (10)
352460	PIVOT BALL 5.8 (10)	902318	HEX SCREW SH M3x18 (10)
352470	BALL JOINT 5.8 (8)	903308	HEX SCREW SFH M3x8 (10)
352492	FRONT ANTI-ROLL BAR 2.4mm	903416	HEX SCREW SFH M4x16 (10)
353371	SET OF COMPOSITE LOWER ARM SHIMS		

Numbers in parentheses () refer to quantities when purchased separately.

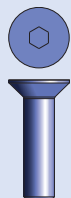
5. FRONT SUSPENSION

10

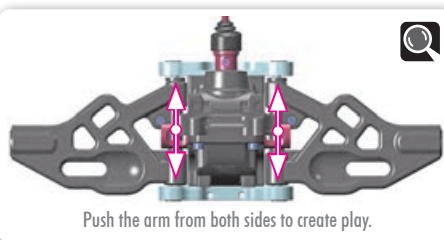
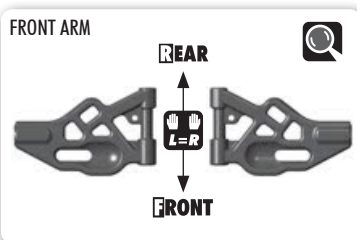
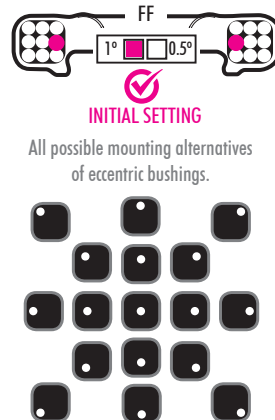
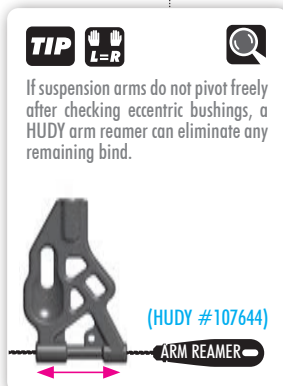
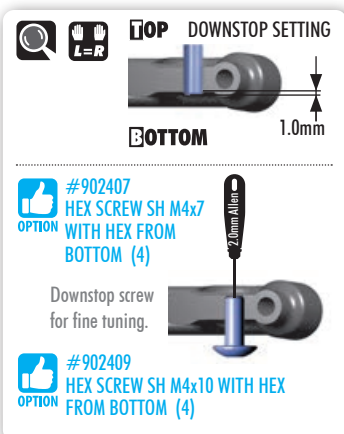
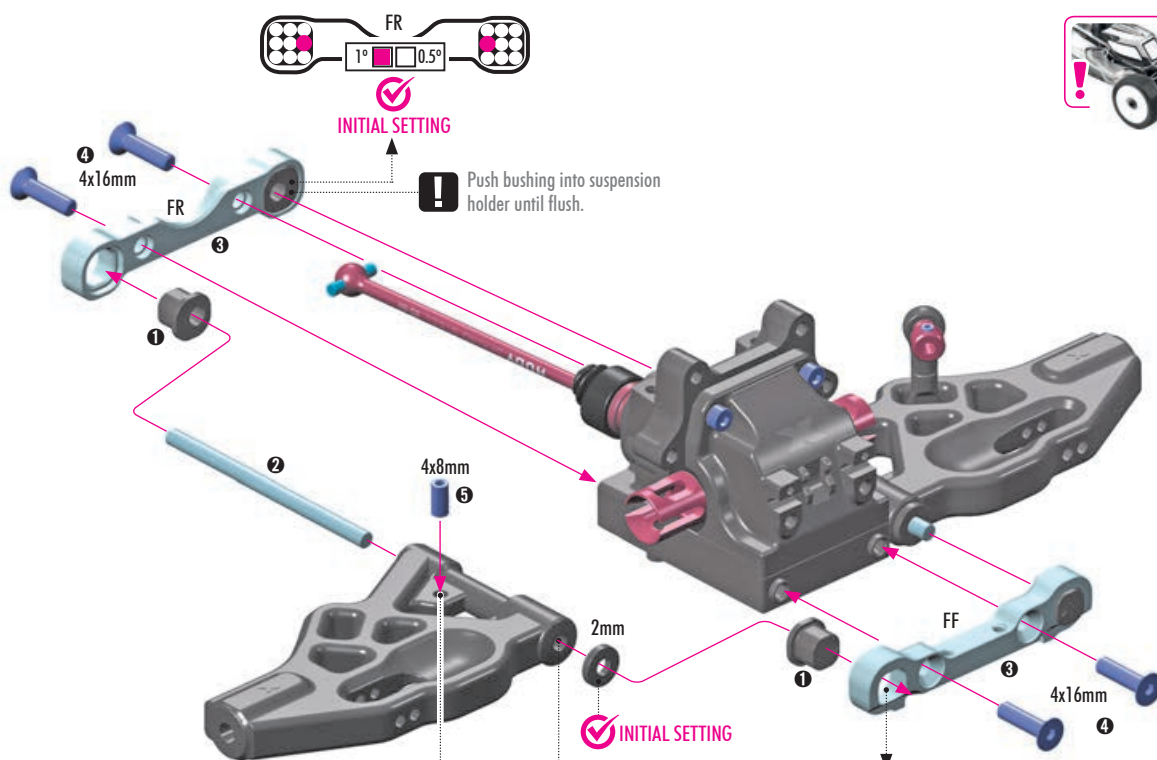
2x 353371
SHIM 4x10x2



2x 901408
SB M4x8



4x 903416
SFH M4x16



Eccentric bushings have two different offsets from the center.

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

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).

FF	FR	(mm)
		=308
		=306
		=310*

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

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.

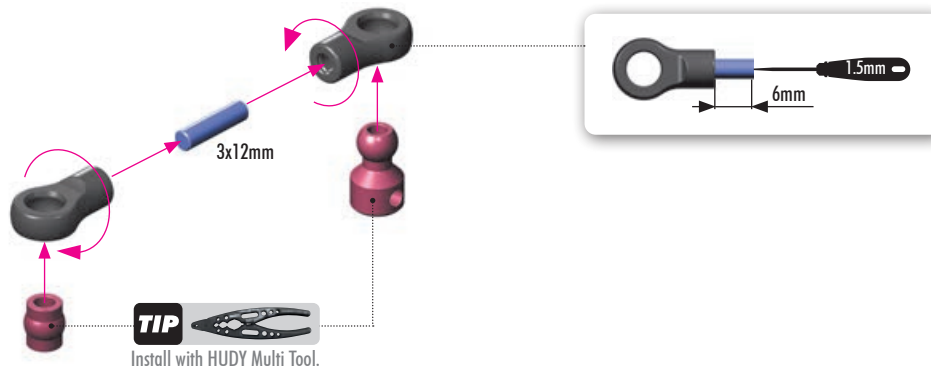
* NOT recommended to use this setting.

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

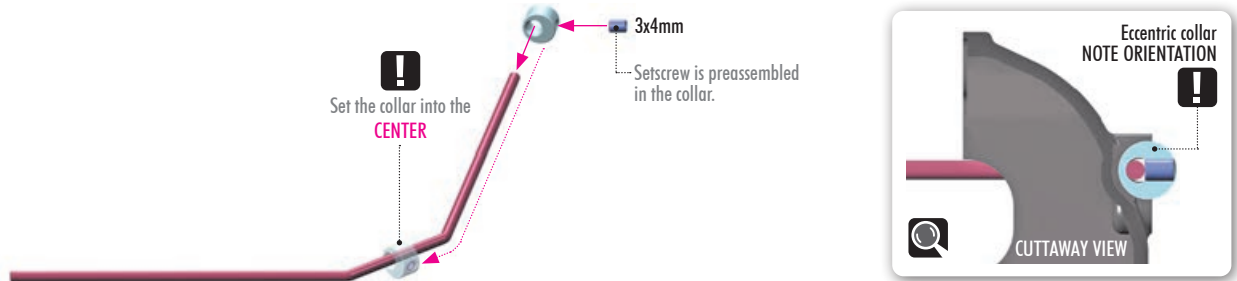
5. FRONT SUSPENSION

2x 901312
SB M3x12

2x L=R



1x 901304
SB M3x4

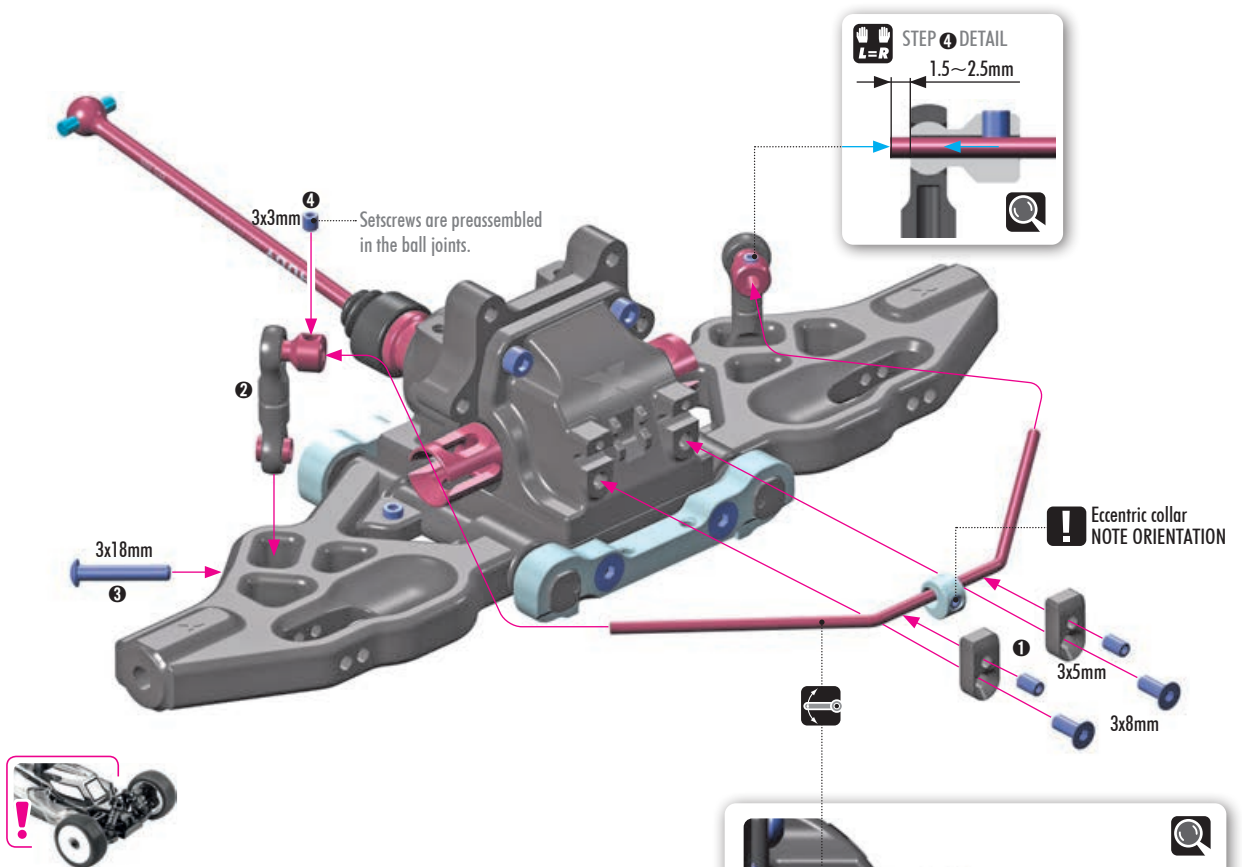


2x 901303
SB M3x3

2x 901305
SB M3x5

2x 902318
SH M3x18

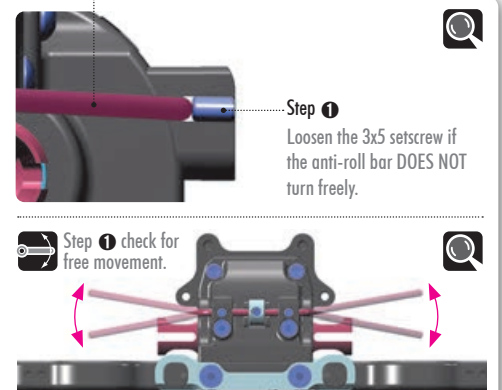
2x 903308
SFH M3x8



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



#357257 PIVOT BALL CAMBER
ALU SHIM 6x13x1.5mm (2)



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



#357253
BRASS ADJUSTING NUT M15x1



OFFSET WHEEL AXLES

#	Offset	Status
#355250	0mm	OPTION
#355251	+1mm	INCLUDED
#355252	+2mm	OPTION
#355253	+3mm	OPTION
#355254	+4mm	OPTION



FRONT UPPER SUSP. ARMS

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



STEERING BLOCKS

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



STEERING PLATES

#	Pattern	Material	Status
#352366	1 DOT	CARBON	OPTION
#352367	2 DOTS	CARBON	OPTION
#352368	3 DOTS	CARBON	INCLUDED
#352372	1 DOT	ALU	OPTION
#352370	2 DOTS	ALU	OPTION



XRAY BALL-BEARINGS

#	Size	Lubricant	Material	Status
#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



BAG



352135-M FRONT UPPER ARM - MEDIUM
352244-H PB STEERING BLOCK LB - HARD
352368 CARBON STEERING PLATE - 3 DOTS (1+1)
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)

Numbers in parentheses () refer to quantities when purchased separately.



2x 901504
SB M5x4



2x 940816
BB 8x16x5

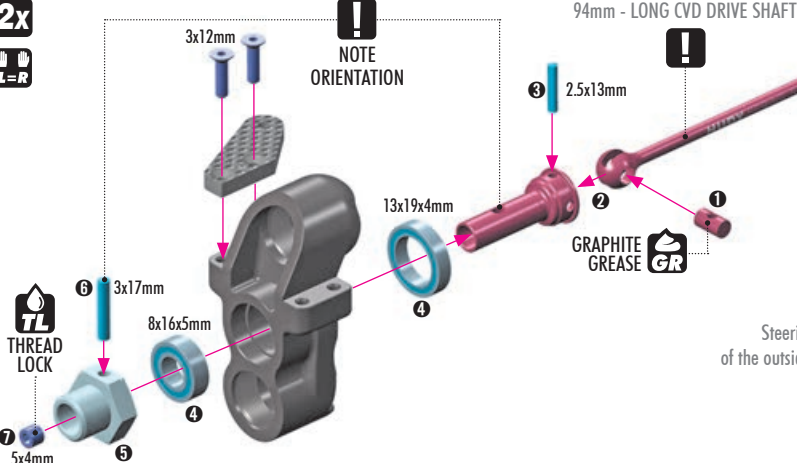


2x 941318
BB 13x19x4



2x 980263 P 2.5x13
2x 980317 P 3x17

2x



NOTE
ORIENTATION

94mm - LONG CVD DRIVE SHAFT

2.5x13mm

13x19x4mm

3x12mm

3x17mm

8x16x5mm

5x4mm

THREAD LOCK

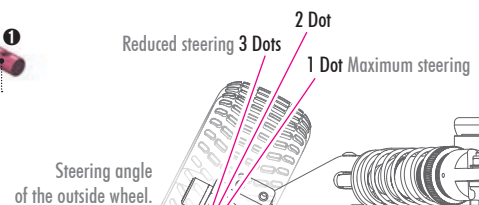
GRAPHITE GREASE

2 Dot

1 Dot Maximum steering



#355222
UNIVERSAL DRIVE SHAFT - HUDY SPRING STEEL™



TIP

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



Be careful NOT to overtighten the setscrew, as excessive tension in the drive axle may cause it to break. Instead, use thread lock to secure the setscrew.



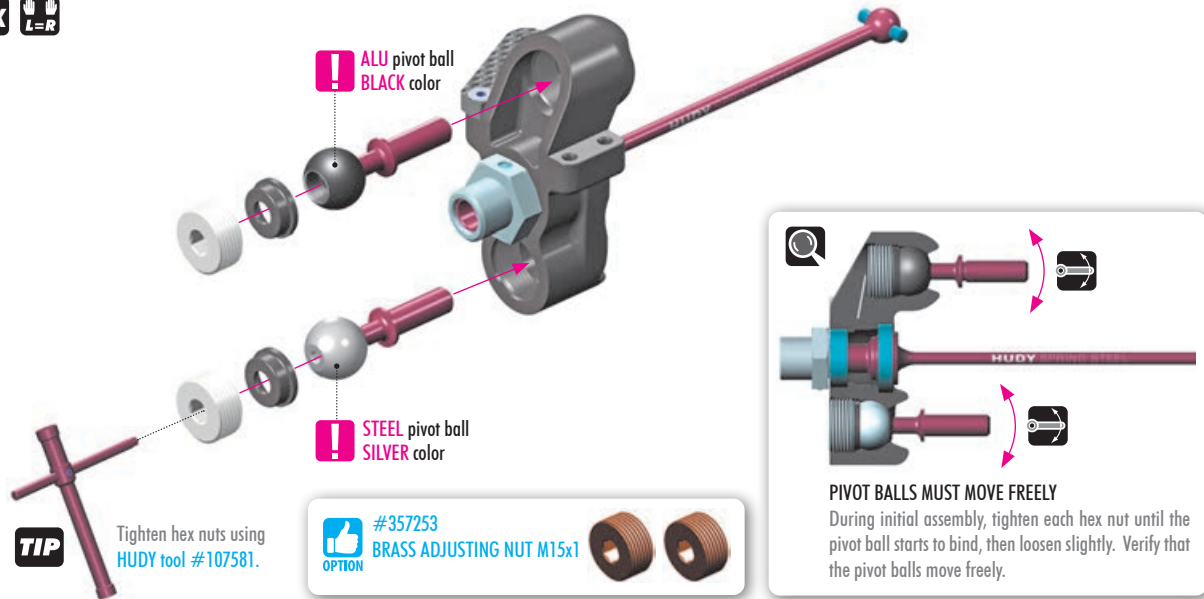
STEERING PLATES

#	Pattern	Material	Status
#352366	1 DOT	CARBON	OPTION
#352367	2 DOTS	CARBON	OPTION
#352368	3 DOTS	CARBON	INCLUDED
#352372	1 DOT	ALU	OPTION
#352370	2 DOTS	ALU	OPTION



