

INTRODUCTION

The XRAY XB2 is a modern, high-competition premium luxury racing 1/10 electric 2WD off-road buggy that is the epitome of high-performance and fine distinctive design. Your XB2 offers highest performance, responsive handling, and traditionally exceptional XRAY quality, engineering, and design. The superb craftsmanship and attention to detail are clearly evident everywhere on the XRAY XB2.

XB2 was designed around a no compromise platform; the attention to detail creates a low maintenance, extra long life electric buggy. The ultra-low center of gravity (CG) and optimized weight balance makes set-up, driving, and maintenance easy and quick.

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

The XRAY XB2 was created by blending highest-quality materials and excellent design. On high-speed flat tracks or bumpy tracks, whether driving for fun or racing to win, the XB2 delivers outstanding performance, speed, and precision handling.

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.

XRAY Europe

K Výstavisku 6992 91101 Trenčín Slovakia, EUROPE Phone: +421-32-7401100 Fax: +421-32-7401109

Email: info@teamxray.com

XRAY USA

RC America, 2030 Century Center Blvd #15 Irving, TX 75062 USA Phone: (800) 519-7221 * (214) 744-2400

Fax: (214) 744-2401 Email: xray@rcamerica.com

Failure to follow these instructions will be considered as abuse and/or neglect.

SAFETY PRECAUTIONS

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

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

CAUTION: CANCER HAZARD

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

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

Take appropriate safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation! Please read the instruction manual before building and operating this model and follow all safety precautions. Always keep the instruction manual at hand for quick reference, even after completing the assembly. Use only genuine and original authentic XRAY parts for maximum performance. Using any third party parts on this model will void guaranty immediately.

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



🔼 IMPORTANT NOTES - GENERAL

- This product is not suitable for children under 16 years of age without the direct supervision of a responsible and knowledgeable adult.
- Carefully read all manufacturers warnings and cautions for any parts used in the construction and use of your model.
- Assemble this kit only in places away from the reach of very small children.
- First-time builders and users should seek advice from people who have building experience in order to assemble the model correctly and to allow the model to reach its performance potential.
- Exercise care when using tools and sharp instruments.
- Take care when building, as some parts may have sharp edges.
- Keep small parts out of reach of small children. Children must not be allowed to put any parts in their mouth, or pull vinyl bag over their head.
- Read and follow instructions supplied with paints and/or cement, if used (not
- 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
- 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
- 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.

A

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 R/C 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 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 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.

SYMBOLS USED





Assemble in the specified order





U U L=R



Pay attention Assemble as many times as specified here (here twice)



Apply threadlock



Apply CA glue



Apply oil



Scale



Apply grease



Optional



Ensure smooth non-binding movement







Completed assembly



Detail



Apply cleaner



TOOLS REQUIRED







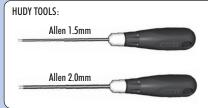


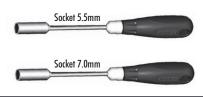














ITEMS INCLUDED









EQUIPMENT REQUIRED



























NOT INCLUDED

Set-up Book

To ensure that you always have access to the most up-to-date version of the Set-up Book you can download the HUDY Set-up Book from their web site at [www.hudy.net] By offering this online version instead of including a hardcopy printed version in kits, you will always be assured of having the most current updated version.



XRAY offers wide range of optional tuning parts which are listed in tables like these. 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.



SAMPLE OF OPTIONAL PARTS			
#32XXXX	TYPE	OPTION 1	
#32XXXX	TYPE	OPTION 2	
#32XXXX	TYPE	INCLUDED	
#32XXXX	TYPE	OPTION 3	

365884

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:

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

321100 STYLE B - indicates parts that are included in the box.

324900 STYLE C - indicates parts that are already assembled from previous steps.

XB2 TECH TIPS

TIP GRAPHITE PARTS PROTECTION

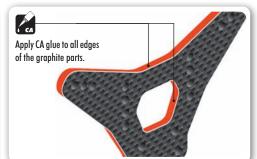


Please follow the Instruction Manual and seal the edges of the shock towers with CA to reinforce them and help prevent delamination.

Protect all XB2 Graphite Parts:

- Front shock tower
- Rear shock tower

Fine sandpaper
Use fine sandpaper to sand smooth the edges of all graphite parts.



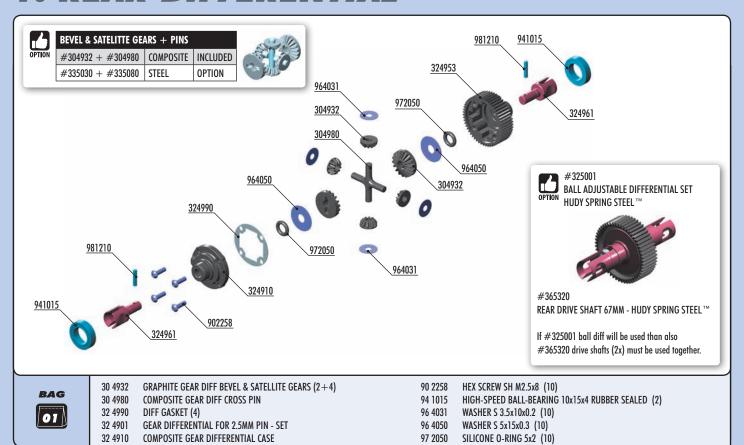
1. REAR DIFFERENTIAL

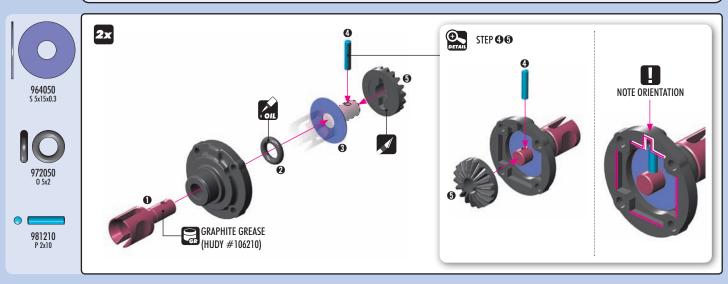
COMPOSITE GEAR DIFFERENTIAL CASE WITH PULLEY 53T

GEAR DIFF OUTDRIVE ADAPTER - HUDY SPRING STEEL™ (2)

32 4910 32 4953

32 4961

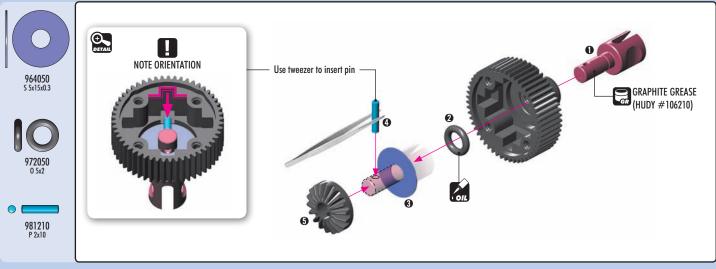




97 2050

98 1210

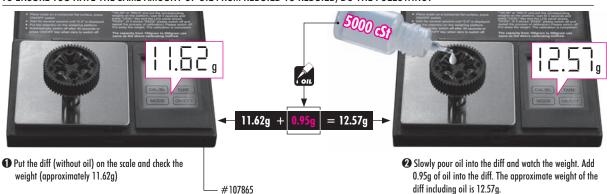
PIN 2x10 (10)







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



HUDY Ultimate Digital Pocket Scale $300g \pm 0.01g$

	HUDY ULTII	MATE SILICONE (DILS
ĺ	#106410	1000 cSt - 50ml	OPTION
	#106420	2000 cSt - 50ml	OPTION
	#106430	3000 cSt - 50ml	OPTION
	#106440	4000 cSt - 50ml	OPTION
	#106450	5000 cSt - 50ml	INCLUDED
	#106460	6000 cSt - 50ml	OPTION
	#106470	7000 cSt - 50ml	OPTION

TIP

TIPS FOR REAR DIFFERENTIAL

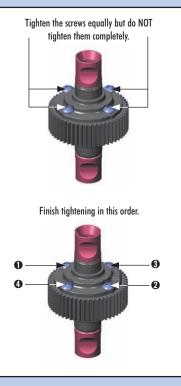
LOW-MEDIUM TRACTION 3 000cSt (HUDY #106430)
MEDIUM-HIGH TRACTION 5 000cSt (HUDY #106450)

NOTE: Softer oil increases rear traction, harder oil increases on-power steering.





