

INSTRUCTION MANUAL GTXE'23

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@teamxray.com</u>. 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 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

XRAY USA

reference, even after completing the assembly. Use only genuine and original

authentic XRAY parts for maximum performance. Using any third party parts

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.

on this model will void guaranty immediately.

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

🛆 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 shortcircuit 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 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

• 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.

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

the XRAY distributor in your country.

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.



At the beginning of each section is an exploded view of the parts to be assembled. There is also a list of all the parts and part numbers that are related to the assembly of that section. The part descriptions are color-coded to make it easier for you to identify the source of a part. Here are what the different colors mean:

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

GTX TECH TIPS

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 **TIP** FRONT & REAR DIFF GEAR MESH ADJUSTMENT is easily resolved by inserting 1 or 2 of the included thin shims behind a diff outdrive ball-bearing, depending on how much play there is. THE LOCATION OF THE SHIM(S) DEPENDS ON WHETHER YOU ARE TRYING TO CLOSE OR OPEN THE GAP: **TO CLOSE A WIDE GAP TO OPEN A NARROW GAP CLOSE A WIDE GAP OPFN & NARROW GAP** To CLOSE a wide gap: To OPEN a narrow aap: add 1 or 2 shims add 1 or 2 shims on the against diff spur gear other side of the diff, away from spur aear insert shim(s) here insert shim(s) here WASHER #962131 S 13 x 16 x 0.1 mm (10) WASHER #962131 S 13x16x0.1mm (10) #962130 S 13 x 16 x 0.2 mm (10) #962130 S 13x16x0.2mm (10)

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

SUSPENSION & DRIVETRAIN MAINTENANCE

- Check suspension for free movement during building and operation, and especially after running and if you have crashed the car. If the suspension does not move freely, use the appropriate HUDY Arm Reamer to clean and resize the holes of the suspension arms.
- Regularly check the drive shaft pins (both side and center) and if they show any wear 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 connecting pins which connect the center drive shafts with the
 pinion gear, and also the pins that connect the wheel drive shafts with wheel axles. Use HUDY
 Graphite Grease to lubricate the drive shaft connecting joints and the diff gears.
- Pivot balls and ball-joints will naturally wear for some time and will generate play. If there is too
 much play the pivot balls and ball joints need to 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 will after some time "go down" but it will not affect the strength of the material. The brown color is only a surface treatment and if the brown color will wear the durability of the part will be still strong.

regularly inspect for wear.

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.





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

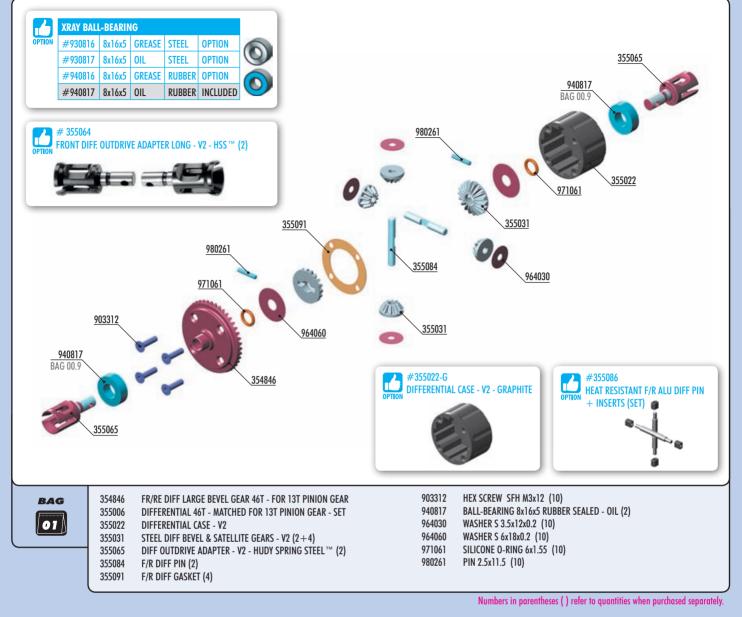


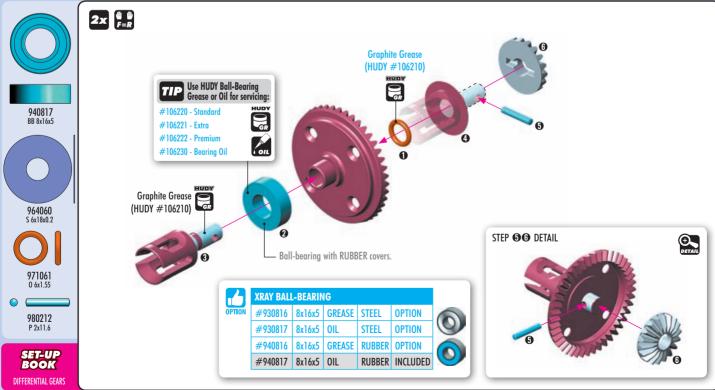
To replace the worn pins use only premium HUDY drive pins #106050.

Do not use drive shafts when the pins are worn.



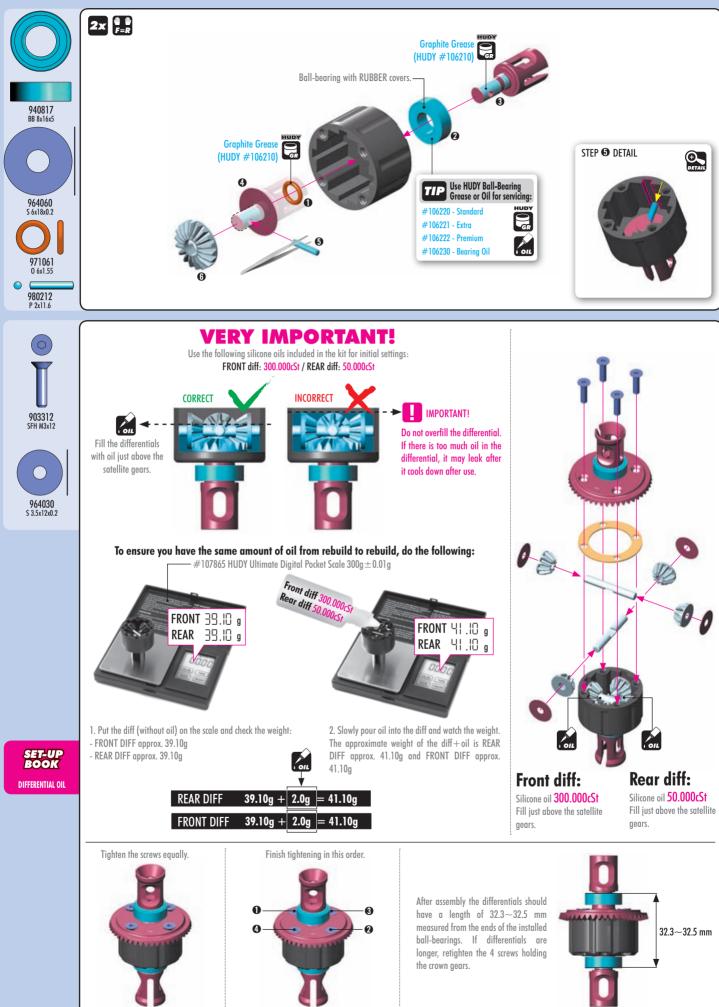
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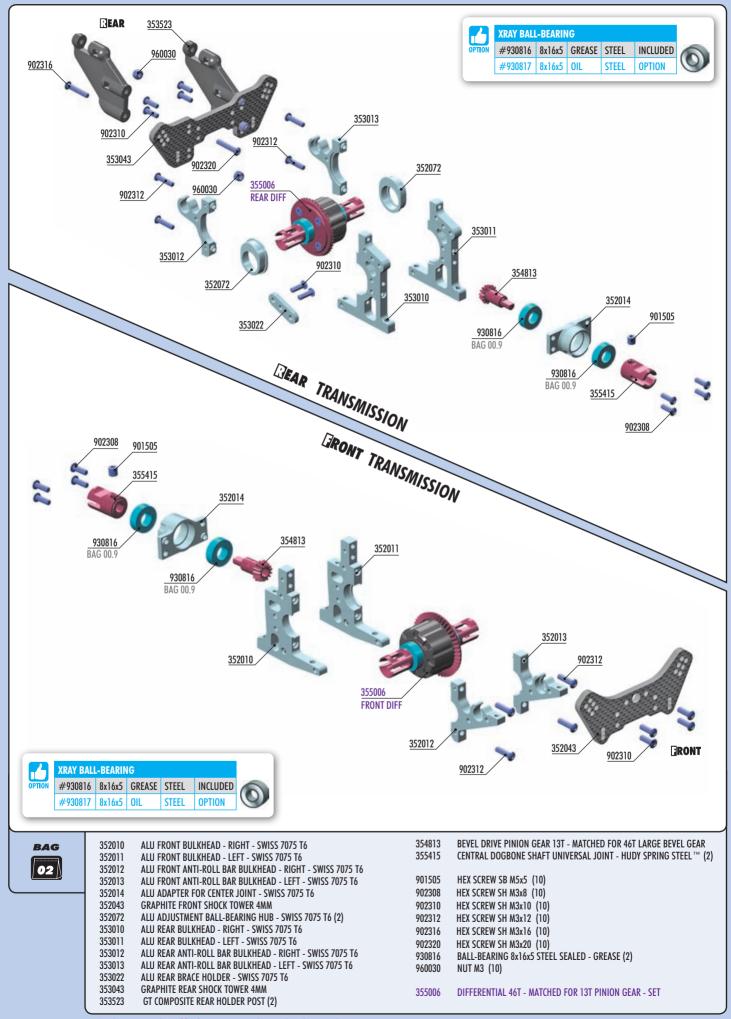