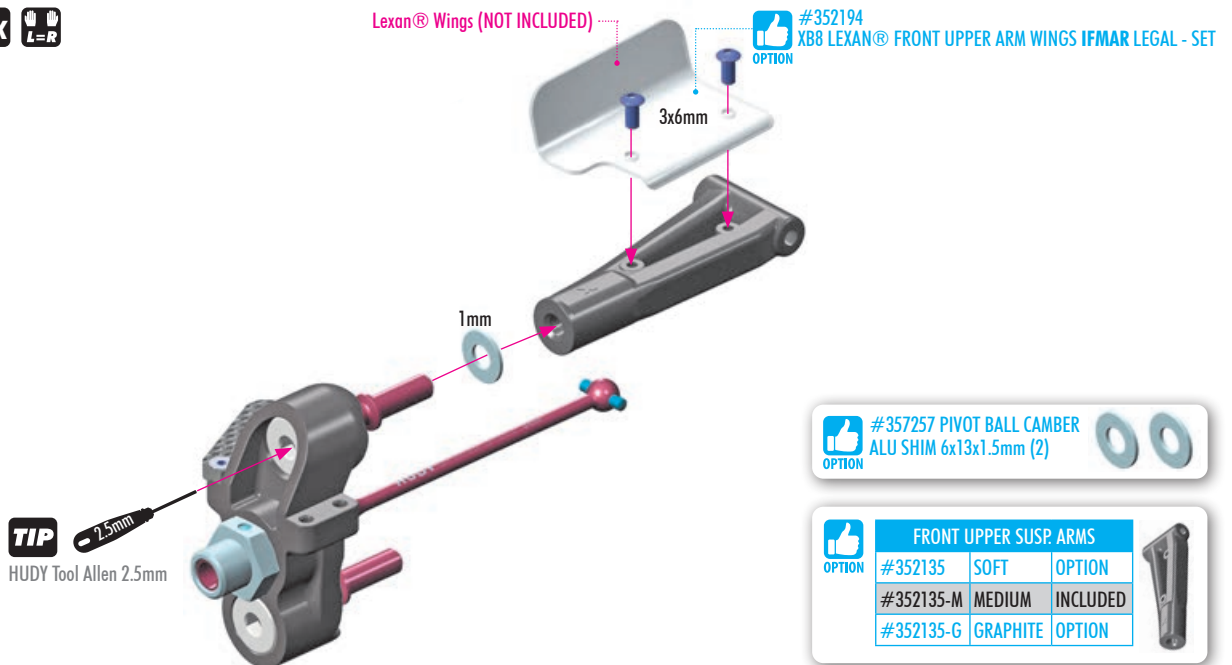
6. FRONT SUSPENSION

2x 



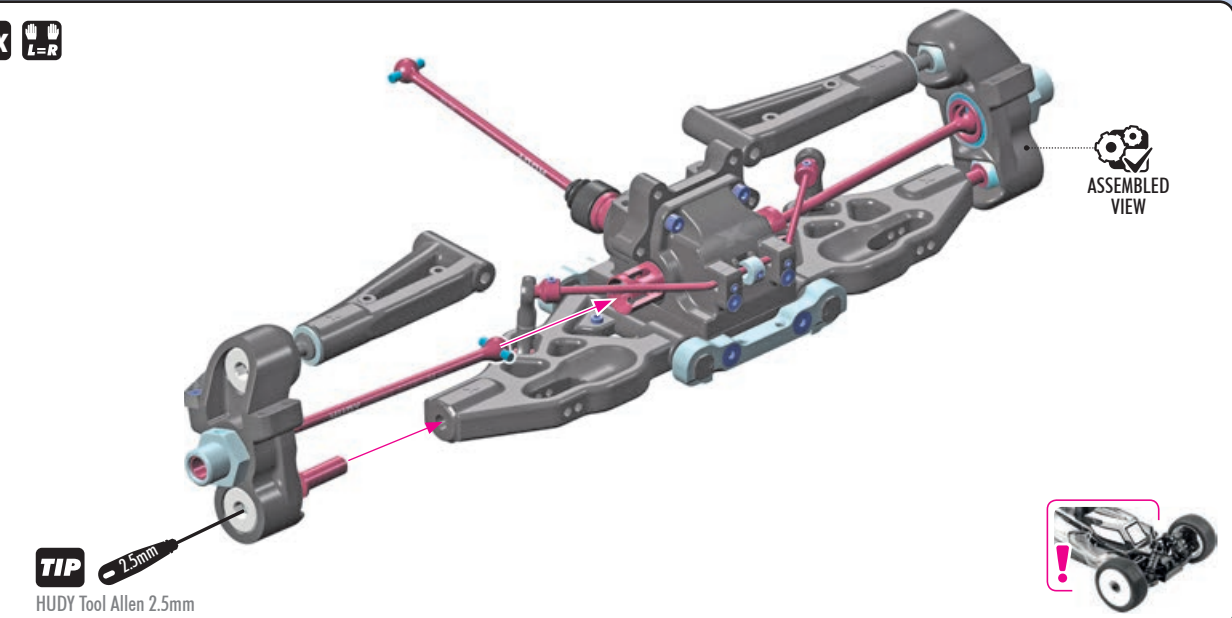
2x 357256 SHIM 6x13x1

2x 



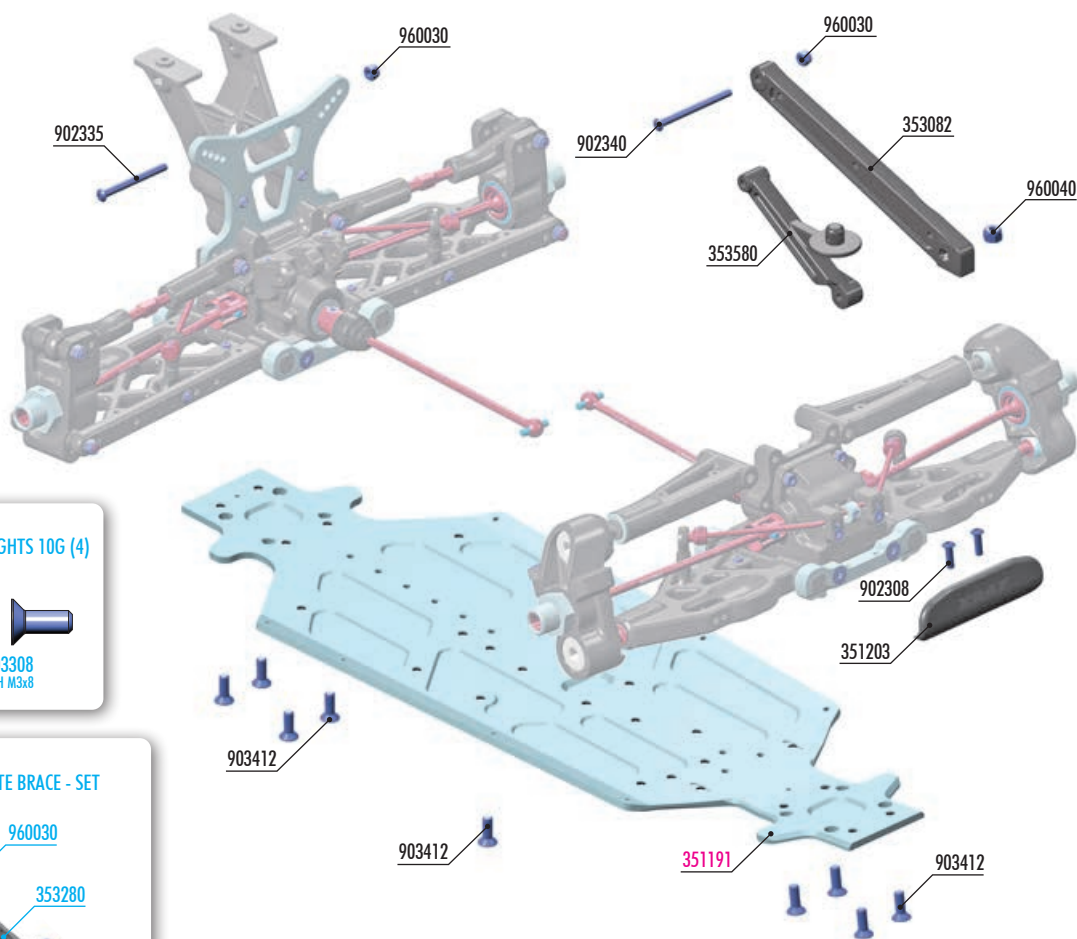
SET-UP BOOK
CAMBER
TRACK-WIDTH

2x 



SET-UP BOOK
ROLL CENTER

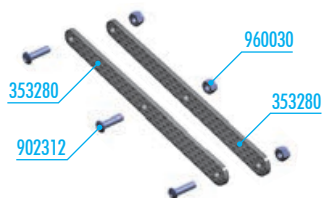
6. FRONT & REAR ASSEMBLY



#293084
PRECISION BALANCING CHASSIS WEIGHTS 10G (4)



#353280
CARBON BRACES FOR REAR COMPOSITE BRACE - SET



BAG

06

351203 COMPOSITE FRONT BUMPER FOR SEMI-SPLIT BULKHEAD
353082 COMPOSITE REAR BRACE - MEDIUM - M
353580 COMPOSITE WING HOLDER BRACE WITH REAR BODY POST

902308 HEX SCREW SH M3x8 (10)
902335 HEX SCREW SH M3x35 (10)

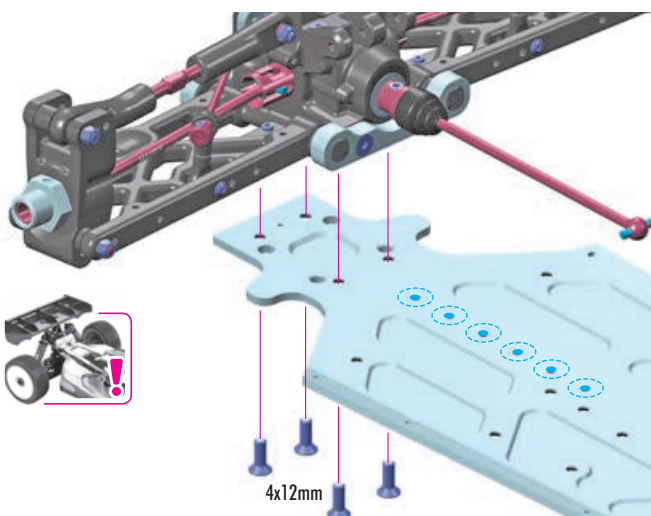
902340 HEX SCREW SH M3x40 (10)
903412 HEX SCREW SFH M4x12 (10)
960030 NUT M3 (10)
960040 NUT M4 (10)

351191 XB8E ALU CHASSIS - SWISS 7075 T6 (3MM)

Numbers in parentheses () refer to quantities when purchased separately.



4x 903412
SFH M4x12



#293084
PRECISION BALANCING CHASSIS WEIGHTS 10G (4)

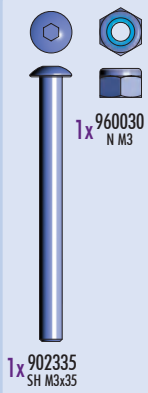


Locations for weights



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

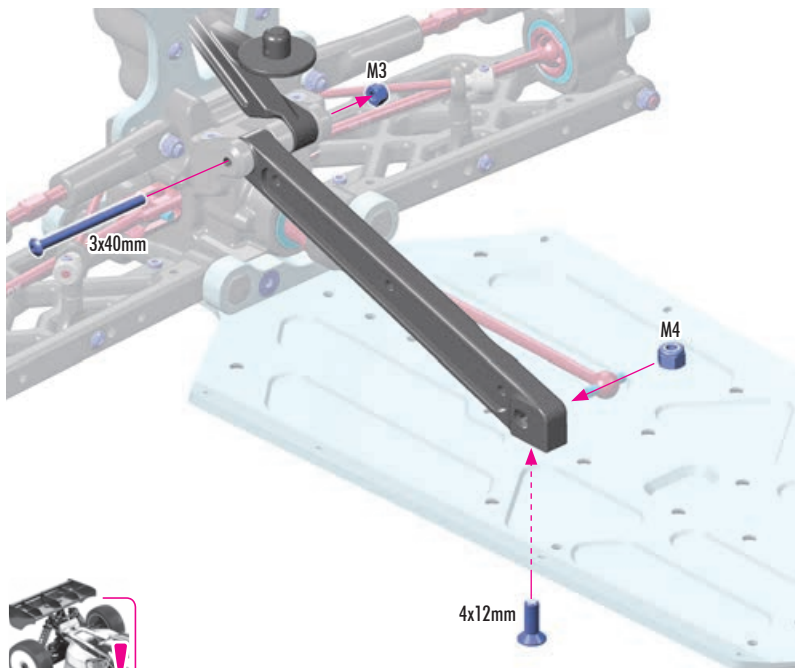
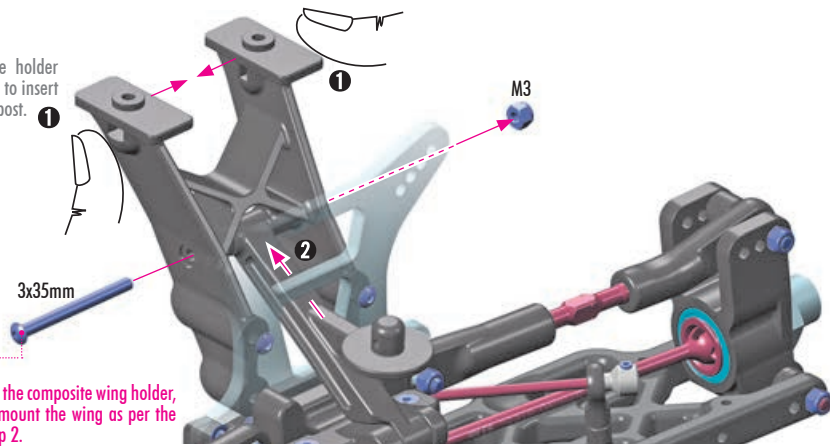


Push the top of the holder together with fingers to insert the brace with body post.

NOTE

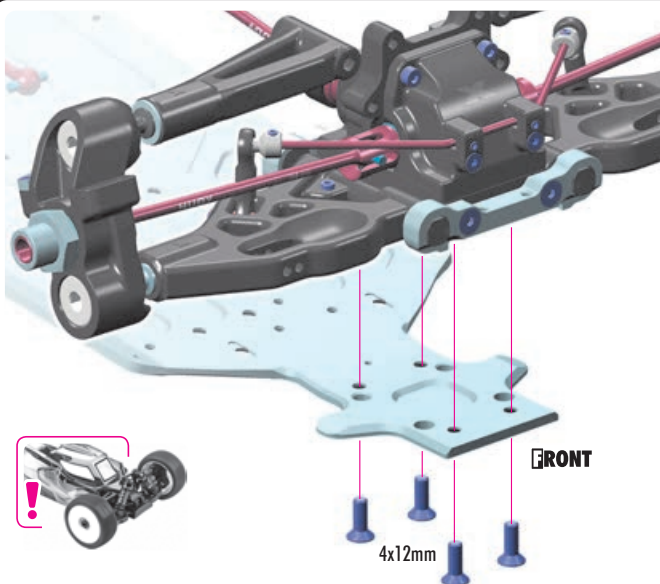
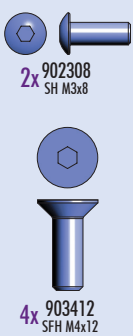
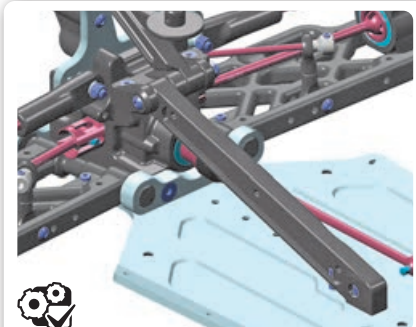


Overtightening will deform the composite wing holder, and will not allow you to mount the wing as per the instructions on page 46 step 2.

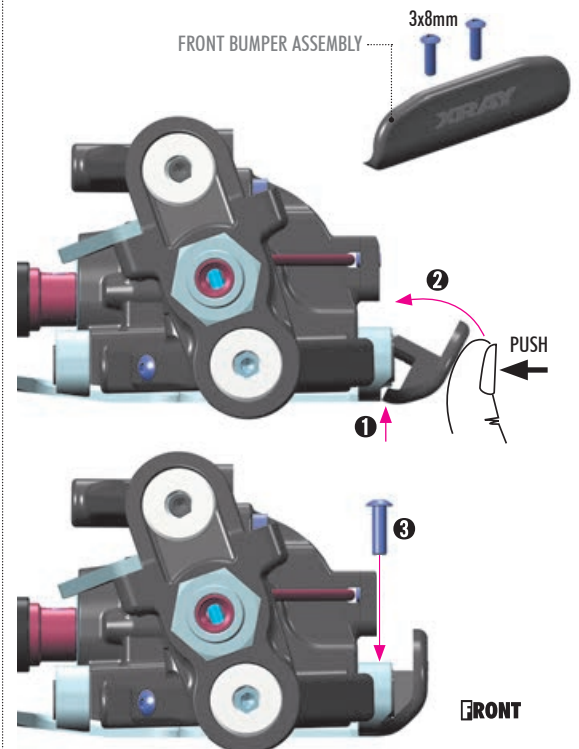


#353280

CARBON BRACE SET for extra stiffness adjustment.



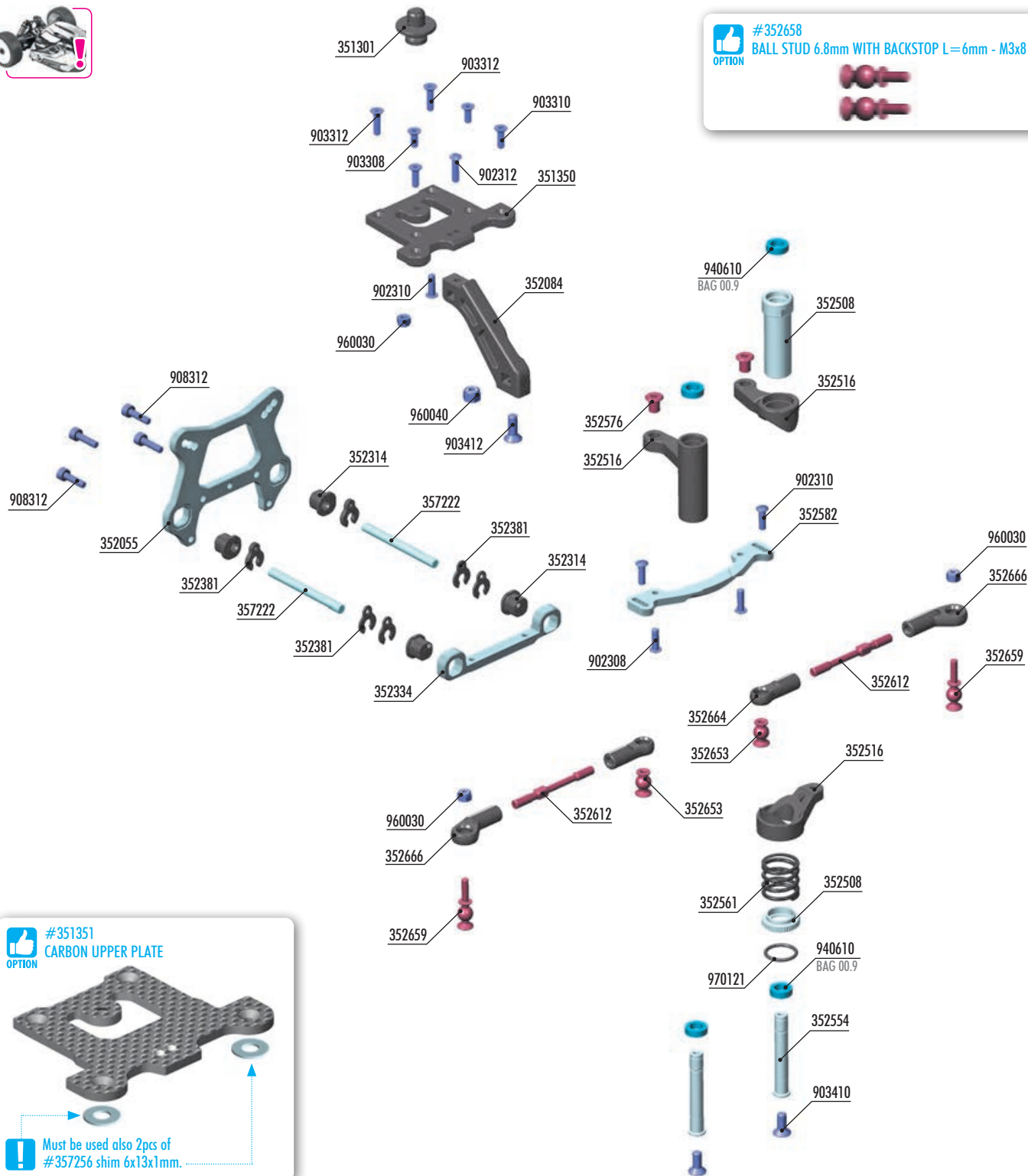
During initial assembly, there is no need to check gear mesh or diff play. Fitment should not be checked until suspension holders are installed on the bulkheads and the complete assembly is mounted to the chassis. All parts have specifically designed tolerances for proper operation once fully assembled.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



