

**INSTRUCTION MANUAL** FOR XB2C'25 EDITION

#### **BEFORE YOU START**

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

Before building and operating your XRAY, <u>YOU MUST</u> 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 <u>info@</u> teamxray.com. Also, please visit our Web site at <u>www.teamxray.com</u> 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, <u>DO NOT</u> <u>continue any further</u>. 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

void guaranty immediately.

#### **XRAY USA**

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

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

#### **SAFETY PRECAUTIONS**

#### Contains:

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

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

#### CAUTION: CANCER HAZARD

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

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

Take appropriate safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation! Please read the instruction manual before building and operating this model and follow all safety precautions. Always keep the instruction manual at hand for quick reference, even after completing the assembly. Use only genuine and original

# 🛆 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.

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

authentic XRAY parts for maximum performance. Using any third party parts on this model will

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

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.

- 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.



# \land 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

#### **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.

- 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.
- 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 excess the monetary value of this product.

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

Disregard of the any of the above cautions may lead to accidents, personal injury, or property damage.

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

#### **QUALITY CERTIFICATE**

XRAY MODEL RACING CARS uses only the highest quality materials, the best compounds for molded parts and the most sophisticated manufacturing processes of TQM (Total Quality Management). We guarantee that all parts of a newly-purchased kit are manufactured with the highest regard to quality. However, due to the many factors inherent in model racecar competition, we cannot guarantee any parts once you start racing the car. Products which have been worn out, abused, neglected or improperly operated will NOT be covered under warranty. We wish you enjoyment of this high-quality and high-performance RC car and wish you best success on the track!

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

# **TOOLS REQUIRED**



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



### **EQUIPMENT REQUIRED**

Transmitter	Receiver	Speed Controller	Steering Servo	Electric Motor & Pinion Gear with Setscrew	LiPo Battery
T		- Same	810		
Battery Charger	Double-sided Tape	Lexan™ Paint	4x Tires & Inserts	Bearing Oil (HUDY #106230)	readlock CA glue
	(HUDY #107875)		00	OPTION (ITOT # 100230)	



#### **NOT INCLUDED**

OPTION	SAMPLE OF OPTIONAL PARTS					
	#32XXXX	TYPE1	OPTION 1			
	#32XXXX	TYPE2	OPTION 2			
	#32XXXX	TYPE	INCLUDED			

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

#### **COLOR INDICATIONS**

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

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



321200

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

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

- 900 STYLE C indicates parts that are already assembled from previous steps.
- 5100 STYLE D indicates parts that are OPTIONAL

# **TECH TIPS**

# 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.



DO NOT use drive shafts when the pins are worn.

Press out the worn pins. Press in new pins and reaularly inspect for wear. For quick & easy drive pin replacements use #106000 HUDY Drive Pin Replacement Tool together with #106036 Ejector Pivot Pin & Alternating Pivot 2.5mm.



To replace the worn pins use only premium HUDY drive pins (#106053 2.5mm dia x 10mm length)

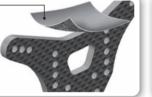
# TIP CARBON PARTS PREPARATION

Follow this Tech Tip to prepare the carbon parts. Sand the edges with sandpaper, and then seal the edges with CA glue to reinforce them and help prevent delamination.

#### **Prepare all Carbon Parts:**

- Front shock tower
- Rear shock tower





Apply **CA glue** to all edges of the carbon parts.



# TIP

All ball-bearings are factory pre-oiled or pre-greased. The bearings of each type are packaged separately; there is a **BAG 00.9** with pre-greased ball-bearings and a separate bag with pre-oiled ball-bearings.

#### For pre-oiled ball-bearings, use:

#106230 HUDY Bearing Oil

#### For pre-greased ball-bearings with rubber covers, 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.



# **OPTION PARTS**



HUDY ULTIMATE SILICONE OILS						
#106510	10.000cSt - 50ml	OPTION				
#106492	11.000cSt - 50ml	OPTION				
#106512	12.000cSt - 50ml	OPTION				
#106513	13.000cSt - 50ml	OPTION				
#106515	15.000cSt - 50ml	OPTION				
#106520	20.000cSt - 50ml	OPTION				
#106530	30.000cSt - 50ml	OPTION				
#106540	40.000cSt - 50ml	OPTION				
#106550	50.000cSt - 50ml	INCLUDED				
#106560	60.000cSt - 50ml	OPTION				
#106580	80.000cSt - 50ml	OPTION				
#106610	100.000cSt - 50ml	OPTION				
#106615	150.000cSt - 50ml	OPTION				

#### **TIPS FOR GEAR DIFFERENTIAL**

LOW-MEDIUM TRACTION 30.000cSt MEDIUM-HIGH TRACTION 50.000cSt HIGH TRACTION 80.000cSt Softer oil increases rear traction, harder oil increases on-power forward traction.

#### HUDY TITANIUM 5.4mm BALL STUDS HUDY TITANIUM 4.9mm BALL STUDS ø4.9mm Ø 5.4mm #990020 990008 10 mm #990006 8mm #990018 #990004 6mm 8mm #990016 4mm 6mm **TITANIUM MATERIAL SUPER LIGHTWEIGHT ULTRA-PRECISE** LONG LIFE HIGH DURABILITY MADE BY HUDY