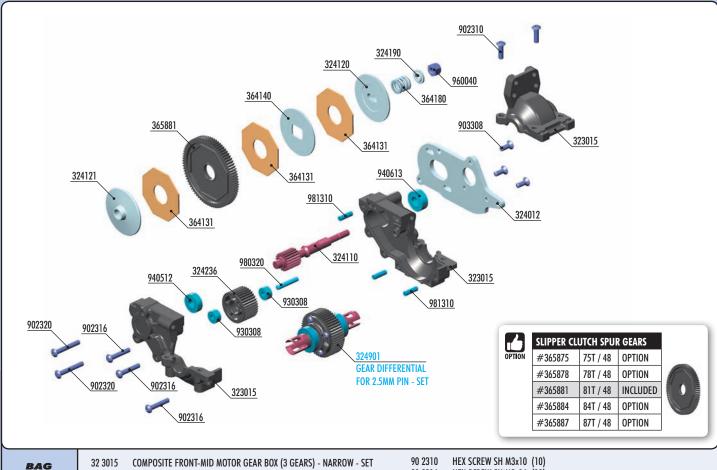






XB2C'IE

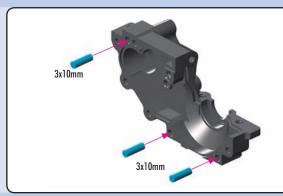
2. REAR TRANSMISSION

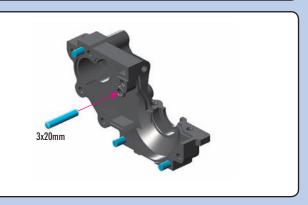




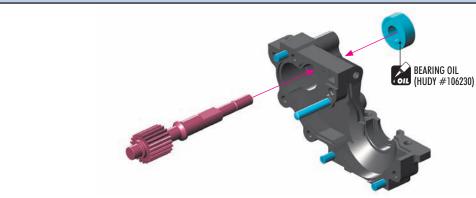
D (2)
D (2)





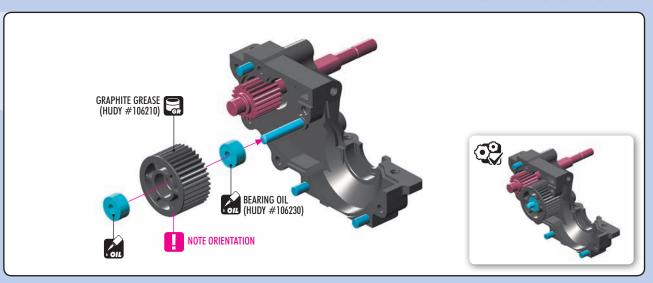






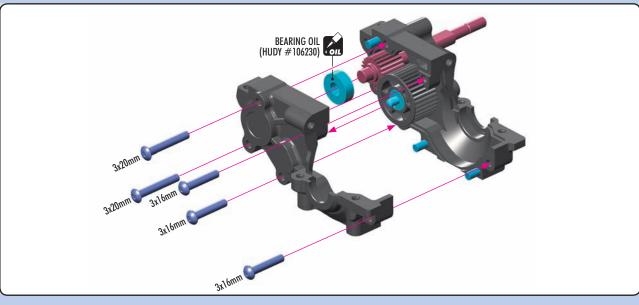
2. REAR TRANSMISSION



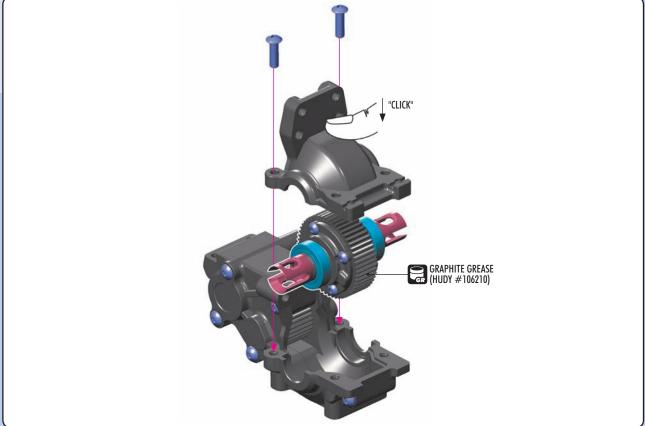








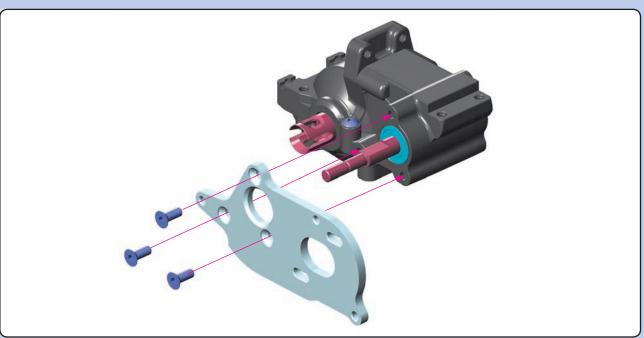


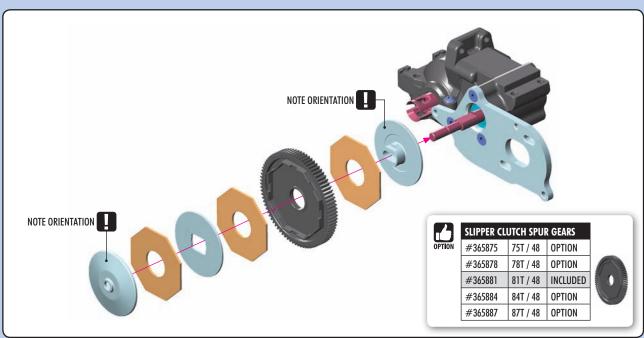


XB2C'IE

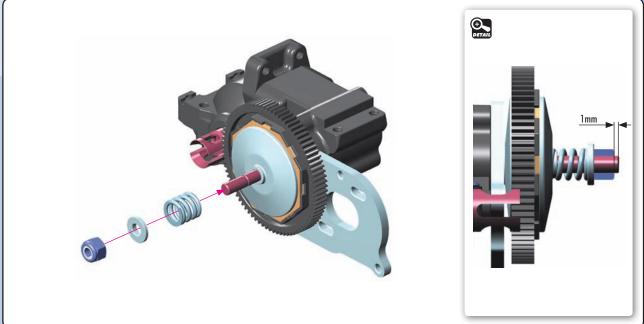
2. REAR TRANSMISSION



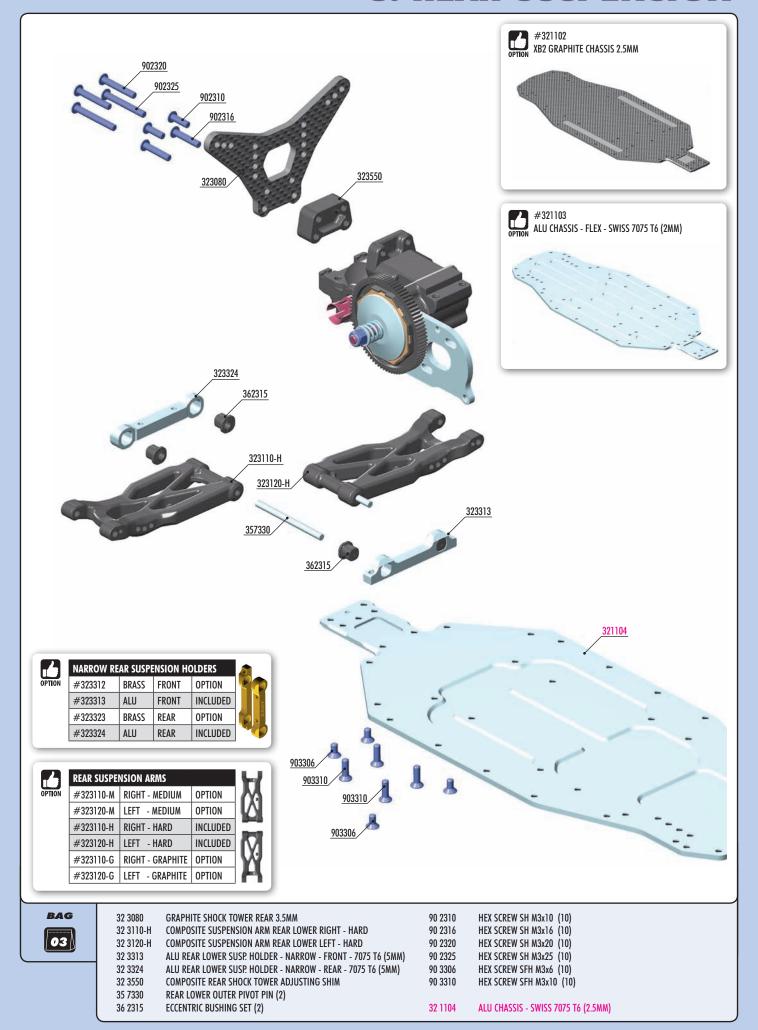








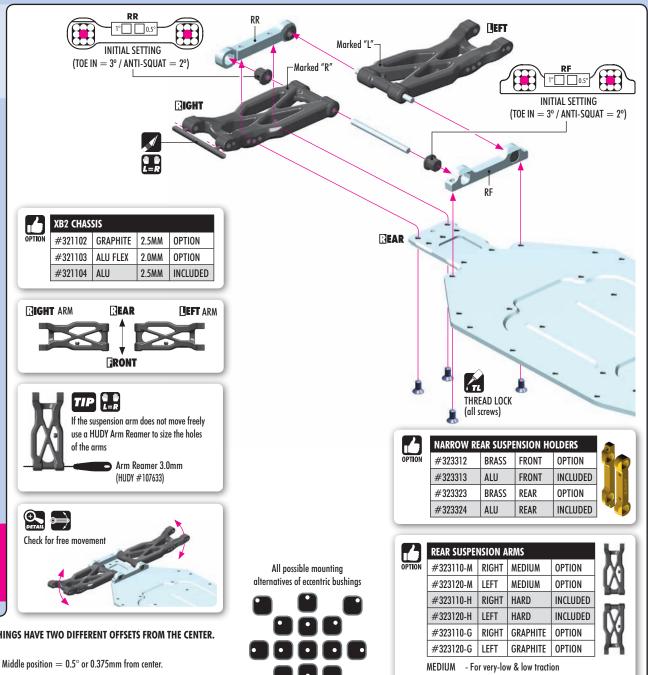
3. REAR SUSPENSION



11

3. REAR SUSPENSION





ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.



TRACK-WIDTH



Outer position $= 1^{\circ}$ or 0.75mm from center.

HARD - For medium & high traction GRAPHITE - For high & very-high traction

The XRAY rear alu lower suspension holders provide great 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 Set-up Book (#209100).