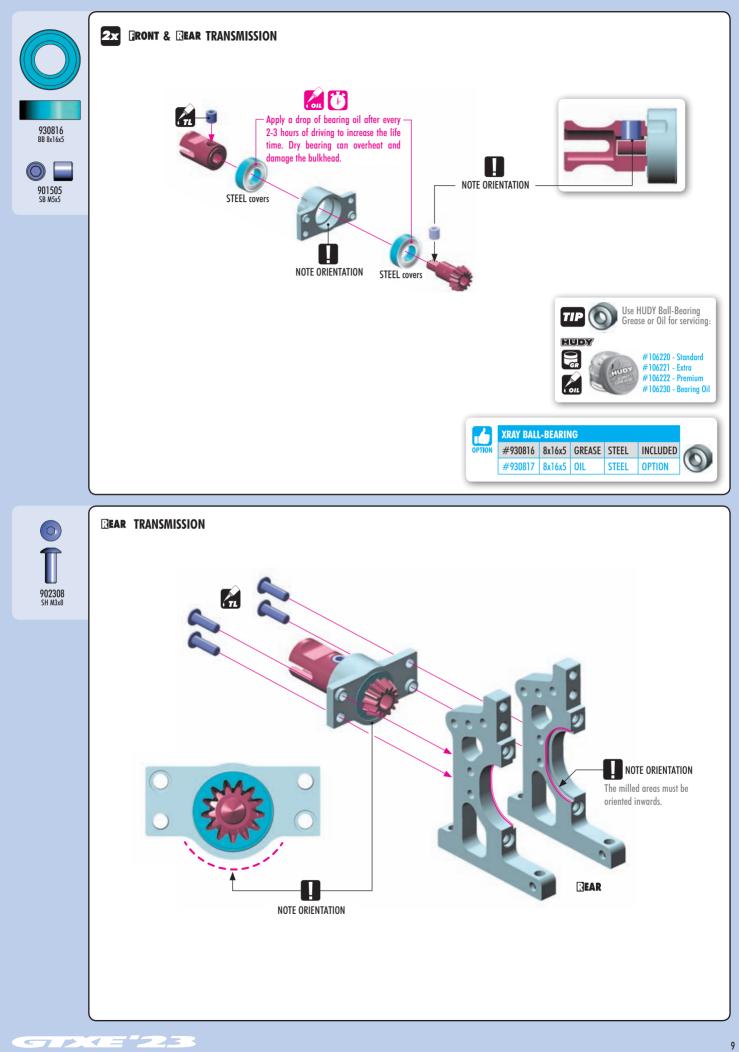
1. DIFFERENTIALS

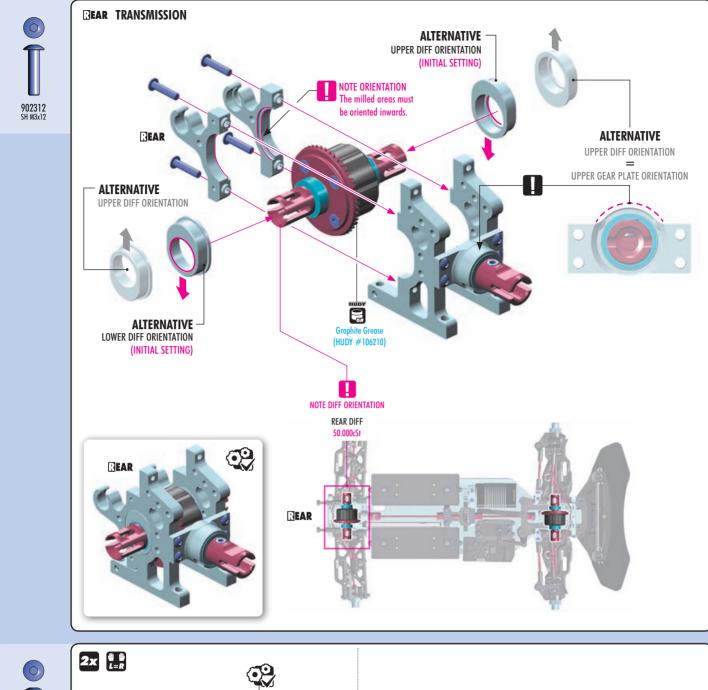


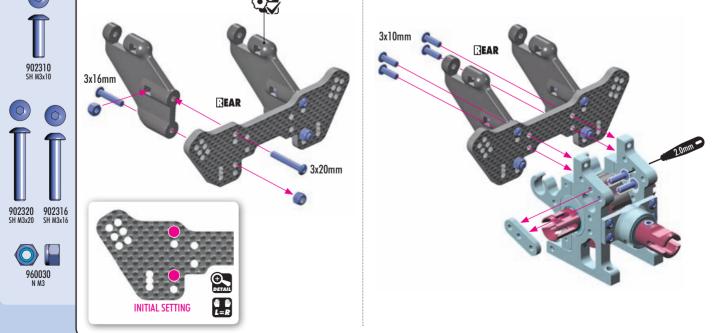
GINAE'23



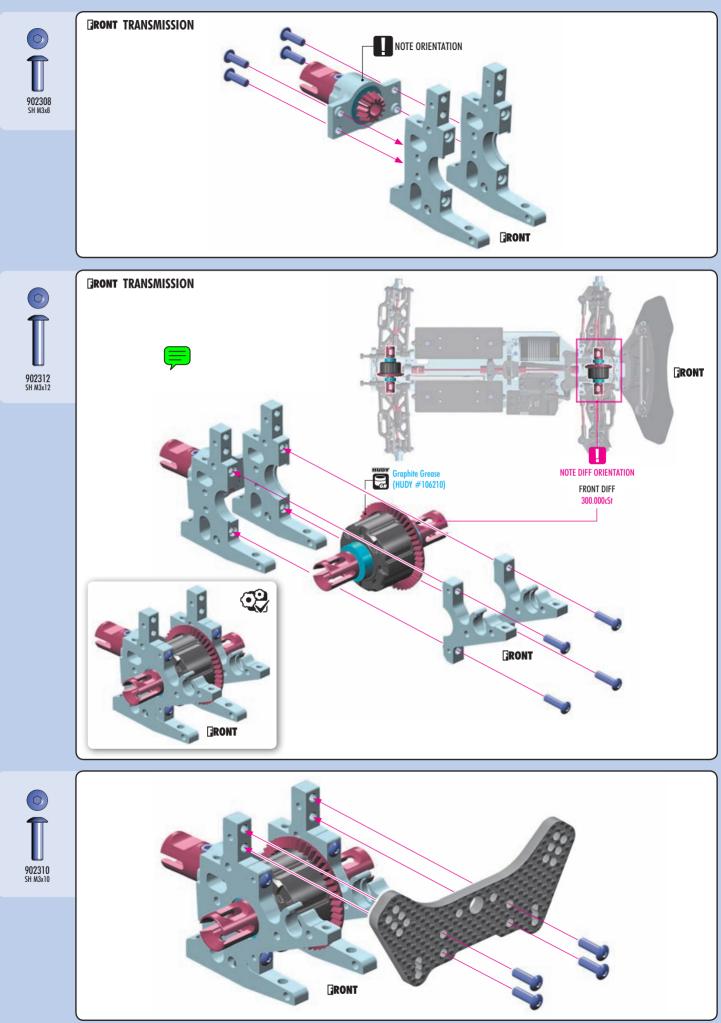
Numbers in parentheses () refer to quantities when purchased separately.

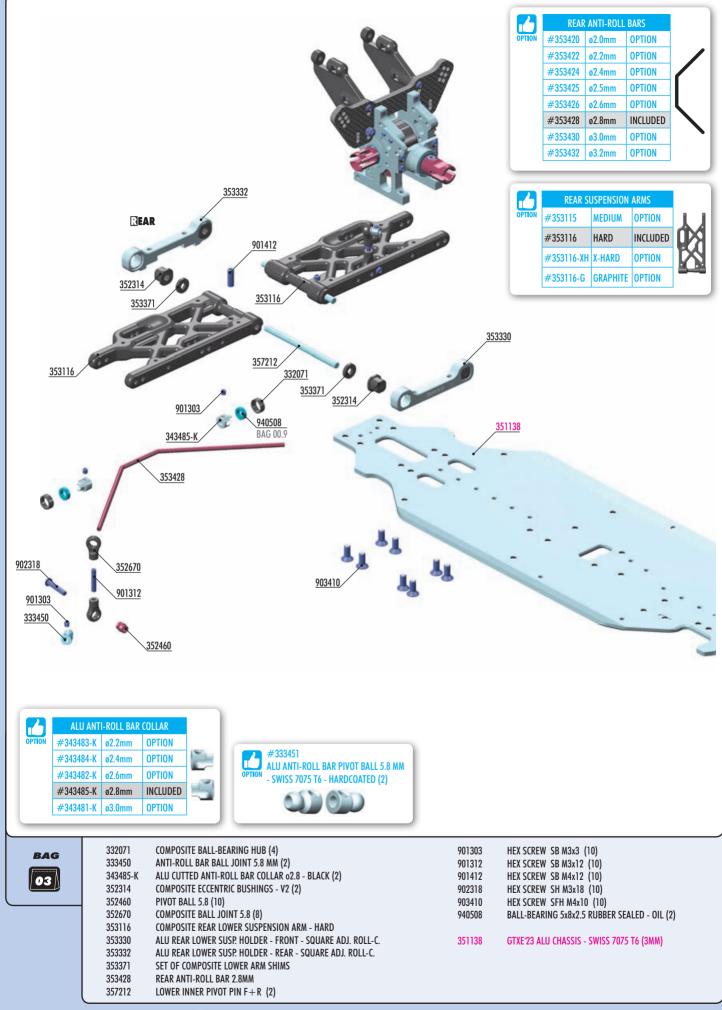






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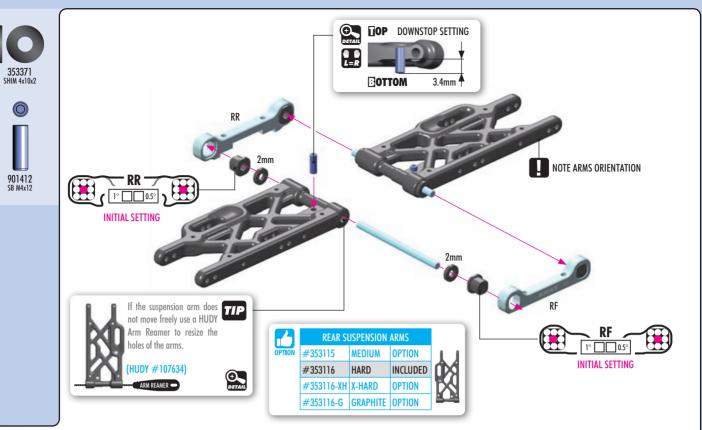




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Numbers in parentheses () refer to quantities when purchased separately.

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0,0	0.0	0	<u> </u>	=3°
0,0	00	0	n •	=0°
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0,0		0.0	-	=-1°

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

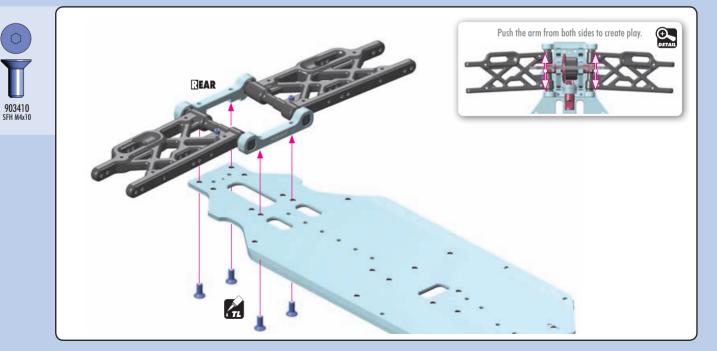
on the combinations of eccentric bushings used with 0 and 1mm, 1° off set. The 0.5mm, 0.5° represent