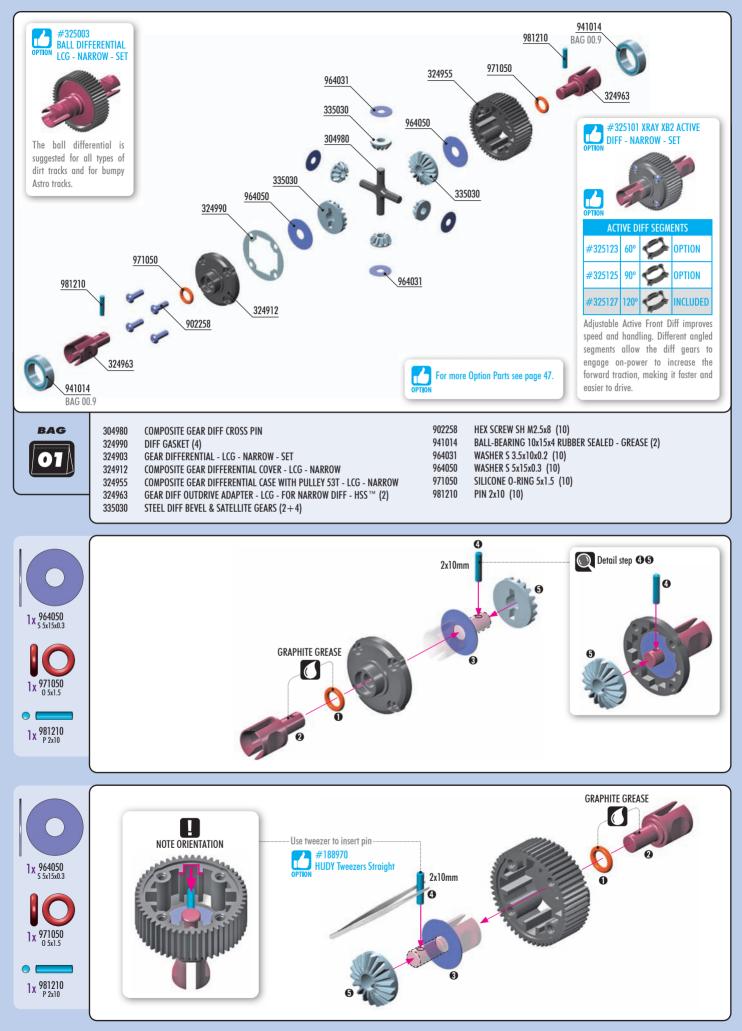




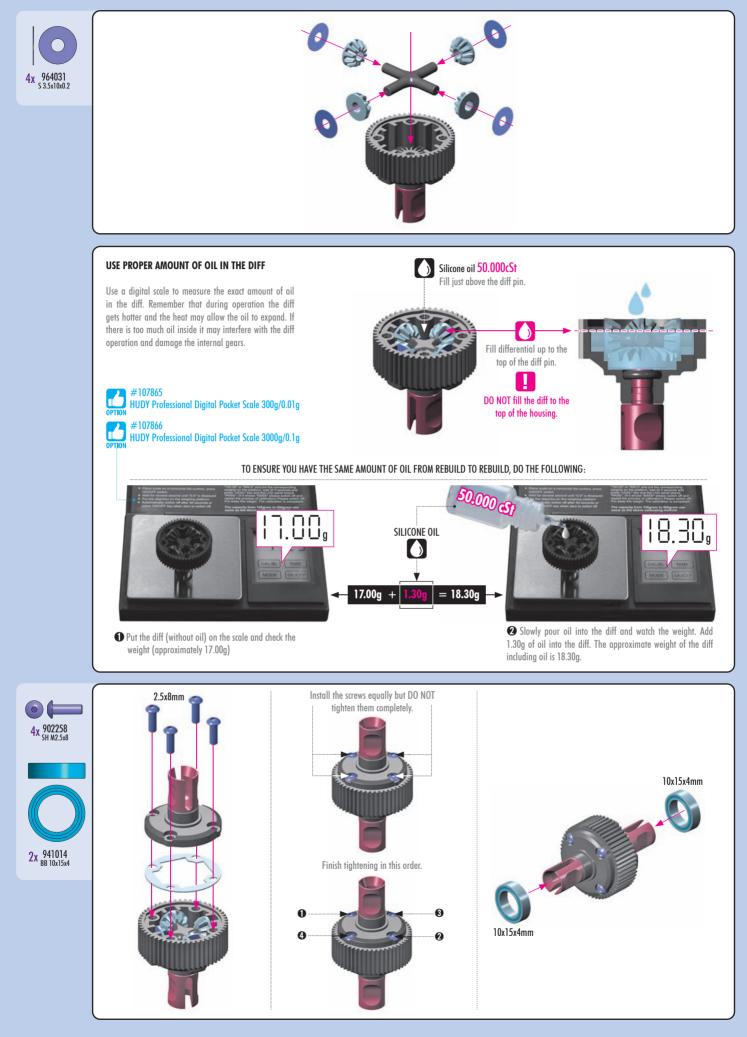
**#990010** 

10 mm

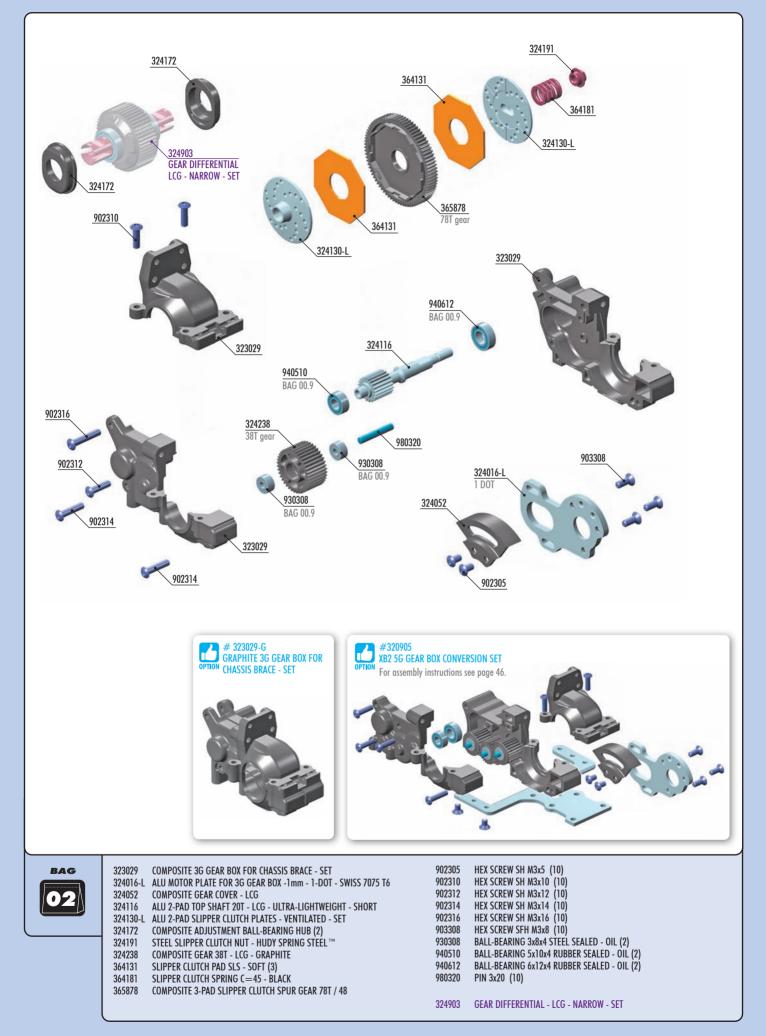
# **1. GEAR DIFFERENTIAL**



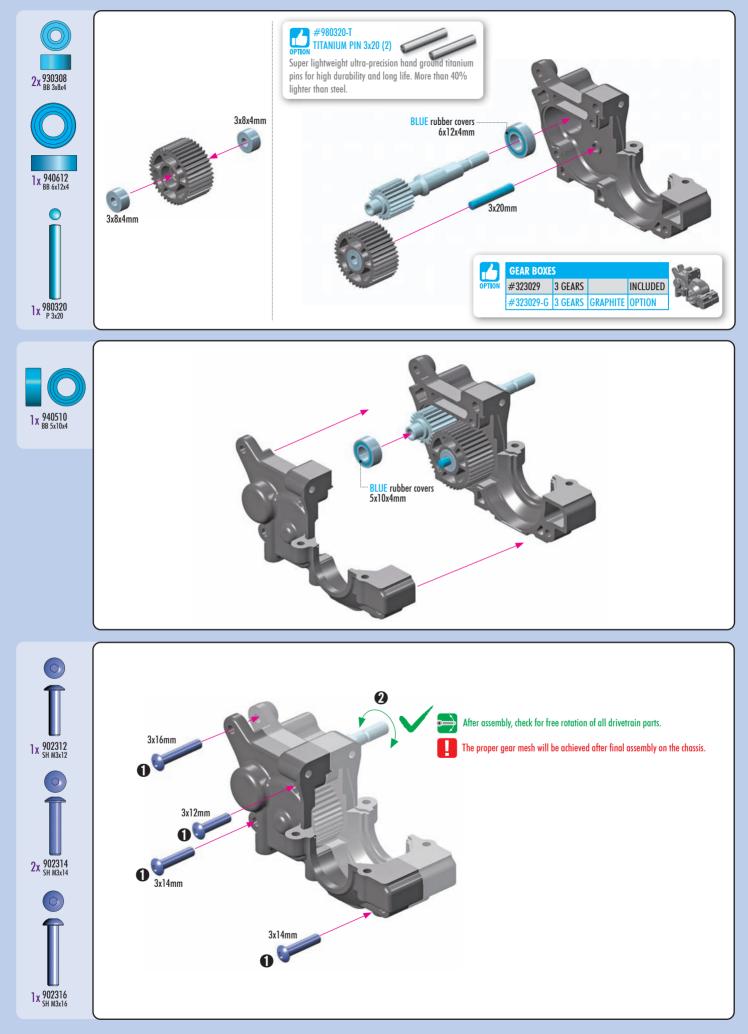
## **1. GEAR DIFFERENTIAL**



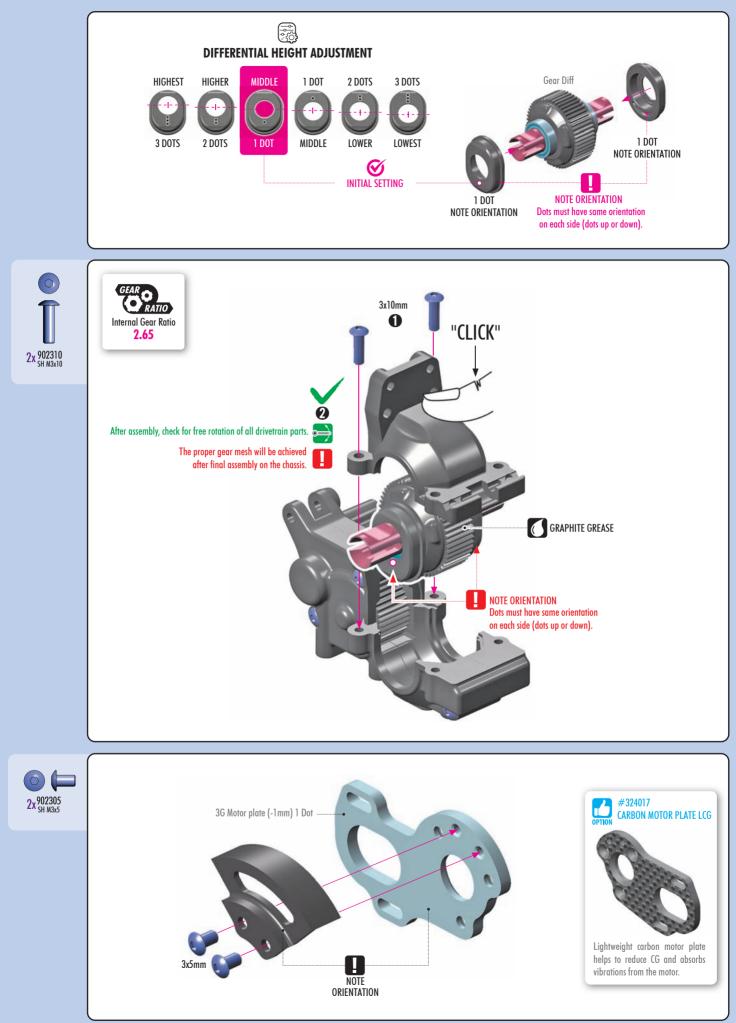




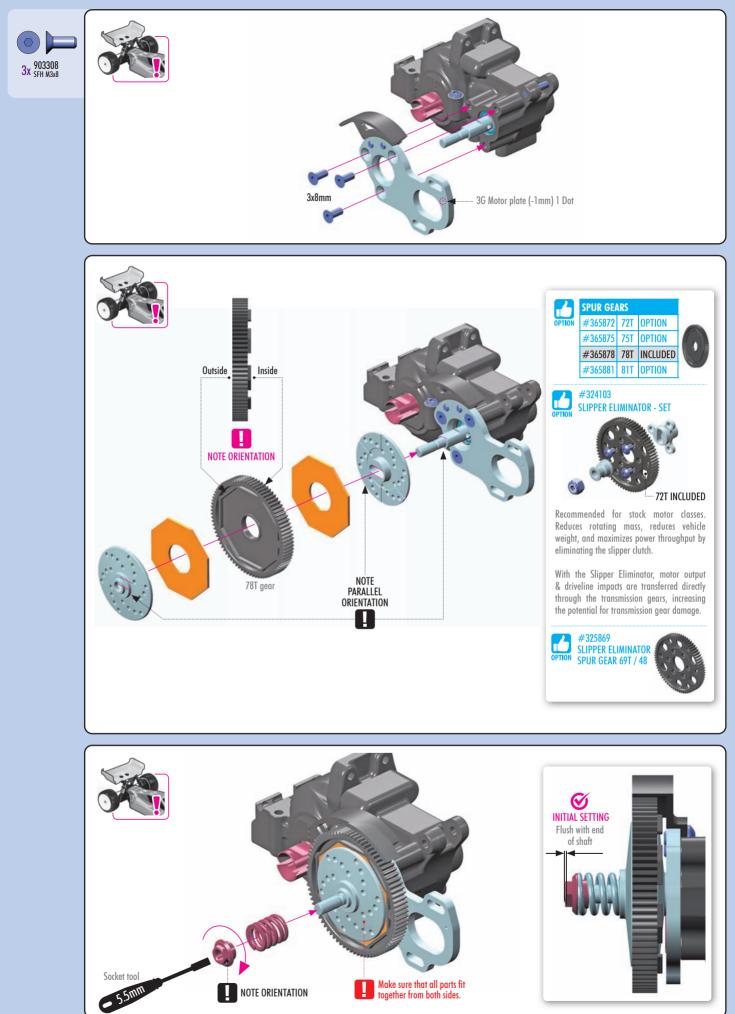






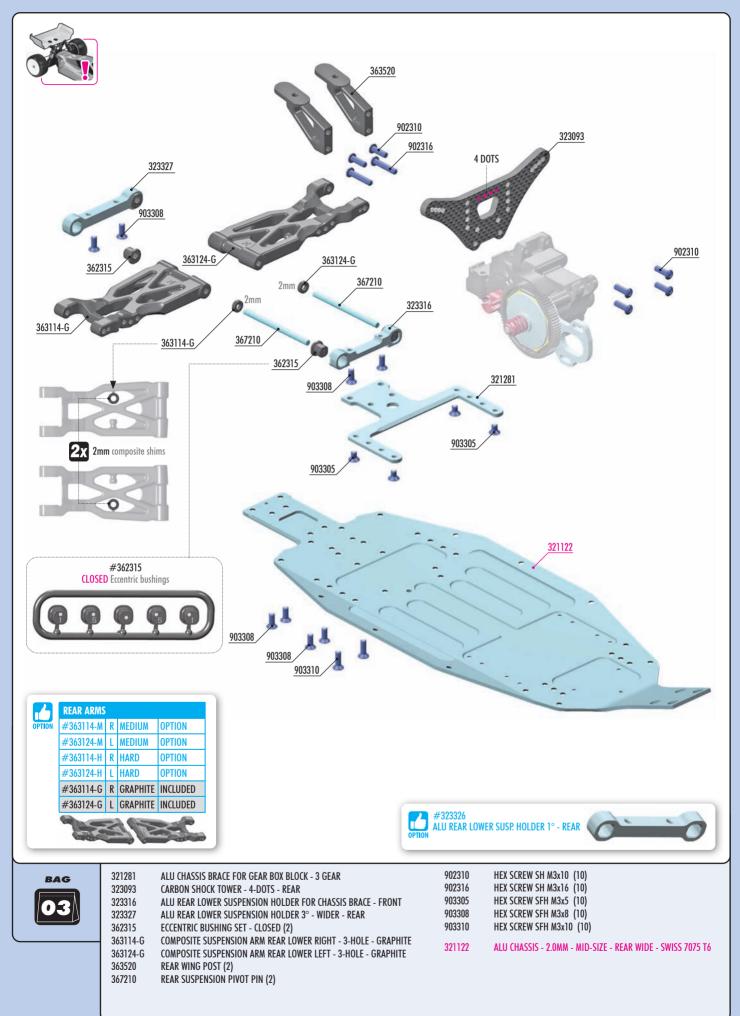




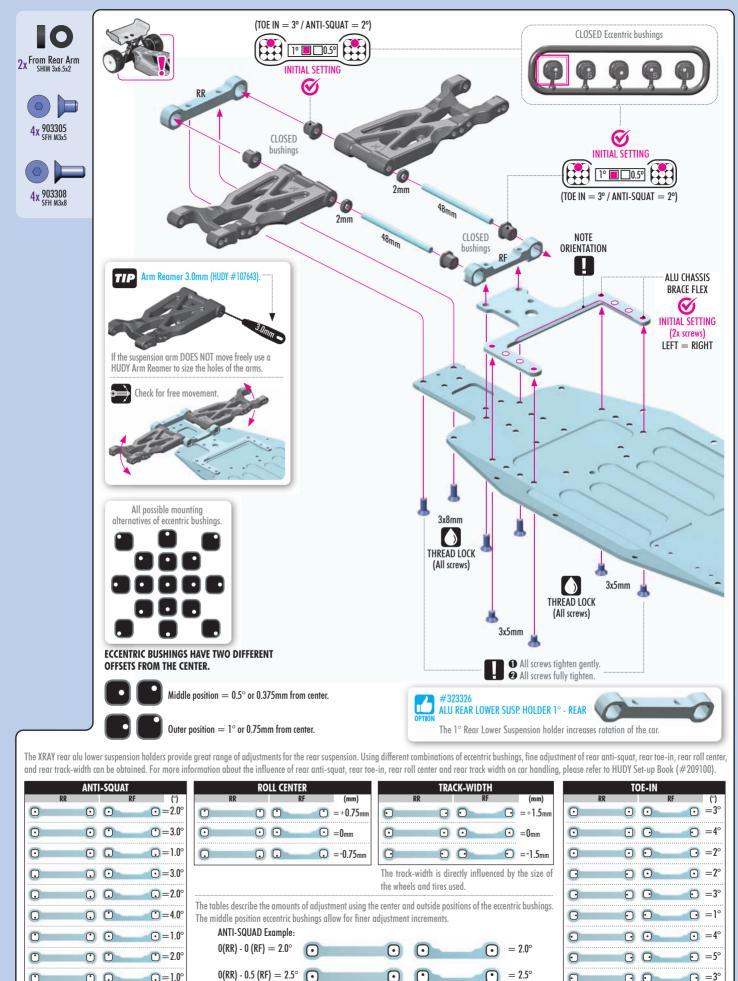




### **3. REAR SUSPENSION**



# **3. REAR SUSPENSION**



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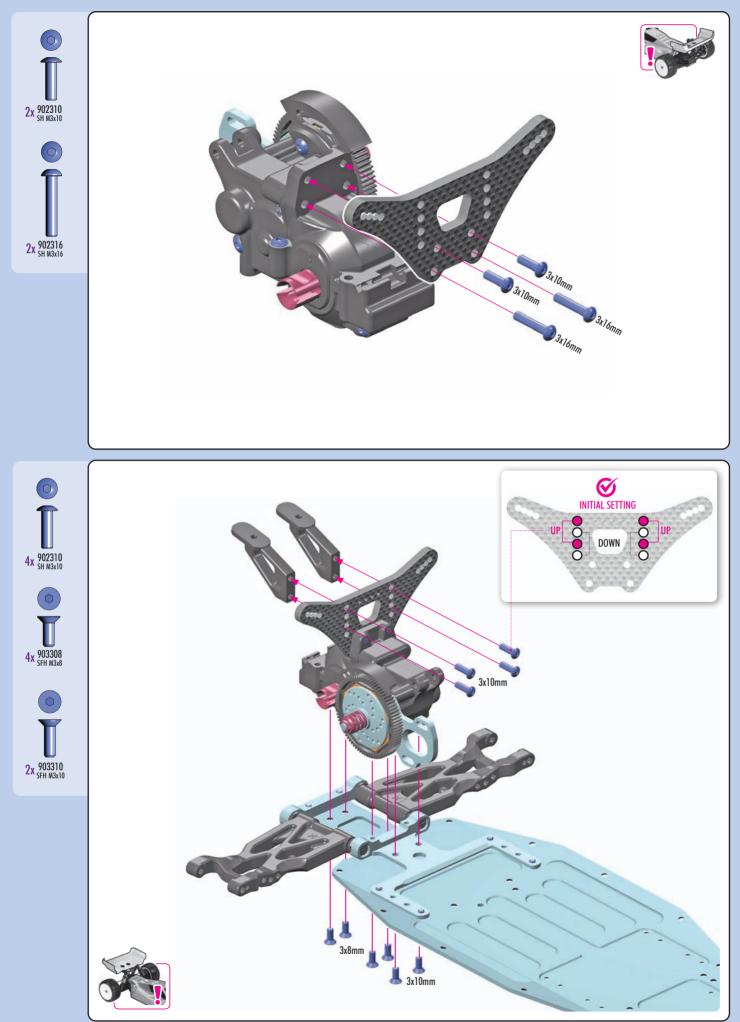