	ANTI-S		
	R ·	RF C	(°) =2°
0	0 (_Z
0	• • • • • • • • • • • • • • • • • • •		1 =3°
0	0		=1°
0			_3°
0	- C		=2°
0	- C		=4°
0		0	=1°
0	0 0		=2°
0	0		=0°

	KULL CENTEK			
RR		RF	(mm)	
•	0.0	<u> </u>	=+0.75mm	
0	0.0	-0	=0 _{mm}	
0	0.0	0	=-0.75 _{mm}	

TRACK-WIDTH			
RR		RF	(mm)
0	00	0	=+1.5mm
0	0 0	<u> </u>	=0 _{mm}
0	0 0	0	=-1.5 _{mm}
The small middle is discould influenced by the sine of			

The track-width is directly influenced by the size of the wheels and tires used.

The tables describe the amounts of adjustment using the center and outside positions of the eccentric bushings. The middle position eccentric bushings allow for finer adjustment increments.

Example:			
O(RR) - O (RF) $= 2^{\circ}$	○ RR	0 0	= 2°
$0(RR) - 0.5 (RF) = 2.5^{\circ}$	● RR	0 0	= 2.5°
O(RR) - 1 (RF) = 3°	○ RR	0 0	= 3°

	RR	RF (°)
0	0	=4°
0	0	=5°
0=	0.0	=3°
0	0	-3°
0	· ·	=4°
0	0 0	=2°
0	0	=5°
0	· ·	-6°
0	0.0	-4°

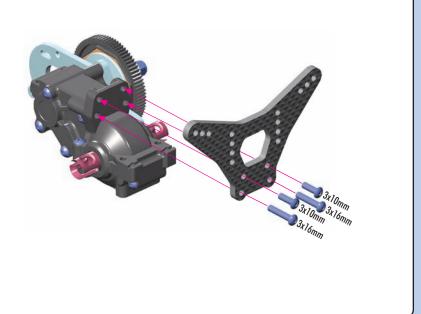
TOF-IN

3. REAR SUSPENSION

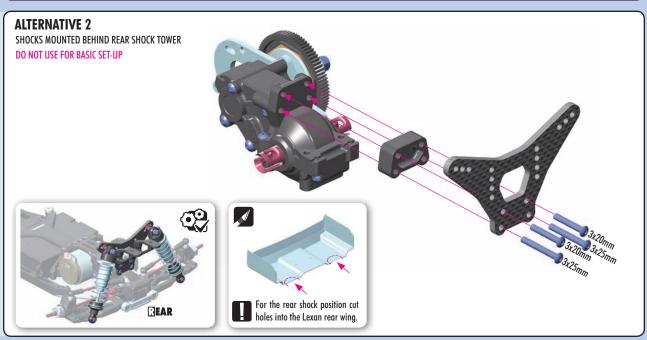


ALTERNATIVE 1SHOCKS MOUNTED IN FRONT OF REAR SHOCK TOWER (INITIAL SETTING)

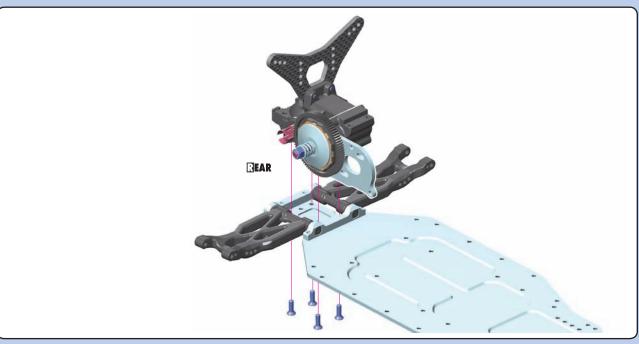




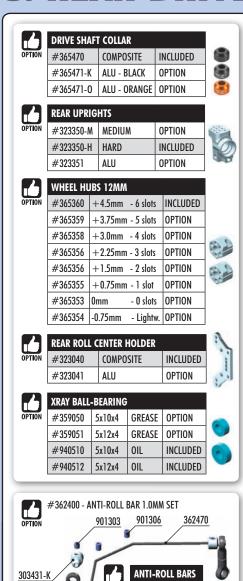








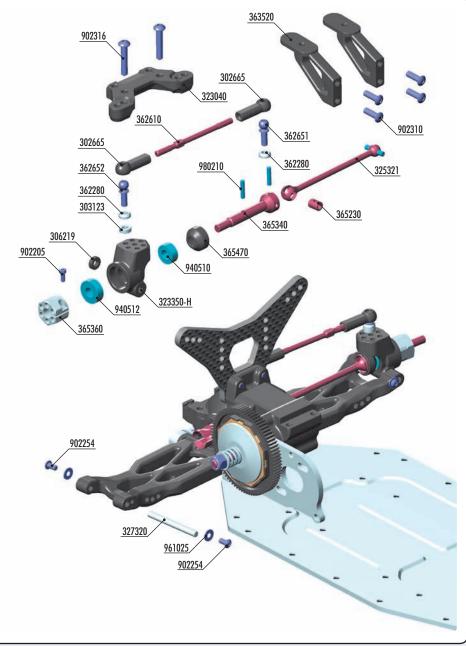
3. REAR DRIVETRAIN



#362470 | 1.0mm

1.1mm #362472 1.2mm

#362471



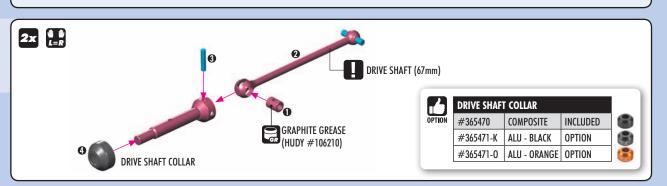


303454

901308

30 2665 COMPOSITE BALL JOINT 4.9MM - CLOSED WITH HOLE (4) 36 5340 REAR DRIVE AXLE - HUDY SPRING STEEL™ ALU WHEEL HUB 12MM - OFFSET "+4.5MM" (2) 30 3123 ALU SHIM 3x6x2.0MM (10) 36 5360 COMPOSITE SET OF SERVO SHIMS (4) COMPOSITE DRIVE SHAFT SAFETY COLLAR - V2 (3) 30 6219 36 5470 32 3040 **COMPOSITE REAR ROLL CENTER HOLDER - CARPET EDITION** 32 3350-H COMPOSITE UPRIGHT REAR - HARD 90 2205 HEX SCREW SH M2x5 (10) 32 5321 REAR DRIVE SHAFT 67MM - HUDY SPRING STEEL™ 90 2254 HEX SCREW SH M2.5x4 (10) HEX SCREW SH M3x10 (10) REAR ARM PIVOT PIN (2) 32 7320 90 2310 36 2280 ALU CONICAL SHIM 3x6x2.0MM (10) 90 2316 HEX SCREW SH M3x16 (10) ADJUSTABLE TURNBUCKLE 50MM M3 L/R - HUDY SPRING STEEL™ (2) HIGH-SPEED BALL-BEARING 5x10x4 RUBBER SEALED (2) 36 2610 94 0510 BALL END 4.9MM WITH THREAD 8MM (2) 94 0512 HIGH-SPEED BALL-BEARING 5x12x4 RUBBER SEALED (2) 36 2651 BALL END 4.9MM WITH THREAD 10MM (2) WASHER S 2.5 (10) 36 2652 96 1025 36 3520 REAR WING POST - V2 (2) 98 0210 PIN 2x9.8 (10) 36 5230 DRIVE SHAFT COUPLING - HUDY SPRING STEEL™