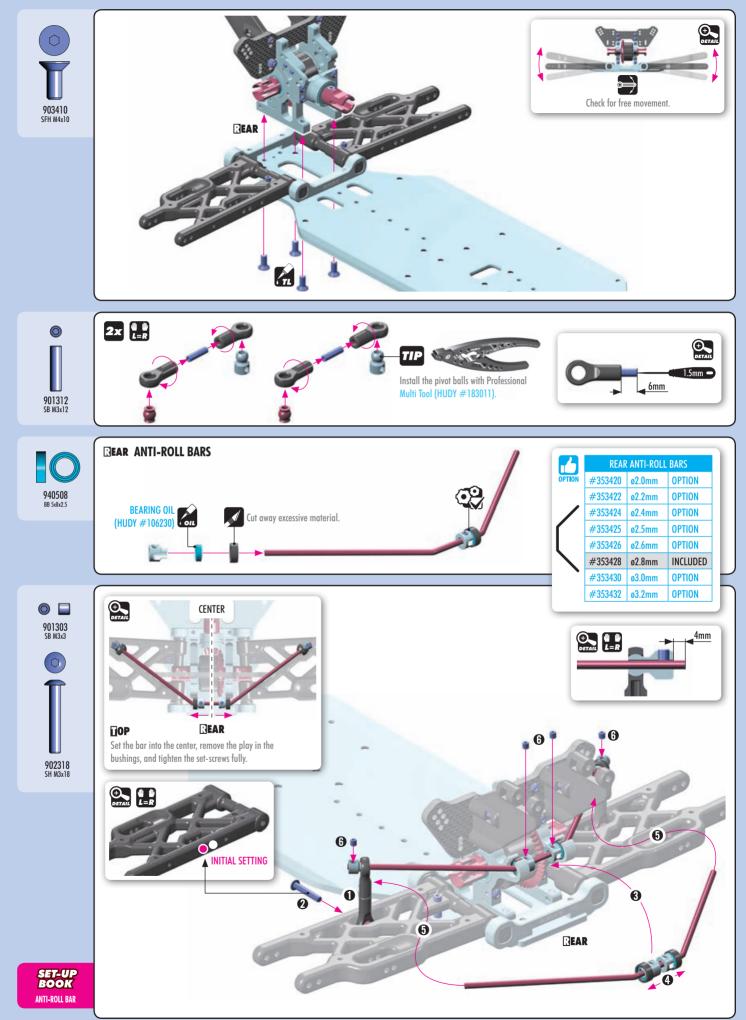
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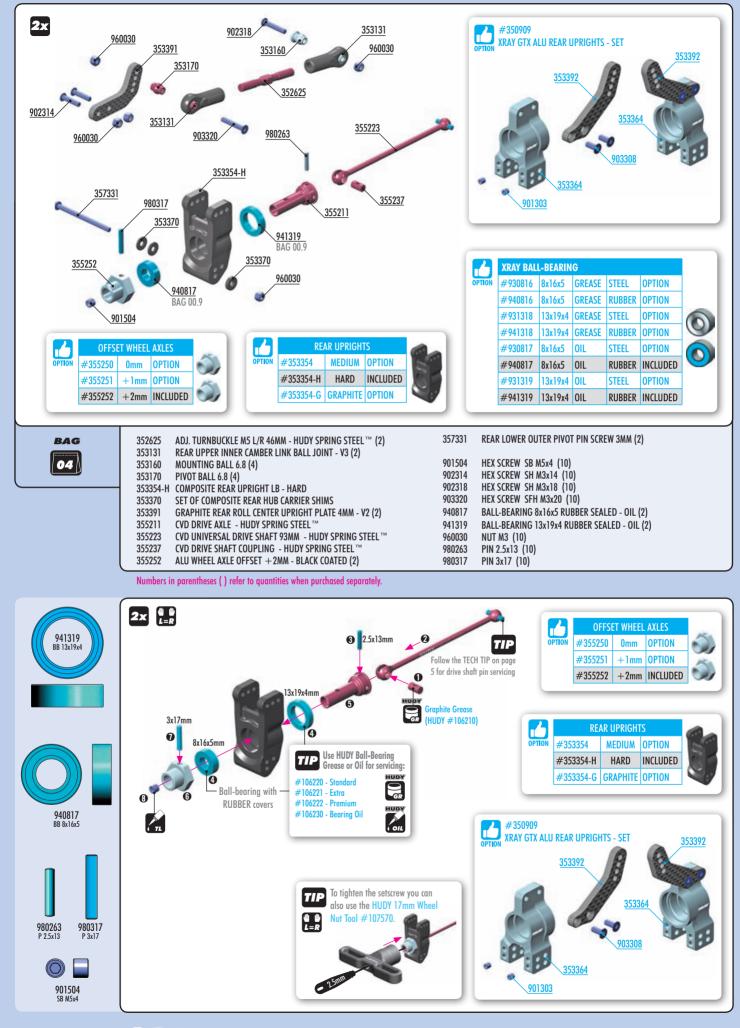
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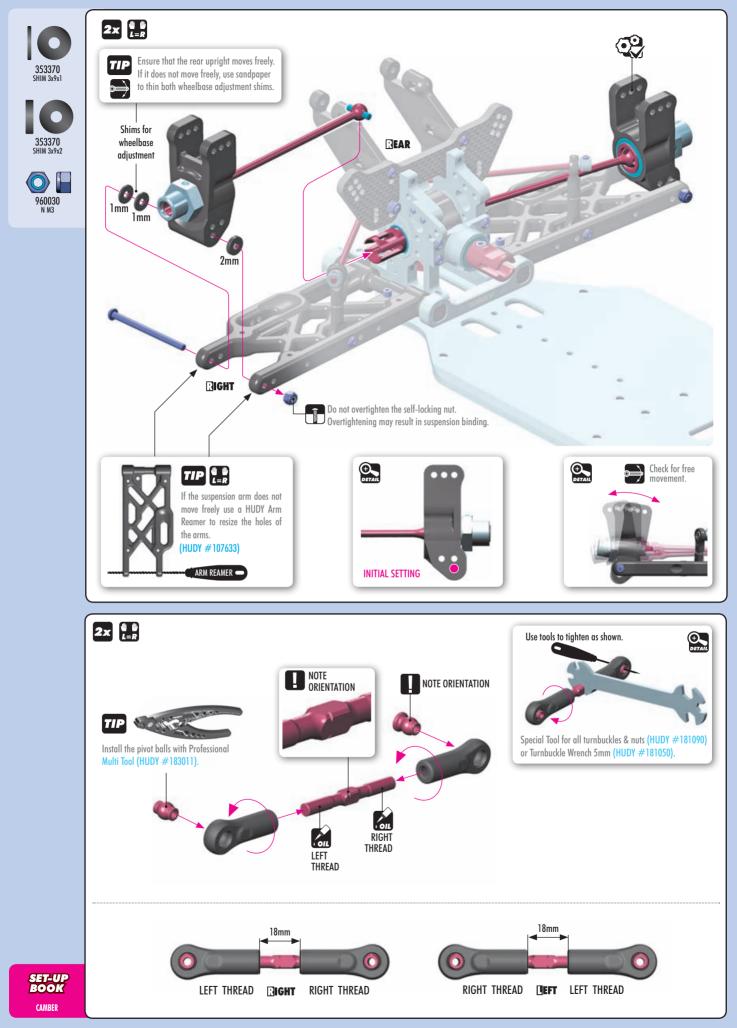
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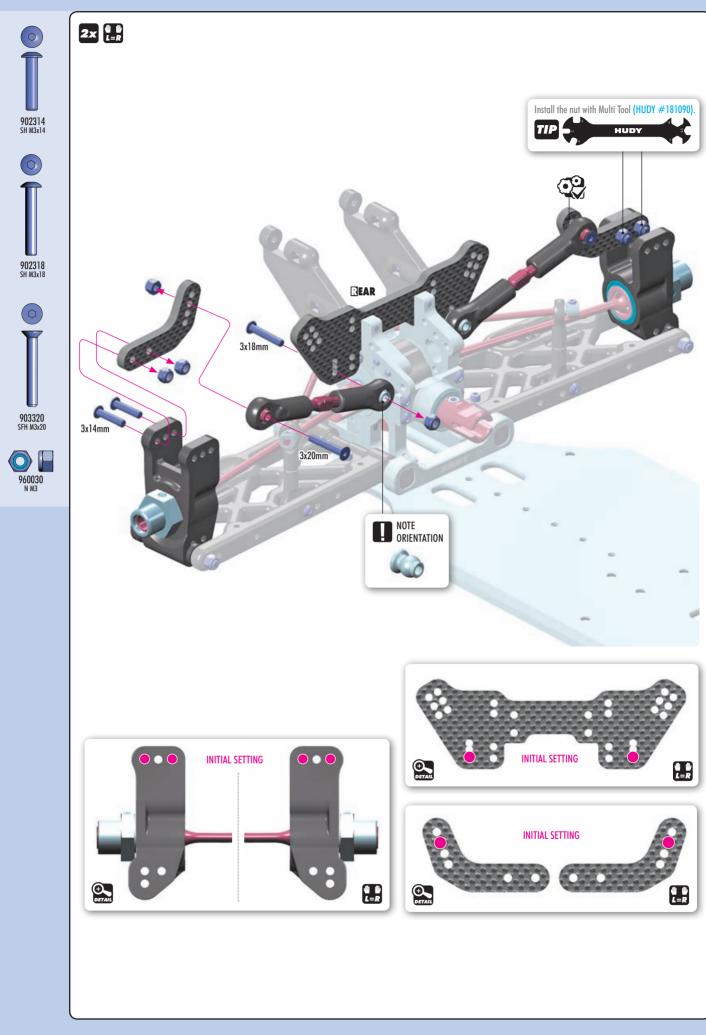
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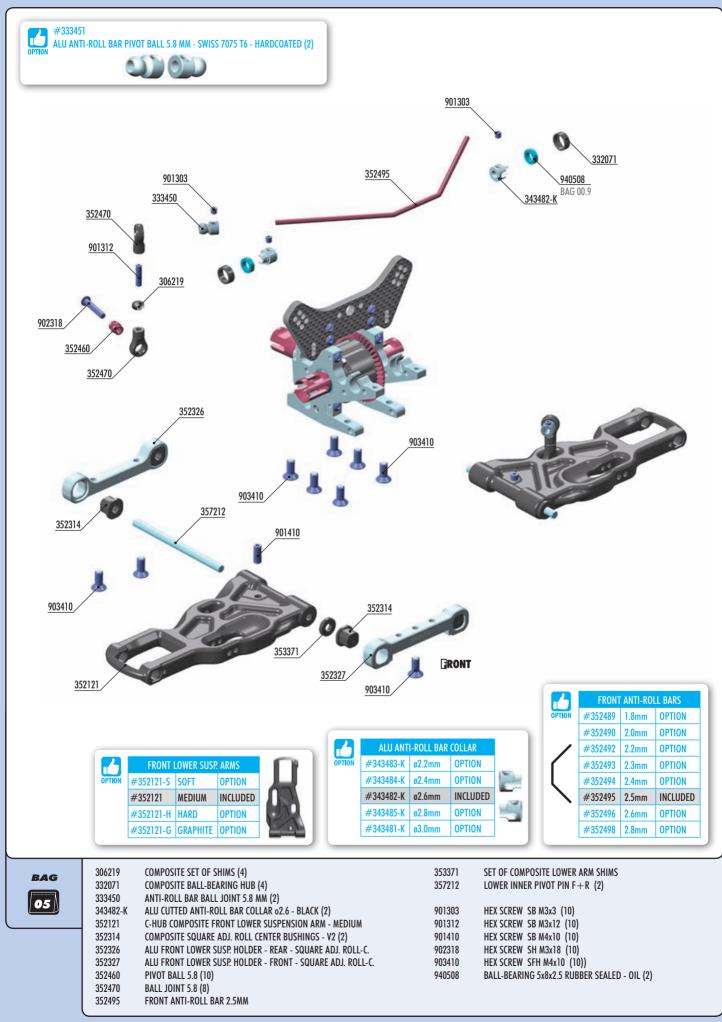