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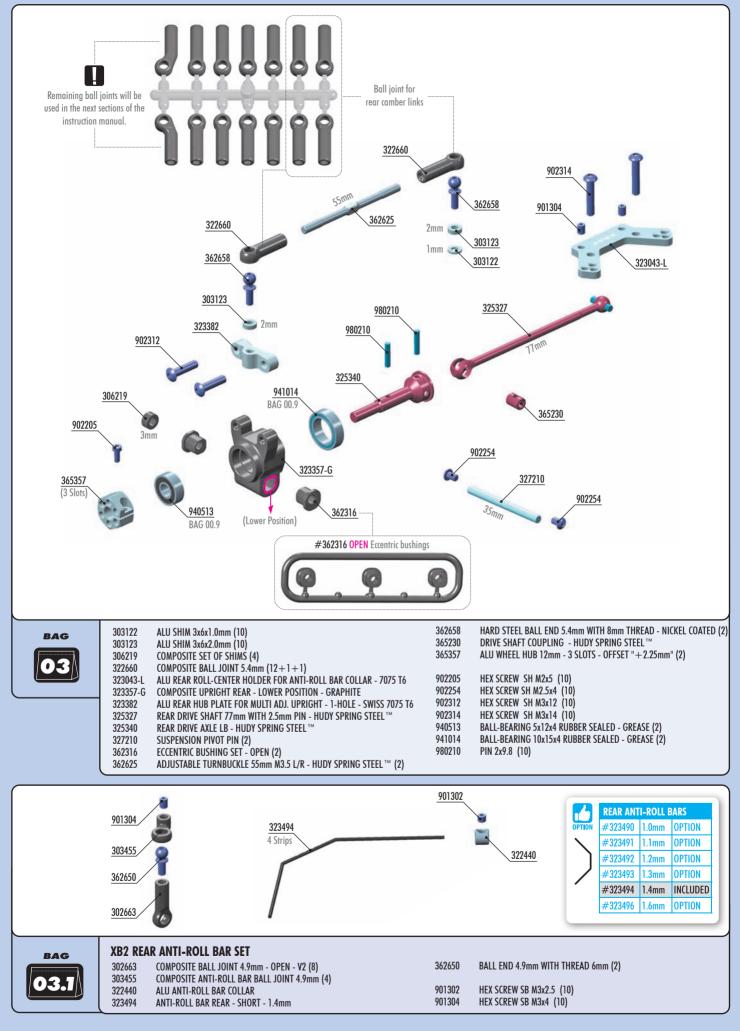
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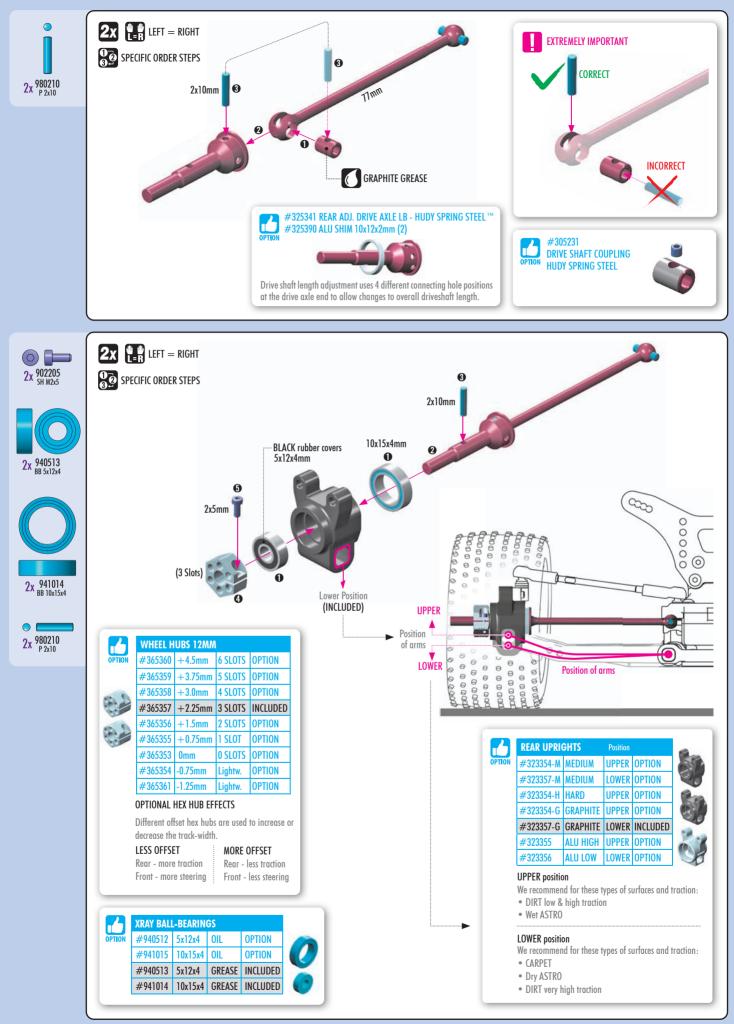
### **3. REAR SUSPENSION**

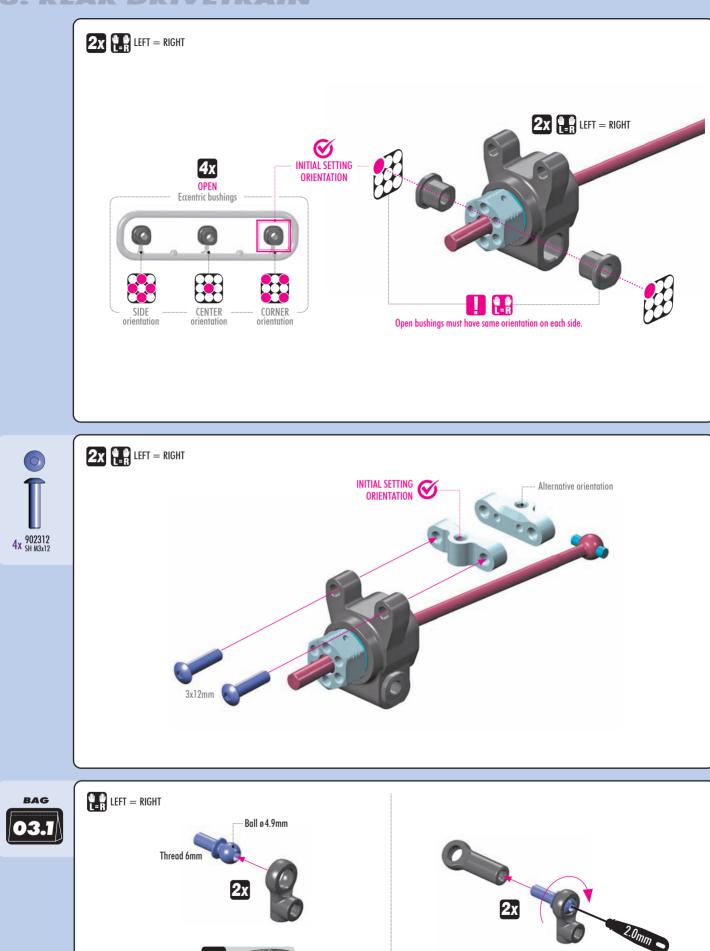




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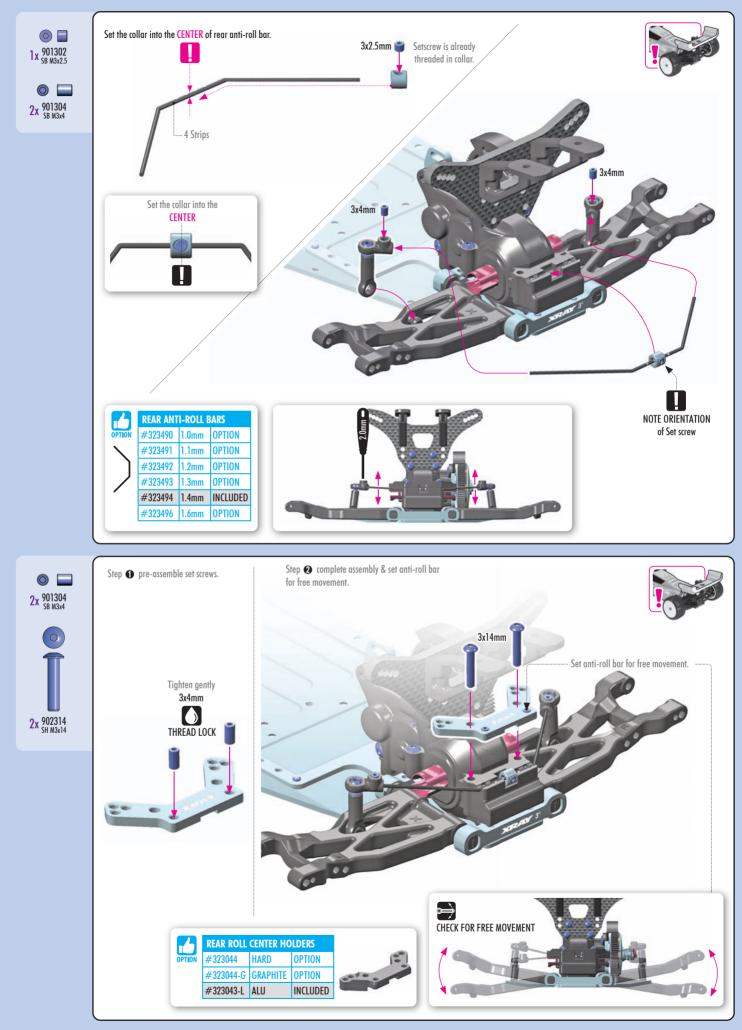


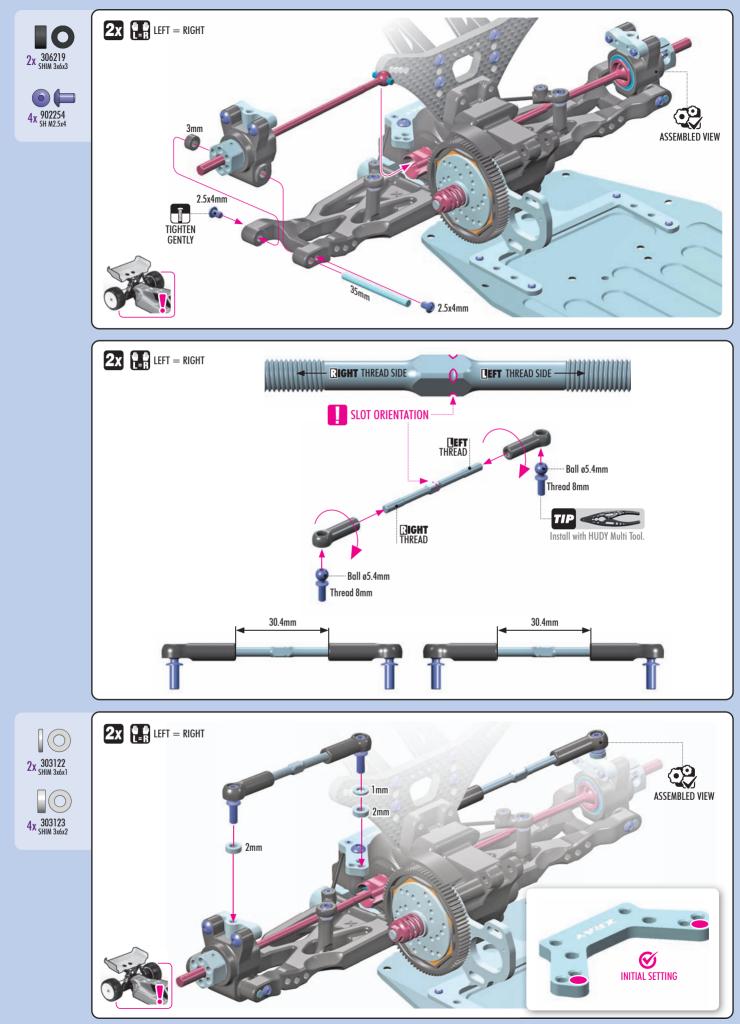




TIP CONTRACT

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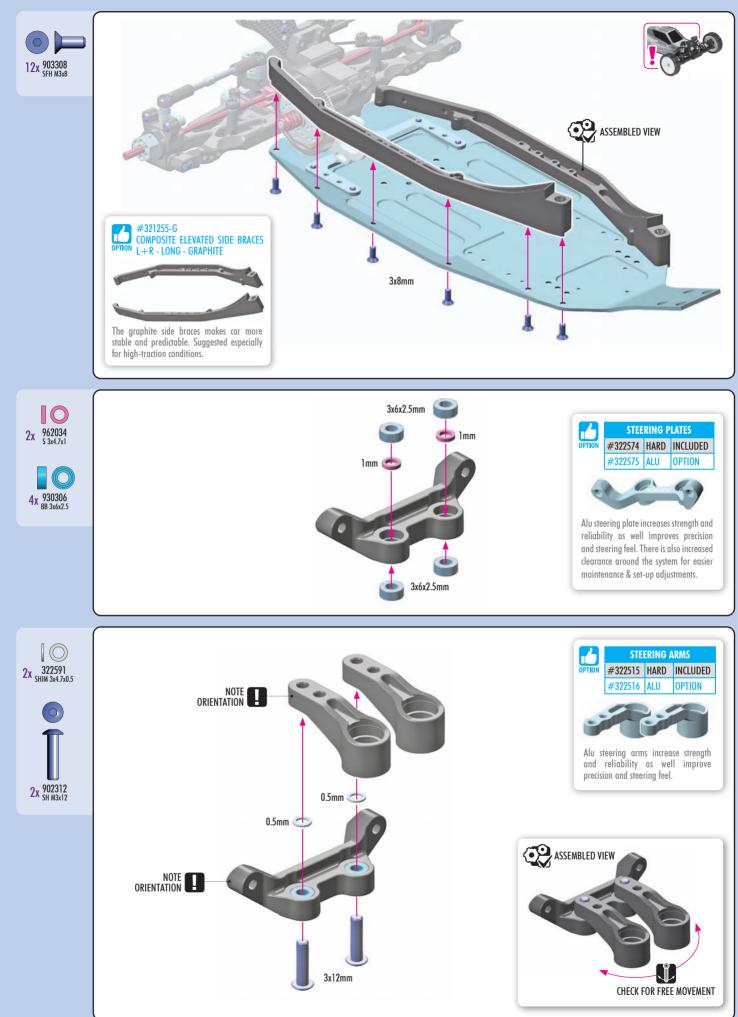