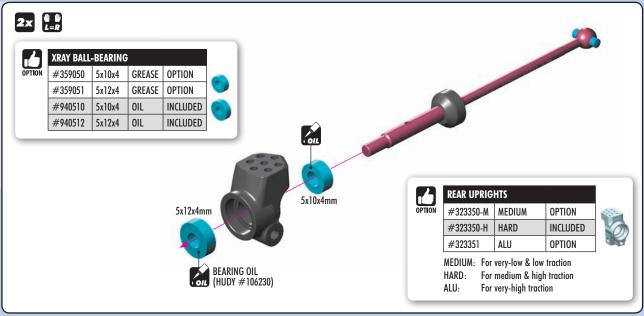




3. REAR DRIVETRAIN

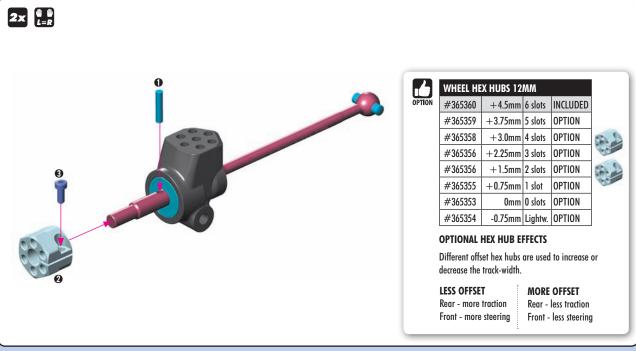




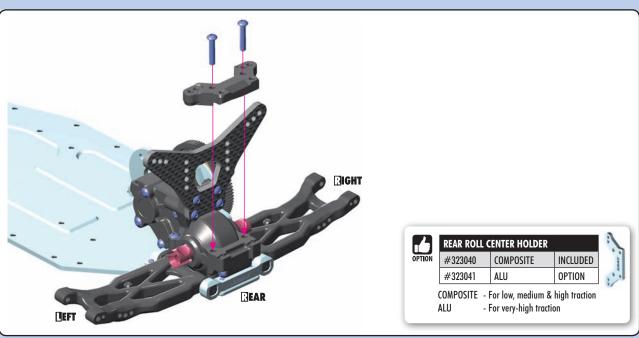






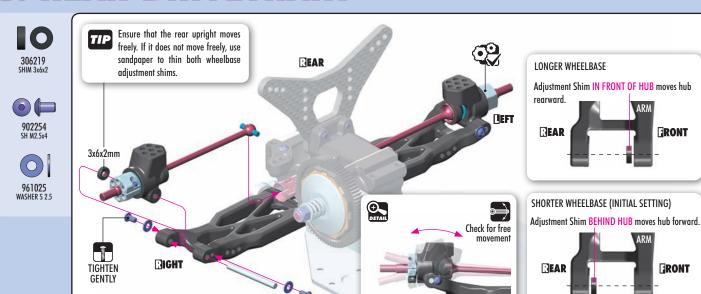


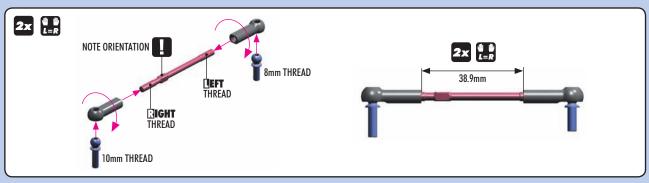


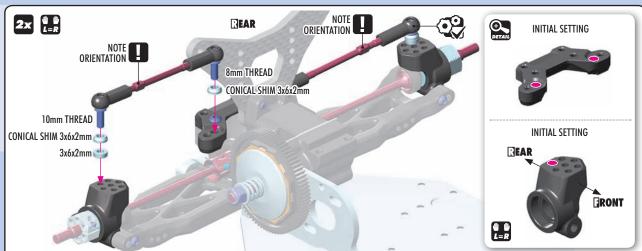


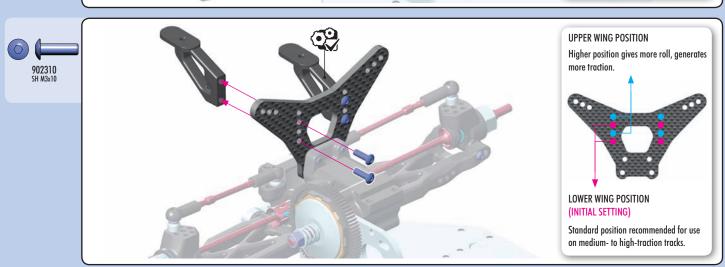
3. REAR DRIVETRAIN

TIGHTEN GENTLY





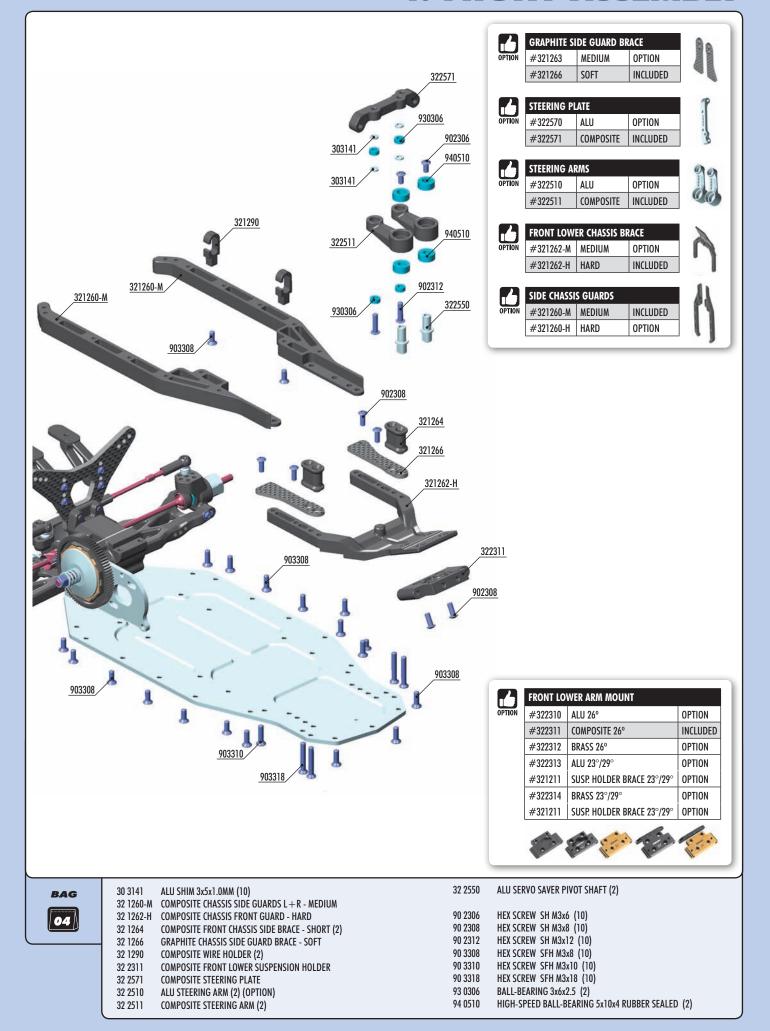




303123 SHIM 3x6x2

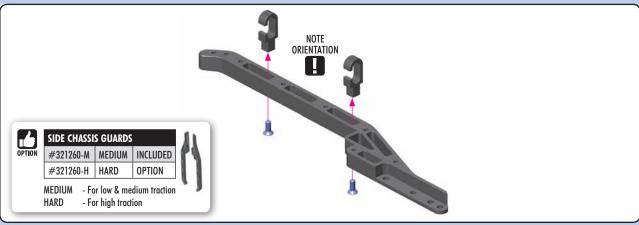
362280 CON. SHIM 3x6x2

4. FRONT ASSEMBLY

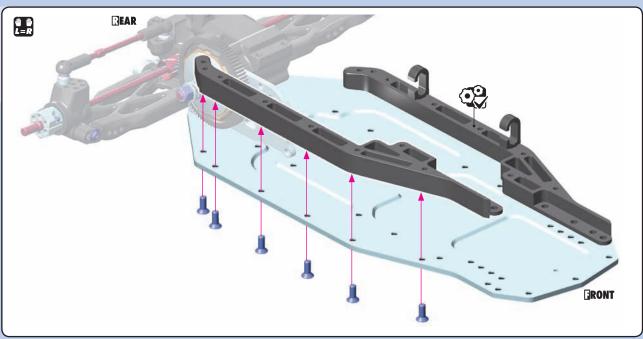


4. FRONT ASSEMBLY

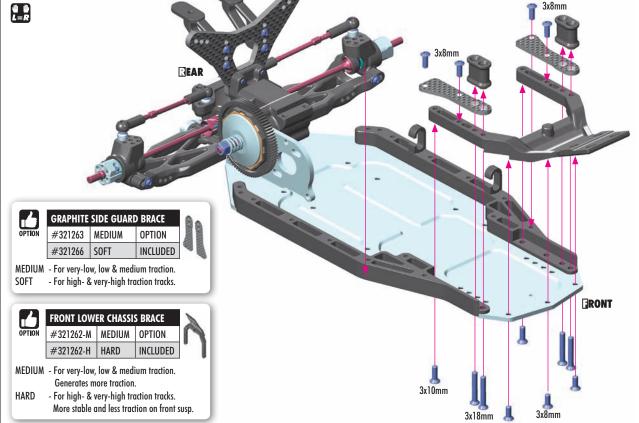












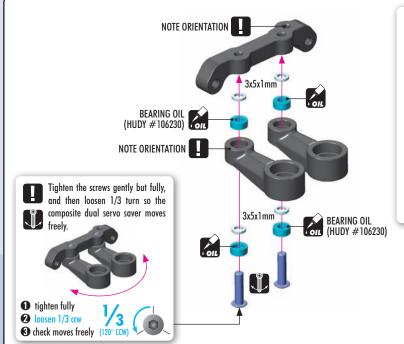
4. FRONT ASSEMBLY







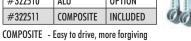
930306 BB 3x6x2.5



7 3	STEERING PL	ATE	
OPTION	#322570	ALU	OPTION
	#322571	COMPOSITE	INCLUDED
	COMPOSITE - E	asy to drive, mo	ore forgiving, le