7. STEERING



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



#351351
CARBON UPPER PLATE



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

BAG

07

351301 BODY POSTS
351350 COMPOSITE UPPER PLATE WITH TWO BRACE POSITIONS
352055 ALU FRONT SHOCK TOWER FOR SEMI-SPLIT BULKHEAD - LOWER
352084 COMPOSITE FRONT BRACE
352314 COMPOSITE SQUARE ADJ. ROLL CENTER BUSHINGS - V2 (2)
352334 ALU FRONT UPPER ARM HOLDER FOR SEMI-SPLIT BULKHEAD
352381 CASTER CLIPS (2)
352508 SERVO SAVER FOR SEMI-SPLIT BULKHEAD - GRAPHITE - SET
352582 COMPOSITE SERVO SAVER FOR SEMI-SPLIT BULKHEAD - GRAPHITE
352554 ALU SERVO SAVER PIVOT SHAFT WITH CHASSIS LOCK (2)
352561 SERVO SAVER SPRING PROGRESSIVE
352576 STEERING PLATE BUSHING (2)
352582 ALU STEERING PLATE FOR SEMI-SPLIT BULKHEAD - SWISS 7075 T6
352612 ADJ. TURNBUCKLE M4 L/R 45mm - HUDY SPRING STEEL™ (2)
352653 BALL STUD 6.8mm WITH BACKSTOP - M3 (2)
352659 BALL STUD 6.8mm WITH BACKSTOP L=6mm - M3x11 (2)
352664 COMPOSITE STEERING BALL JOINT 6.8mm - V3 (2)

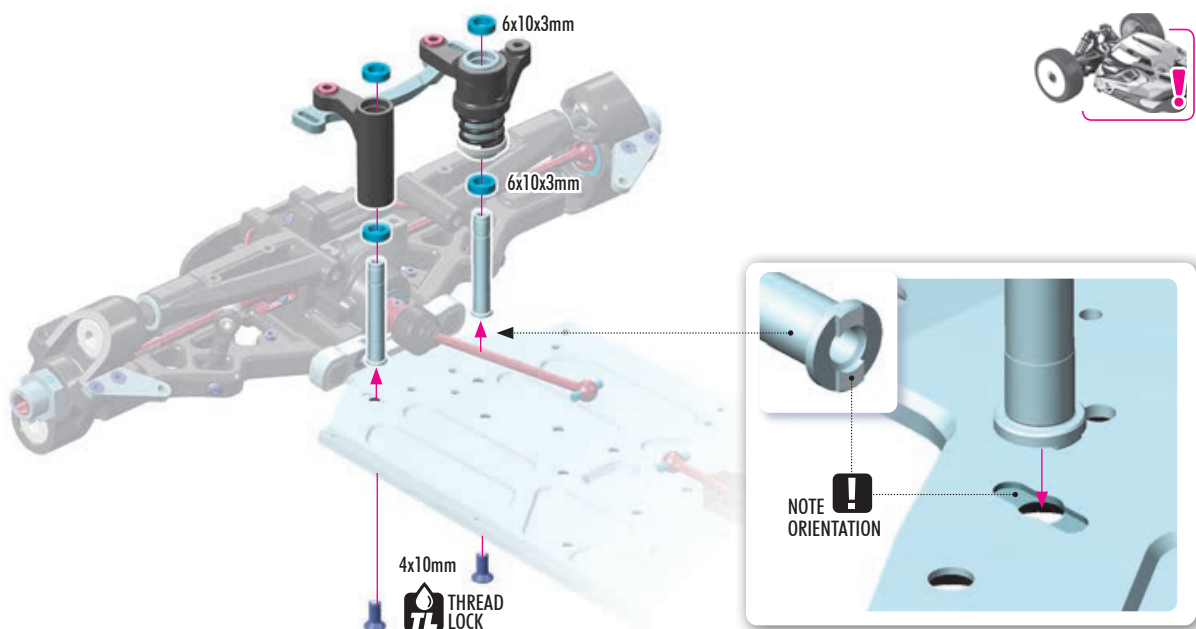
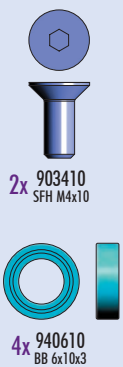
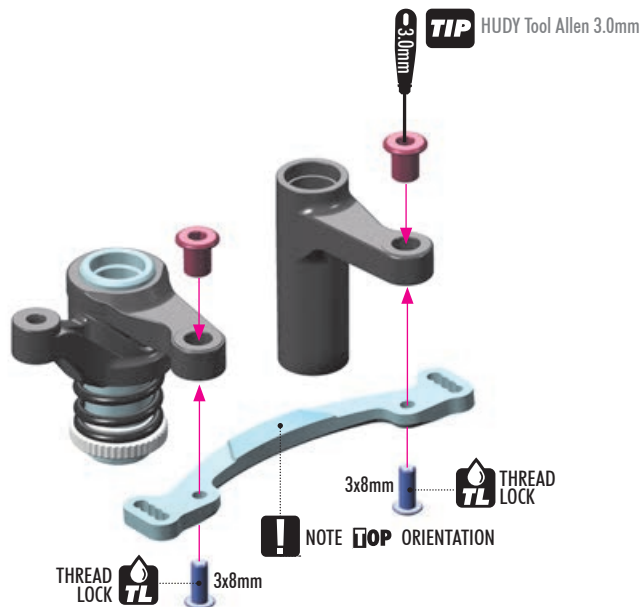
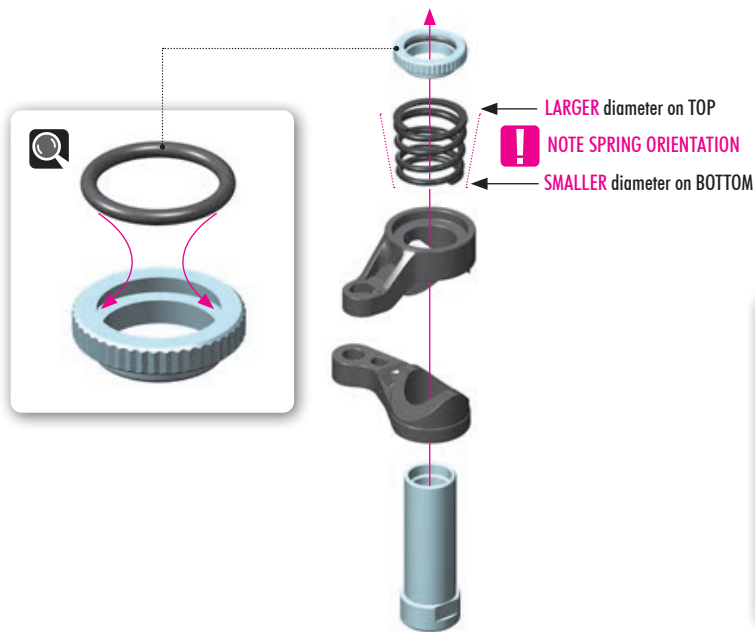
352666 COMPOSITE RELIEF STEERING BALL JOINT 6.8mm (2)
357222 FRONT UPPER PIVOT PIN 4x45 (2)

902308 HEX SCREW SH M3x8 (10)
902310 HEX SCREW SH M3x10 (10)
902312 HEX SCREW SH M3x12 (10)
903308 HEX SCREW SFH M3x8 (10)
903310 HEX SCREW SFH M3x10 (10)
903312 HEX SCREW SFH M3x12 (10)
903410 HEX SCREW SFH M4x10 (10)
903412 HEX SCREW SFH M4x12 (10)
908312 HEX SCREW SOCKET HEAD CAP SCH M3x12 (10)
940610 BALL-BEARING 6x10x3 RUBBER SEALED - OIL (2)
960030 NUT M3 (10)
960040 NUT M4 (10)
970121 O-RING 12.1 x 1.6 (10)

Numbers in parentheses () refer to quantities when purchased separately.



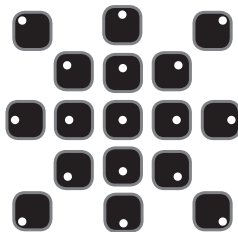
SET-UP BOOK
SERVO SAVER



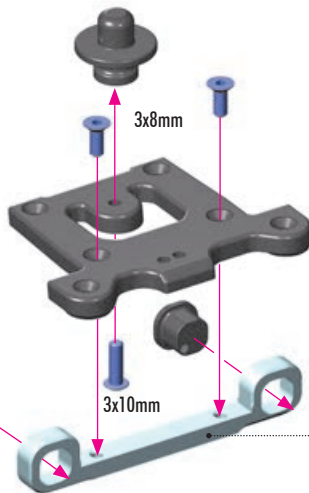
7. STEERING



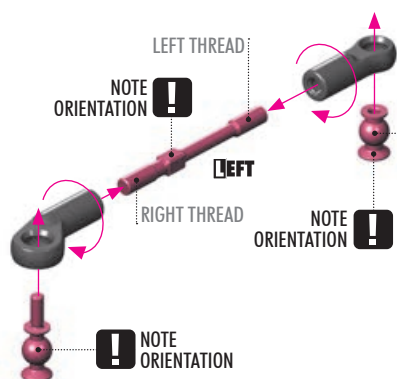
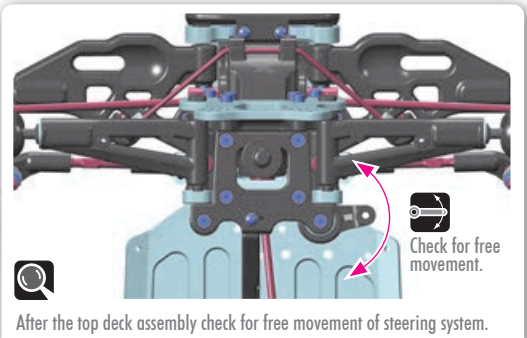
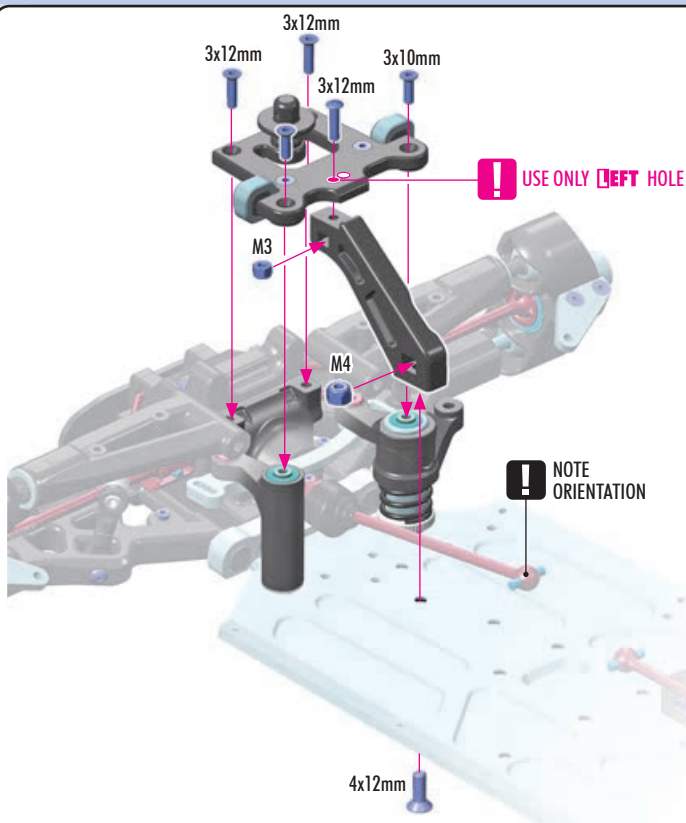
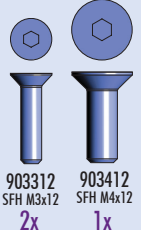
All possible mounting
alternatives of eccentric bushings.



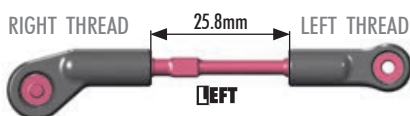
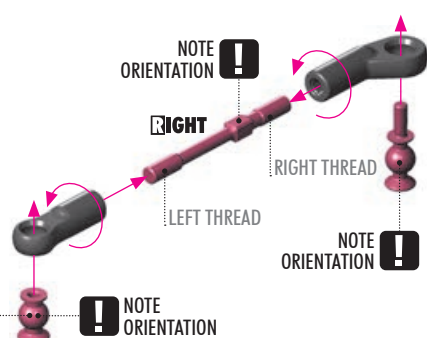
INITIAL SETTING



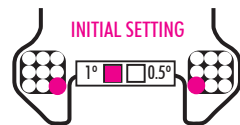
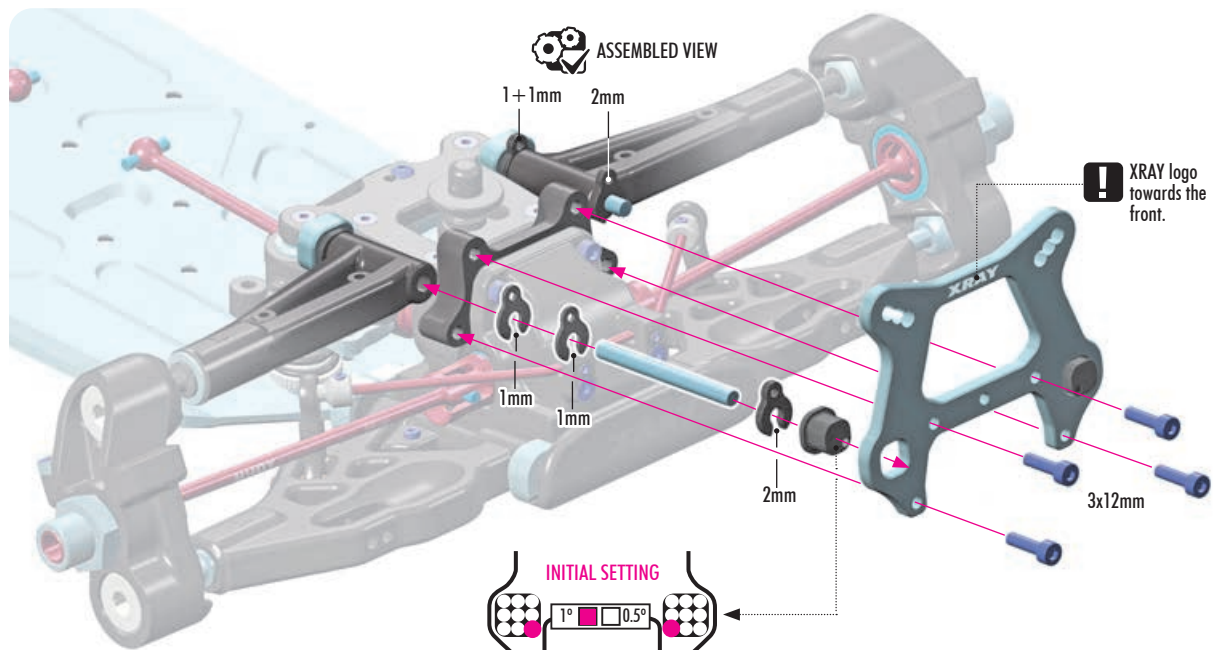
SET-UP BOOK
ROLL CENTER



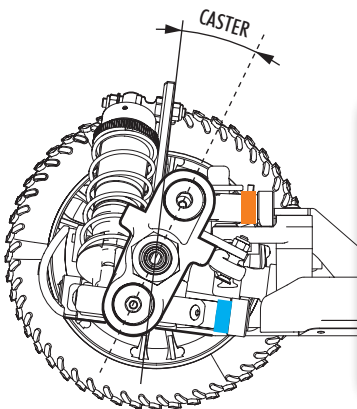
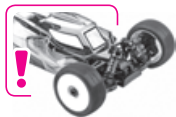
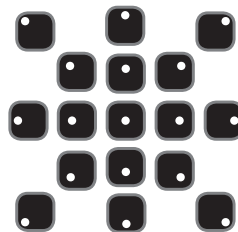
TIP
Install with HUDY Multi Tool.



4x 908312
SCH M3x12



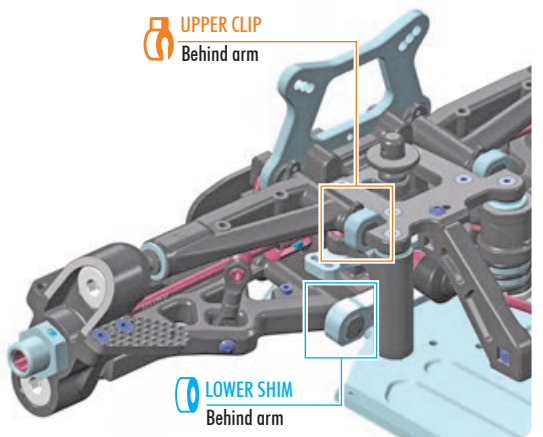
All possible mounting alternatives of eccentric bushings.