### **4. FRONT ASSEMBLY**



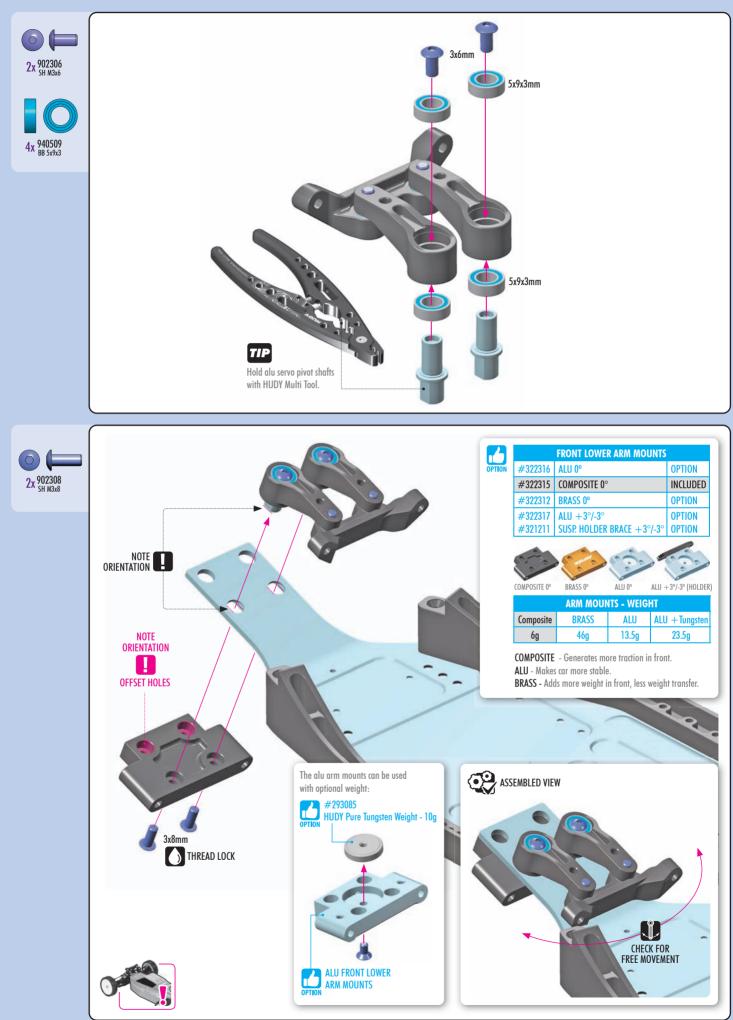


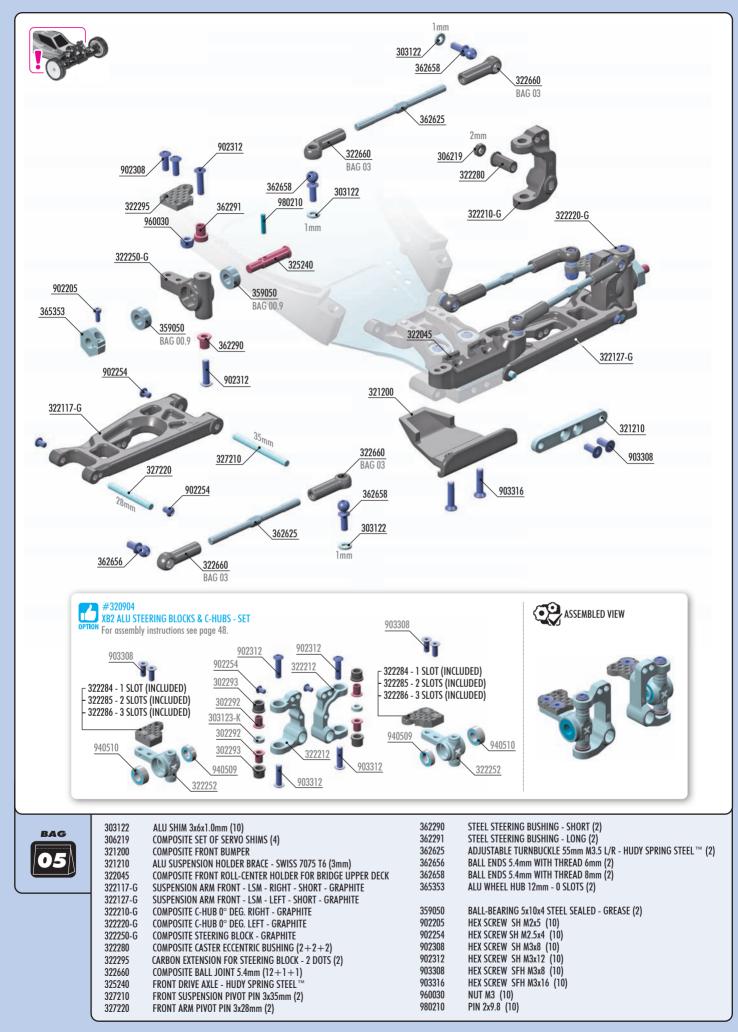
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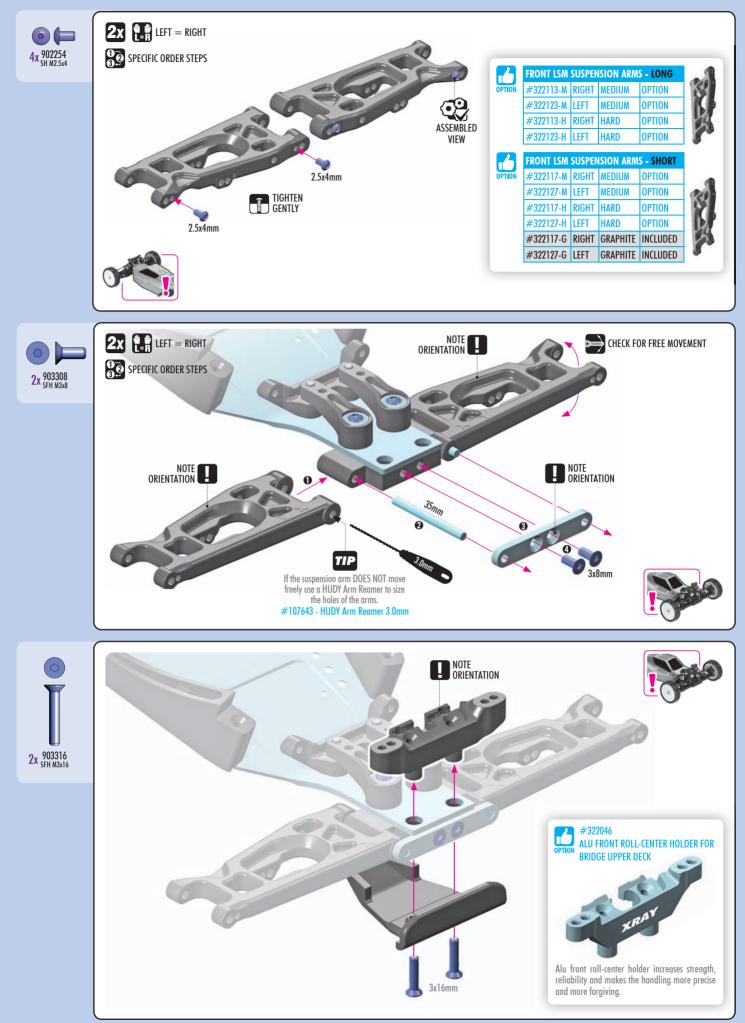