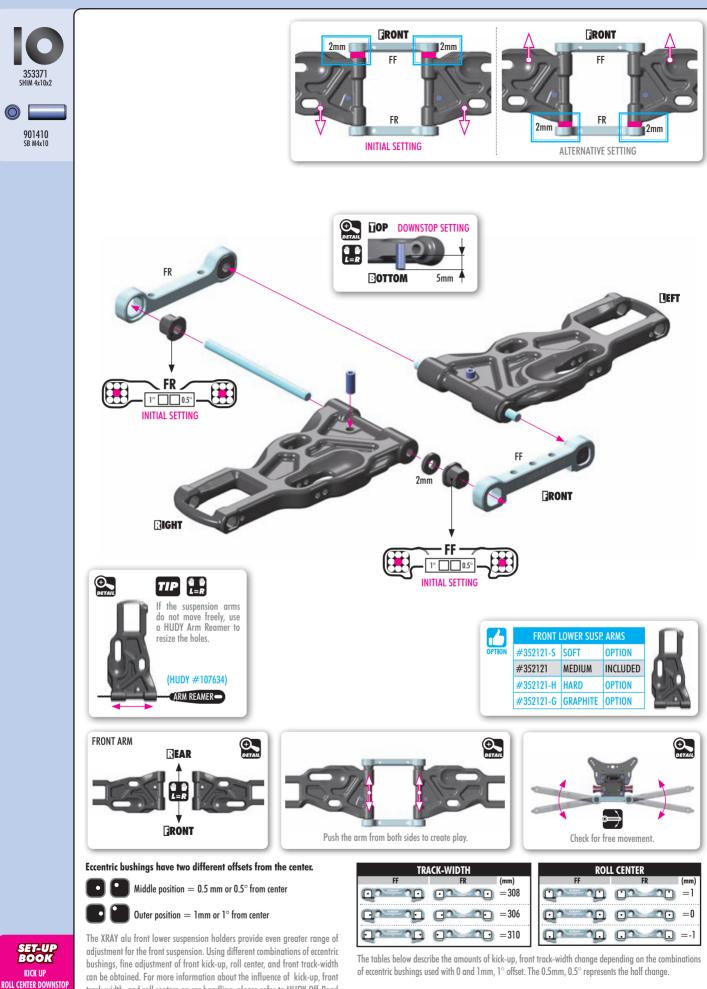








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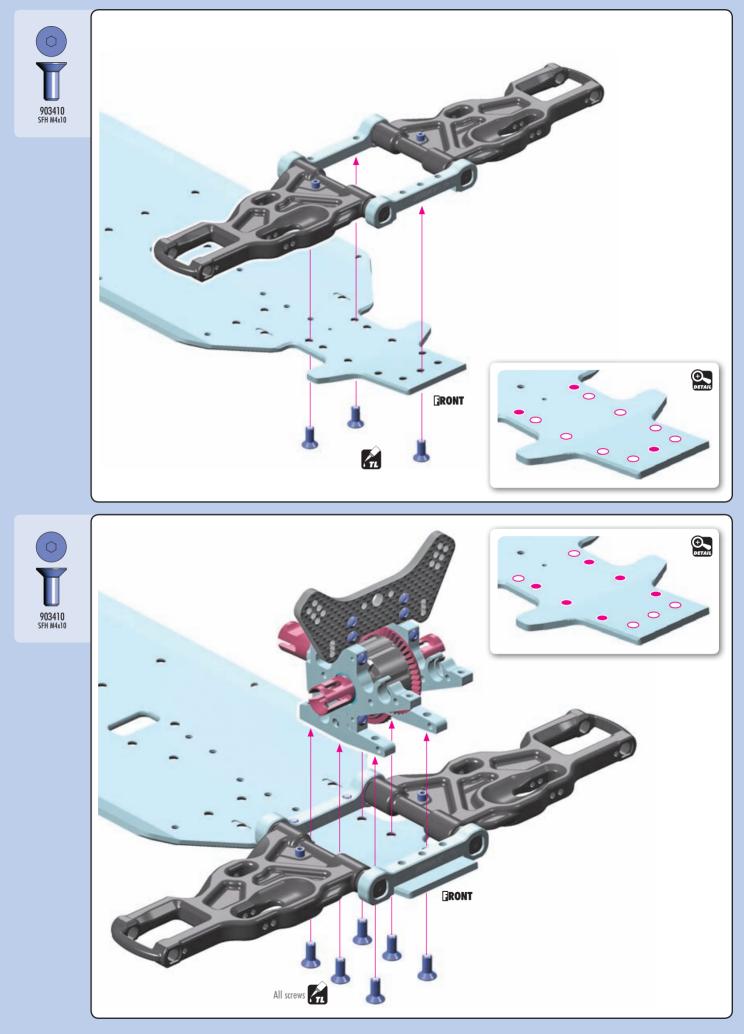
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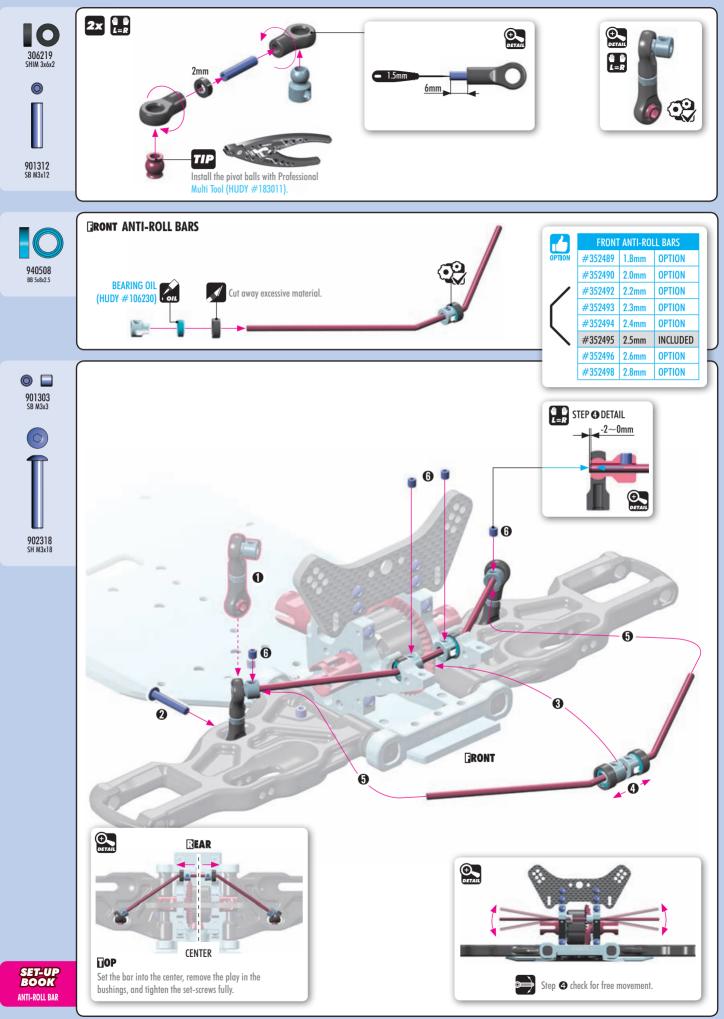
Set-up Book (#209099).

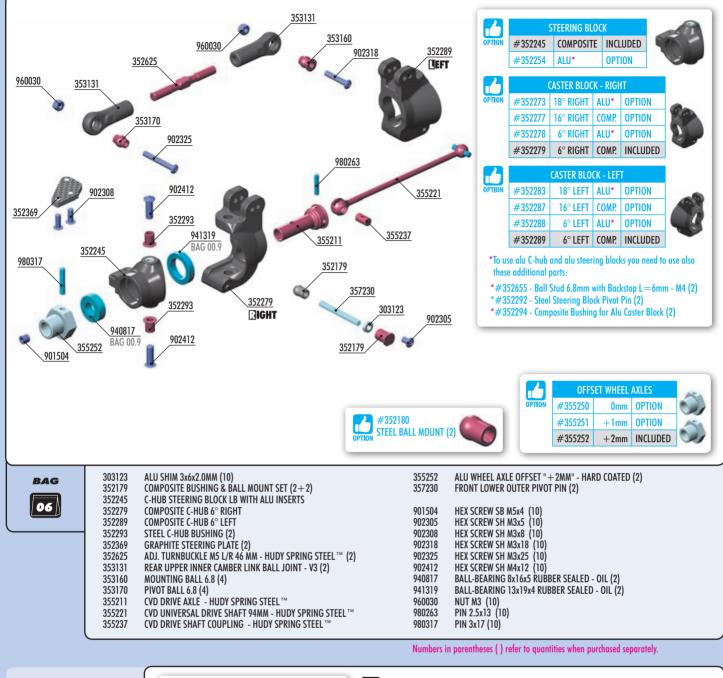
WHEELBASE

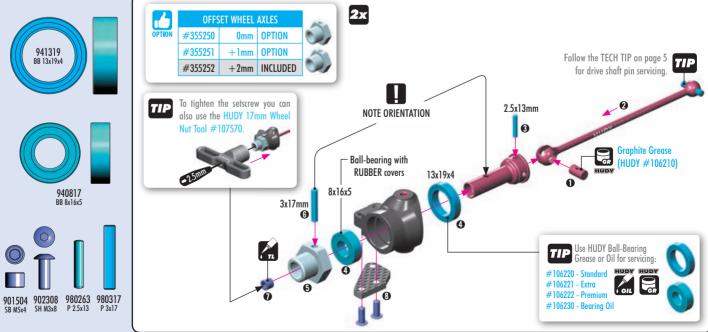
TRACK WIDTH

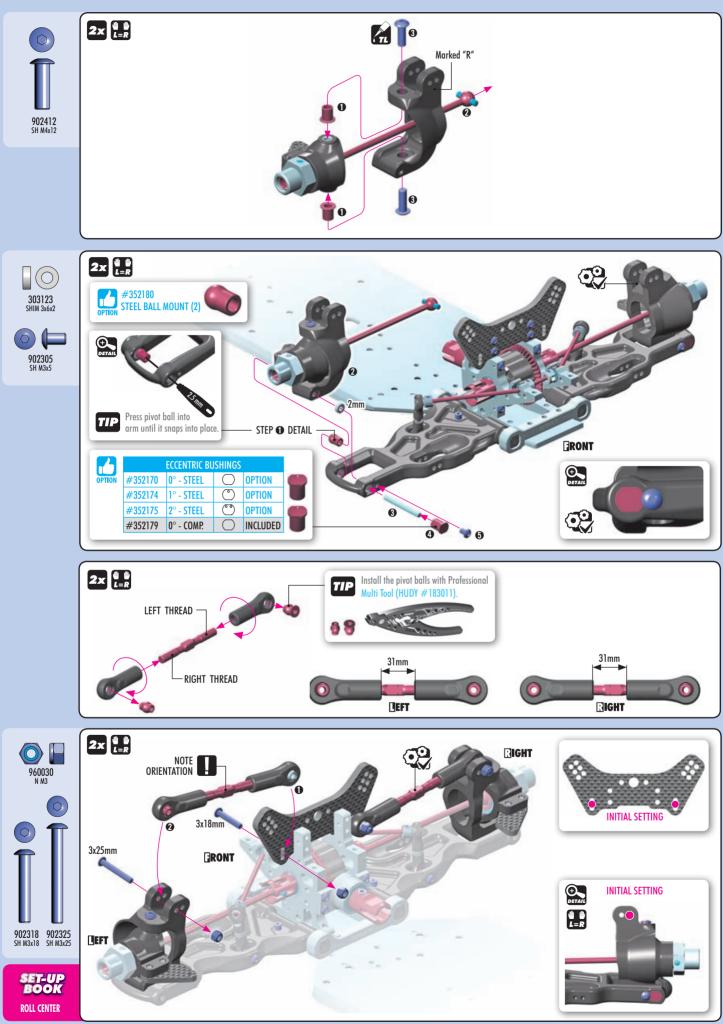
track-width, and roll centers on car handling, please refer to HUDY Off-Road



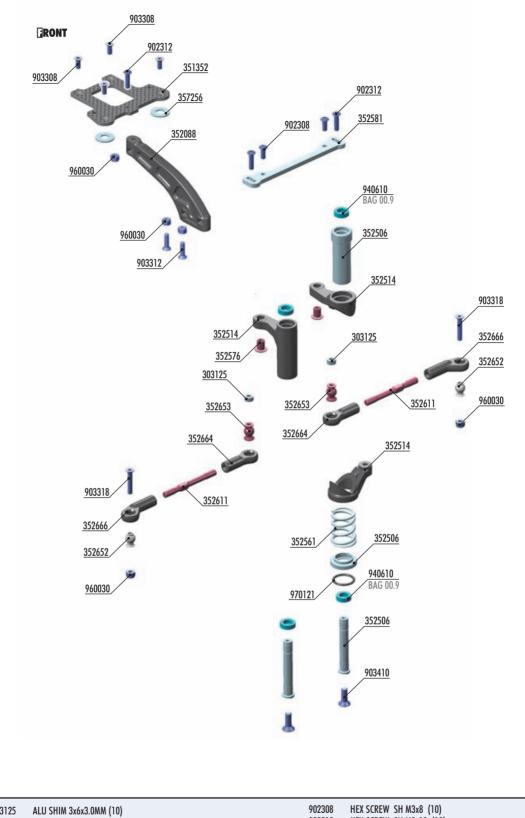








7. STEERING



BAG

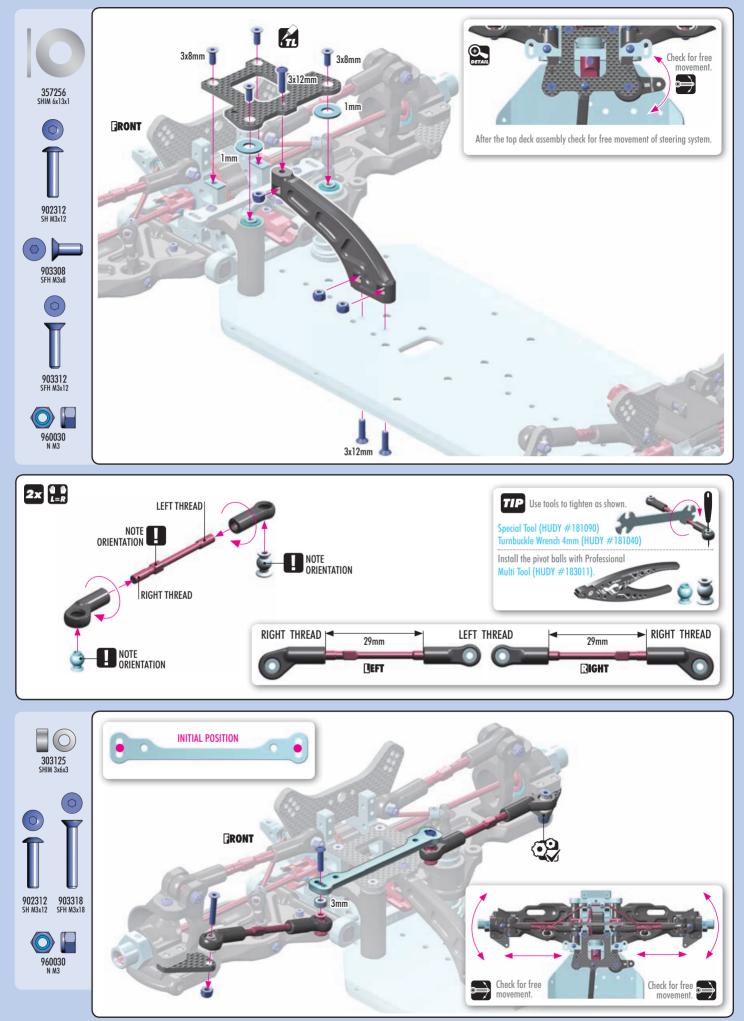
303125 351352 352086 352506 352514 352561 352576 352651 352652 352653 352666 357256	ALU SHIM 3x6x3.0MM (10) GRAPHITE UPPER PLATE 2.5MM COMPOSITE FRONT BRACE SERVO SAVER WITH CHASSIS LOCK & HARD SPRING - G - SET COMPOSITE SERVO SAVER - GRAPHITE SERVO SAVER SPRING PROGRESSIVE STEERING PLATE BUSHING (2) ALU STEERING PLATE - SWISS 7075 T6 ADJ. TURNBUCKLE M4 L/R 53MM - HUDY SPRING STEEL™ (2) BALL STUD 6.8MM (4) BALL STUD 6.8MM WITH BACKSTOP - M3 (2) COMPOSITE STEERING BALL JOINT 6.8MM - V3 (2) COMPOSITE RELIEF STEERING BALL JOINT 6.8MM (2) ALU SHIM 6x13x1MM (2)	902308 902312 903308 903312 903318 903410 940610 940610 970121	HEX SCREW SH M3x8 (10) HEX SCREW SH M3x12 (10) HEX SCREW SFH M3x8 (10) HEX SCREW SFH M3x12 (10) HEX SCREW SFH M3x18 (10) HEX SCREW SFH M4x10 (10) BALL-BEARING 6x10x3 RUBBER SEALED - OIL (2) NUT M3 (10) O-RING 12.1 x 1.6 (10)
337230			