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

UPPER CLIP
Behind arm

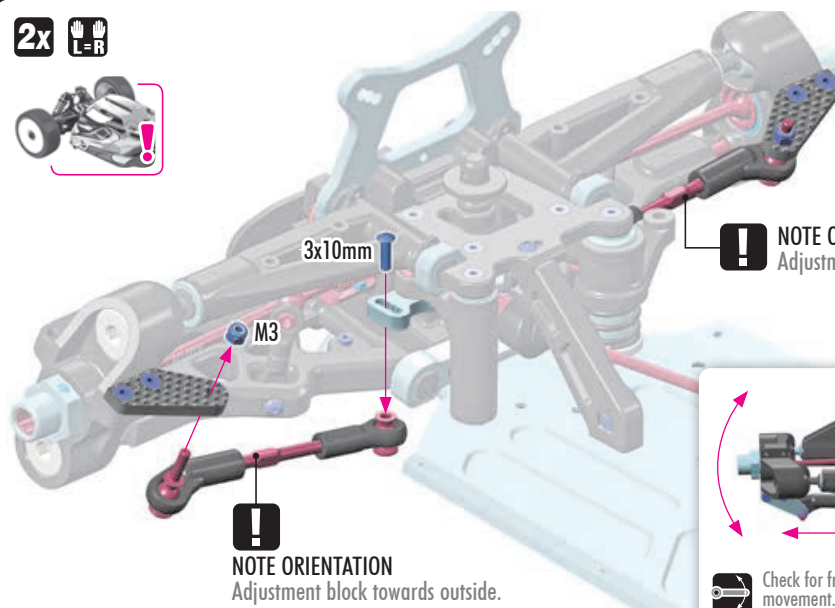
LOWER SHIM
Behind arm



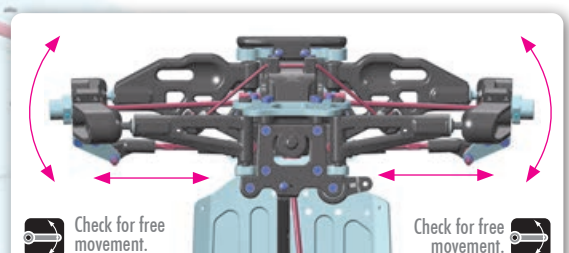
SET-UP BOOK
ROLL CENTER
CASTER

2x 902310
SH M3x10

2x 960030
N M3

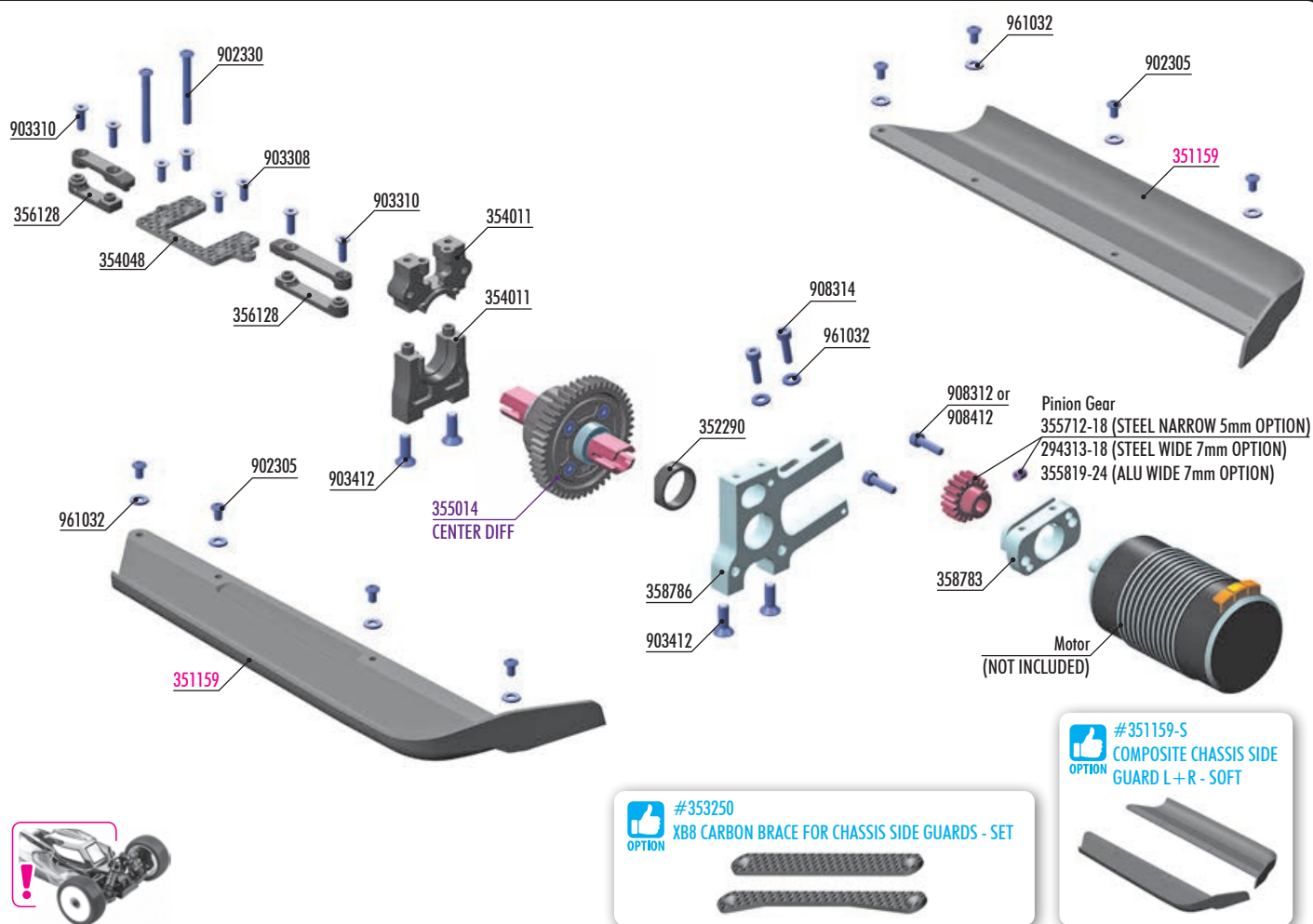


! NOTE ORIENTATION
Adjustment block towards outside.



SET-UP BOOK
ACKERMANN
BUMP STEER
TOE-IN

8. CENTER DIFF & MOTOR

**BAG**

08

352290	COMPOSITE BUSHING FOR ALU STEERING BLOCK (4)	903310	HEX SCREW SFH M3x10 (10)
354011	CENTER DIFF MOUNTING PLATE SET - HIGHER	903412	HEX SCREW SFH M4x12 (10)
354048	CARBON CENTER DIFF MOUNTING PLATE FOR CABLE HOLDER	908312	HEX SCREW SOCKET HEAD CAP M3x12 (10)
355712~18	STEEL 12~18T PINION GEAR - NARROW (OPTION)	908314	HEX SCREW SOCKET HEAD CAP M3x14 (10)
355819~24	ALU 19~24T PINION GEAR - WIDE (OPTION)	908412	HEX SCREW SOCKET HEAD CAP M4x12 (10)
294313~18	STEEL 13~18 PINION GEAR - WIDE (OPTION)	961032	WASHER S 3.2 (10)
356128	COMPOSITE HOLDER FOR CABLES - SET		
358783	ALU MOTOR MOUNT PLATE - V2	351159	CHASSIS SIDE GUARDS L+R
358786	XB8E/XT8E ALU MOTOR MOUNT		
		355014	CENTER DIFFERENTIAL SMALL WITH COMPOSITE SPUR GEAR 46T - SET
902305	HEX SCREW SH M3x5 (10)		
902330	HEX SCREW SH M3x30 (10)		
903308	HEX SCREW SFH M3x8 (10)		

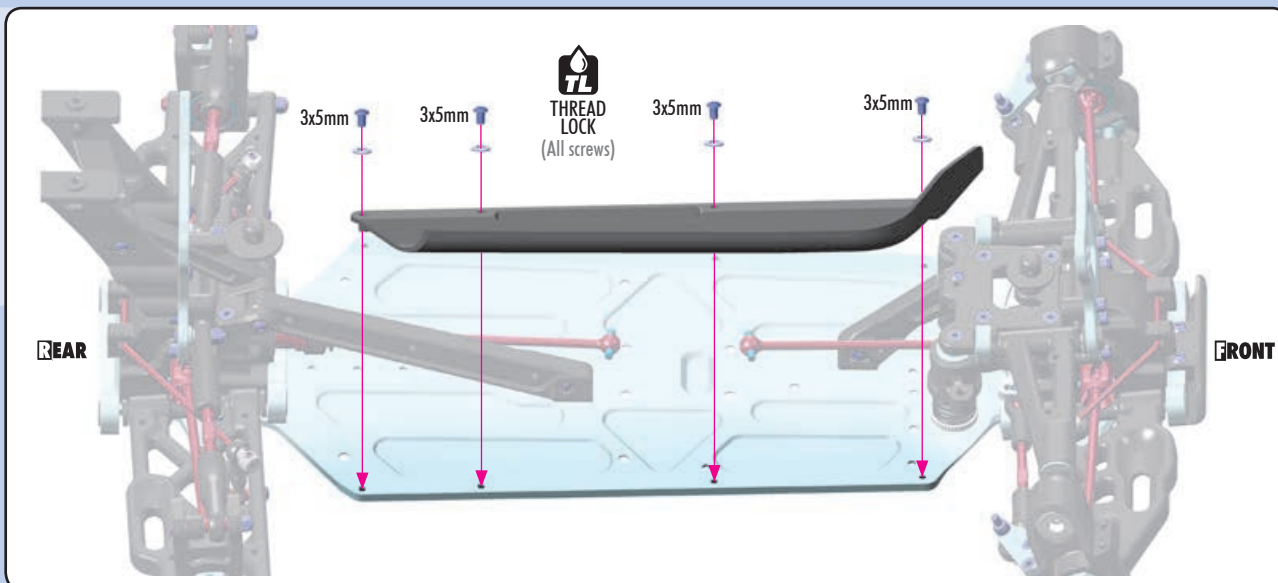
Numbers in parentheses () refer to quantities when purchased separately.



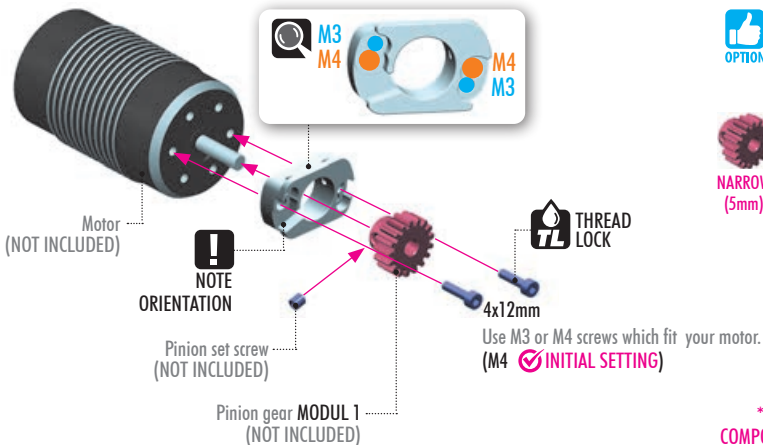
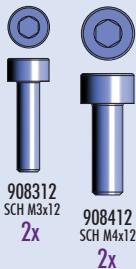
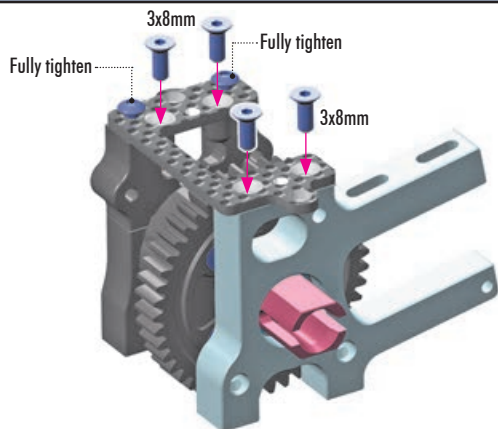
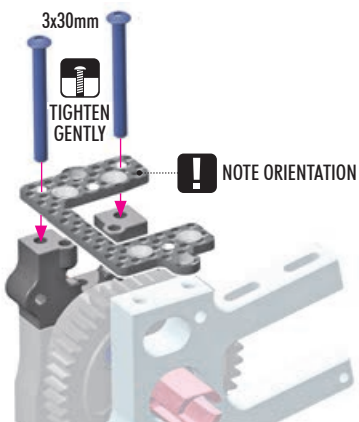
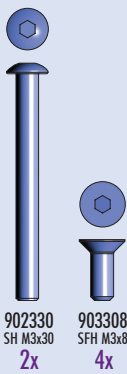
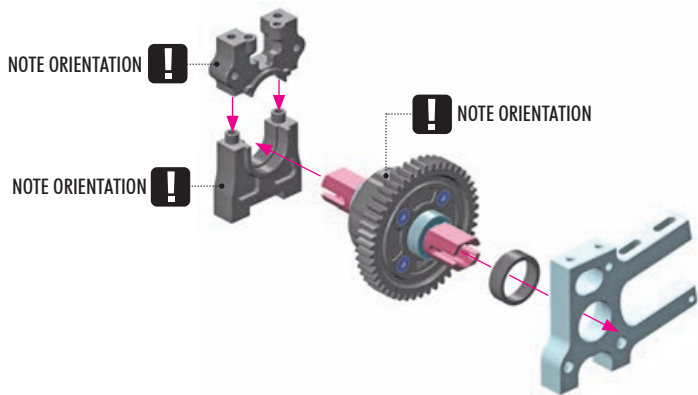
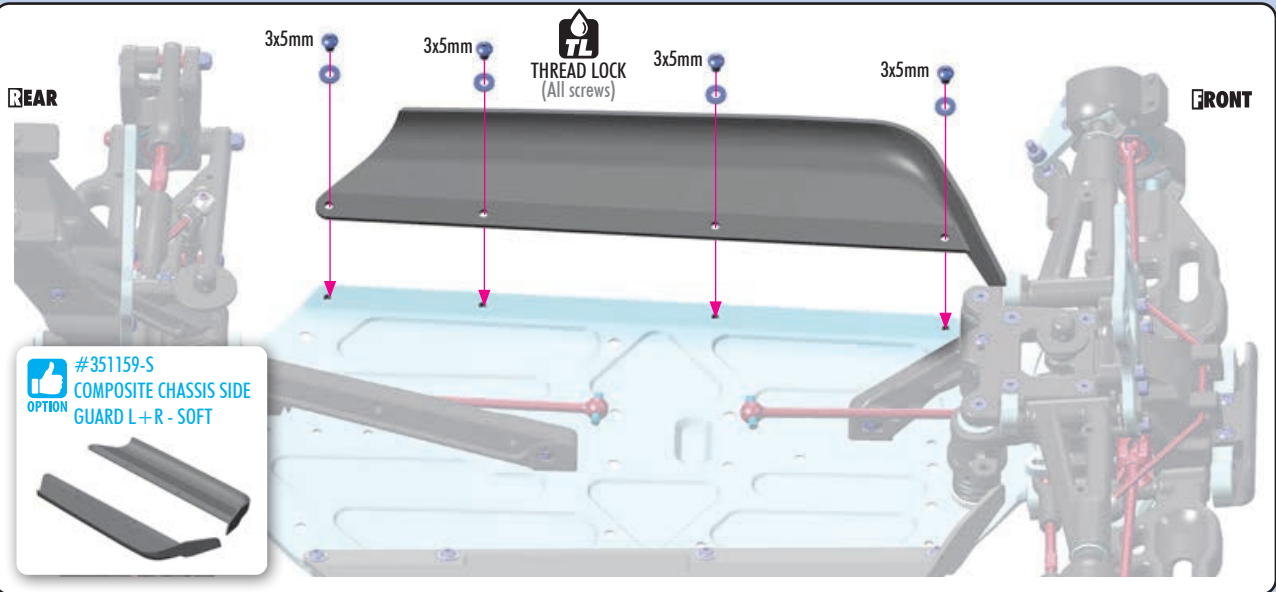
4x 902305
SH M3x5



4x 961032
S3.2



8. CENTER DIFF & BRAKE



OPTION	STEEL PINION GEAR (M1)		
	#355712	12T	OPTION
	#355713	13T	OPTION
	#355714	14T	OPTION
	#355715	15T	OPTION
	#355716	16T	OPTION
	#355717	17T	OPTION
	#355718	18T	OPTION

OPTION	STEEL PINION GEAR (M1)		
	#294313	13T	OPTION
	#294314	14T	OPTION
	#294315	15T	OPTION
	#294316	16T	OPTION
	#294317	17T	OPTION
	#294318	18T	OPTION

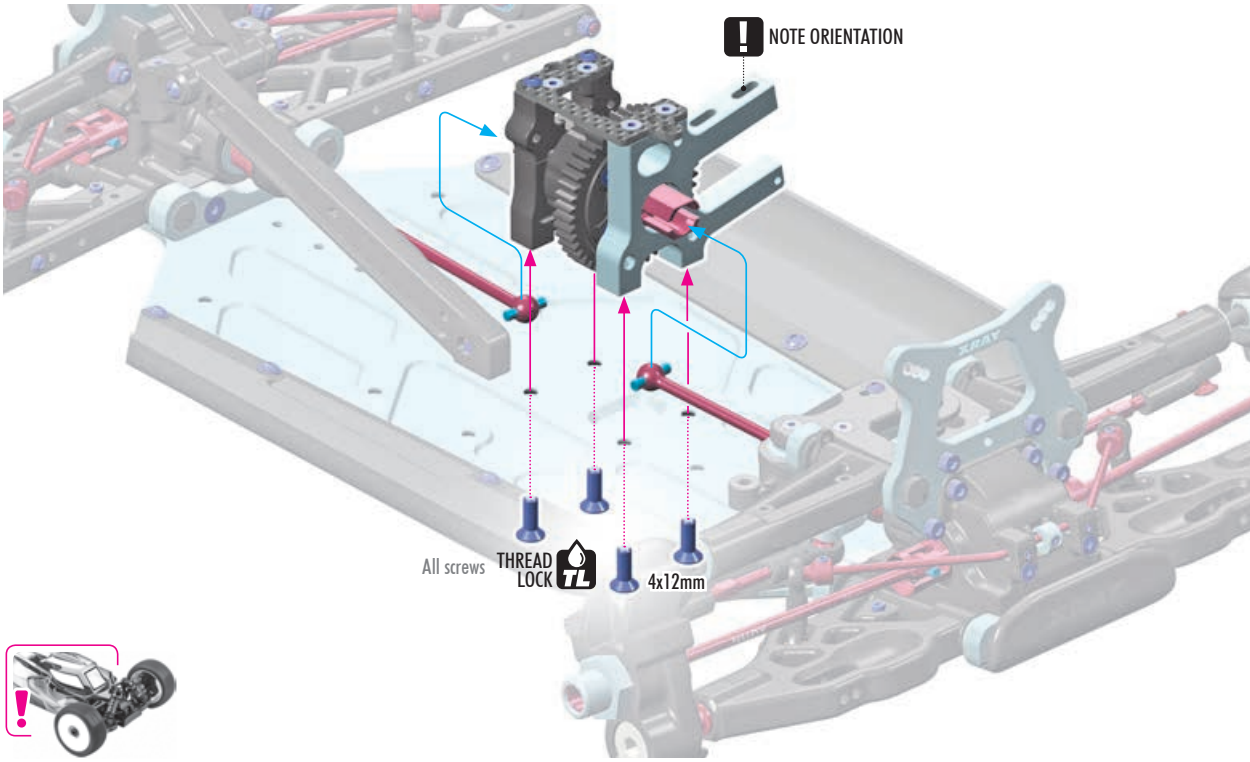
OPTION	ALU PINION GEAR (M1)		
	#355819	19T	OPTION
	#355820	20T	OPTION
	#355821	21T	OPTION
	#355822	22T	OPTION
	#355823	23T	OPTION
	#355824	24T	OPTION

*Suggested to use only with COMPOSITE center diff spur gear.