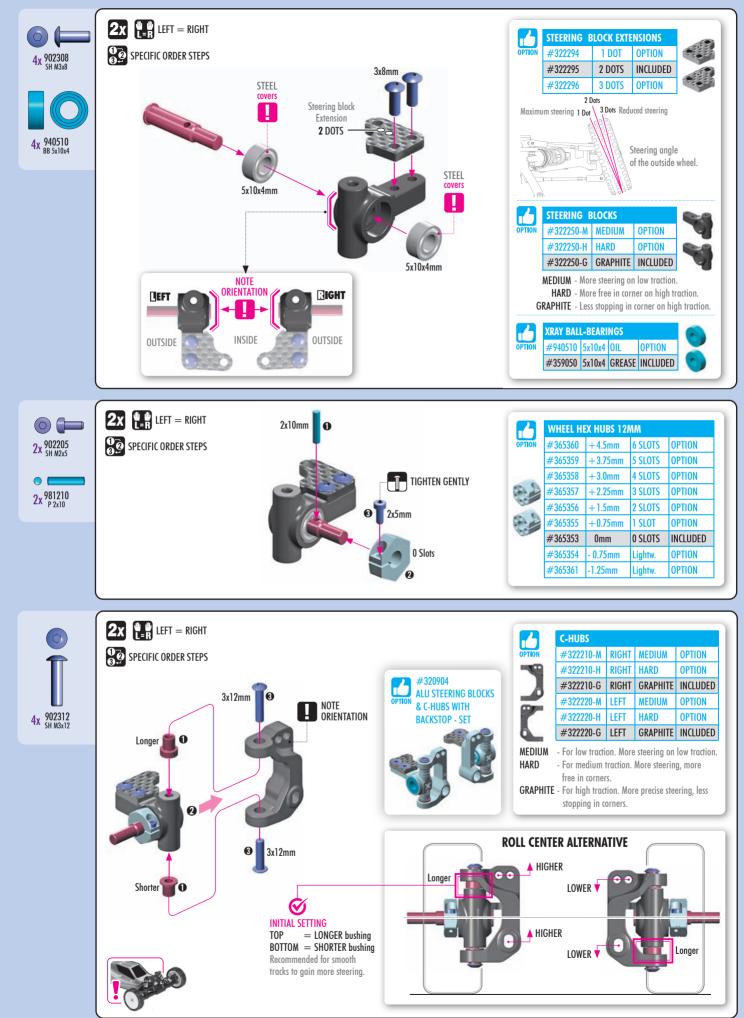
### **4. FRONT ASSEMBLY**



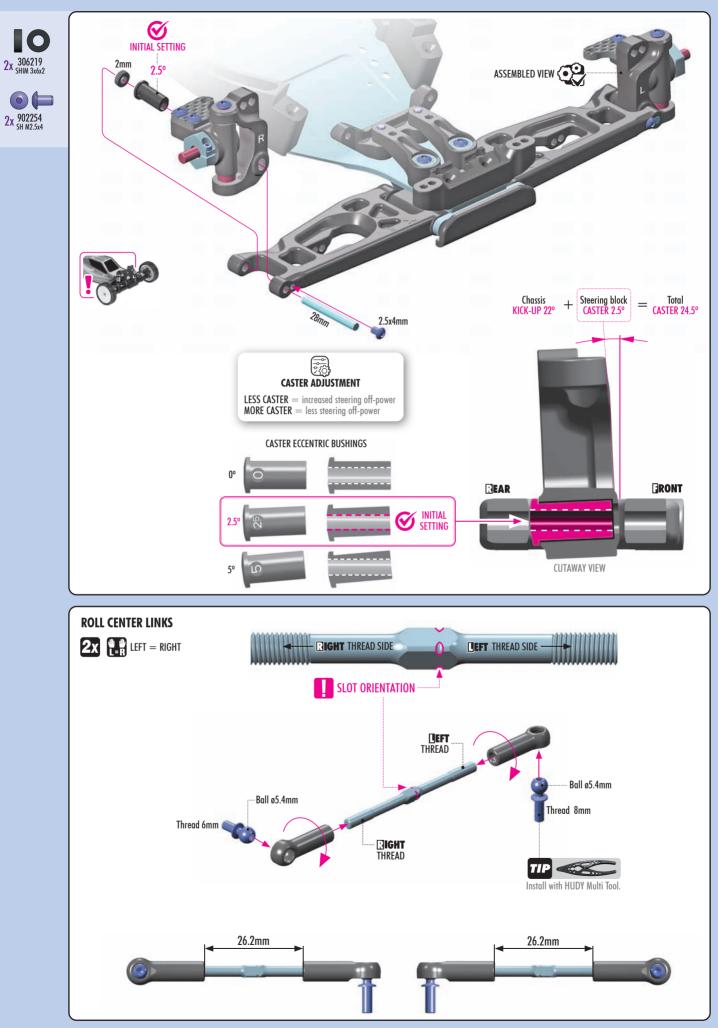


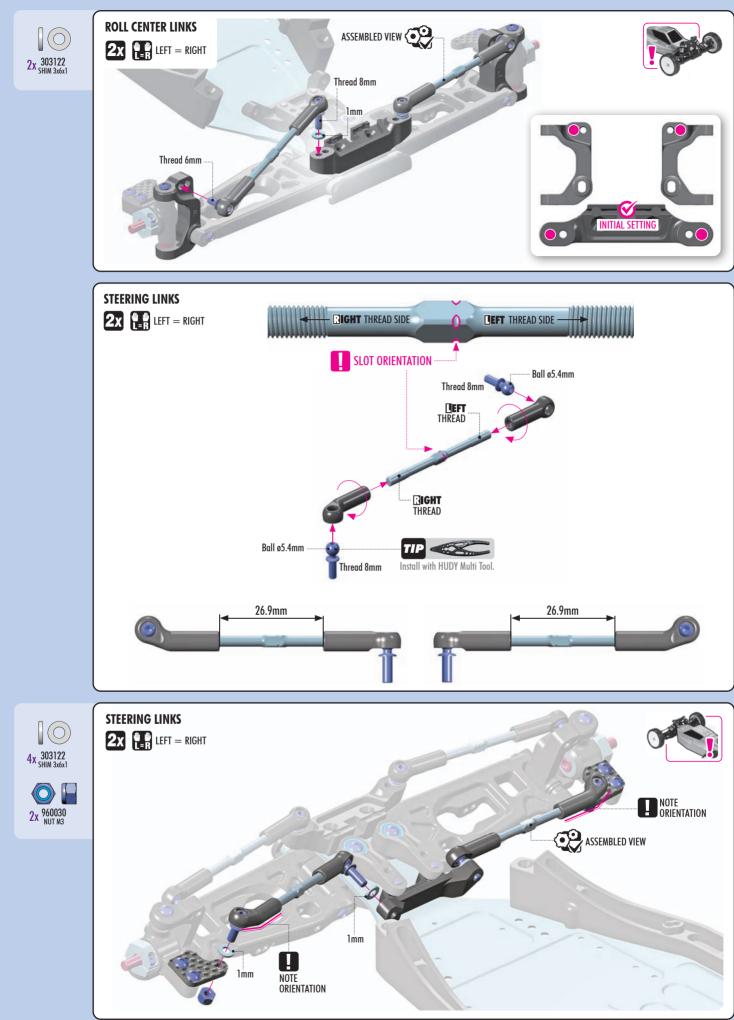


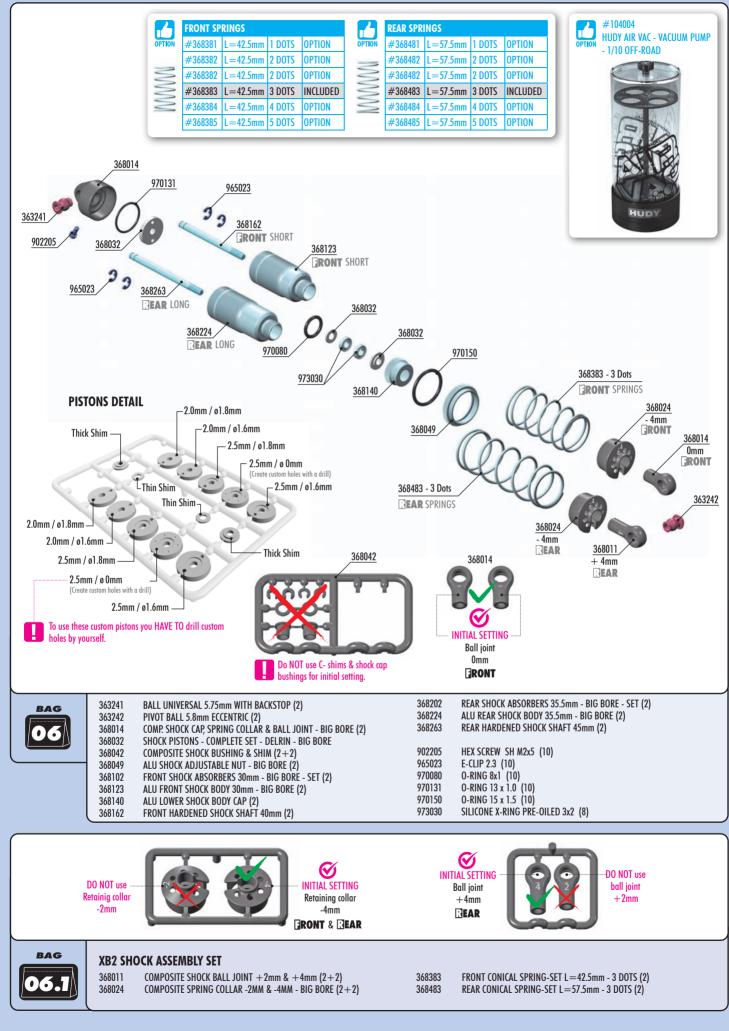


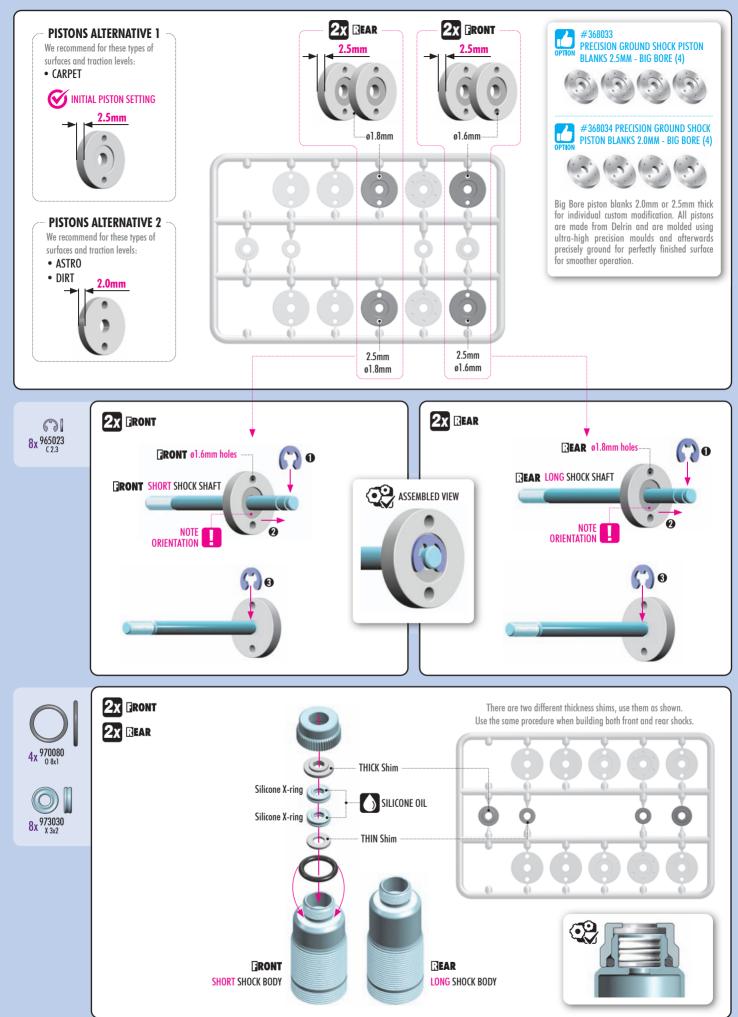




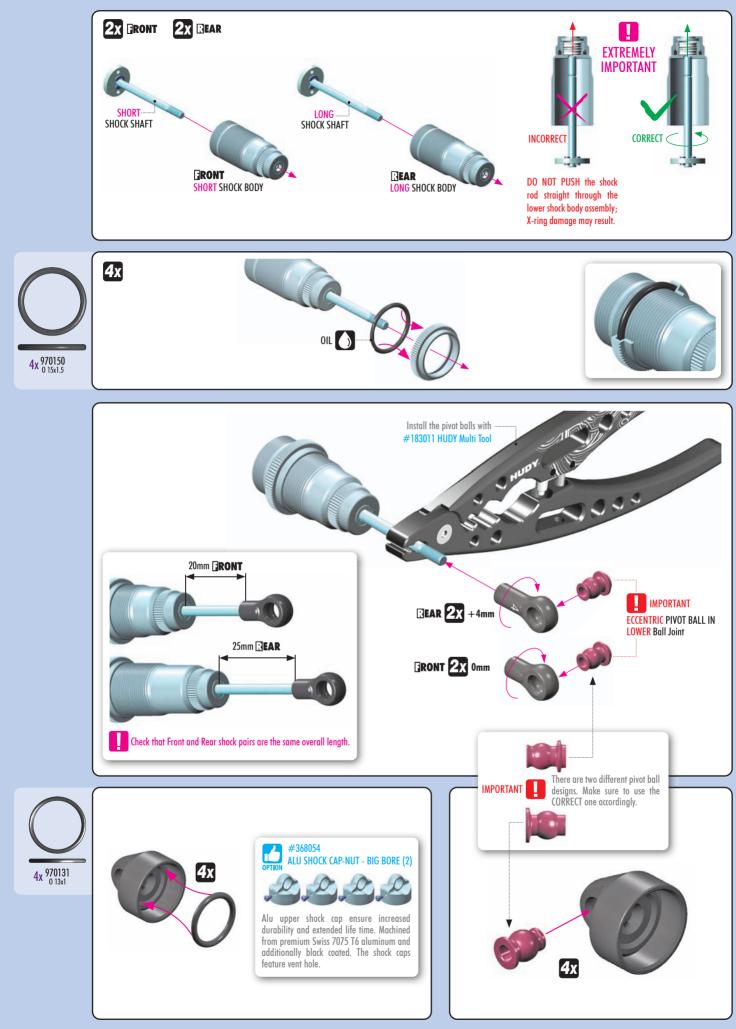




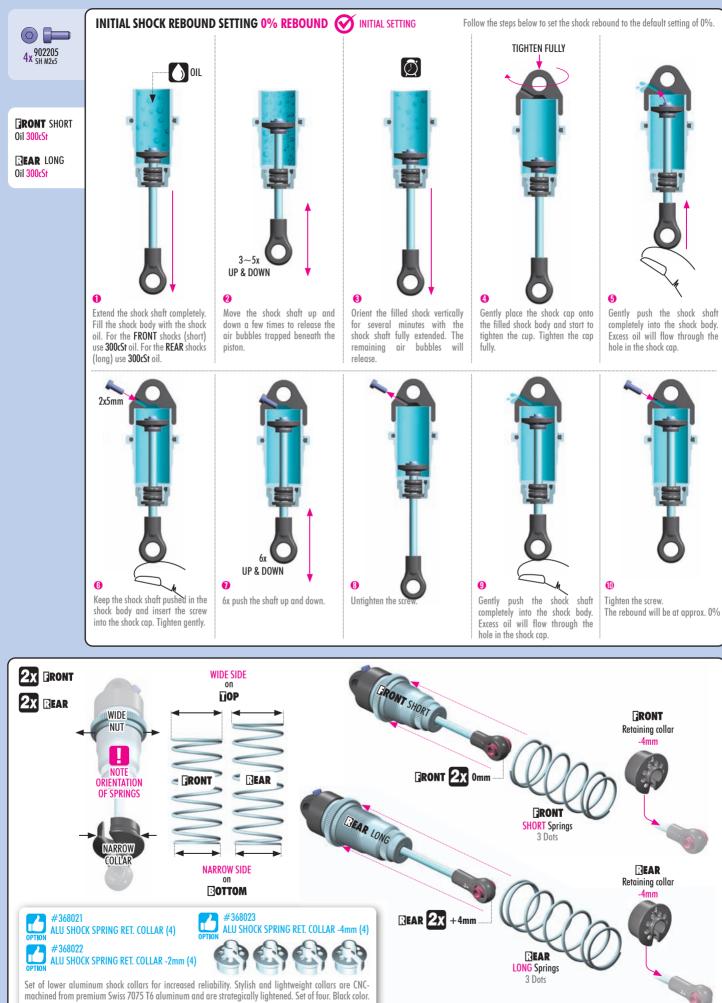






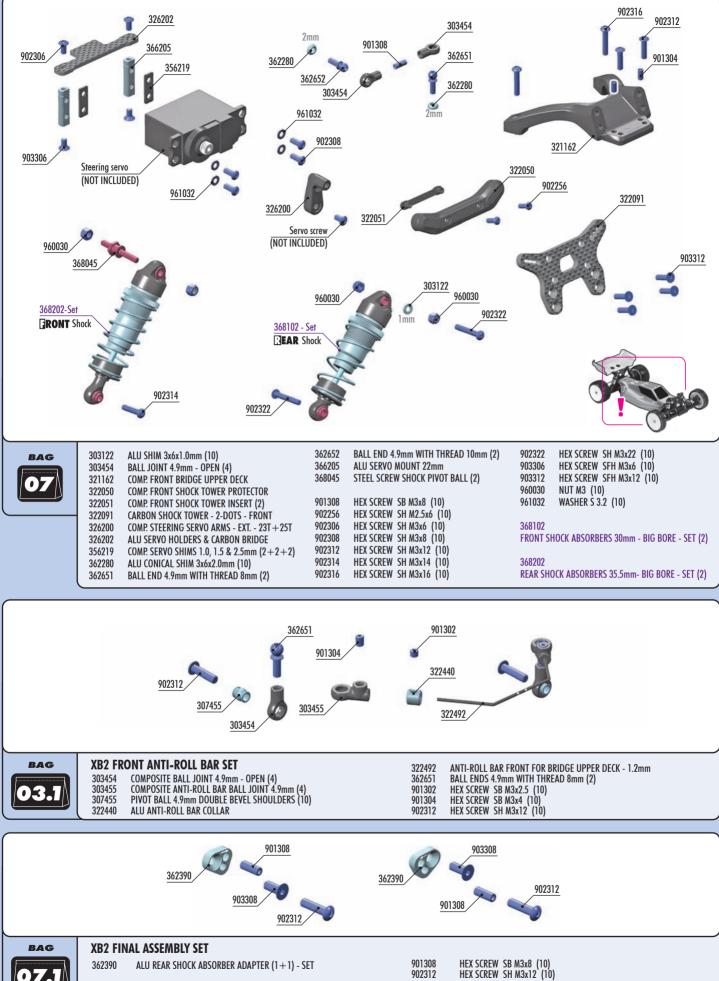








7. FINAL ASSEMBLY



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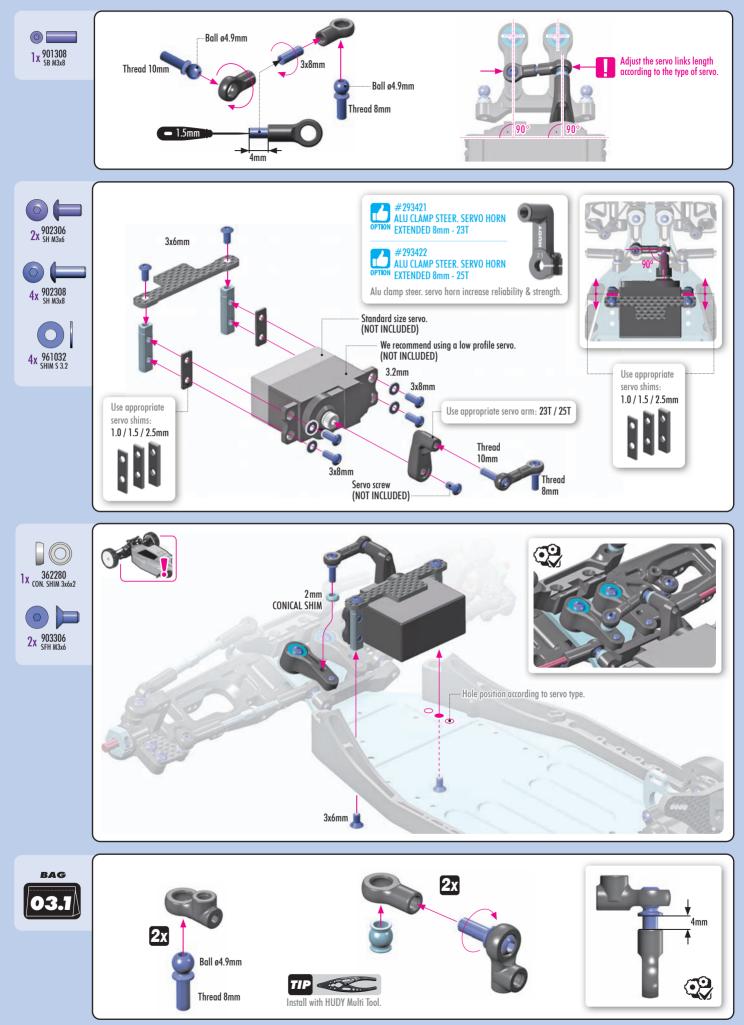
HEX SCREW SFH M3x8 (10)