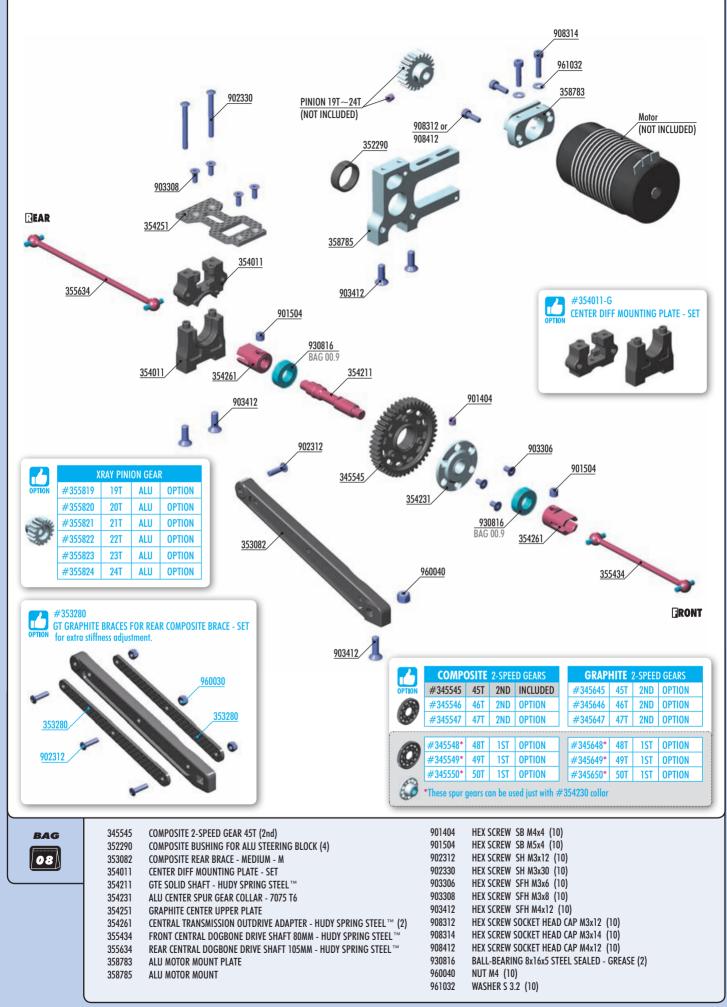


7. STEERING

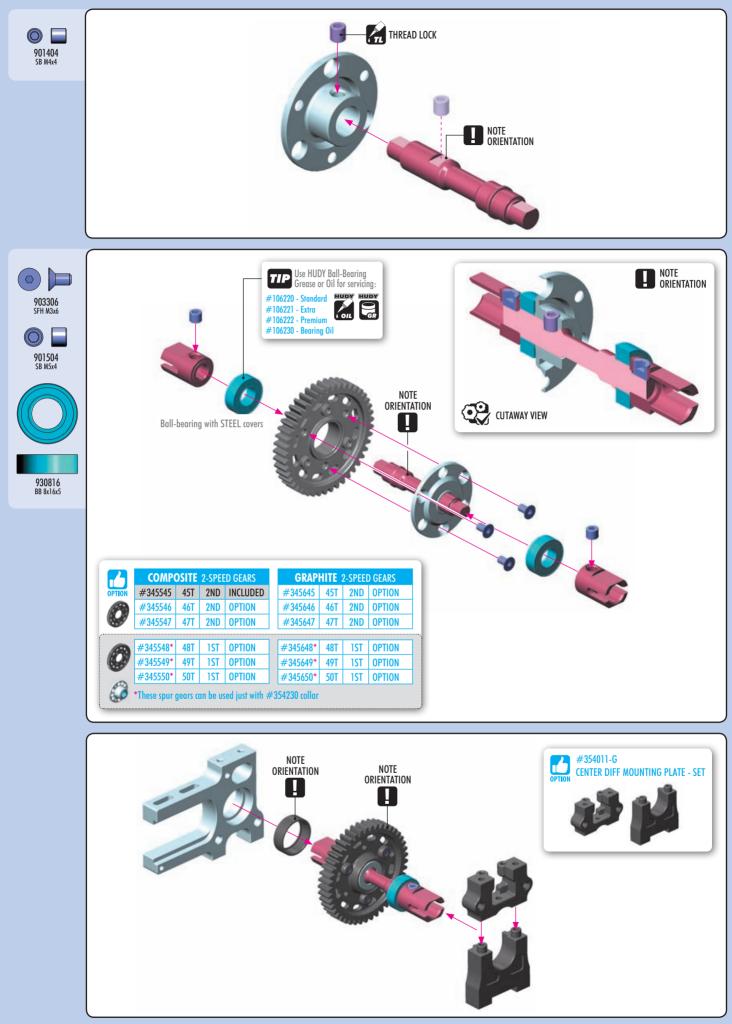


7. STEERING

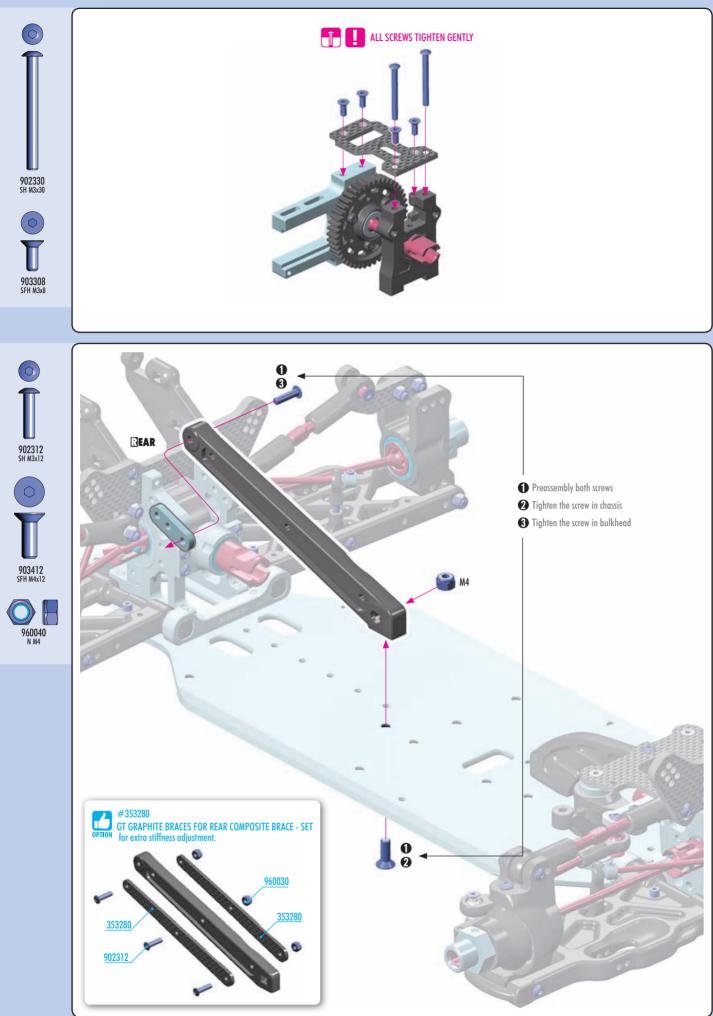


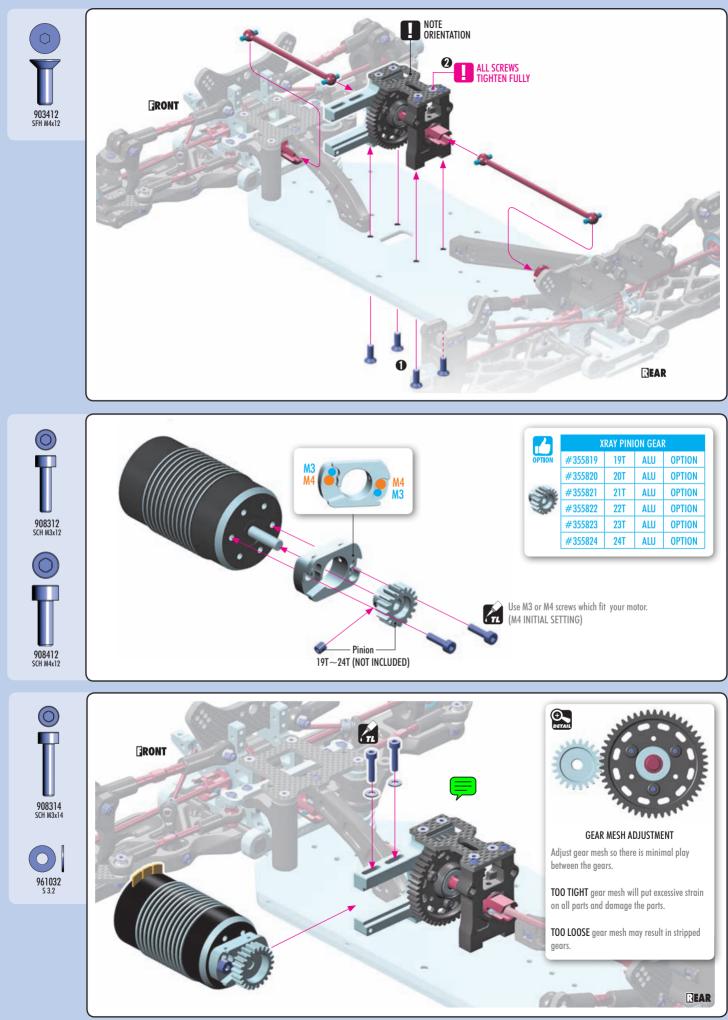


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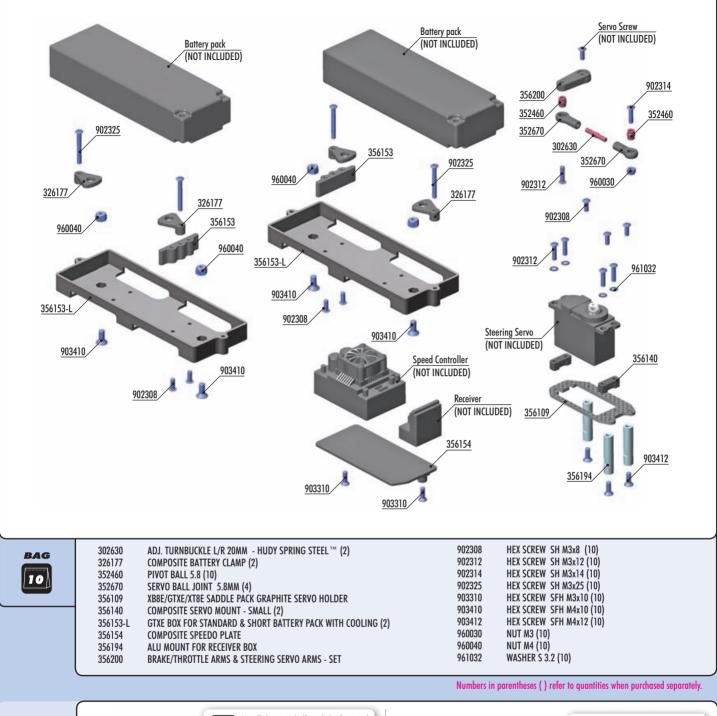