8. CENTER DIFF & BRAKE



4x 903412
SFH M4x12



NOTE ORIENTATION

All screws

THREAD LOCK

4x12mm



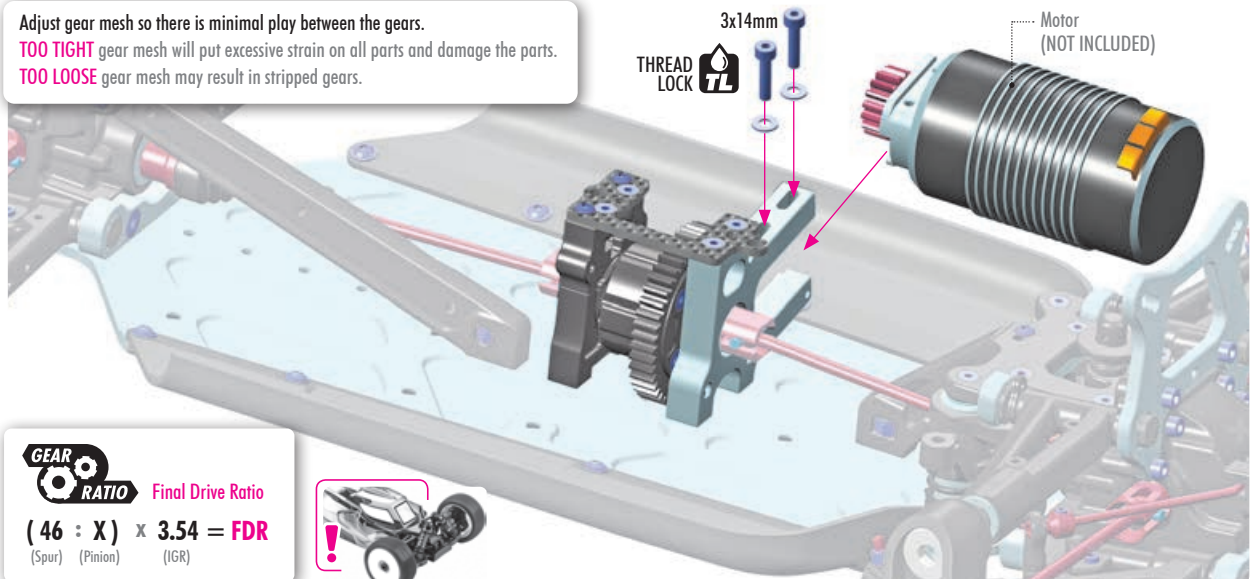


2x 908314
SCH M3x14



2x 961032
S 3.2

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.



3x14mm

THREAD LOCK

Motor (NOT INCLUDED)



GEAR RATIO

Final Drive Ratio

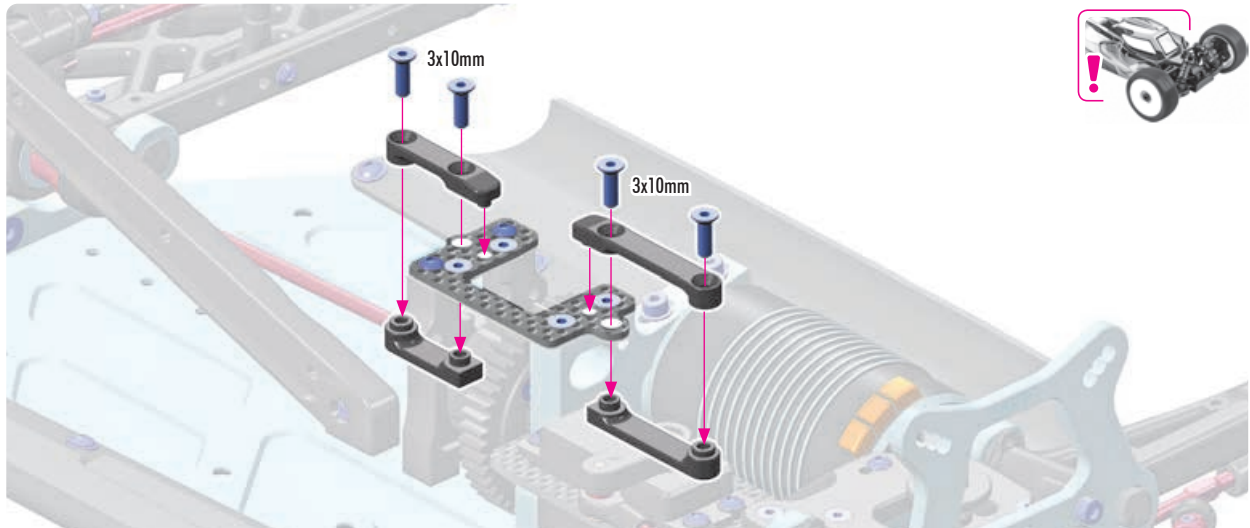
(46 : X) x 3.54 = FDR

(Spur) (Pinion) (IGR)





4x 903310
SFH M3x10

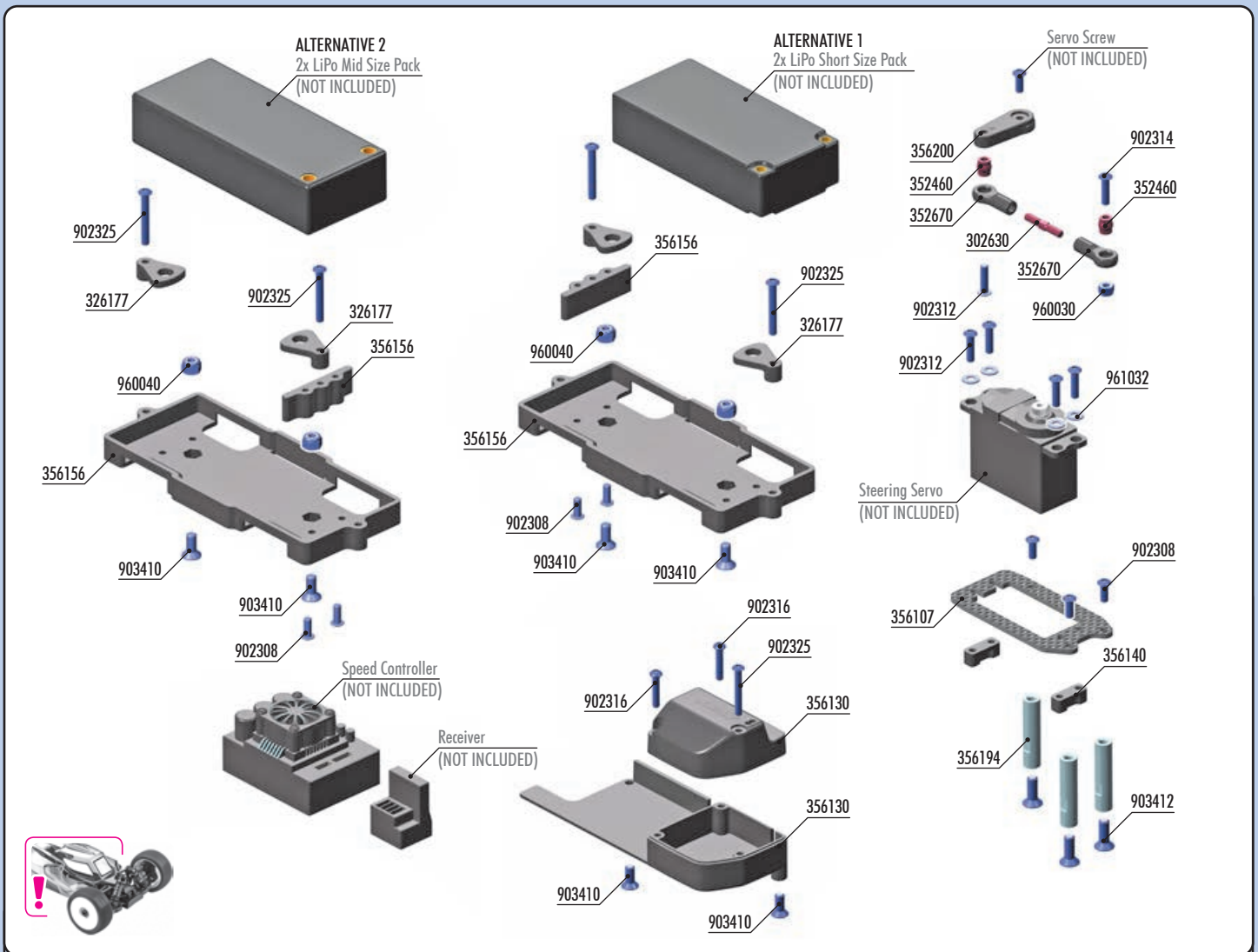


3x10mm

3x10mm



10. ELECTRONICS



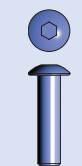
BAG

10

302630 ADJ. TURNBUCKLE L/R 20mm - HUDY SPRING STEEL™ (2)
 326177 COMPOSITE BATTERY CLAMP (2)
 352460 PIVOT BALL 5.8 (10)
 352670 SERVO BALL JOINT 5.8mm (4)
 356107 SADDLE PACK CARBON SERVO HOLDER
 356130 COMPOSITE ONE-PIECE SPEEDO PLATE & RECEIVER BOX
 356140 COMPOSITE SERVO MOUNT - SMALL (2)
 356156 COMPOSITE BOX FOR MID-SIZE & SHORT BATTERY PACK (2)
 356194 ALU MOUNT FOR RECEIVER BOX
 356200 BRAKE/THROTTLE ARMS & STEERING SERVO ARMS - SET

902308 HEX SCREW SH M3x8 (10)
 902312 HEX SCREW SH M3x12 (10)
 902314 HEX SCREW SH M3x14 (10)
 902316 HEX SCREW SH M3x16 (10)
 902325 HEX SCREW SH M3x25 (10)
 903410 HEX SCREW SFH M4x10 (10)
 903412 HEX SCREW SFH M4x12 (10)
 960030 NUT M3 (10)
 960040 NUT M4 (10)
 961032 WASHER S 3.2 (10)

BAG 09 is NOT existing and NOT included in XB8E kit.
 Numbers in parentheses () refer to quantities when purchased separately.



1x 902312
SH M3x12

RIGHT THREAD SIDE **LEFT** THREAD SIDE

! SLOT ORIENTATION

TIP
Install with HUDY Multi Tool.

approx. 7mm

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

! Use appropriate servo arm:

Market servo horn
K (23T) **H** (24T) **F** (25T)

! NOTE ORIENTATION



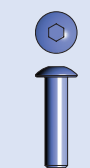
ALU SERVO HORNS

#293501	23T	OPTION
#293502	24T	OPTION
#293503	25T	OPTION

CLAMP ALU SERVO HORNS

#293407	23T	OPTION
#293408	24T	OPTION
#293409	25T	OPTION

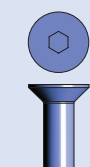
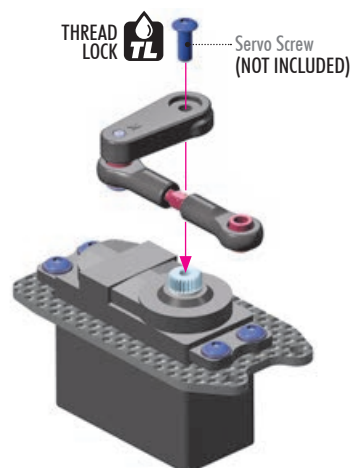
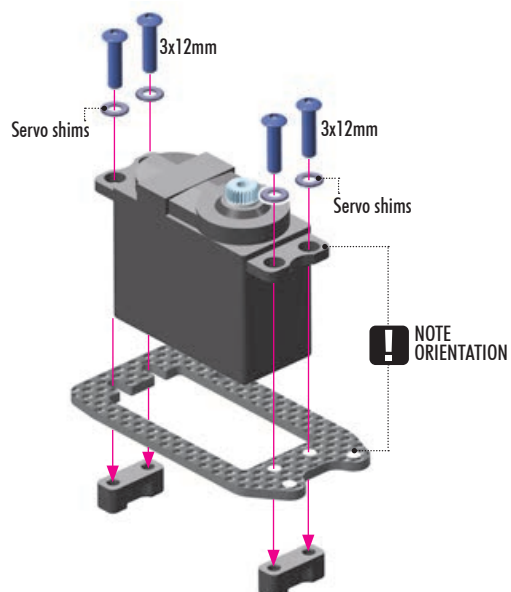
10. RADIO CASE



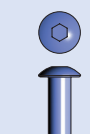
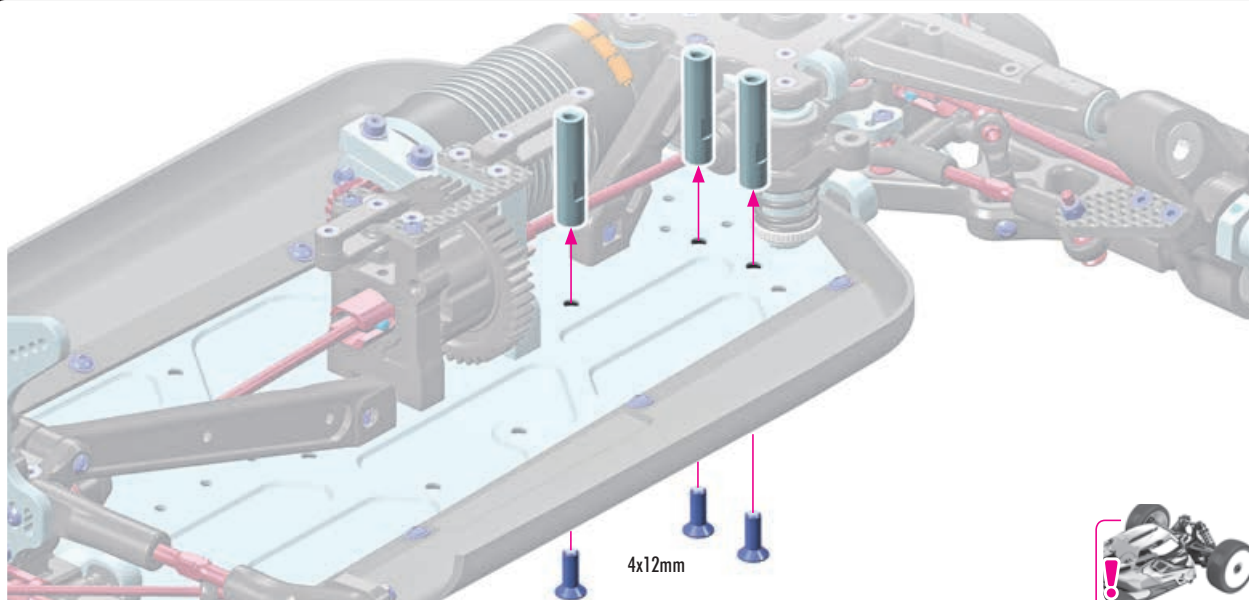
4x 902312
SH M3x12