ess steering ALU - More aggressive, more steering, more precise steering

OPTION	STEERING ARMS			
	#322510	ALU	OPTION	
	#322511	COMPOSITE	INCLUDED	

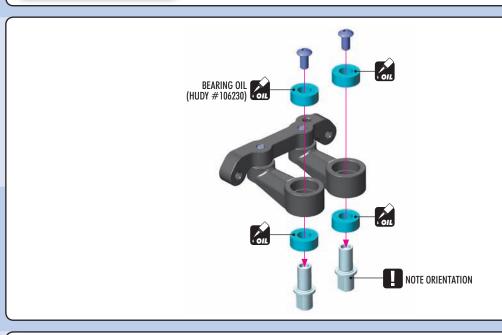


ALU - More aggressive, more steering, more precise steering

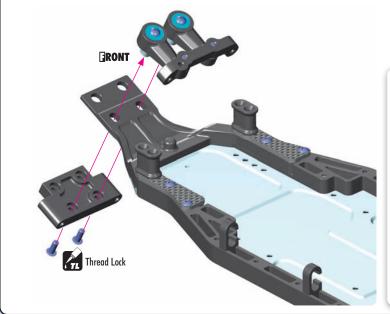




940510 BB 5x10x4







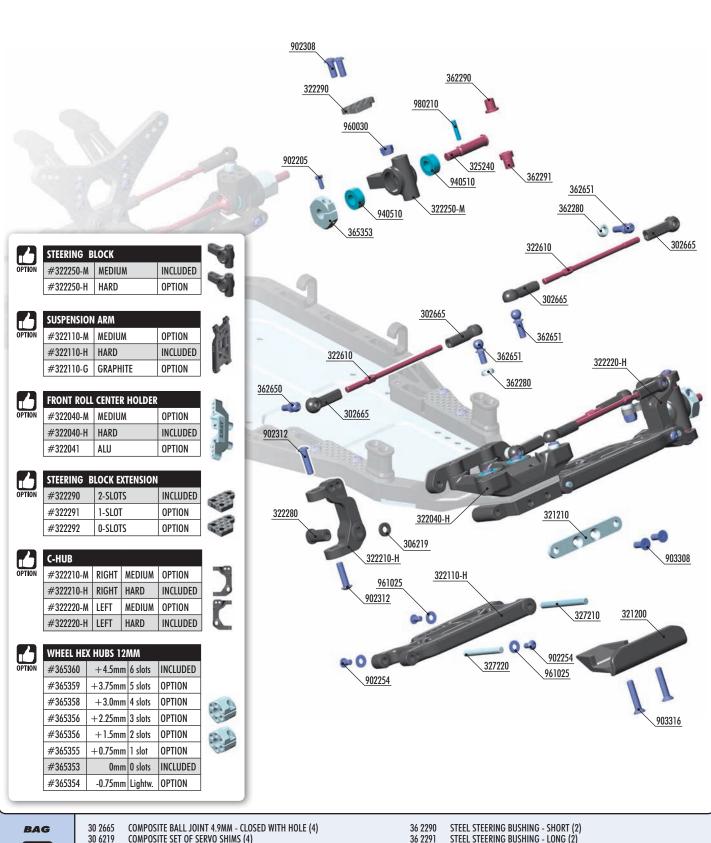
	FRONT LO	WER ARM MOUNT	
OPTION	#322310	ALU 26°	OPTION
	#322311	COMPOSITE 26°	INCLUDED
	#322312	BRASS 26°	OPTION
	#322313	ALU 23°/29°	OPTION
	#321211	SUSP. HOLDER BRACE 23°/29°	OPTION
	#322314	BRASS 23°/29°	OPTION
	#321211	SUSP. HOLDER BRACE 23°/29°	OPTION
		A. A.	1



COMPOSITE - Generates more traction in front

ALU - Makes car more stable

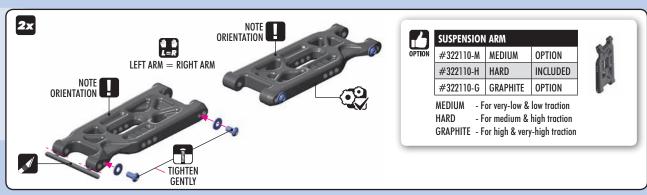
BRASS - Adds more weight in front, less weight transfer



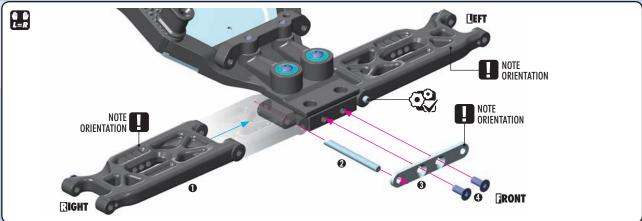


32 1200 32 1210 32 2040-H 32 2110-H 32 2210-H 32 2220-H 32 2250-M 32 2280 32 2290	COMPOSITE BALL JOINT 4.9MM - CLOSED WITH HOLE (4) COMPOSITE SET OF SERVO SHIMS (4) COMPOSITE FRONT BUMPER ALU SUSPENSION HOLDER BRACE - SWISS 7075 T6 (3MM) COMPOSITE FRONT ROLL CENTER HOLDER - HARD COMPOSITE SUSPENSION ARM FRONT LOWER - HARD COMPOSITE C-HUB 0° DEG. RIGHT - HARD COMPOSITE C-HUB 0° DEG. LEFT - HARD COMPOSITE C-HUB 0° DEG. LEFT - HARD COMPOSITE STEERING BLOCK - MEDIUM COMPOSITE CASTER ECCENTRIC BUSHING (2+2+2) GRAPHITE EXTENSION FOR STEERING BLOCK - 2 SLOTS (2) ADJUSTABLE TURNBUCKLE 55MM M3 L/R - HUDY SPRING STEEL™ (2) FRONT DRIVE AXLE - HUDY SPRING STEEL™	36 2650 36 2651 36 5353 90 2205 90 2254 90 2308 90 2312 90 3308	STEEL STEERING BUSHING - SHORT (2) STEEL STEERING BUSHING - LONG (2) BALL END 4.9MM WITH THREAD 6MM (2) BALL END 4.9MM WITH THREAD 8MM (2) ALU WHEEL HUB 12MM (2) HEX SCREW SH M2x5 (10) HEX SCREW SH M2.5x4 (10) HEX SCREW SH M3x8 (10) HEX SCREW SH M3x12 (10) HEX SCREW SH M3x12 (10) HEX SCREW SFH M3x8 (10) HEX SCREW SFH M3x8 (10) HEX SCREW SFH M3x16 (10) HIGH-SPEED BALL-BEARING 5x10x4 RUBBER SEALED (2)
32 2290	GRAPHITE EXTENSION FOR STEERING BLOCK - 2 SLOTS (2)	90 3308	HEX SCREW SFH M3x8 (10)
		90 3316	HEX SCREW SEH MOXIO (IU)
32 7210	FRONT SUSPENSION PIVOT PIN (2)	96 0030	NUT M3 (10)
32 7210	FRONT ARM PIVOT PIN (2)	96 1025	WASHER S 2.5 (10)
36 2280	ALU CONICAL SHIM 3x6x2.0MM (10)	98 0210	PIN 2x9.8 (10)
		7002.0	\1

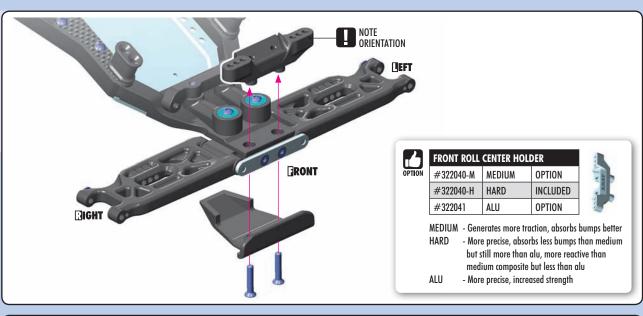




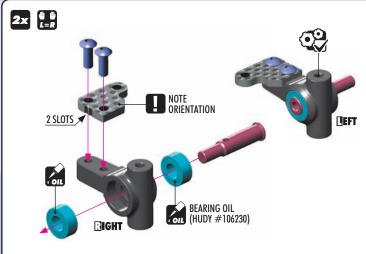


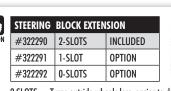














2 SLOTS - Turns outside wheels less, easier to drive, less aggressive

1 SLOT - Between 2 and 0

0 SLOTS - Most aggressive steering, recommended for very technical small tracks



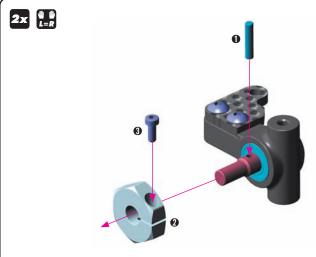
STEERING BLOCK			
#322250-M	MEDIUM	INCLUDED	
#322250-H	HARD	OPTION	

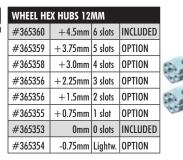


MEDIUM - More steering, more aggressive HARD - Easy to drive, less on-power steering









OPTIONAL HEX HUB EFFECTS

Different offset hex hubs are used to increase or decrease the track-width.