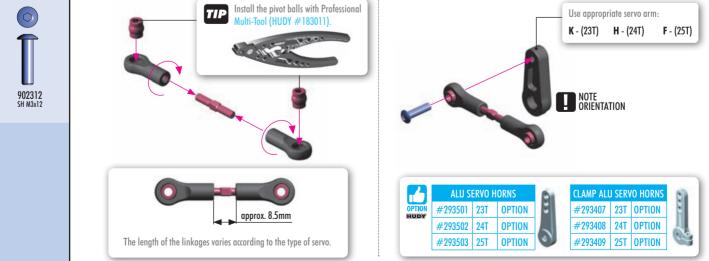




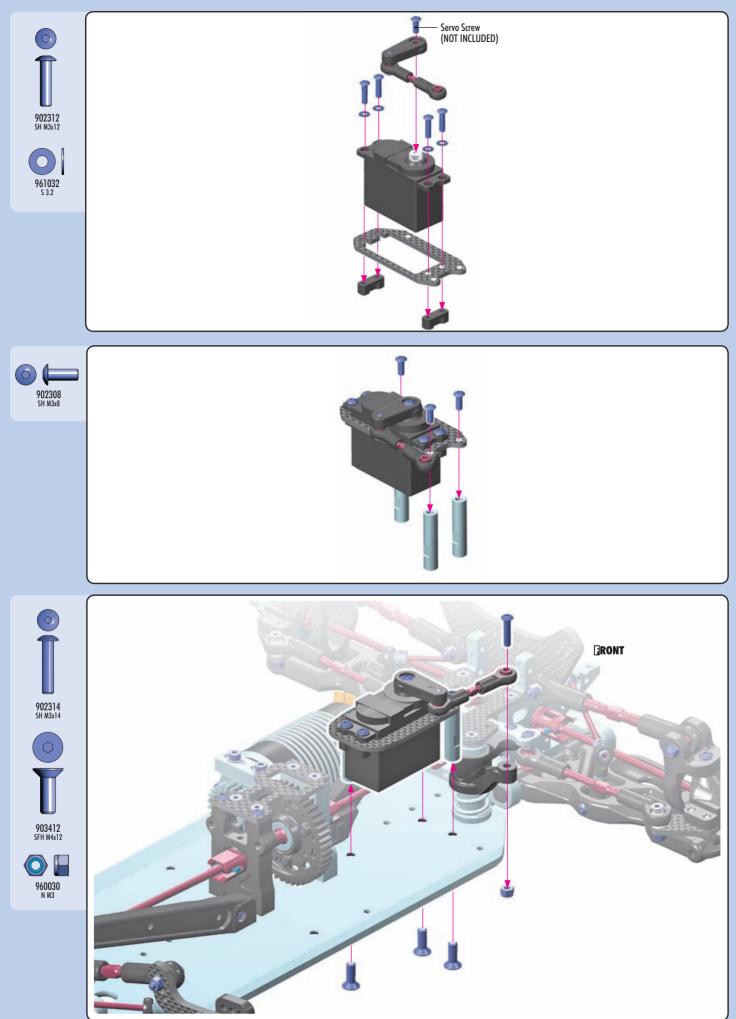


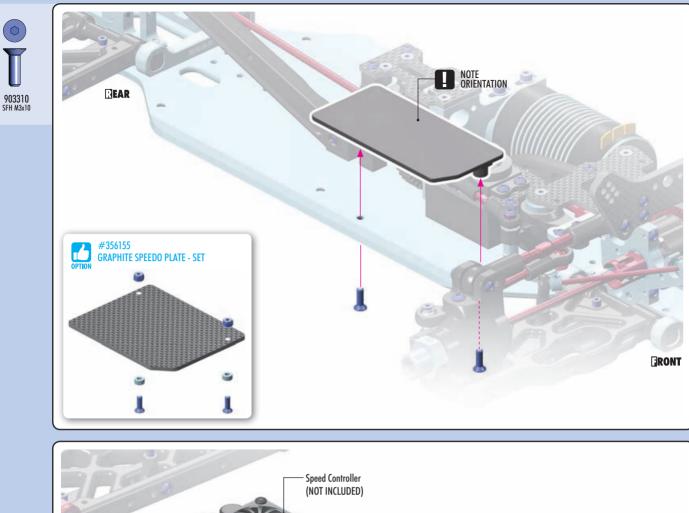
10. ELECTRONICS

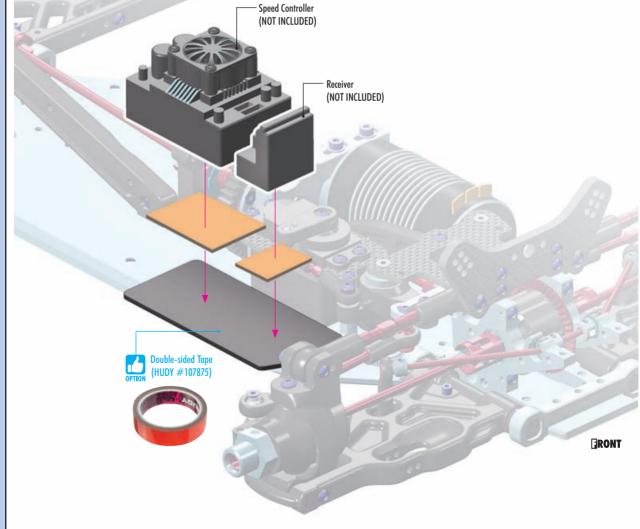




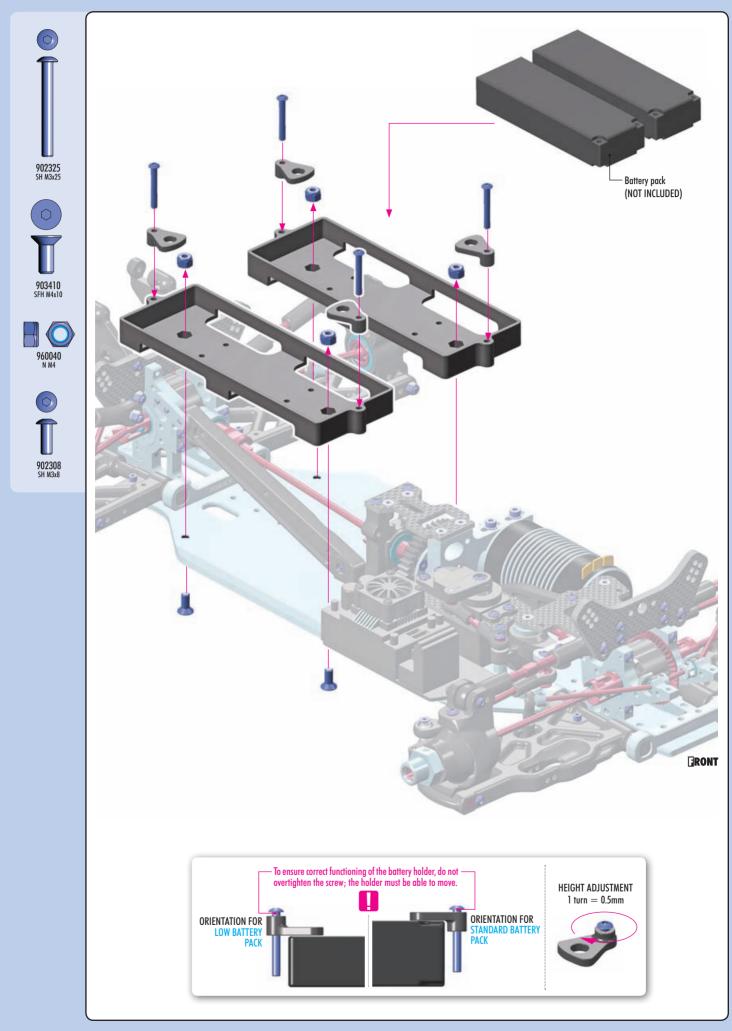
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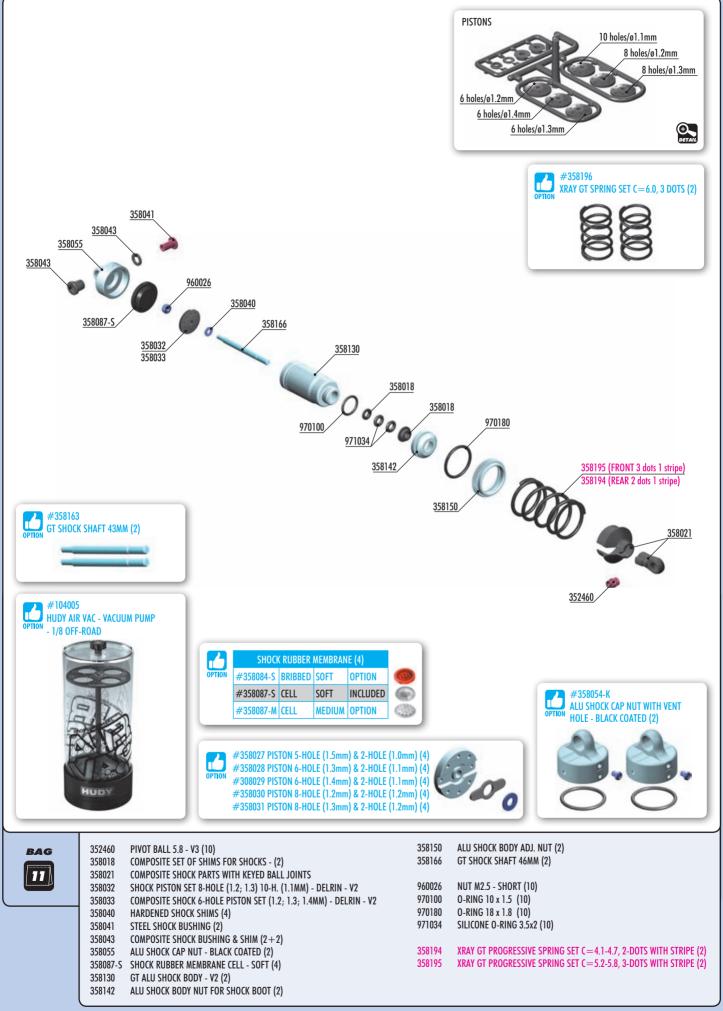






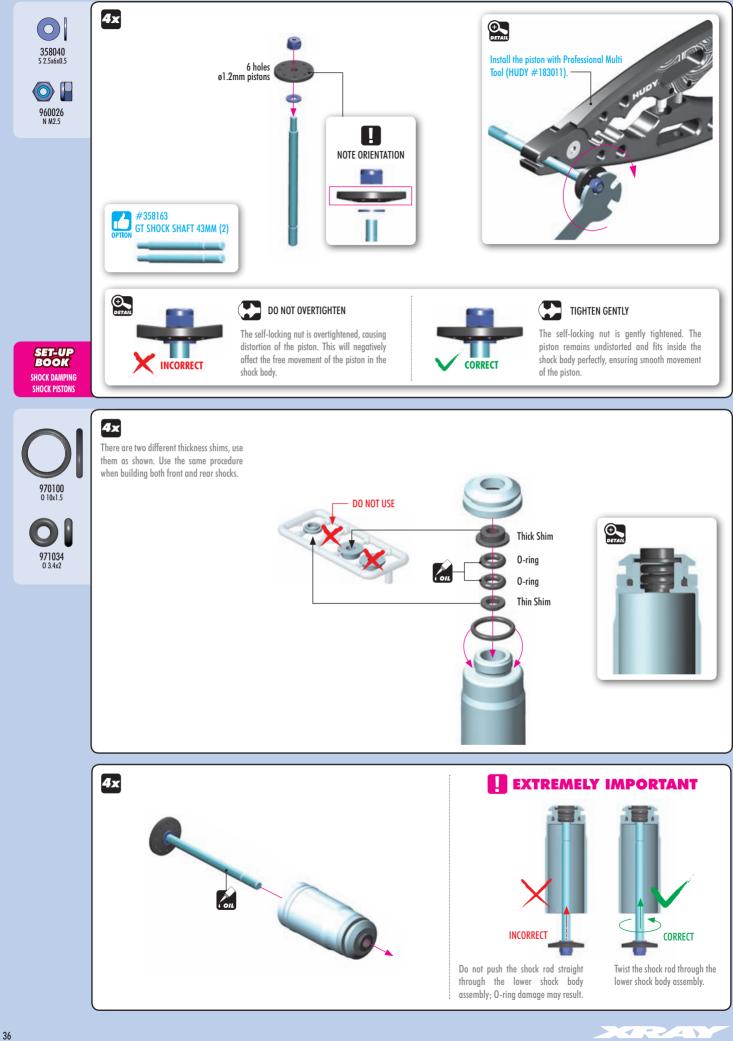
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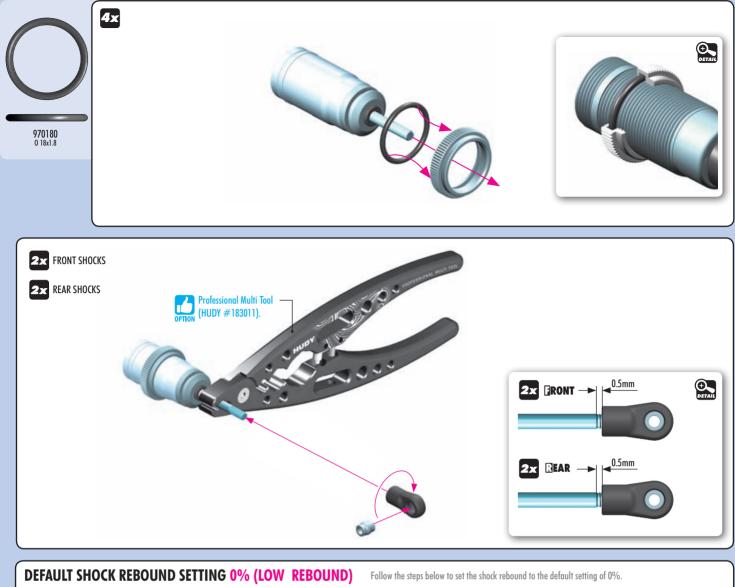