4x 961032
S32



3x 903412
SFH M4x12



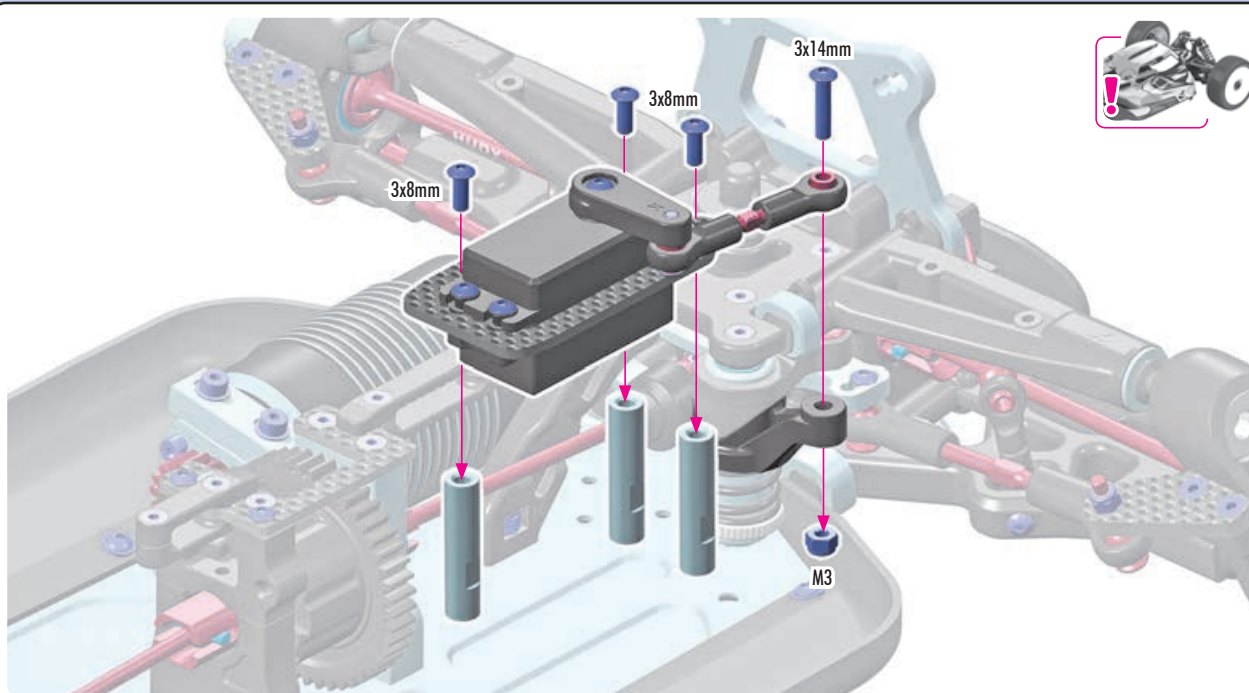
3x 902308
SH M3x8



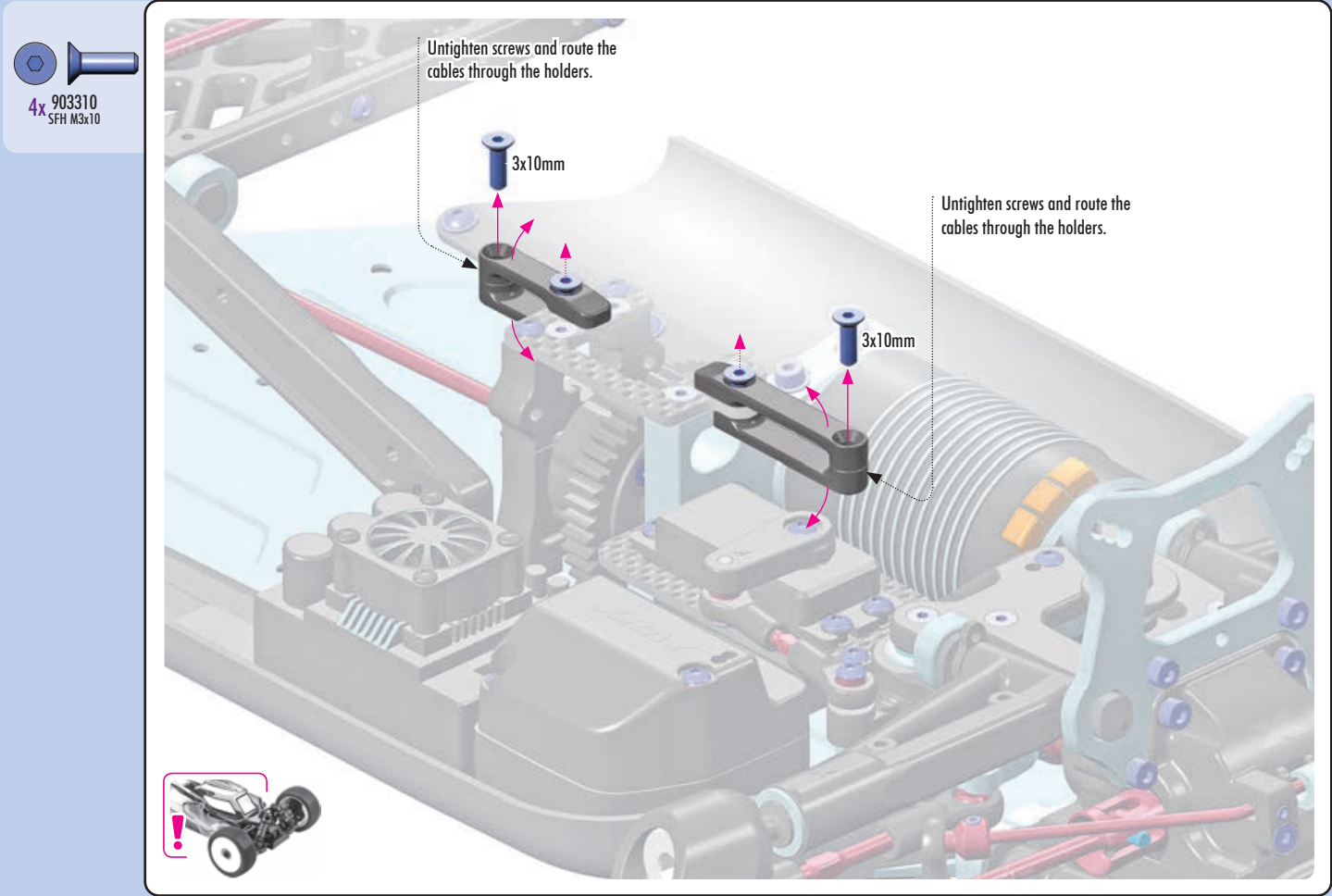
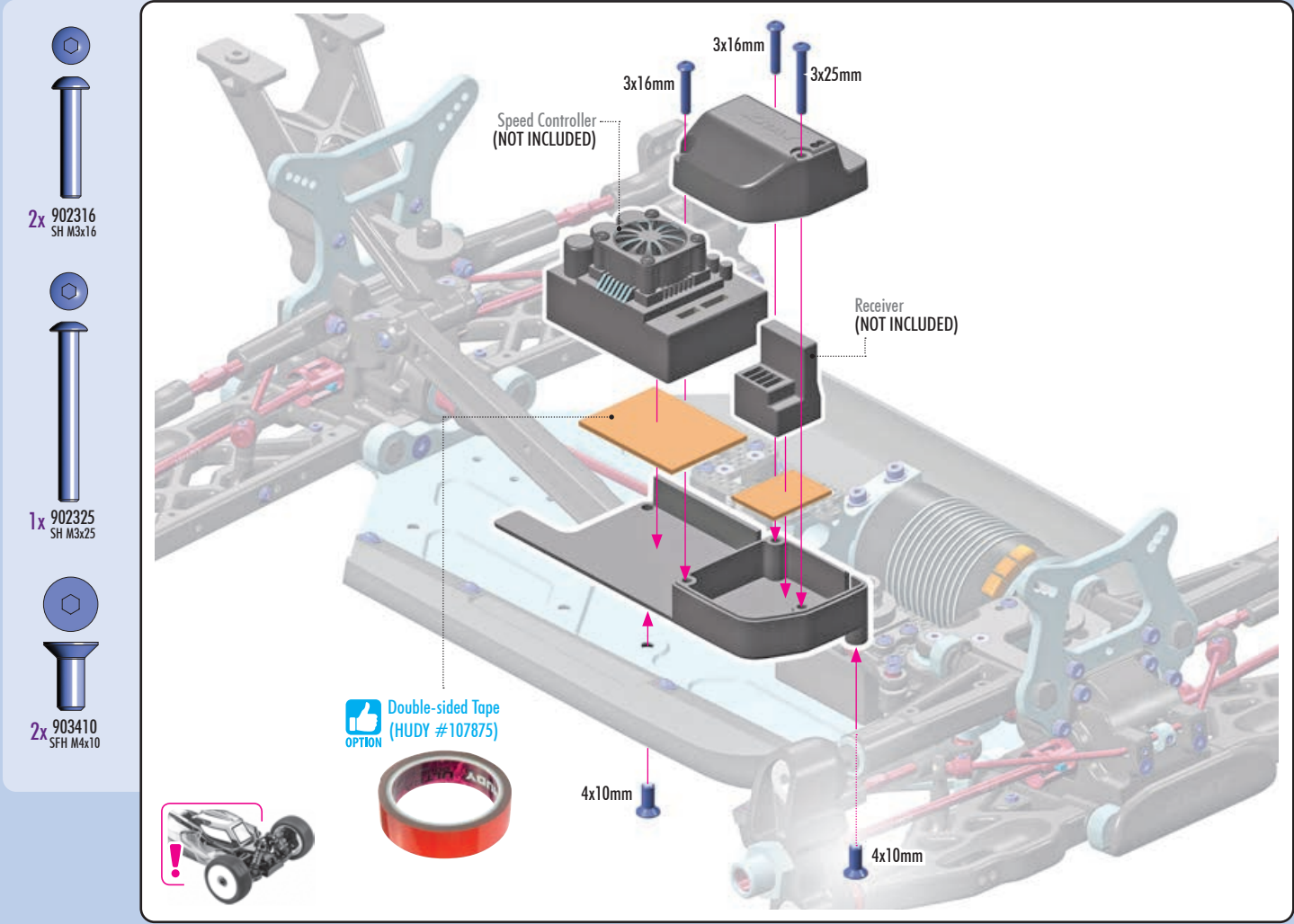
1x 902314
SH M3x14



1x 960030
N M3



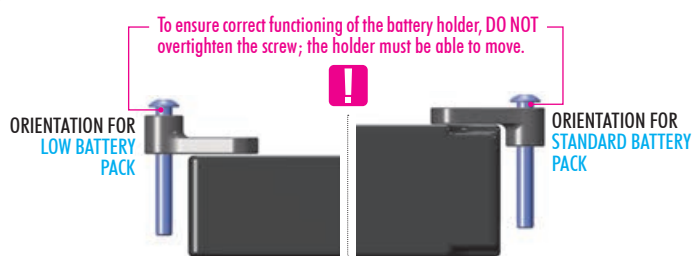
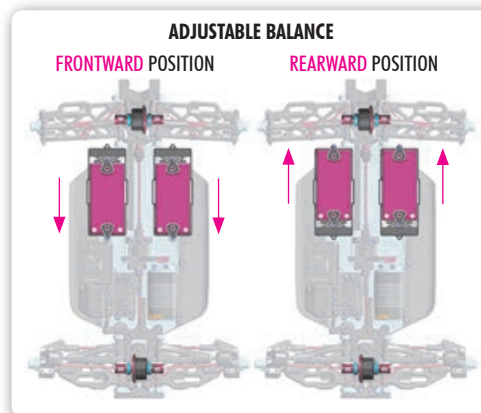
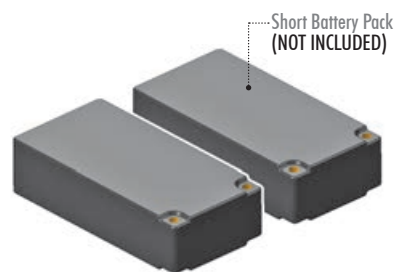
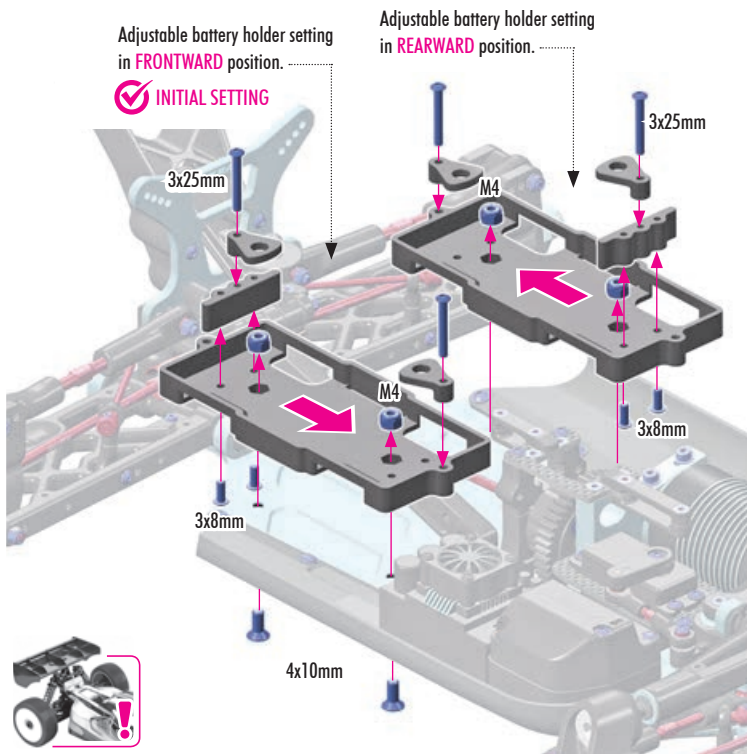
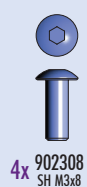
10. RADIO CASE



10. RADIO CASE

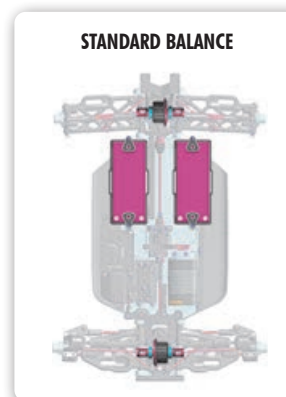
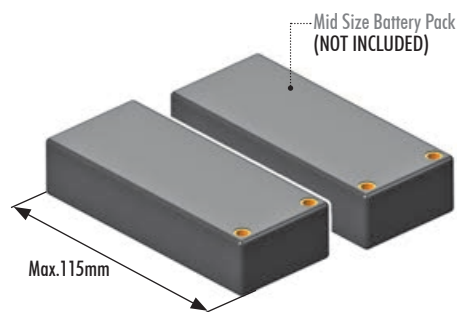
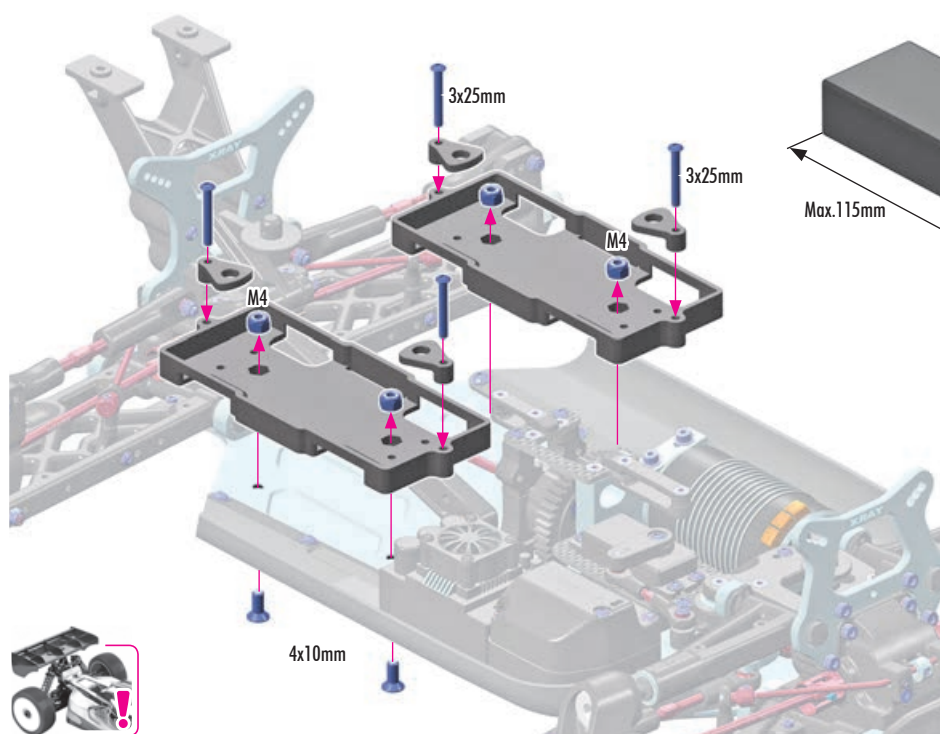
ALTERNATIVE 1

CONFIGURATION SHORT BATTERY PACK
SETTINGS WITH BALANCE POSITION

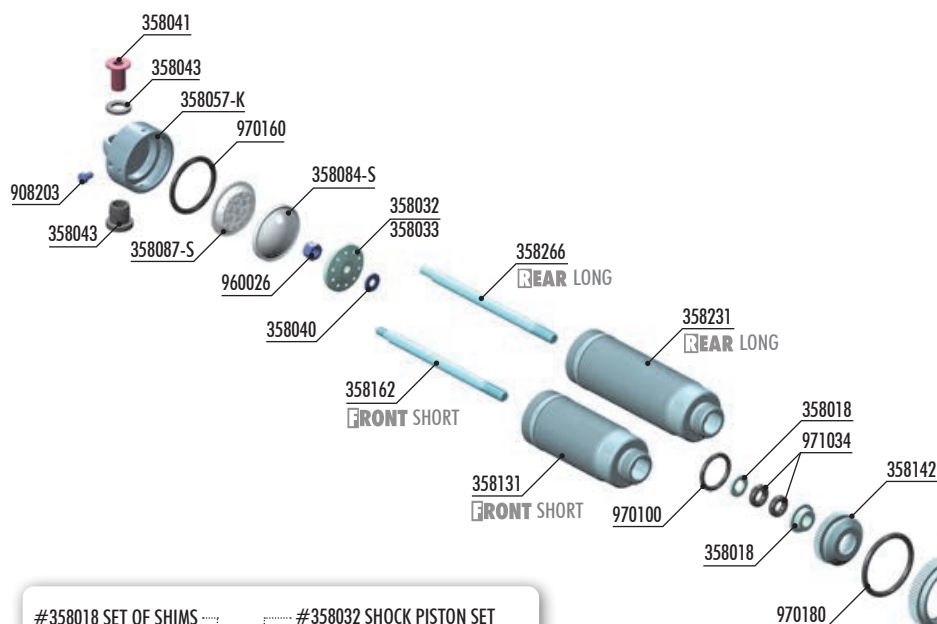


ALTERNATIVE 2

CONFIGURATION FOR MID SIZE BATTERY PACK

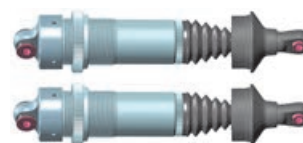


11. SHOCK ABSORBERS

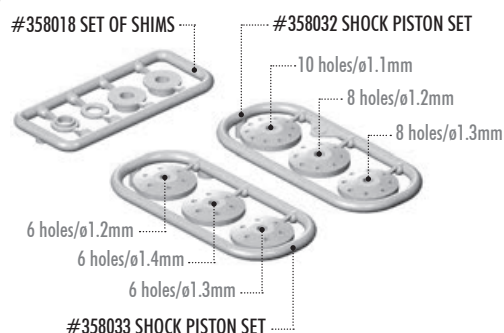
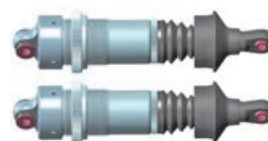


SHOCKS SPARE PARTS

#358211
REAR SHOCK ABSORBERS 55mm COMPLETE SHOCK SETS (2)



#358111
FRONT SHOCK ABSORBERS 44.5mm COMPLETE SHOCK SETS (2)



SHOCK RUBBER MEMBRANE (4)			
#358084-S	RIBBED	SOFT	INCLUDED
#358087-S	CELL	SOFT	INCLUDED
#358087-M	CELL	MEDIUM	OPTION

#358027 PISTON 5-HOLE (1.5mm) & 2-HOLE (1.0mm) (4)
 #358028 PISTON 6-HOLE (1.3mm) & 2-HOLE (1.1mm) (4)
 #358029 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)



SHOCK SPRINGS						
#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	
#358342	C=0.66-0.68	2 DOTS	82mm	REAR	OPTION	
#358343	C=0.68-0.70	3 DOTS	82mm	REAR	INCLUDED	
#358344	C=0.70-0.73	4 DOTS	82mm	REAR	OPTION	
#358334	C=0.66-0.68	2 DOTS	85mm	REAR	OPTION	
#358335	C=0.68-0.70	3 DOTS	85mm	REAR	OPTION	

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



BAGS

11.1

11.2

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)
 358111 FRONT SHOCK ABSORBERS 44.5mm - COMPLETE SET (2)
 358131 ALU FRONT SHOCK BODY 44.5mm - SWISS 7075 T6 (2)
 358142 ALU SHOCK BODY NUT FOR SHOCK BOOT (2)
 358150 ALU SHOCK BODY ADJ. NUT (2)
 358162 FRONT SHOCK SHAFT 56mm (2)
 358211 REAR SHOCK ABSORBERS 55mm - COMPLETE SET (2)

358231 ALU REAR SHOCK BODY 55mm - SWISS 7075 T6 (2)
 358266 REAR SHOCK SHAFT 66.5mm (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)

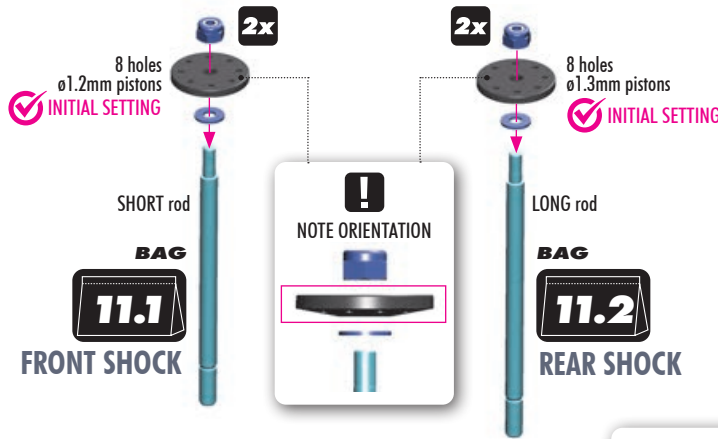
358316 XRAY FRONT SPRING 69mm - 4 DOTS (2)
 358343 XRAY REAR SPRING 82mm - 3 DOTS (2)

Numbers in parentheses () refer to quantities when purchased separately.

11. SHOCK ABSORBERS

4x 358040
S 2.5x6x0.5

4x 960026
N M2.5

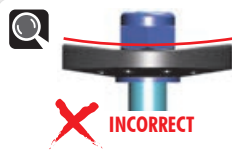


Install the piston with Professional Multi Tool (HUDY #183011).



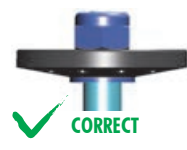
OPTION

#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)



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

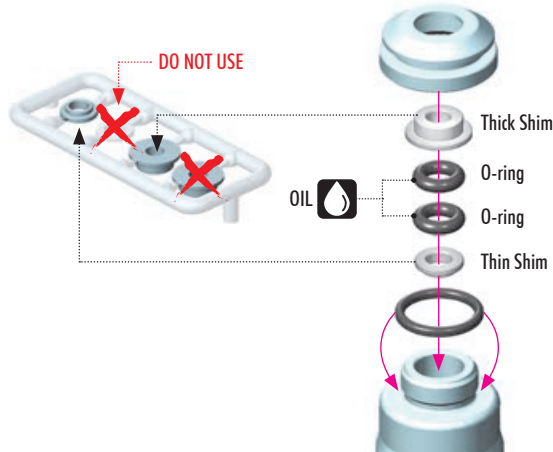
4x 970100
O 10x1.5

8x 971034
O 3.4x2

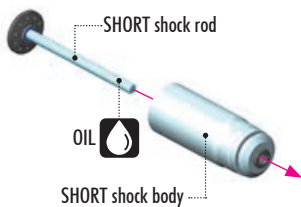
2x FRONT SHOCKS (SHORT)

2x REAR SHOCKS (LONG)

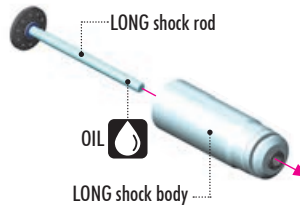
There are two different thickness shims, use them as shown. Use the same procedure when building both front and rear shocks.