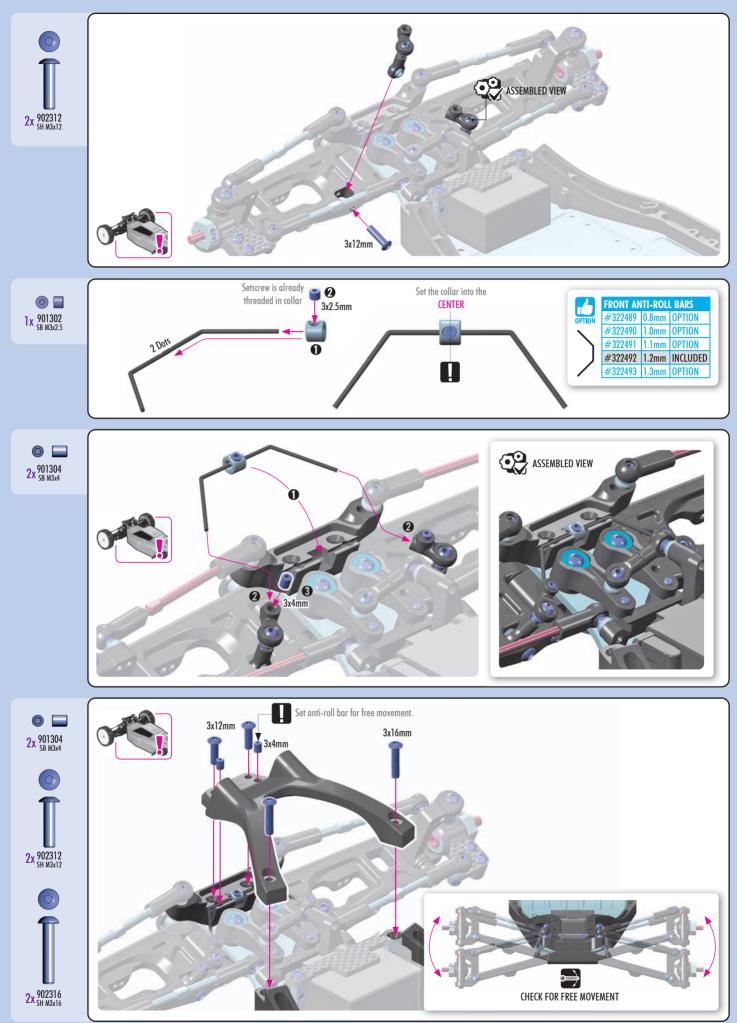


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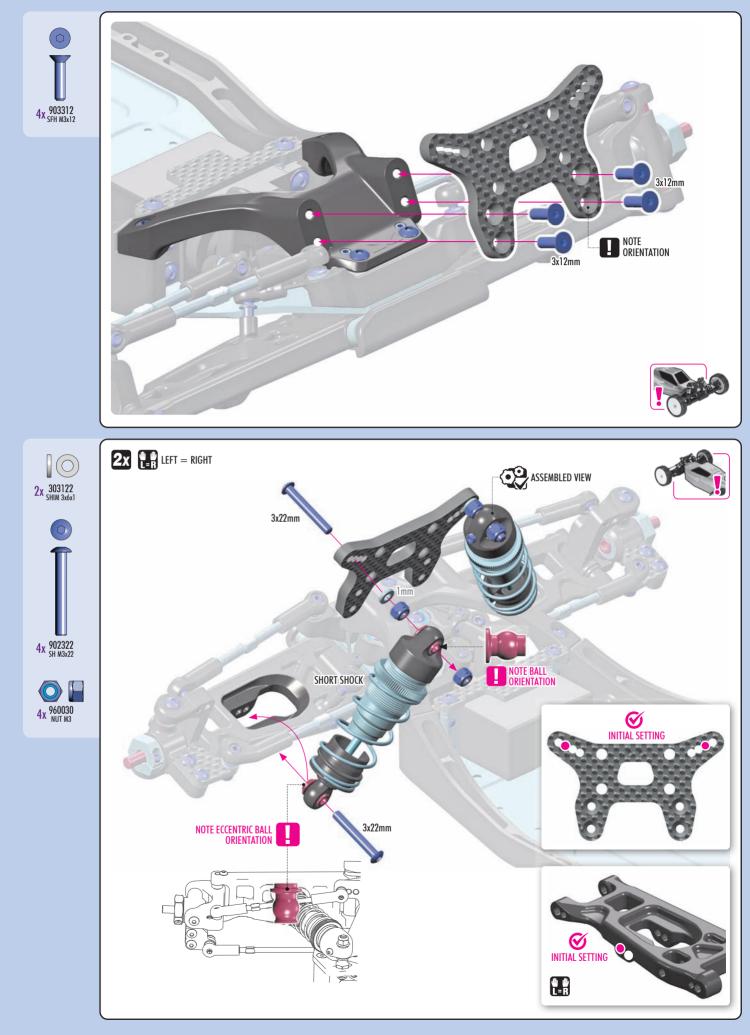
ALU REAR SHOCK ABSORBER ADAPTER (1+1) - SET