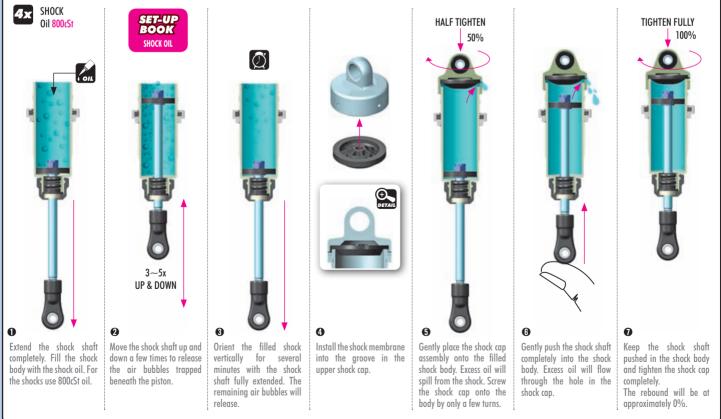
57 / 1 = 223

11. SHOCK ABSORBERS

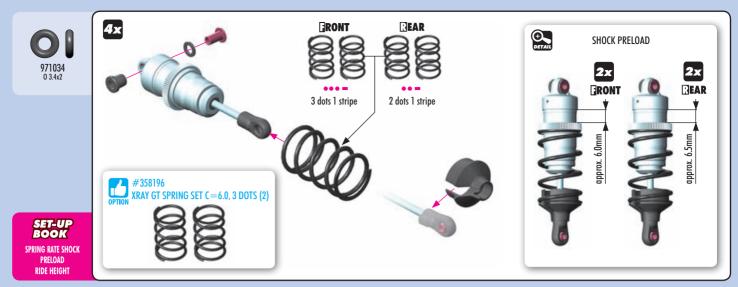


11. SHOCK ABSORBERS





11. SHOCK ABSORBERS



TIP ALTERNATE SHOCK REBOUND SETTING (50% AND 100%)

The default shock rebound setting is 0% (as described on page 40). Alternatively, you may set the shock rebound setting to 50% or 100% as described below. Remove the shock springs before performing shock rebound adjustment.











assembly onto the filled shock body. Excess oil will spill from the shock.



the shock body. Excess oil will bleed thgrough the hole in the shock cap.

Ø

6



Keep the shock shaft pushed 50% into the shock body and tighten the shock cap completely. The rebound will be at approximately 50%.

SETTING THE SHOCK REBOUND TO 100% (HIGH REBOUND)

0

is in the shock.



Extend the shock shaft completely and remove the shock cap.



Fill the shock body with shock oil up to the top. Make sure to use same viscosity shock oil as is in the shock.

0



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

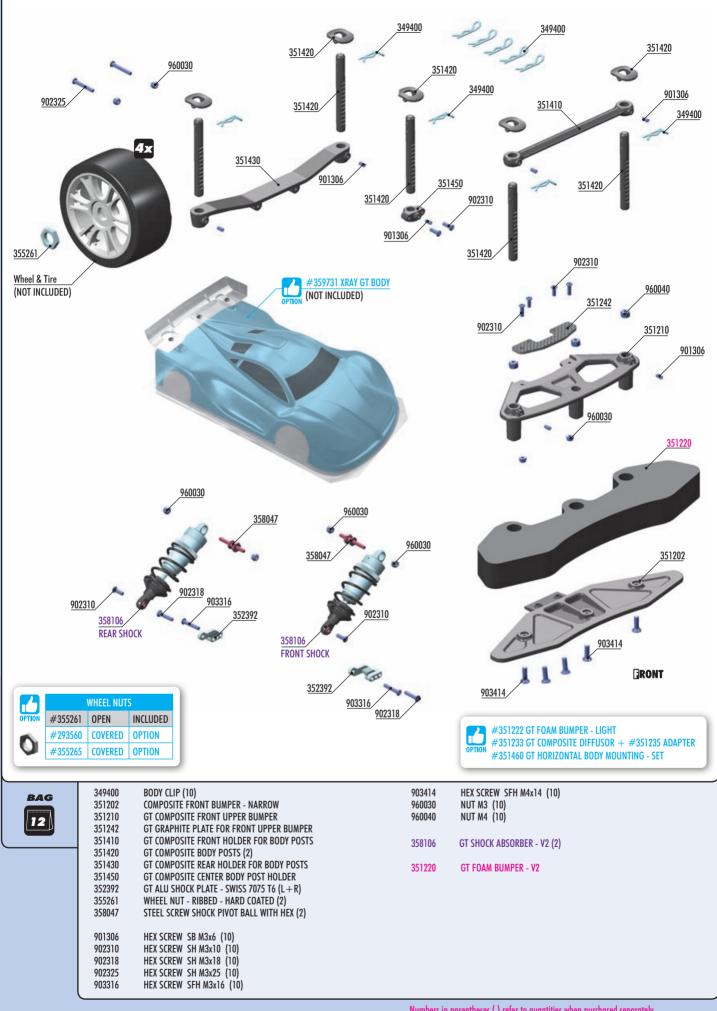
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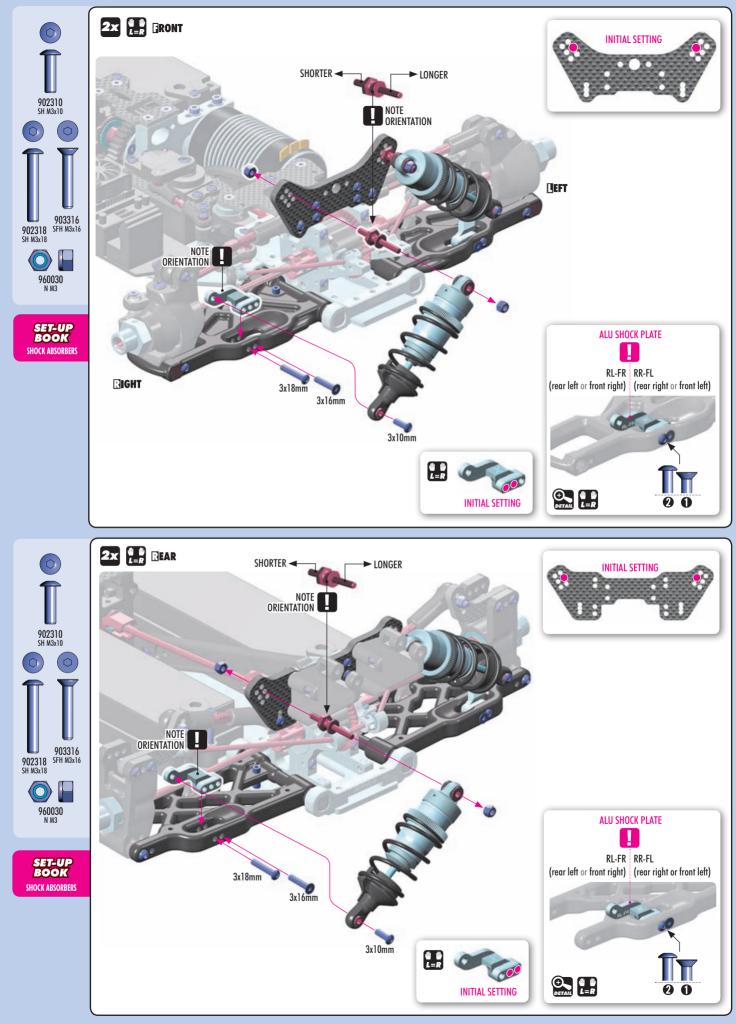


Gently place the shock cap assembly onto the filled shock body. Keep the shock shaft extended 100% from the shock body and tighten the shock cap completely. The rebound will be at approximately 100%.

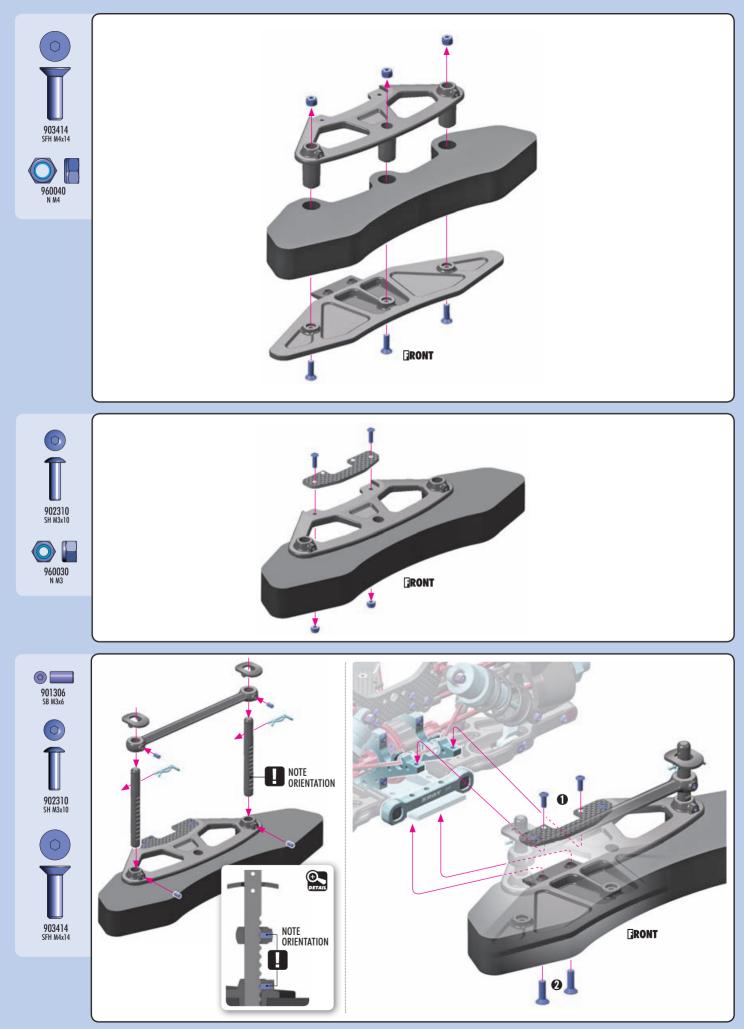


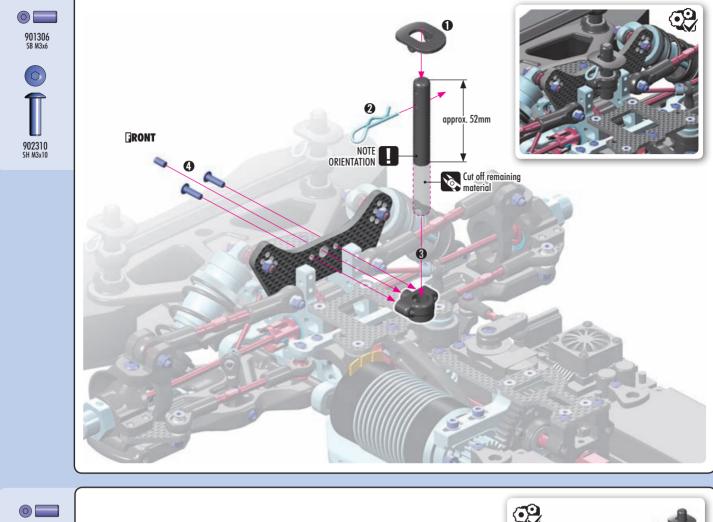
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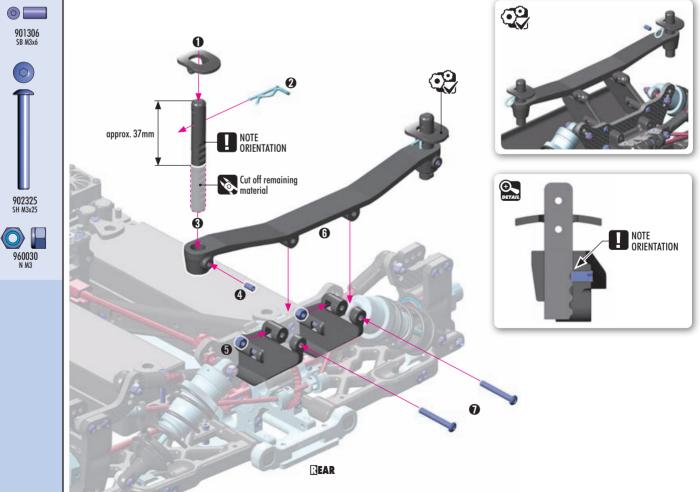