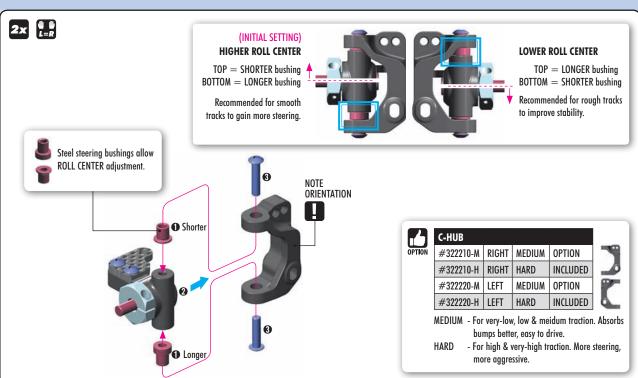
LESS OFFSET

Rear - more traction Rea Front - more steering Fron

MORE OFFSET

Rear - less traction Front - less steering

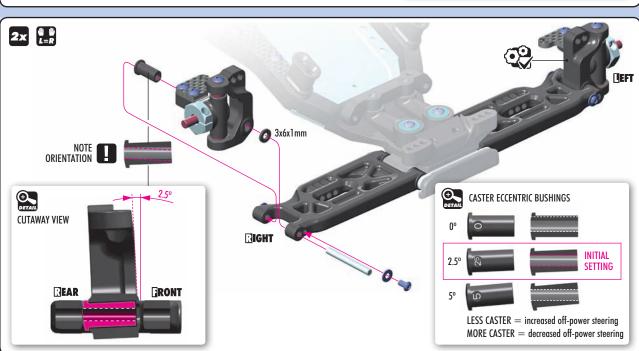


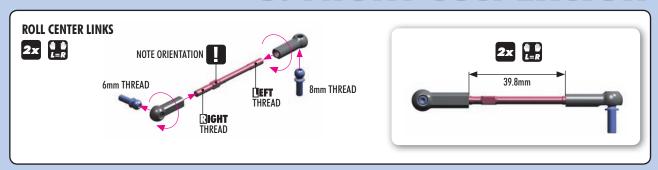




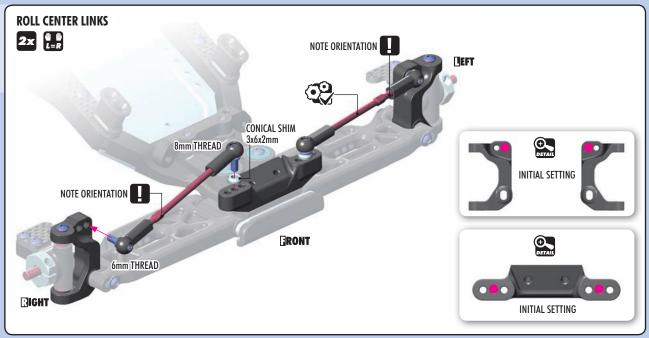


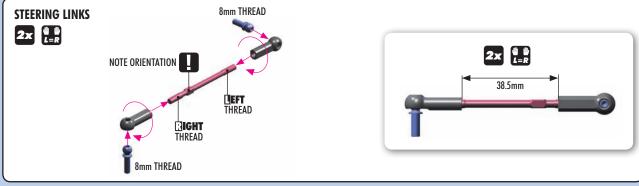






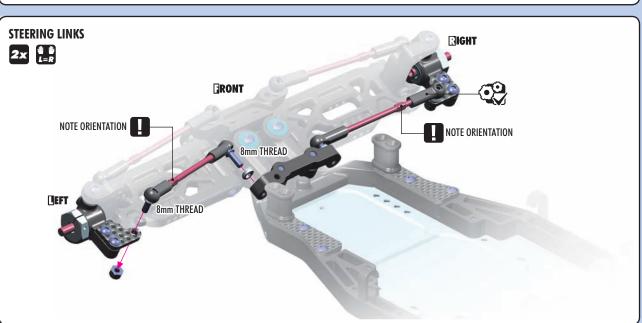






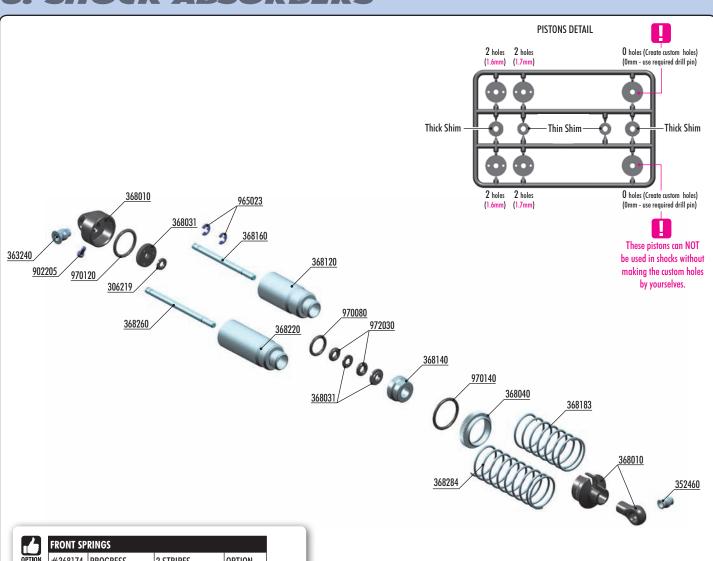


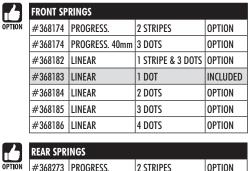




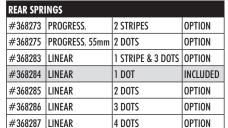
23 2 C'1 E

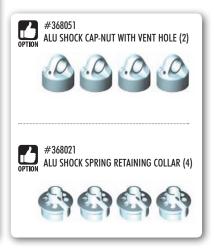
6. SHOCK ABSORBERS







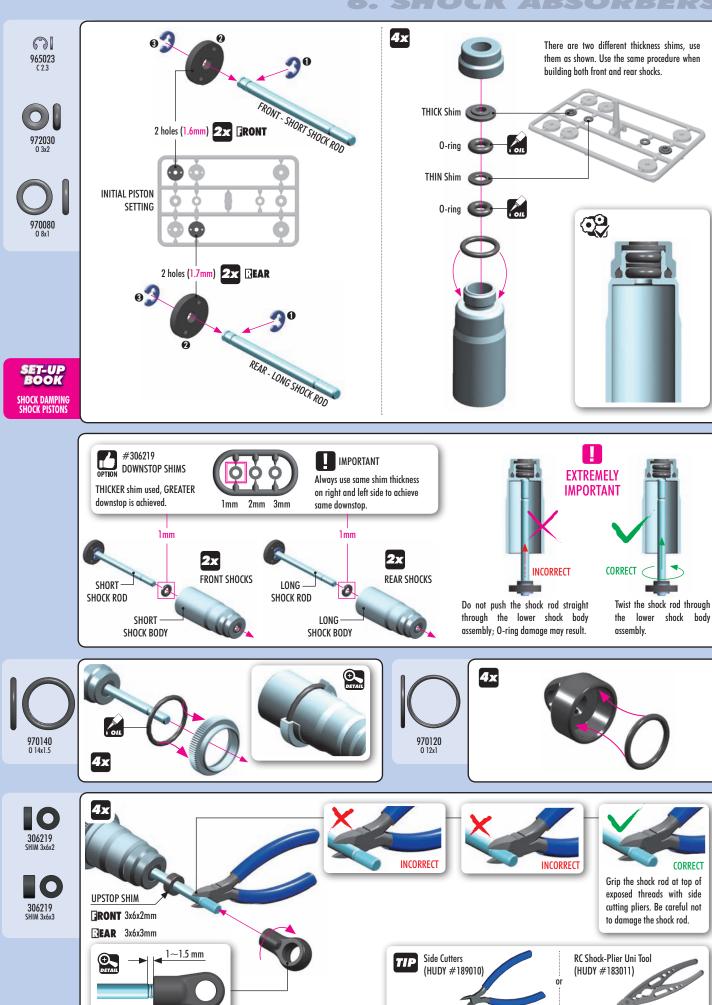






30 6219 35 2460 36 3240 36 8010 36 8031 36 8040 36 8100 36 8120 36 8140 36 8160 36 8174 36 8183 36 8184	COMPOSITE SET OF SERVO SHIMS (4) PIVOT BALL 5.8 - V3 (10) BALL UNIVERSAL 5.8MM WITH BACKSTOP (2) COMPOSITE SHOCK PARTS SHOCK PISTONS - COMPLETE SET - DERLIN - V2 ALU SHOCK ADJUSTABLE NUT (2) FRONT SHOCK ABSORBERS COMPLETE SET (2) ALU FRONT SHOCK BODY - HARD COATED (2) ALU LOWER SHOCK BODY CAP (2) FRONT HARDENED SHOCK SHAFT (2) FRONT SPRING-SET PROGRESSIVE - 2 STRIPES (2) (OPTION) FRONT SPRING-SET LINEAR - 1 DOT (2) FRONT SPRING-SET LINEAR - 2 DOTS (2) (OPTION)	36 8200 36 8220 36 8260 36 8273 36 8284 36 8285 36 8286 36 8287 90 2205 96 5023 97 0080 97 0120	REAR SHOCK ABSORBERS COMPLETE SET (2) ALU REAR SHOCK BODY - HARD COATED (2) REAR HARDENED SHOCK SHAFT (2) REAR SPRING-SET PROGRESSIVE - 2 STRIPES (2) (OPTION) REAR SPRING-SET LINEAR - 1 DOT (2) REAR SPRING-SET LINEAR - 2 DOTS (2) (OPTION) REAR SPRING-SET LINEAR - 3 DOTS (2) (OPTION) REAR SPRING-SET LINEAR - 4 DOTS (2) (OPTION) HEX SCREW SH M2x5 (10) E-CLIP 2.3 (10) O-RING 8x1 (10) O-RING 12 x 1.0 (10)
36 8185 36 8186	FRONT SPRING-SET LINEAR - 3 DOTS (2) (OPTION) FRONT SPRING-SET - 4 DOTS (2) (OPTION)	97 0140 97 2030	O-RING 14 x 1.5 (10) SILICONE O-RING 3x2 (10)

6. SHOCK ABSORBERS



1 =3 =2 (G'1) (E)





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



Extend the shock shaft completely. Fill the shock body with the shock oil. For the FRONT shocks (short) use 700cSt oil. For the REAR shocks (long) use 500cSt oil.



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



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



Gently place the shock cap onto the filled shock body and start to tighten the cup. Tighten the cap fully.



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



Keep the shock shaft pushed in the shock body and insert the screw into the shock cap. Tighten gently.



6x push the shaft up and down.



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

hole in the shock cap.