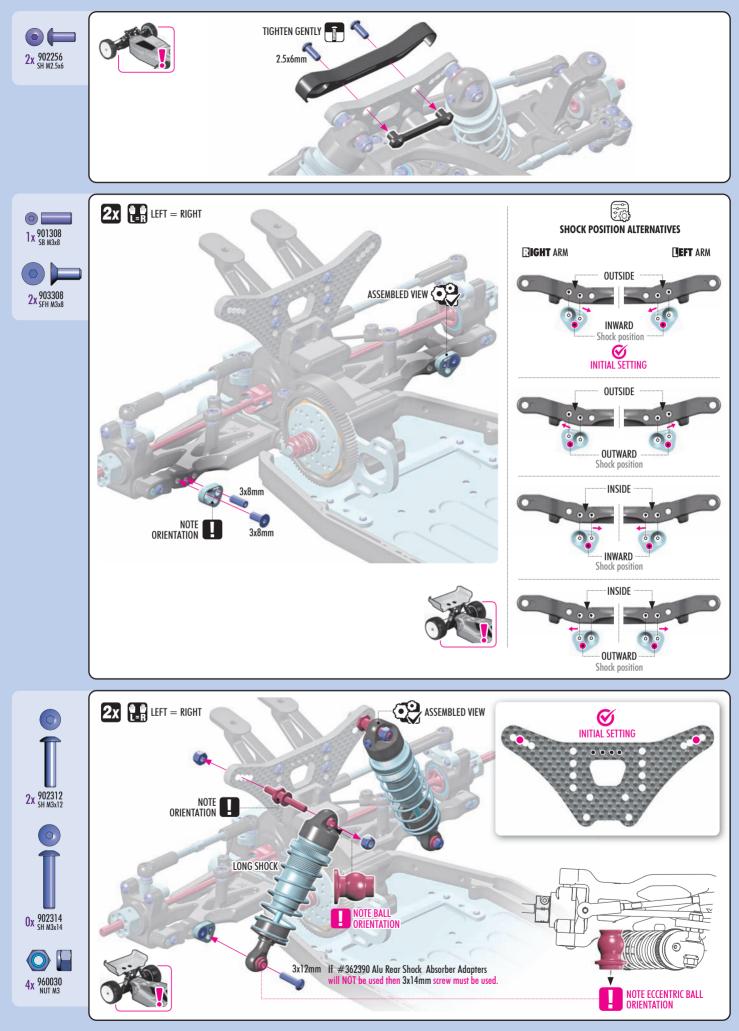
# 7. FINAL ASSEMBLY

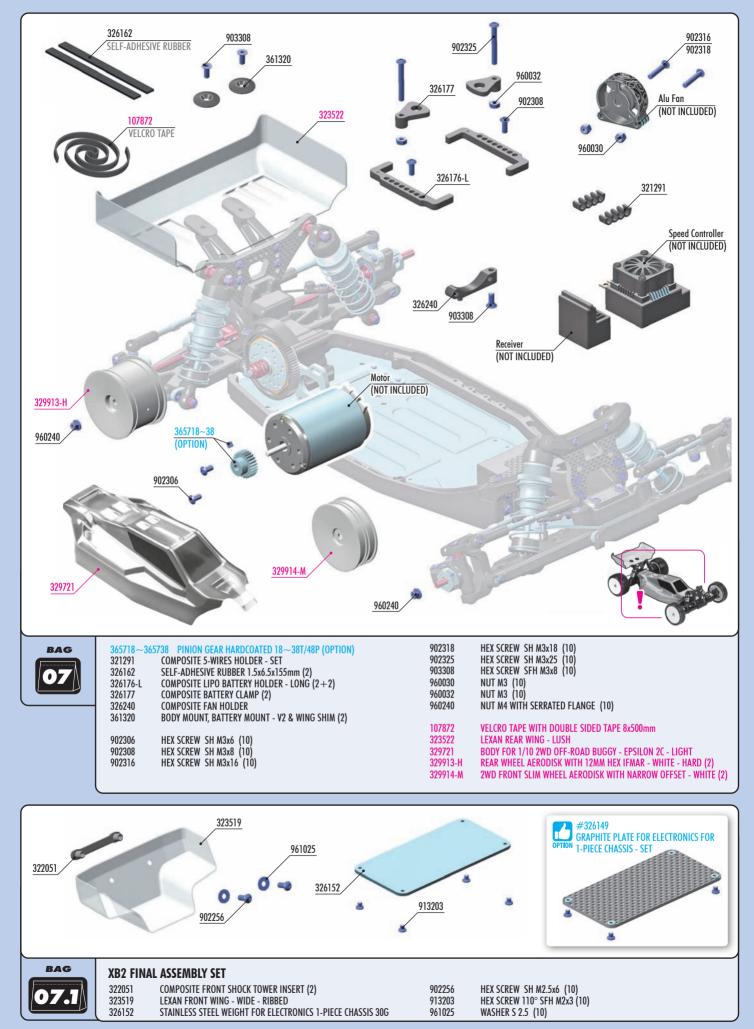


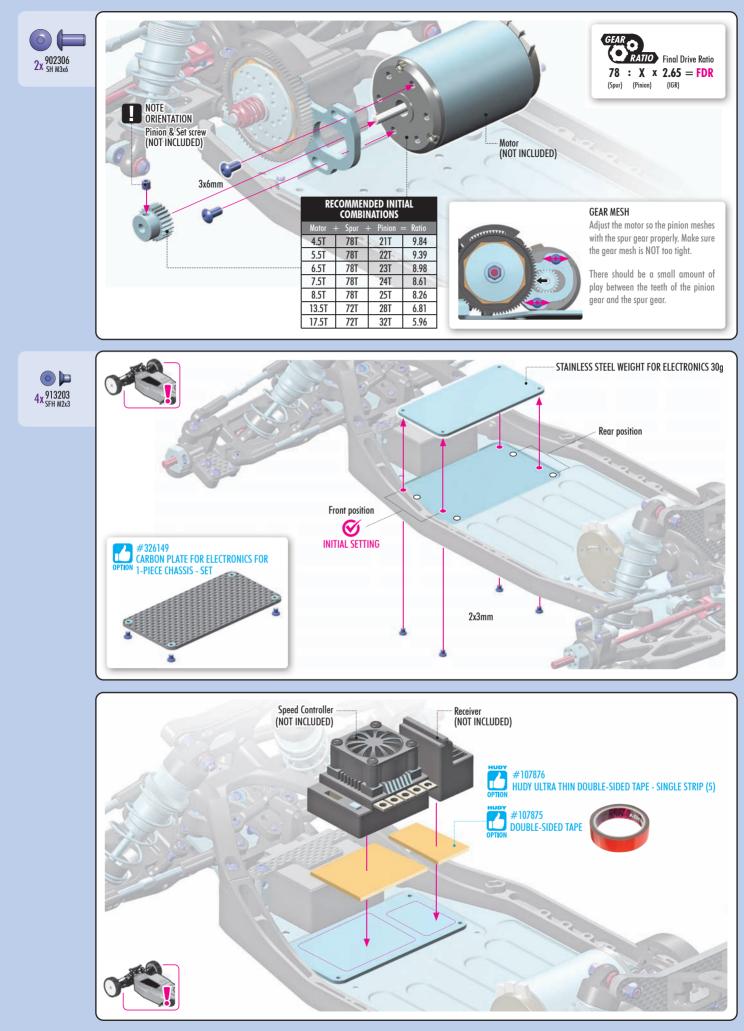


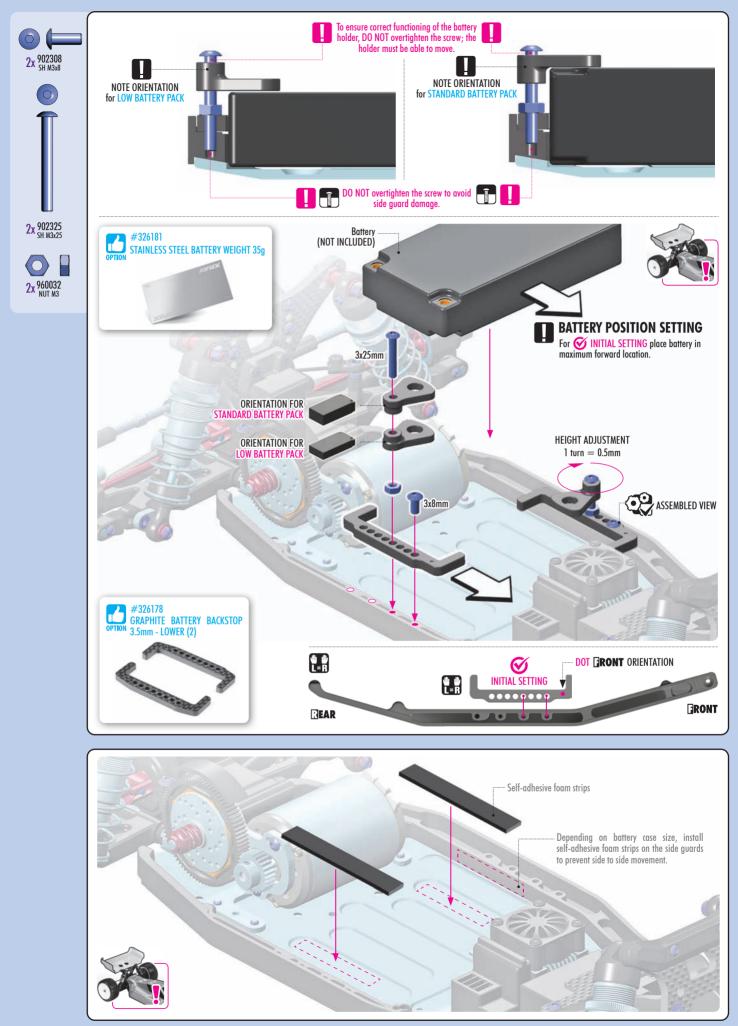
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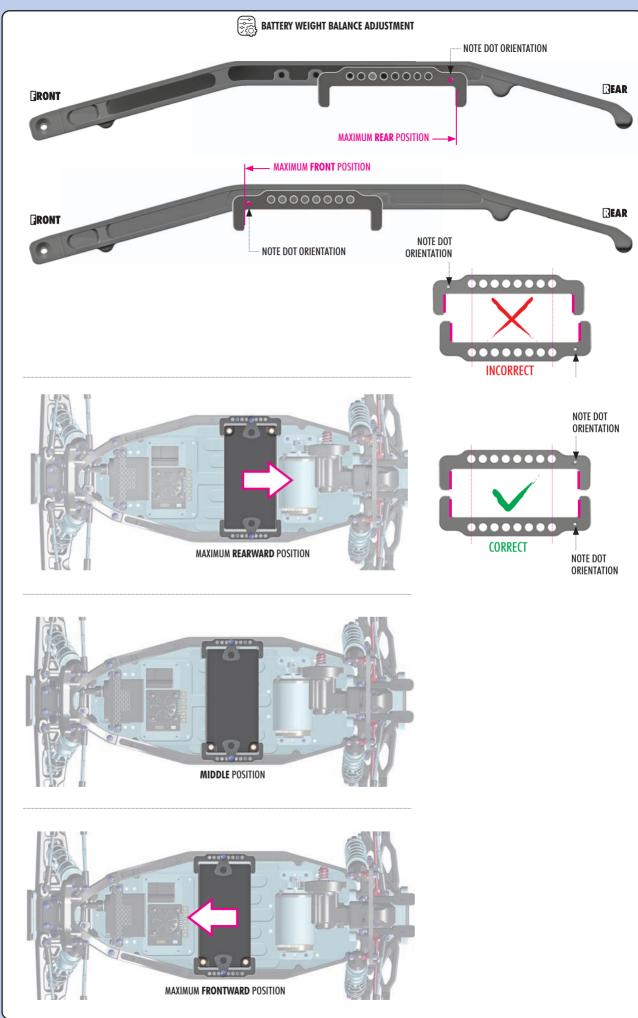