2x FRONT SHOCKS

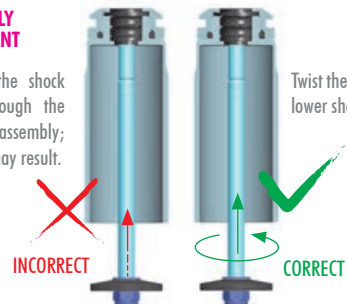


2x REAR SHOCKS



EXTREMELY IMPORTANT

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

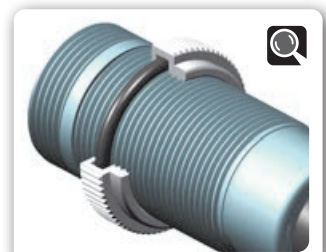
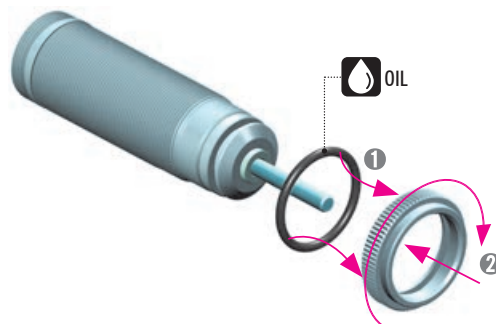


Twist the shock rod through the lower shock body assembly.

4x 970180
O 18x1.8

2x FRONT SHOCKS

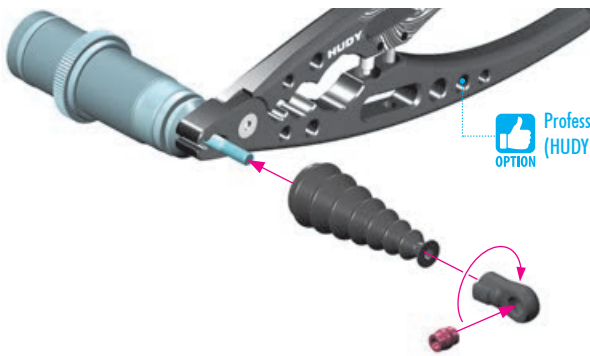
2x REAR SHOCKS



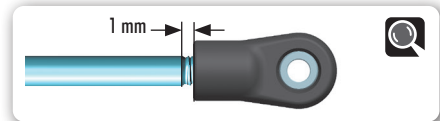
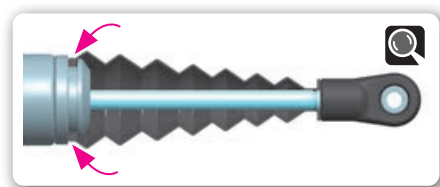
11. SHOCK ABSORBERS

2x FRONT SHOCKS

2x REAR SHOCKS



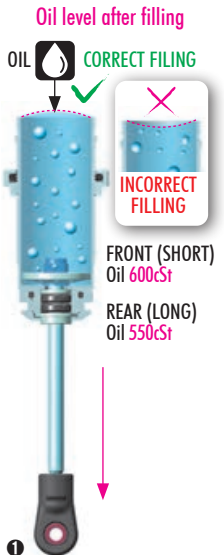
Professional Multi-Tool
(HUDY #183011).
OPTION



SHOCK TYPE: CELL MEMBRANE

for LOW GRIP

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



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.



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



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.



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%.



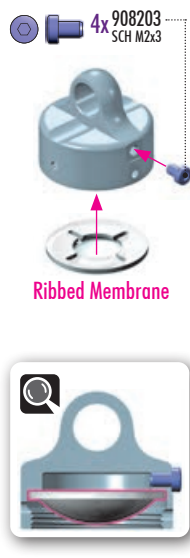
1 Extend the shock shaft completely. Fill the shock body with the shock oil.



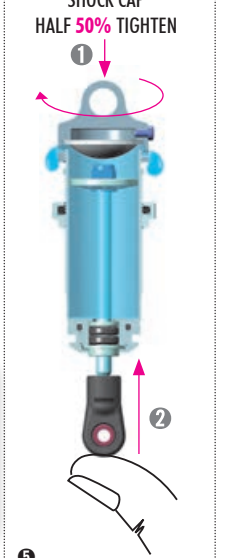
2 Move the shock shaft up and down a few times to release the air bubbles trapped beneath the piston.



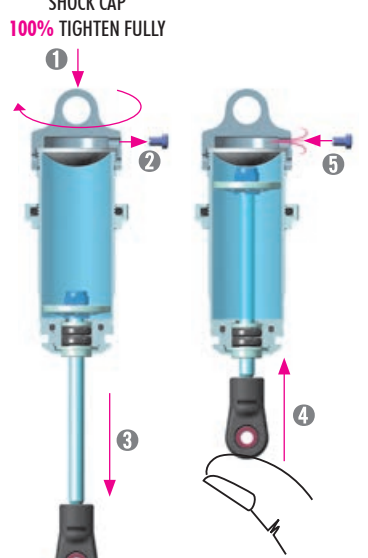
3 Orient the filled shock vertically for several minutes with the shock shaft fully extended. The remaining air bubbles will release.



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



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.



6 1 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 Install o-ring in the cap.

4x 970160
0 16x2

O-ring

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

6 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.

2 SHOCK CAP
100% TIGHTEN FULLY

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 M2x3

9 6x push the shaft up and down.

6x
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

SET-UP BOOK
SPRING RATE
SHOCK PRELOAD
RIDE HEIGHT

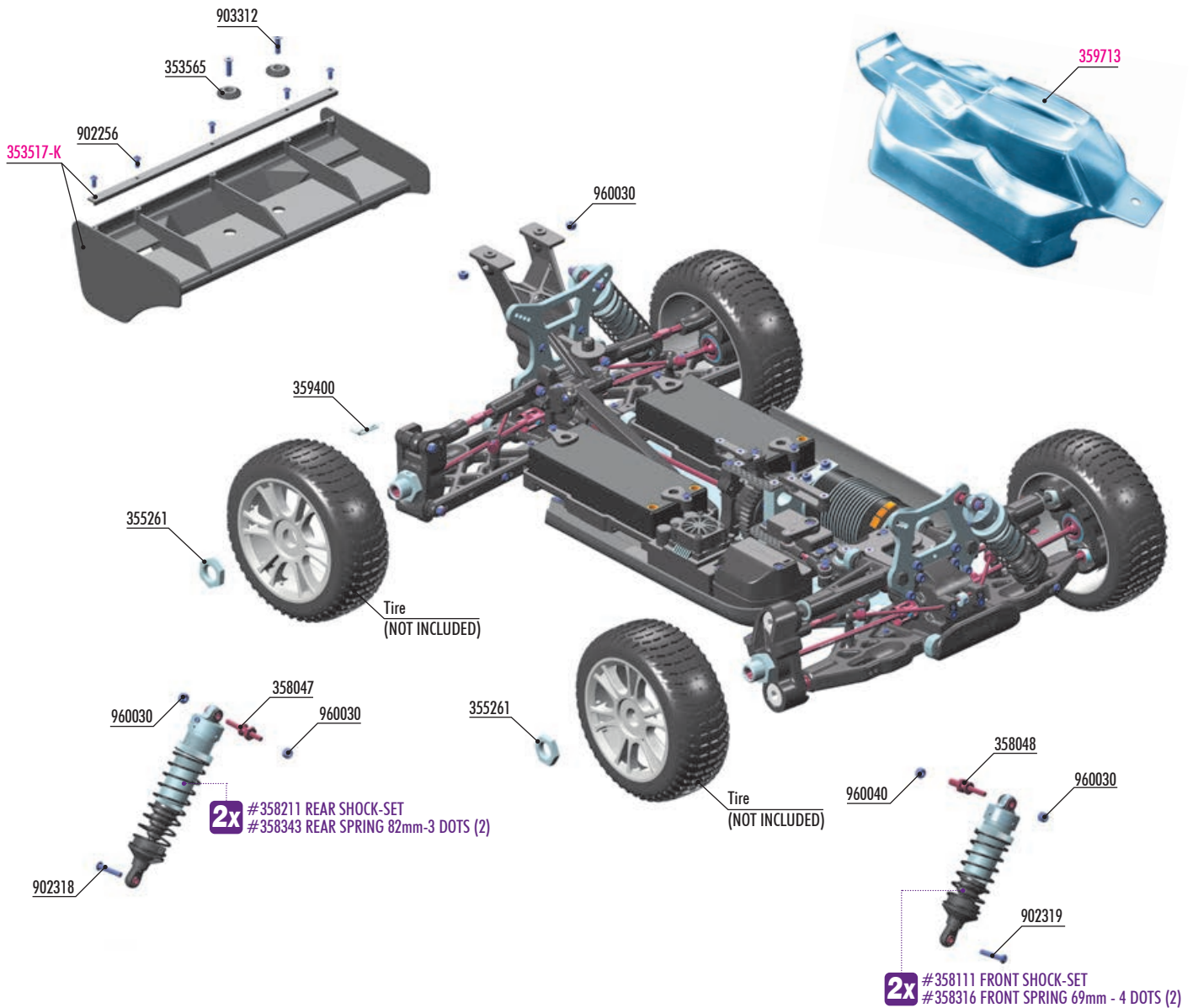
! IMPORTANT!
Both rear shocks must be the same overall length.

! IMPORTANT!
Both front shocks must be the same overall length.

! IMPORTANT!

FRONT & REAR SHOCKS

12. FINAL ASSEMBLY



OPTION

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



OPTION

HUDY REAR WING SHIM		
#293561	SILVER	OPTION
#293561-O	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



BAG

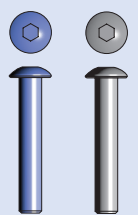
12

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
358111	FRONT SHOCK ABSORBERS 44.5mm - COMPLETE SET (2)
358211	REAR SHOCK ABSORBERS 55mm - COMPLETE SET (2)

Numbers in parentheses () refer to quantities when purchased separately.

12. FINAL ASSEMBLY



902318 SH M3x18
1x

902319 SH M3x18
LEFT thread
1x



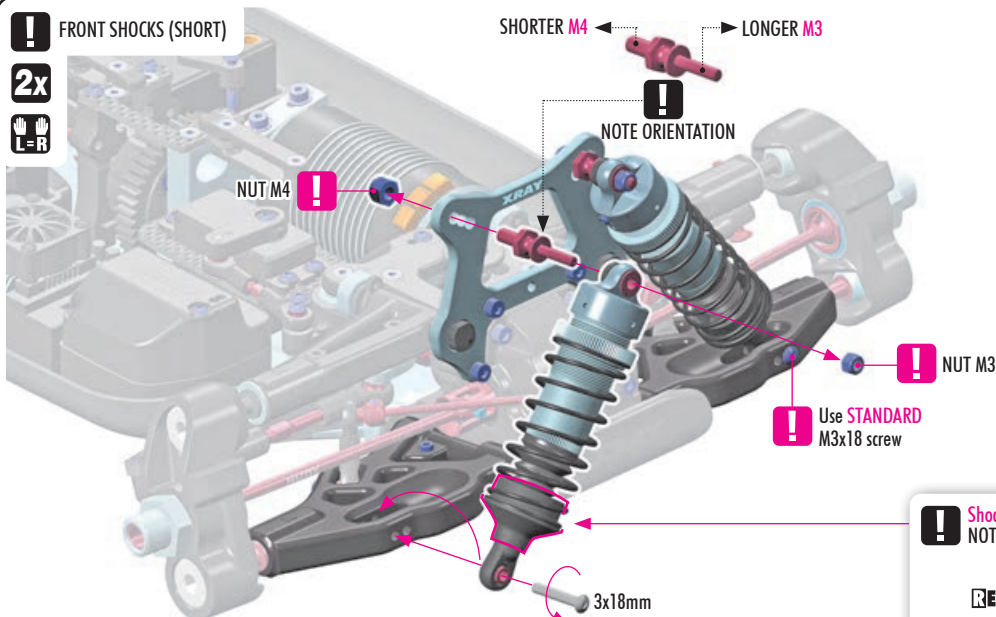
960030 N M3
2x

960040 N M4
2x

FRONT SHOCKS (SHORT)

2x

L=R

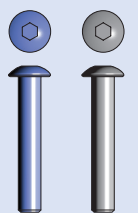


Shock cap
NOTE ORIENTATION

REAR FRONT



SET-UP
BOOK
SHOCK ABSORBERS



902318 M3x18
1x

902319 SH M3x18
LEFT thread
1x

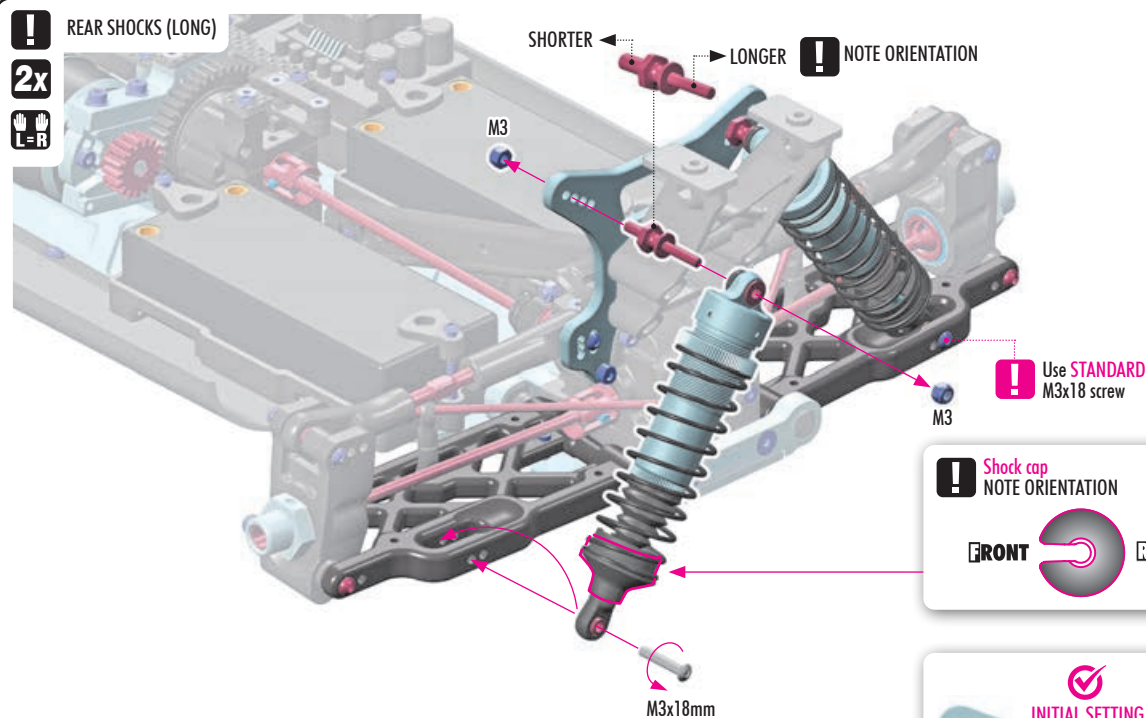


960030 N M3
4x

REAR SHOCKS (LONG)

2x

L=R



Shock cap
NOTE ORIENTATION

FRONT REAR



SET-UP
BOOK
SHOCK ABSORBERS

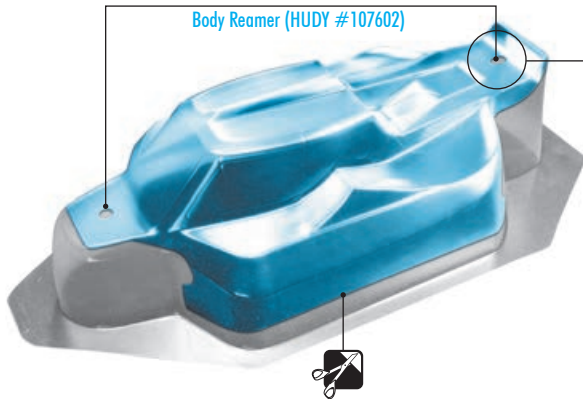
12. FINAL ASSEMBLY

- 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.
- Before painting, wash the inside of the body with mild detergent, and then rinse and dry thoroughly.
- Mask all windows.
- Apply paint masks as appropriate.



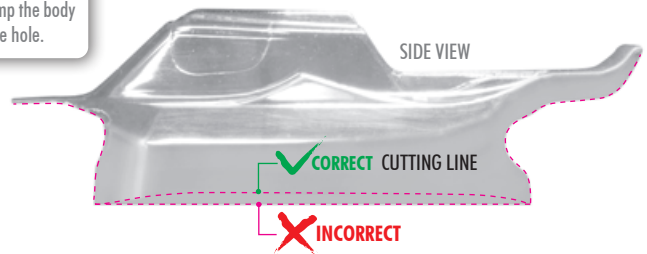
Be sure to make this rear body mount hole oval so in the case of chassis flex after a big jump the body mount will not tear up the hole.

Body Reamer (HUDY #107602)



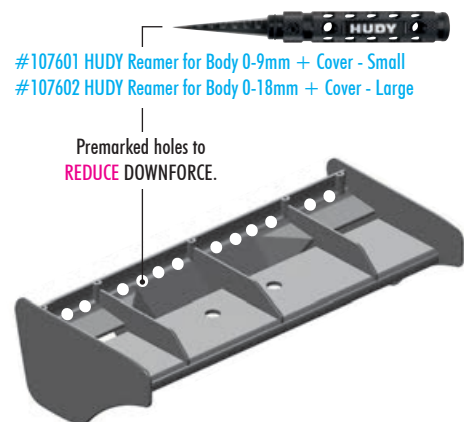
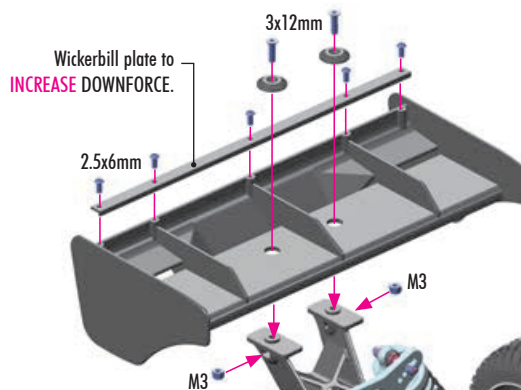
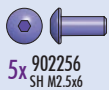
- Paint the body using paints formulated for polycarbonate bodies.
- When the paint is dry, remove the masking.
- Carefully cut out the body using appropriate scissors or cutting tools.
- When you have finished cutting, peel off the external protective films.

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



XB8 BODIES

#	NAME	OPTION
#359712	HIGH-SPEED LIGHTWEIGHT	OPTION
#359713	"Eazy"	INCLUDED
#359714	"Eazy" LIGHTWEIGHT	OPTION



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

Premarked holes to
REDUCE DOWNFORCE.