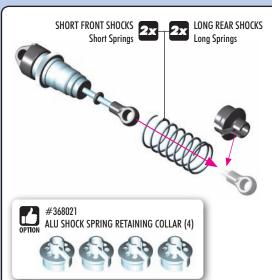


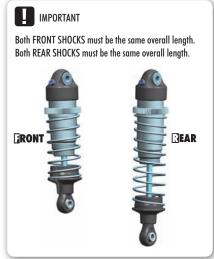
shaft Tighte body. The re gh the



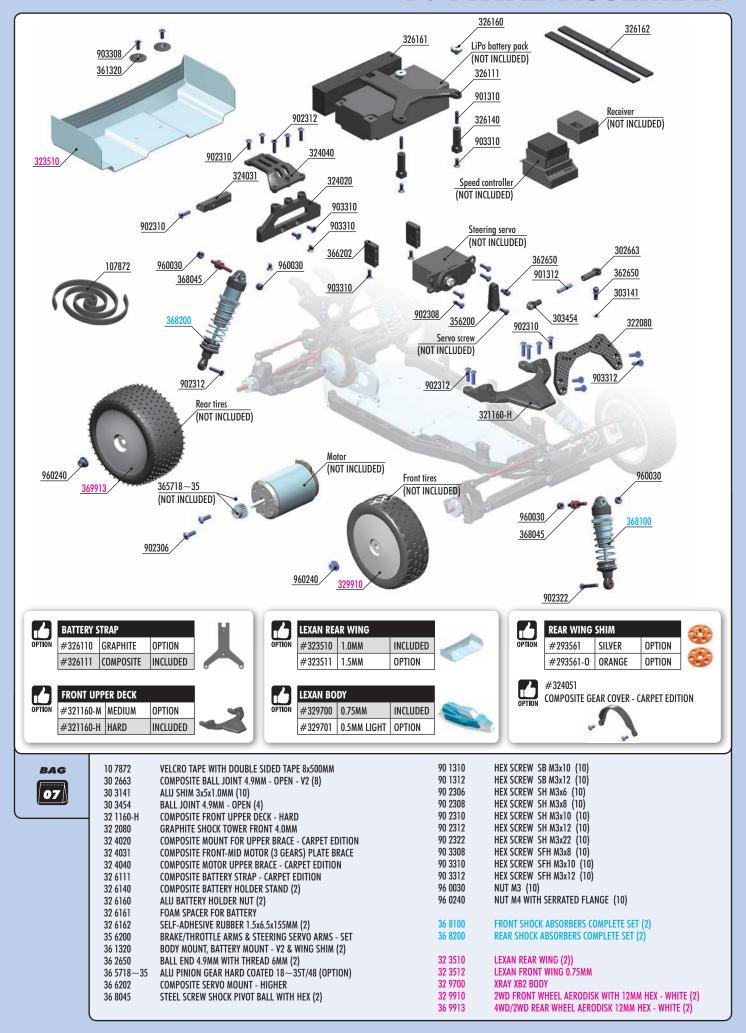
Tighten the screw. The rebound will be at approx. 0%



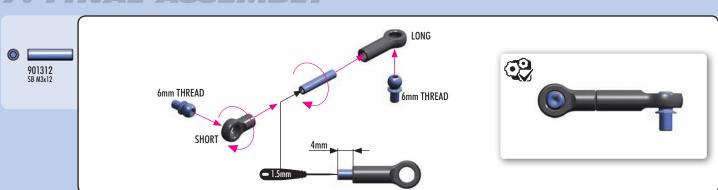




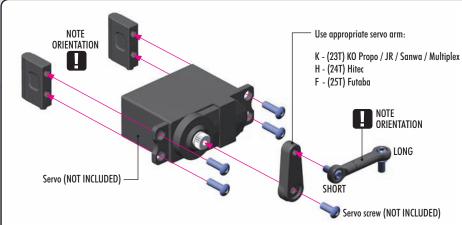


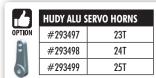


X132C'1E 27





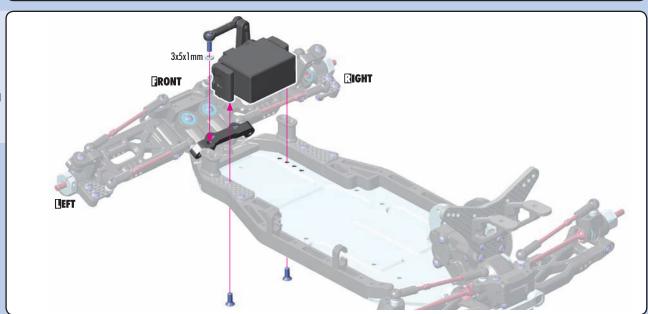




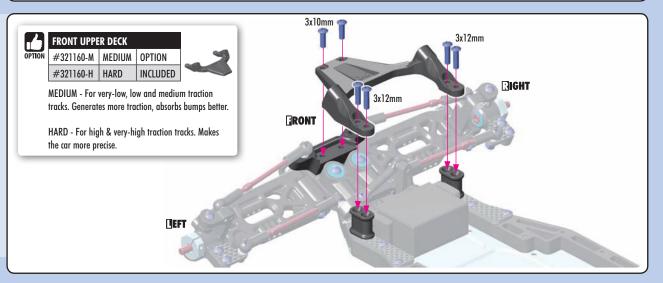
For more in-corner steering and better steering response, aluminum servo horns may be used.



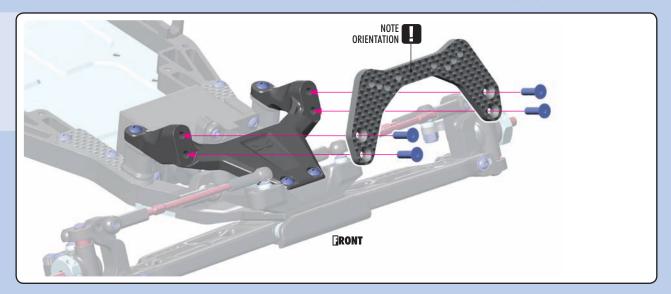






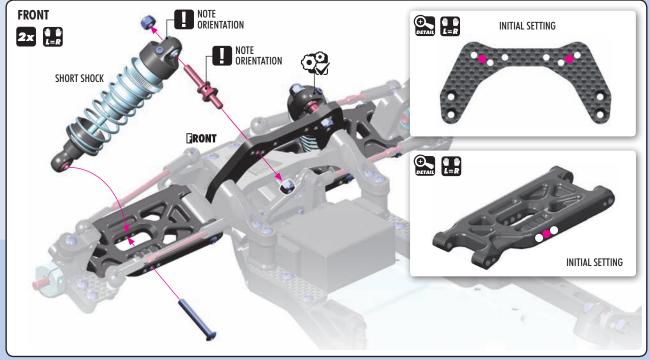




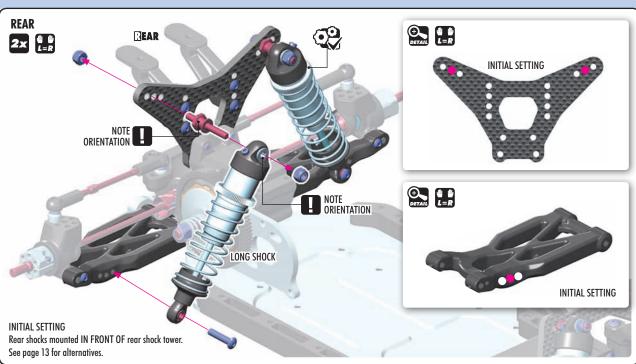






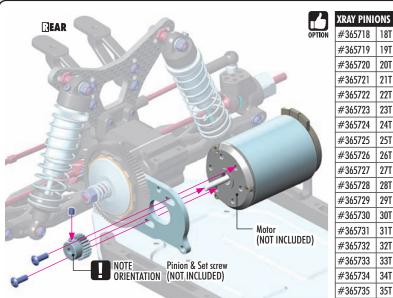






XB2C'IB





#365718	18T / 48P
#365719	19T / 48P
#365720	20T / 48P
#365721	21T / 48P
#365722	22T / 48P
#365723	23T / 48P
#365724	24T / 48
#365725	25T / 48
#365726	26T / 48
#365727	27T / 48
#365728	28T / 48
#365729	29T / 48
#365730	30T / 48
#365731	31T / 48
#365732	32T / 48
#365733	33T / 48
#365734	34T / 48
#365735	35T / 48

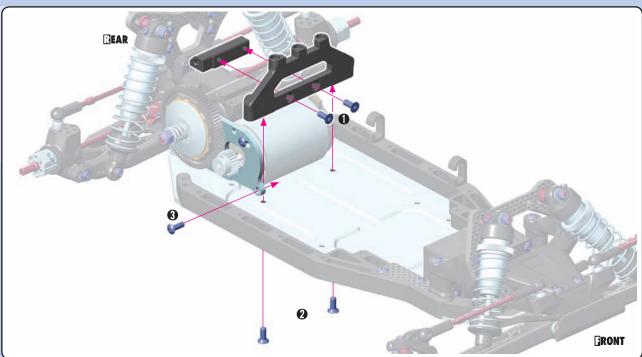


Adjust the motor so the pinion meshes with the spur gear properly. Make sure the gear mesh is not too tight.

There should be a small amount of play between the teeth of the pinion gear and the spur gear.