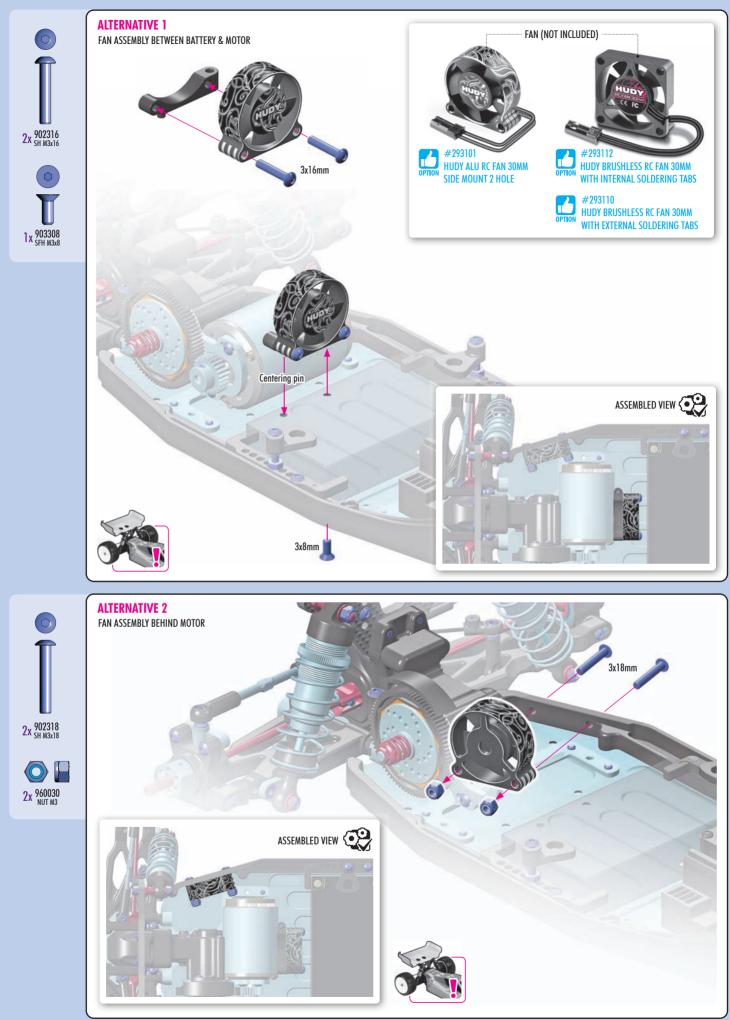




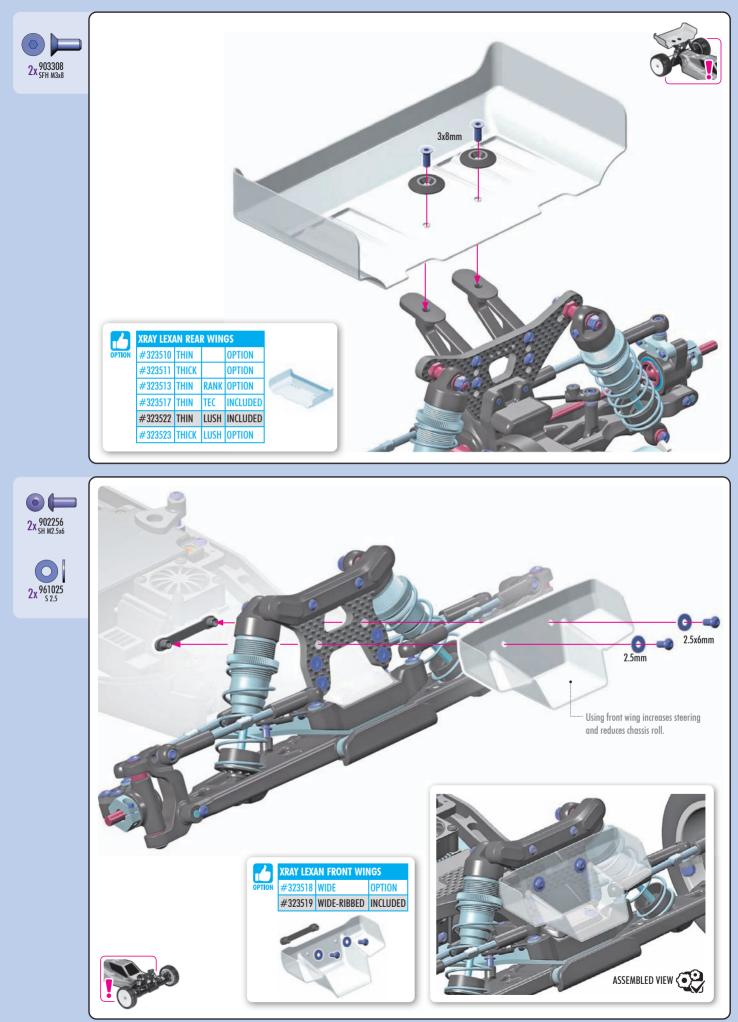


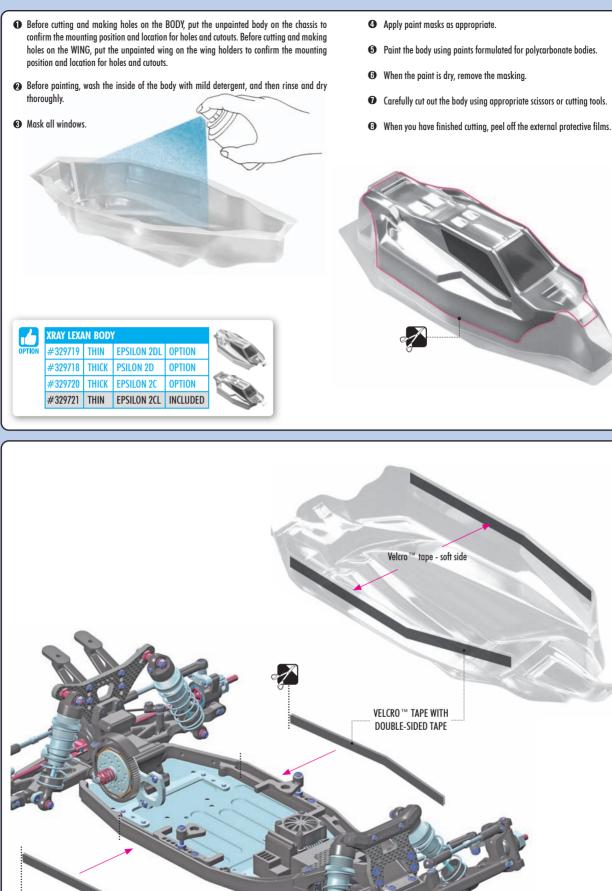








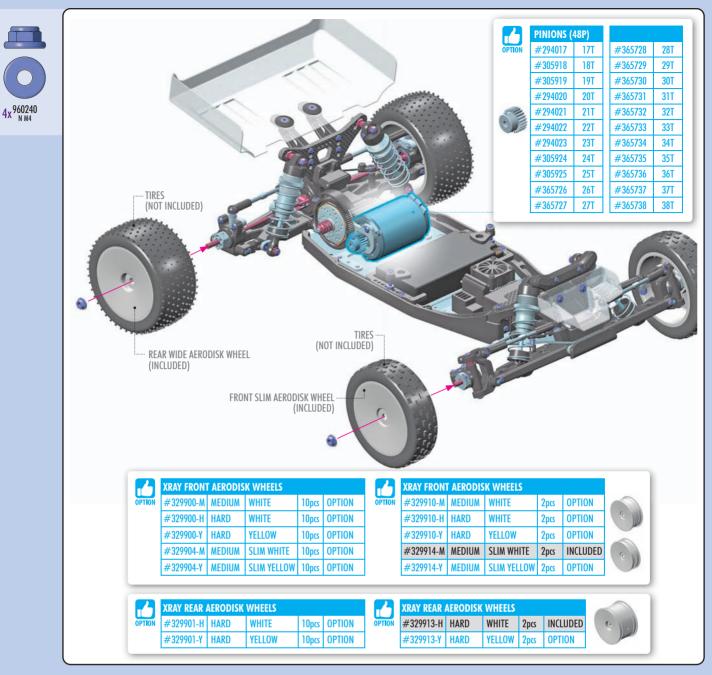


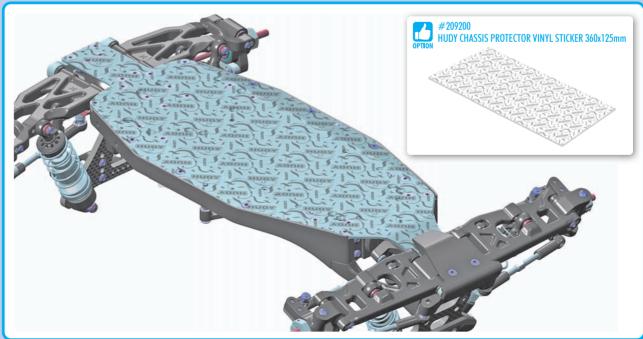




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Velcro™ tape - hook side

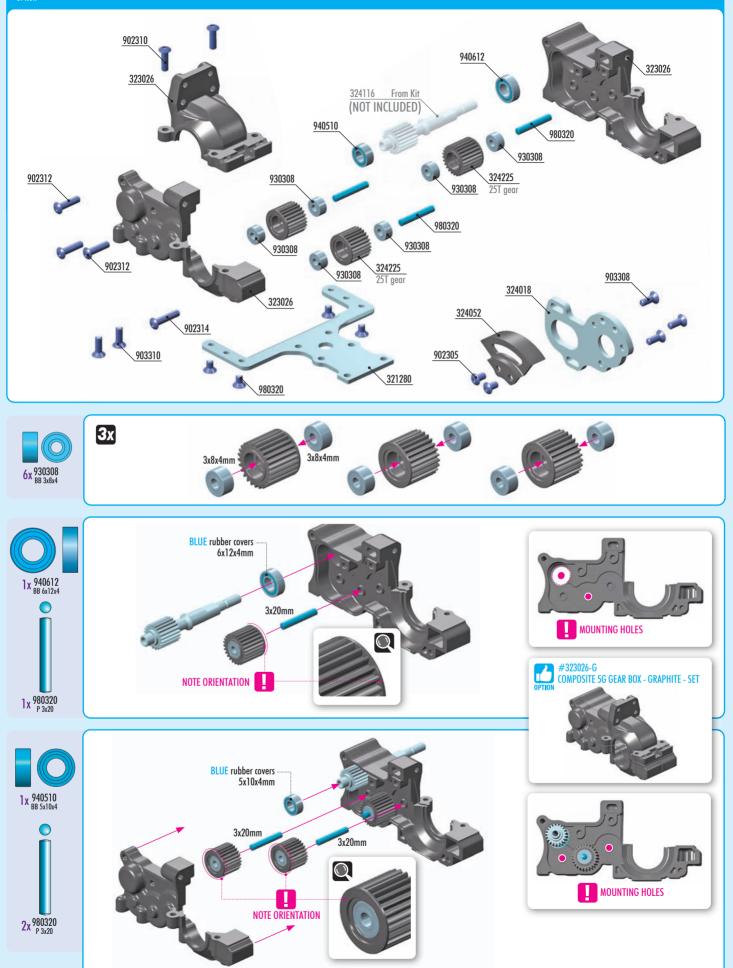


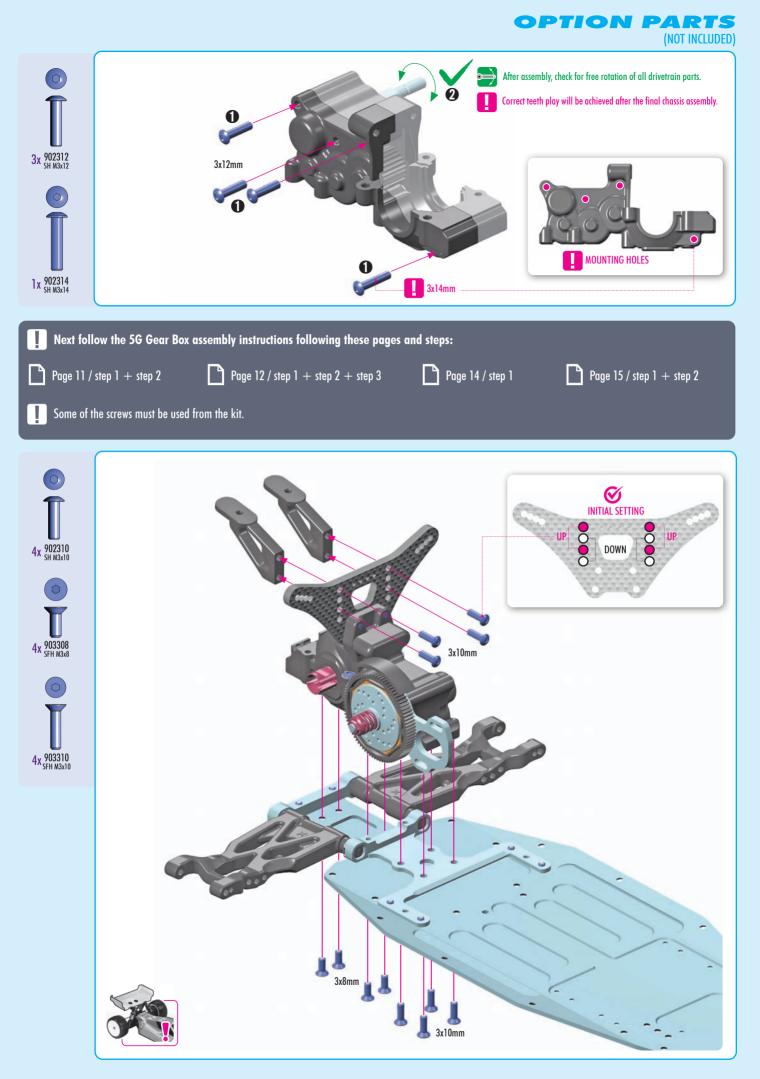


**OPTION PARTS** 

(NOT INCLUDED)

#320905 XB2 5G GEAR BOX CONVERSION SET

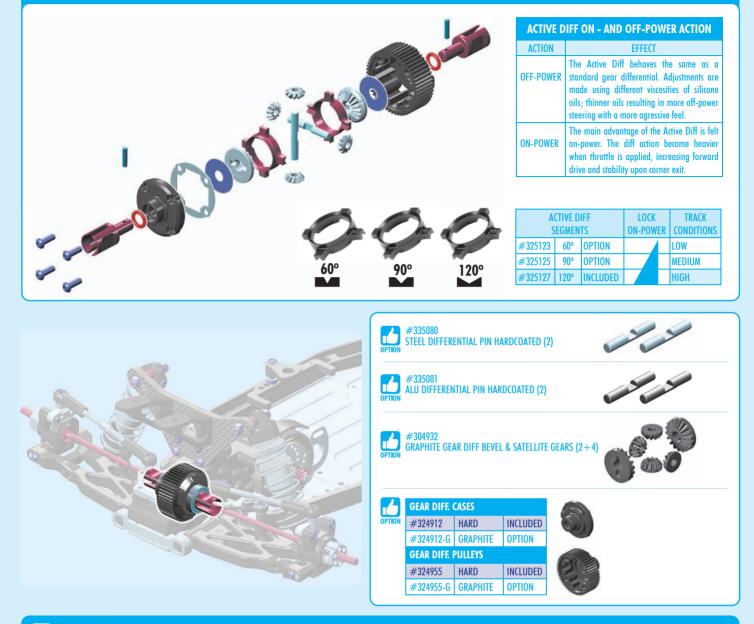




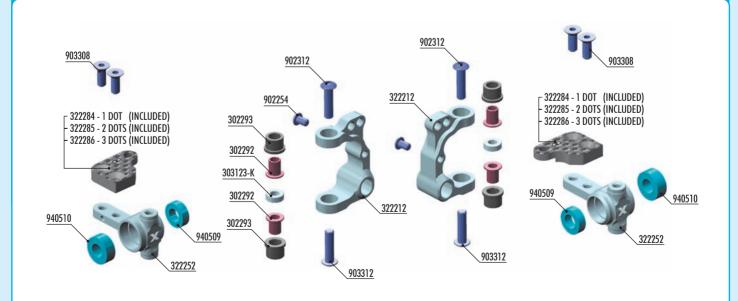
## **OPTION PARTS**

(NOT INCLUDED)

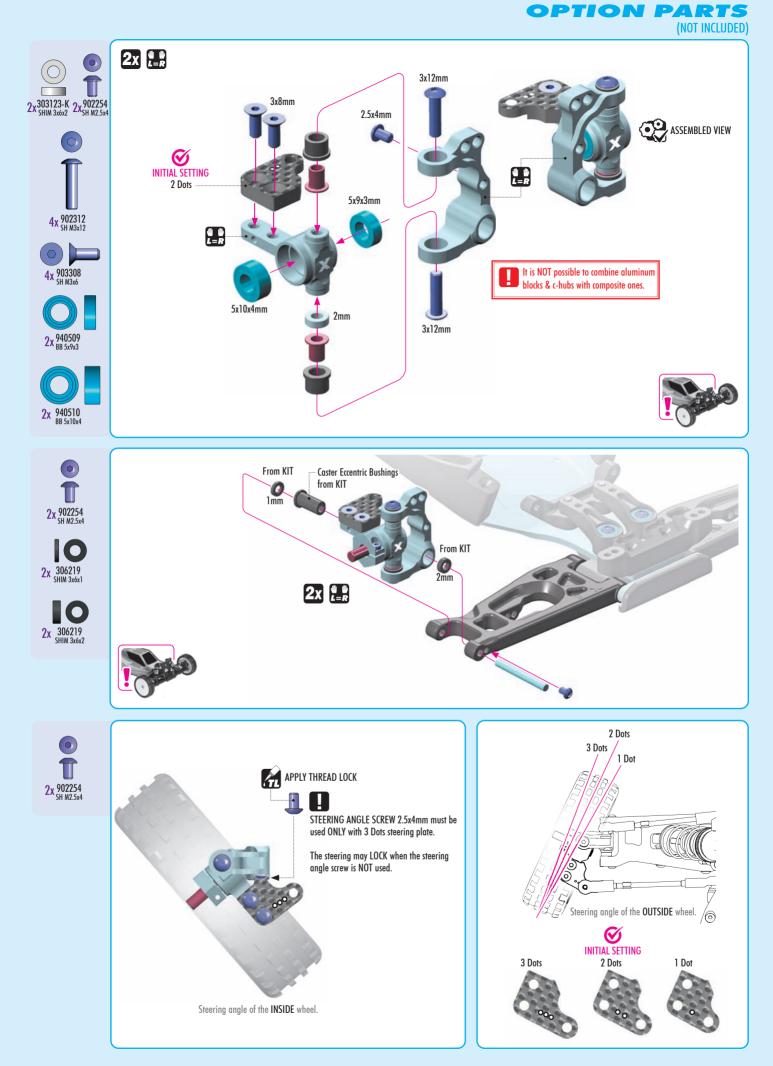
#### #325101 OPTION XRAY XB2 ACTIVE DIFF - NARROW - SET



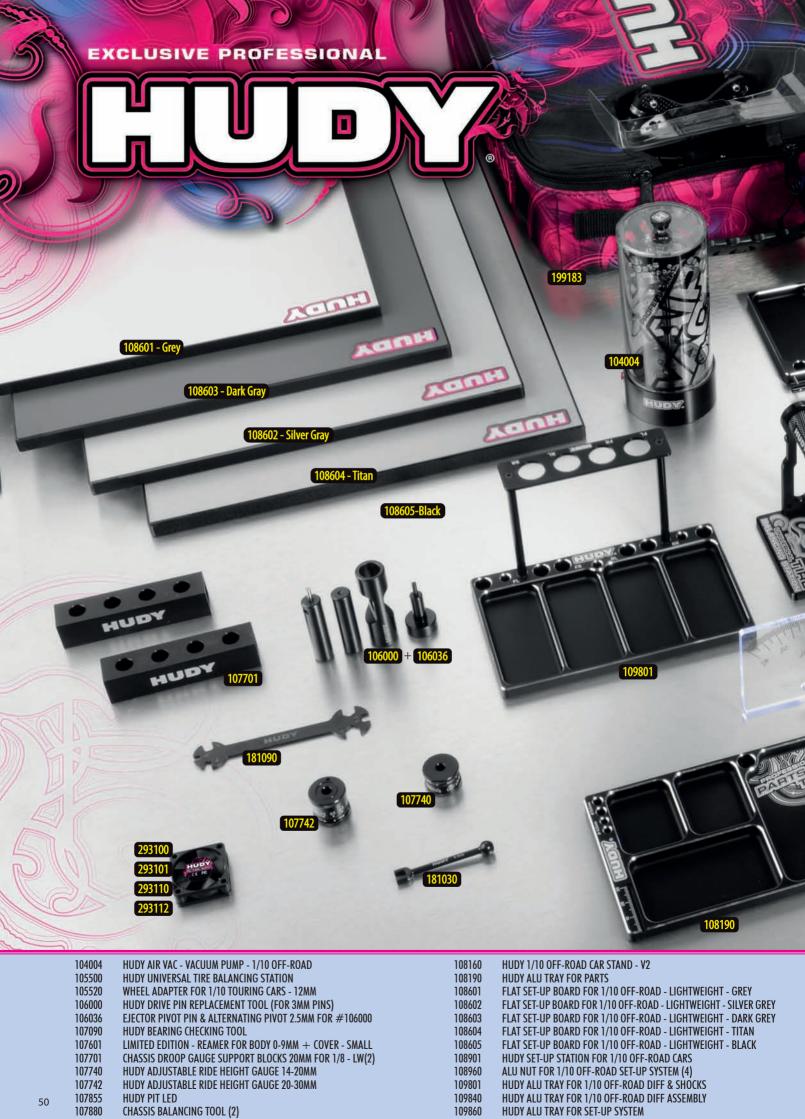
#320904 ALU STEERING BLOCKS & C-HUBS WITH BACKSTOP - SET







XB2'25



104004	HUDY AIR VAC - VACUUM PUMP - 1/10 OFF-ROAD
105500	HUDY UNIVERSAL TIRE BALANCING STATION
105520	WHEEL ADAPTER FOR 1/10 TOURING CARS - 12MM
106000	HUDY DRIVE PIN REPLACEMENT TOOL (FOR 3MM PINS)
106036	EJECTOR PIVOT PIN & ALTERNATING PIVOT 2.5MM FOR #106000
107090	HUDY BEARING CHECKING TOOL
107601	LIMITED EDITION - REAMER FOR BODY 0-9MM + COVER - SMALL
107701	CHASSIS DROOP GAUGE SUPPORT BLOCKS 20MM FOR 1/8 - LW(2)
107740	HUDY ADJUSTABLE RIDE HEIGHT GAUGE 14-20MM
107742	HUDY ADJUSTABLE RIDE HEIGHT GAUGE 20-30MM
107855	HUDY PIT LED
107880	CHASSIS BALANCING TOOL (2)

3160	HUDY 1/10 OFF-ROAD CAR STAND - V2
3190	HUDY ALU TRAY FOR PARTS
3601	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - GREY
3602	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - SILVER GREY
3603	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - DARK GREY
3604	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - TITAN
3605	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - BLACK
3901	HUDY SET-UP STATION FOR 1/10 OFF-ROAD CARS
3960	ALU NUT FOR 1/10 OFF-ROAD SET-UP SYSTEM (4)
9801	HUDY ALU TRAY FOR 1/10 OFF-ROAD DIFF & SHOCKS
9840	HUDY ALU TRAY FOR 1/10 OFF-ROAD DIFF ASSEMBLY
9860	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 132045 LIMITED EDITION - ALLEN WRENCH + BALL REPL. TIP # 2.0MM LIMITED EDITION - SLOTTED SCREWDRIVER # 3.0MM - LONG 153055 175535 LIMITED EDITION - SOCKET DRIVER # 5.5MM LIMITED EDITION - SOCKET DRIVER # 7.0MM HUDY SPRING STEEL TURNBUCKLE WRENCH 3 MM 177035 181030 181090 HUDY SPECIAL TOOL FOR TURNBUCKLES & NUTS 183011 HUDY PROFESSIONAL MULTI TOOL

188990	HUDY PROFESSIONAL BODY SCISSORS
199060	HUDY ALU TOOL STAND
199183	HUDY CAR BAG - 1/10 OFF-ROAD
199270	HUDY LIPO SAFETY BAG
298100	HUDY TIN ROUND BOX 80X30MM
293100	HUDY ALU RC FAN 30MM - BOTTOM MOUNT 2 HOLE
293101	HUDY ALU RC FAN 30MM - SIDE MOUNT 2 HOLE
293110	HUDY BRUSHLESS RC FAN 30MM - WITH EXTERNAL SOLDERING TABS
293112	HUDY BRUSHLESS RC FAN 30MM - WITH INTERNAL SOLDERING TABS

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





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