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



HUDY REAR WING SHIM

#	COLOR	OPTION
#293561	SILVER	OPTION
#293561-O	ORANGE	OPTION
#293561-K	BLACK	OPTION
#353561	SILVER	OPTION



WHEEL NUTS

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



WINGS

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



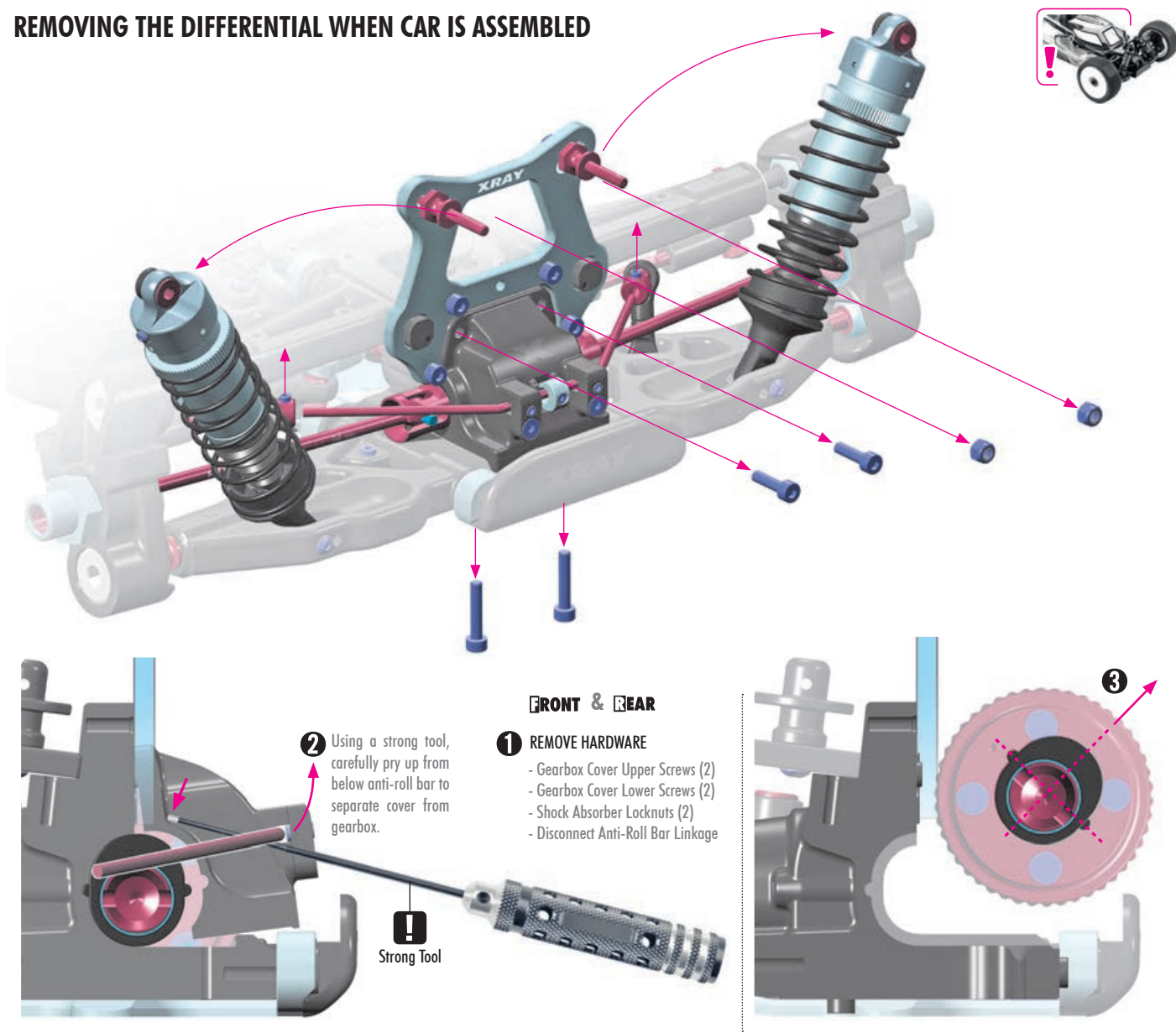
If more than 104mm front droop is used, certain set-up configurations may result in the upper arm contacting the steering bellcranks.

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.

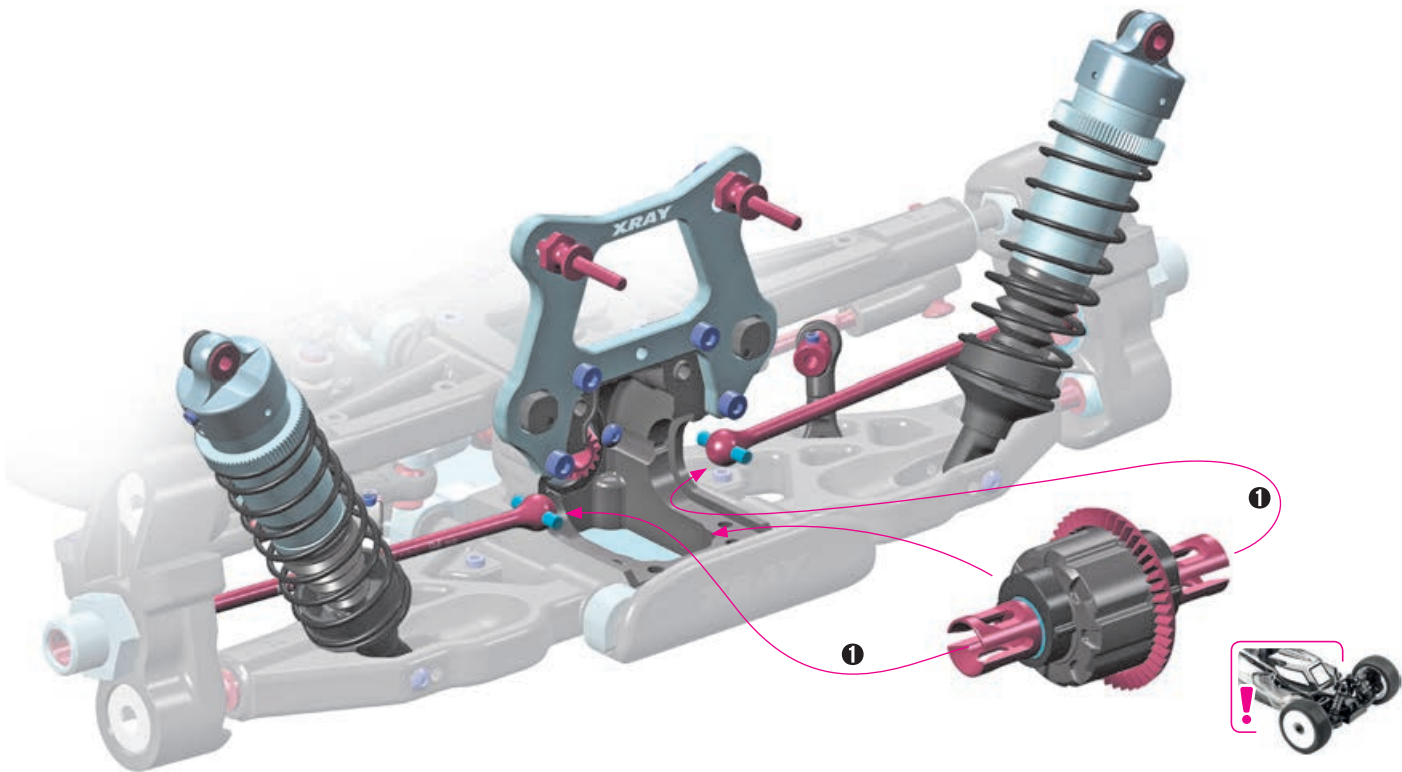


DIFF MAINTENANCE

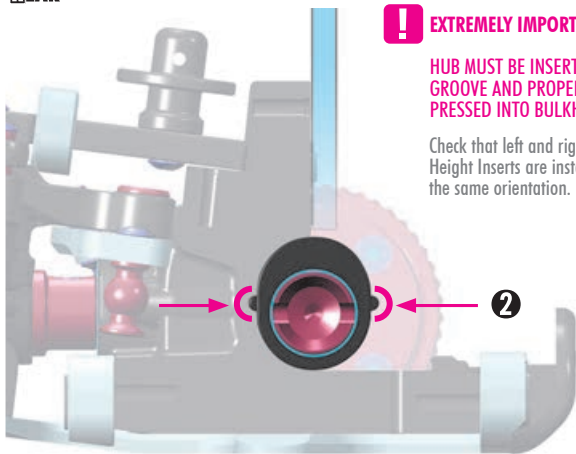
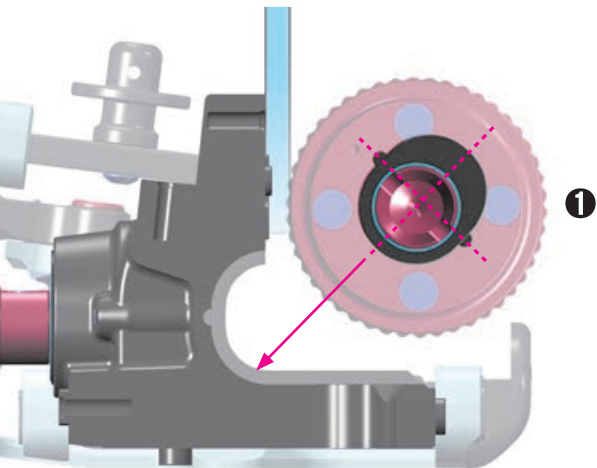
REMOVING THE DIFFERENTIAL WHEN CAR IS ASSEMBLED



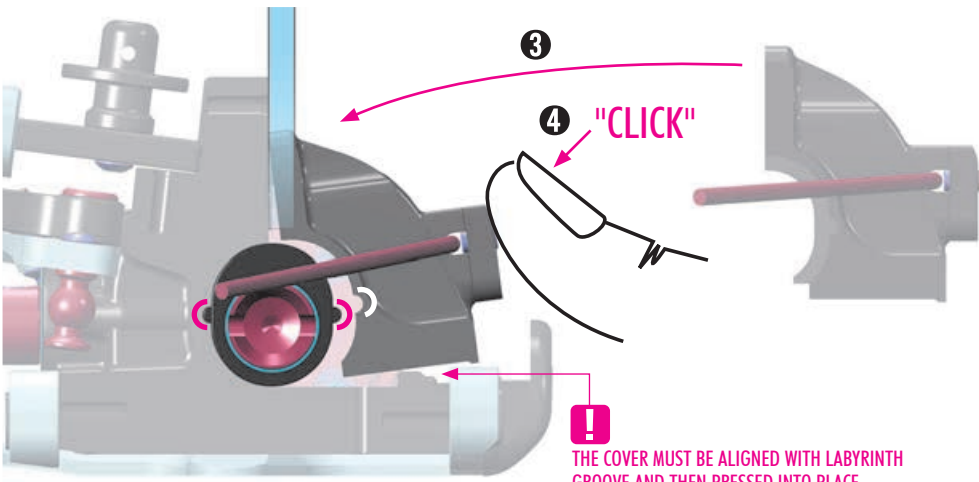
INSTALLING THE DIFFERENTIAL WHEN CAR IS ASSEMBLED



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



OPTION

#350910 FRONT C-HUB SUSPENSION - SET

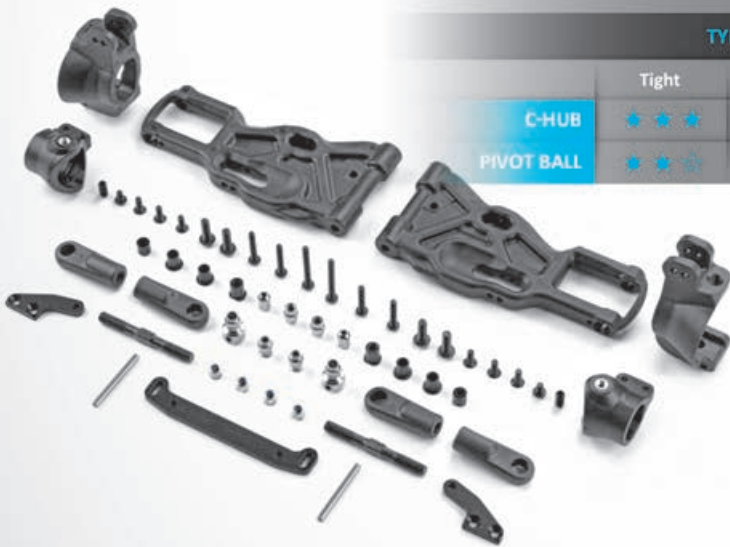
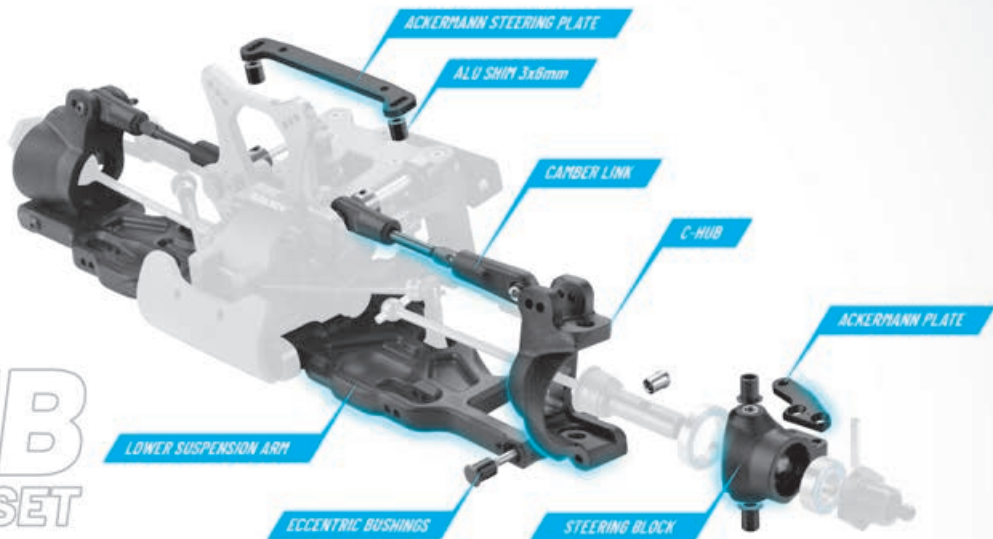
For instructions on how to mount the optional #350910 C-hub suspension conversion set, please download the instructions from the Downloads section at www.teamxray.com/XB8

XRAY XB8 · XB8E

C-HUB FRONT SUSPENSION CONVERSION SET

#350910

C-HUB
CONVERSION SET



TRACK					
	TYPE		CONDITIONS		
	Tight	Open	Smooth	Rough	
C-HUB	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	C-HUB
PIVOT BALL	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★	PIVOT BALL

SUITED FOR SMOOTH & SHORT TECHNICAL TRACKS
PERFECT FOR SMOOTH SURFACE CONDITIONS
WHERE IT GENERATES INCREASED TRACTION & ENHANCED STEERING
COMPLETE SET INCLUDES ALL PARTS FOR CONVERSION

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 recommended 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.

TIP

All ball-bearings are factory pre-oiled or pre-greased. The bearings are all packaged in BAG 00.9.

For pre-oiled ball-bearings, use:

#106230 HUDY Bearing Oil.

For pre-greased ball-bearings, use one of these bearing greases:

#106220 - HUDY Bearing Grease - suggested for extremely dusty track conditions.

#106221 - HUDY Bearing Grease "Blue" - suggested for medium dusty track conditions.

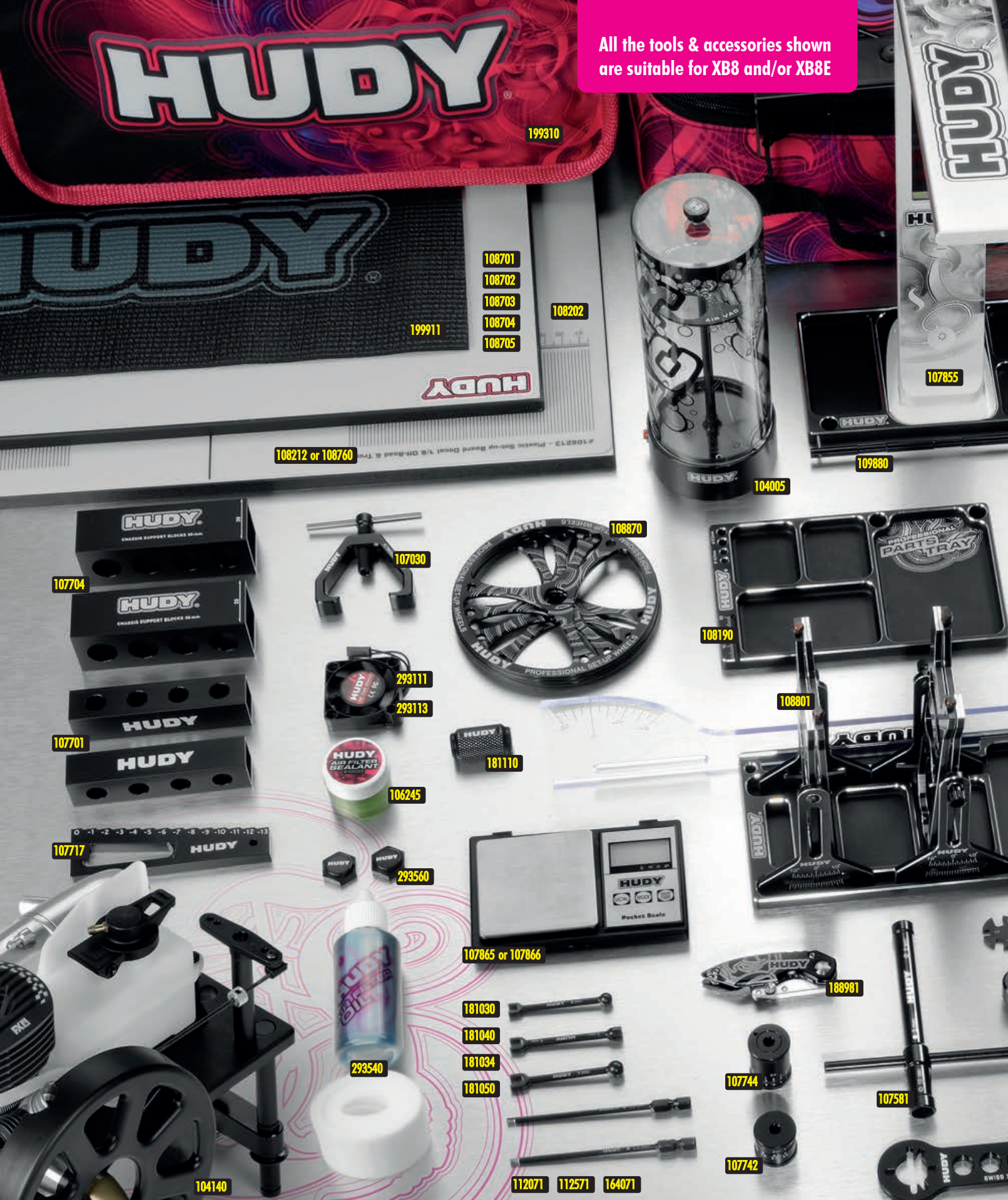
#106222 - HUDY Bearing Grease "Red" - suggested for low dusty track conditions.

Replace any bearings that develop a "gritty" feeling to prevent inefficiency and avoid failures.

Make sure to use only original XRAY ball-bearings, which all have specific tolerances, axial and radial play, and are all individually selected. Using 3rd party ball-bearings may result in bearing failures and damage to other parts.



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

199184

104500

108170

199060

109802

106200

105510

105500

199270

106000

107762

107780

107783

107602

107090

183011

188990

107644

154065

107612

113045

112545

132545

112045

132045

111545

164045

175535



- #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

www.teamxray.com

XRAY EUROPE

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

XRAY USA

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