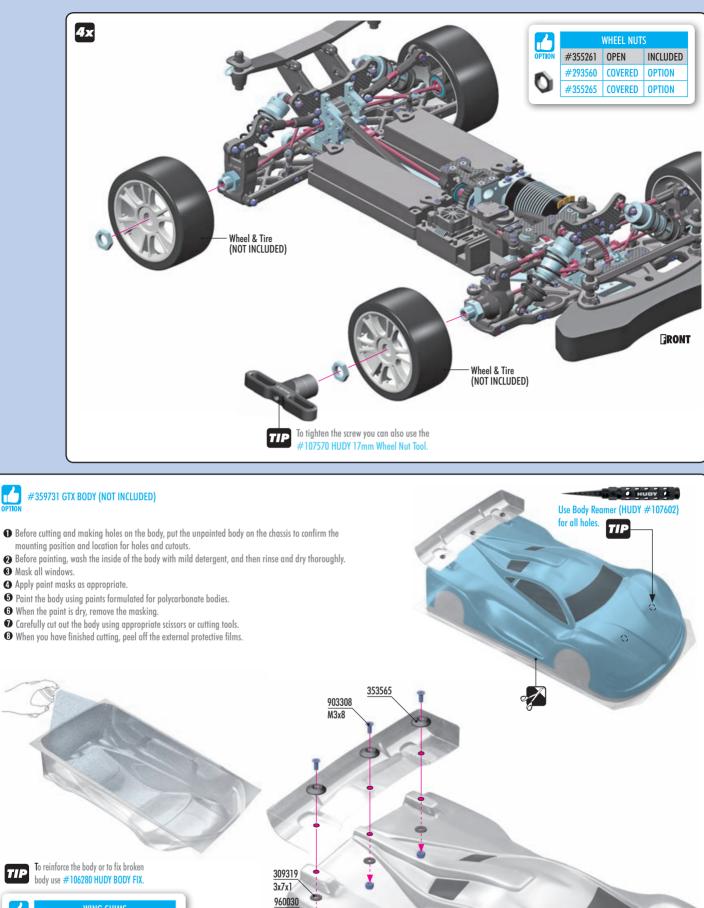
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12. FINAL ASSEMBLY
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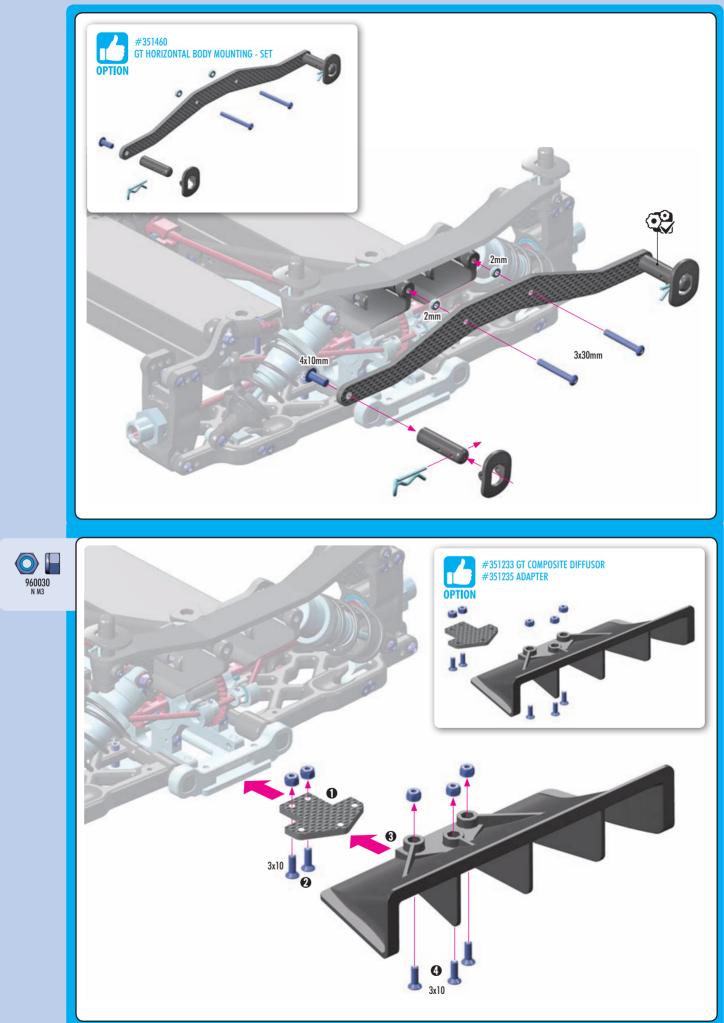






M3

SIDKE 23



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 auickly 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 areased 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 ballbearings 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.
- Spray the seals with motor cleaner and blow dry with compressed air.
- Spray the bearing on both sides with motor cleaner. 3.
- Spin the bearing while it is still wet to dislodge any particles with the cleaner. 4
- Spray the bearing on both sides again. 5
- Blow both sides of the bearing dry with compressed air to make sure particles come out. 6
- 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 draa.

HUDY #106230

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.



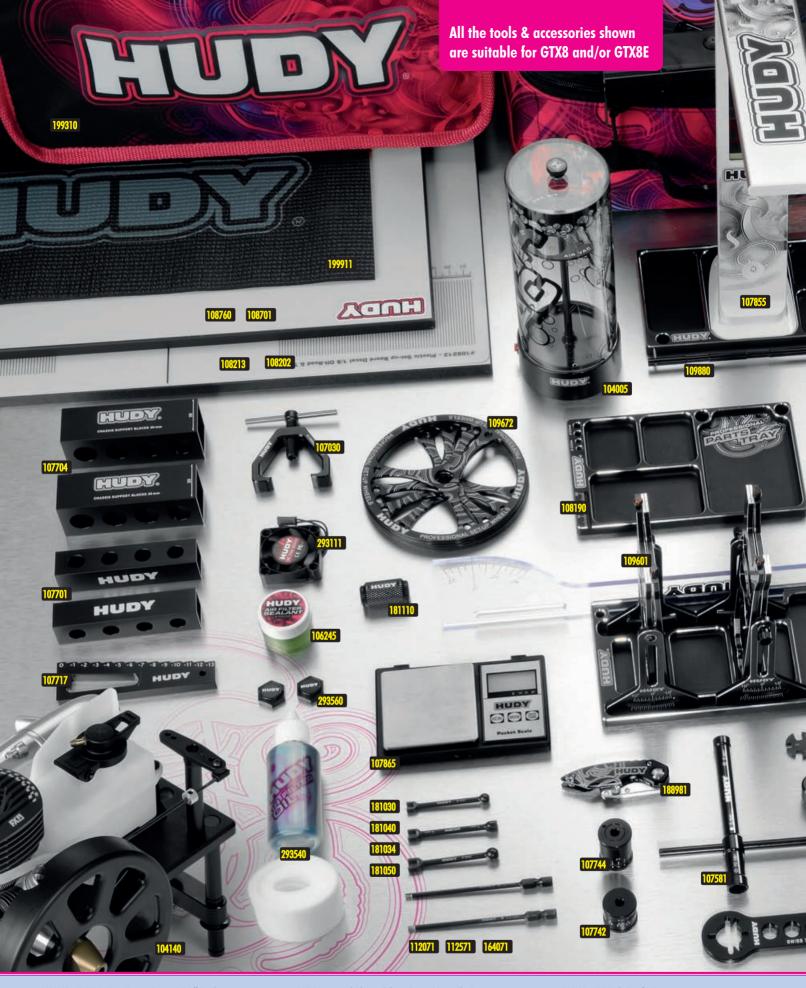
SUSPENSION & DRIVETRAIN MAINTENANCE

- 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 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 connecting pins which connect the center drive shafts with the pinion gear, and also the pins that connect the wheel drive shafts with wheel axles. Use HUDY Graphite Grease to lubricate the drive shaft connecting joints and the diff gears. Pivot balls and ball-joints will naturally wear for some time and will generate play. If there is too
- much play the pivot balls and ball joints need to 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 will after some time "go down" but it will not affect the strength of the material. The brown color is only a surface treatment and if the brown color will wear the durability of the part will be still strong.



- #104005 #104140 #104500 HUDY Air Vac - Vacuum Pump - 1/8 Off-Road
- HUDY Engine Break-In Bench HUDY Star-Box 1/8 Off-Road
- #105500
- #105510
- HUDY Universal Tire Balancing Station HUDY Universal Tire Balancing Station Wheel Adapter for 1/8 Off-Road Cars, Truggy & Rally Game HUDY Drive Pin Replacement Tool (for 3mm Pins) HUDY Magic Cleaning Gum HUDY Air Filter Sealant
- #106000 #106200
- #106245
- #107030 HUDY Flywheel Puller
- #107090 HUDY Bearing Check Tool
- #107570
- #107581
- HUDY 17mm Off-Road Wheel Nut Tool HUDY Cross Wrench Glowplug # 8mm / Clutchnut # 10mm Limited Edition Reamer for Body 0-18mm + Cover Large #107602
- #107612 Limited Edition Exhaust Spring / Caster Clip Remover Limited Edition - Exhaust Spring / Caster Clip Kemover Limited Edition - Arm Reamer # 4.0mm Chassis Droop Gauge Support Blocks 20mm for 1/8 - LW(2) Chassis Droop Gauge Support Blocks 30mm 1/8 Off-Road - LW (2) Chassis Droop Gauge 0 to -13 mm for 1/8 Off-Road HUDY Adjustable Ride Height Gauge 20-30mm HUDY Adjustable Ride Height Gauge 30-45mm HUDY Adjustable Camber Gauge 110mm HUDY Adjustable Camber Gauge 10.140mm #107644 #107701
- #107704
- #107717
- #107742 #107744
- #107762
- HUDY Adjustable Droop Gauge 80-140mm HUDY Droop Gauge 70-140mm #107780
- #107783
- #107855 HUDY Pit LĖD
- #107855 HUDY Ultimate Digital Pocket Scale 300g/0.01g #108170 HUDY Off-Road & Truggy Car Stand

- #108190 HUDY Alu Tray for Parts
- #108202
- #108213
- HUDY Alu Tray for Ports Flat Set-Up Board for 1/8 Off-Road & Truggy Plastic Set-up Board Decal for 1/8 Off-Road & Truggy Flat Set-Up Board for 1/8 Off-Road & GT Lightweight Plastic Set-Up Board Decal 399x545mm 1/8 Off-Road & GT HUDY Set-Up Station for 1/8 GT Alu Nut for 1/8 Off-Road System (4) Alu Set-Up Wheel for 1/8 GT (4) HUDY Alu Tray for 1/8 Off-Road Diff & Shocks HUDY Alu Tray for 1/8 Off-Road Diff & Schocks #108701
- #108760
- #109601
- #108860
- #109672
- #109802
- #109801
 HUDY Alu Tray for 1/8 Off-Road Diff Assembly

 #109801
 HUDY Alu Tray for Stel-Up System

 #109800
 HUDY Alu Tray for Accessories & Pit LED

 #111545
 Limited Edition Allen Wrench # 1.5mm



#112045 Limited Edition - Allen Wrench # 2.0mm Power Tool Tip Allen 2.0 x 90 mm Limited Edition - Allen Wrench # 2.5mm #112071 #112545 #112571 Power Tool Tip Allen 2.5 x 90 mm Power Iool Tip Allen 2.5 x 90 mm Limited Edition - Allen Wrench # 3.0mm Limited Edition - Allen Wrench + Ball Repl. Tip # 2.0mm Limited Edition - Allen Wrench + Ball Repl. Tip # 2.5mm Long Slotted Screwdriver 4.0 mm - for Engine Adjust. - SPC - V2 Limited Edition - Phillips Screwdriver # 4.0mm Power Tool Tip Phillips 4.0 x 90 mm Scretch Driver 5.0 mm #113045 #132045 #132545 #154060 #164045

- #164071
- #170050 #175535
- Socket Driver 5.0 mm Limited Edition Socket Driver # 5.5mm HUDY Spring Steel Turnbuckle Wrench 3 mm #181030
- HUDY Spring Steel Turnbuckle Wrench 3 & 4mm HUDY Spring Steel Turnbuckle Wrench 4 mm HUDY Spring Steel Turnbuckle Wrench 5 mm HUDY Special Tool For Turnbuckles & Nuts HUDY Ball Joint Wrench Wheel Nut & 3/4 Shoe Flywheel Multi-Toll 1/8 GT HUDY Professional Multi Tool HUDY Pocket Hobby Knife HUDY Pocket Hobby Knife #181034
- #181040 #181050
- #181090
- #181110
- #182016
- #183011 #188981
- #188990
- HUDY Professional Body Scissors
- #199060 HUDY Alu Tool Stand
- HUDY Car Bag 1/8 On-Road GT HUDY LiPo Safety Bag #199186
- #199270
- #199310 HUDY Pit Bag Compact

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

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





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