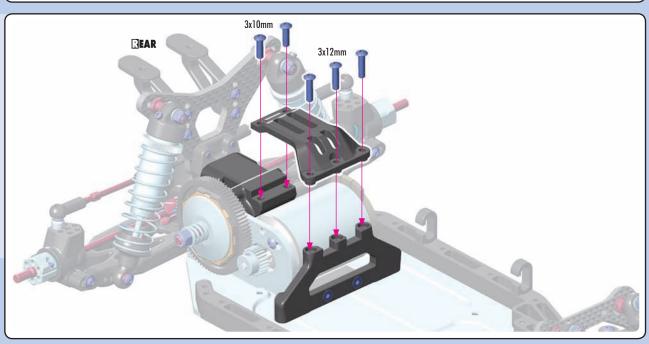


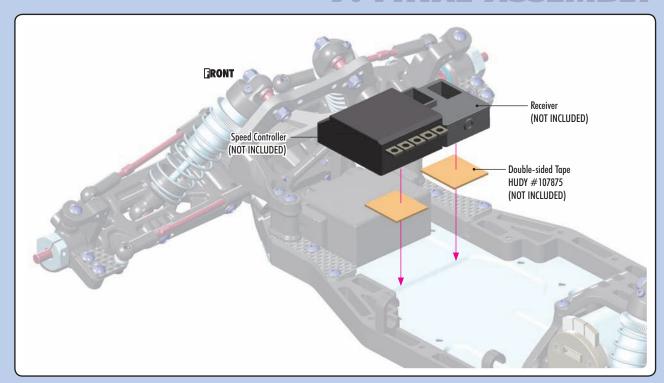




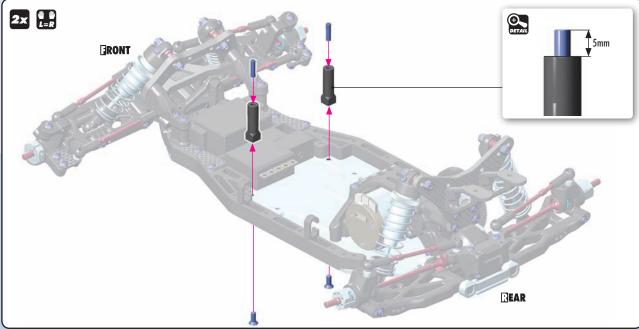


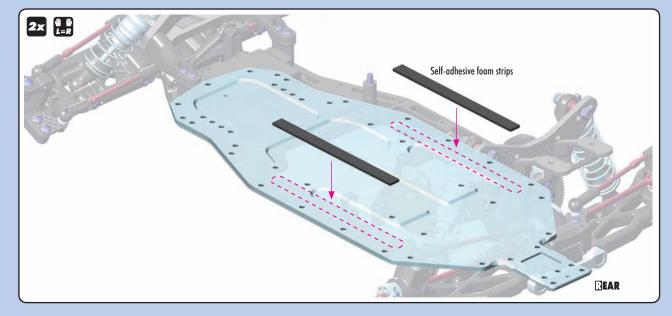




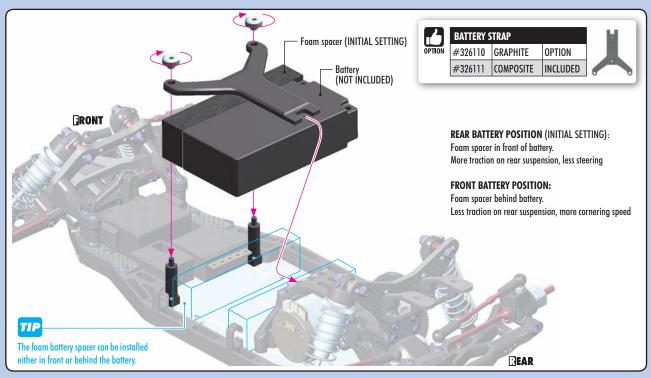


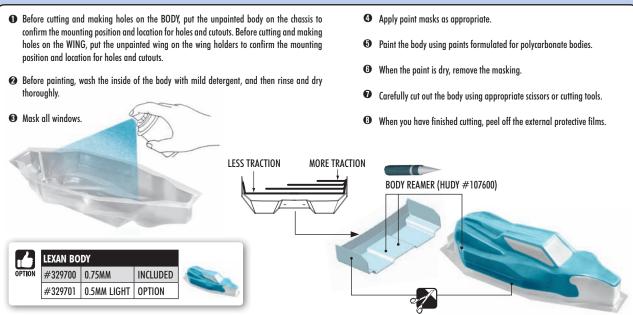


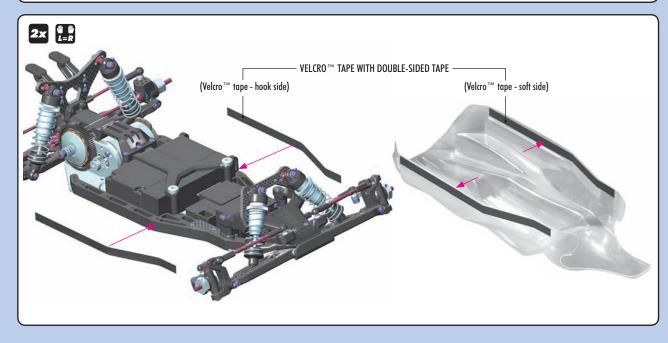




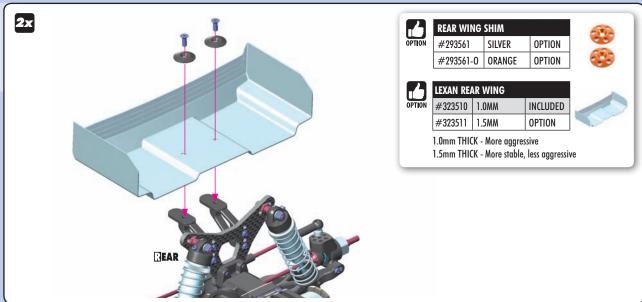
31





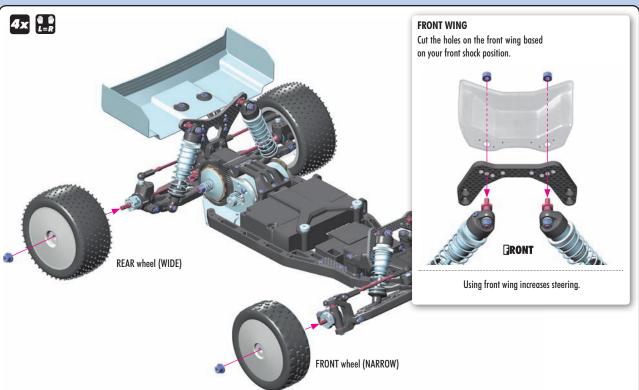














SHOCK MAINTENANCE

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 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.
- 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 must be properly maintained for smooth operation and long lifespan.

The XB2 ball-bearings are degreased and are lubricated with HUDY Bearing Oil. The following procedures are recommended to clean all of the bearings in your off-road car. For high-competition racing, we recommended doing this every 3-4 weeks, or before a major race.

- 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.
- 3 Spray the bearing on both sides again.

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.

- Place one drop of bearing oil into each side of the bearing.
 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

1 Blow both sides of the bearing dry with compressed air to make sure particles come out.

spins free without any abnormal vibrations or sounds.

blue seals in as they will push in too far, bend and cause drag.

• Hold the inner part of the bearing with my left thumb/forefinger and spin it to make sure it

RECOMMENDED PRODUCTS

• Use #106230 HUDY Bearing Oil to lubricate the bearings.

HUDY #106230

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 inspect and replace 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 fade (get lighter) 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.

SET-UP SHEET XRAY XB APPLIED 🔘 **≭** APPLIED RACE STEERING BLOCK LONGER BUSHINGS DRIVE SHAFT **REAR UPRIGHT** TRACK UPPER SHOCK POSITION MEDIUM UP CVD NAME DATE HARD DOWN SHIM SHIM SHIM LAPS **BEST LAP TIME** CAMBER LINK LOCATION MEDIUM **FINAL POSITION** QUALIFYING POSITION HARD **CASTER BLOCK** ALU SIZE TIGHT MEDIUM OPEN MEDIUM HARD TRACTION ററ LOWER SHOCK POSITION LOWER SHOCK POSITION SURFACE SMOOTH MEDIUM BUMPY WING CUTTING LINE UPPER DECK ASTRO TYPE CLAY CARPET FRONT WING WING TYPE YES 🔲 🔲 NO П \Box CONDITION BLUE GROOVE HARD PACKED DRY 1.0mm THICK 🔲 DUSTY LOAMY WET CASTER BUSHINGS 1.5mm THICK 🔲 TRANSMISSION 0° 2.5° 5° SHOCK POSITION DIFFERENTIAL WING POSITION BALL DIFF GEAR DIFF FRONT REAR UP COMPOSITE STEEL SATELITE GEARS KICK-UP o DOWN BUMP STEER SHIM SLIPPER ADJUSTMENT KIT 26° **GEARING** REAR RONT 3 GEARS **GEAR BOX GEAR** 4 GEARS **∳**_OUT PINION **SPUR GEAR** FRONT TOE EXTENSION SIDE GUARD REAR TOE O SLOTS MEDIUM REAR **FIRONT SHOCKS** 1 SLOT HARD OFFSET WHEELBASE SHIM 2 SLOTS **SPRINGS** 1mm 2mm OIL OFFSET WHEELBASE SHIM REBOUND 0mm 🔲 🔲 1mm **UPPER BRACE** PISTONS ROLL CENTER 2 HOLES ø1.2mm 2 HOLES 🔲 ROLL CENTER HOLDER ø1.3mm ROLL CENTER ☐ 3 HOLES (i) 3 HOLES 🔲 ø1.4mm **BATTERY STRAP** MEDIUM ø1.6mm ☐ 6 HOLES COMPOSITE 6 HOLES 🔲 HARD ø1.7mm GRAPHITE ROLL CENTER HOLES HOLDER UPPER DECK 0 DOWNSTOP SHIM COMPOSITE DOWNSTOP SHIM MEDIUM FLEX LINKAGE **SCREW** 9 9 HARD GRAPHITE GUARD BRACE YES NO YES I I NO SOFT - KIT 🔲 🔲 MEDIUM REAR LENGTH LENGTH ROLL CENTER SHIMS RF **UPSTOP SHIM UPSTOP SHIM** 0.5° \[\] \[\] 1° SUSP LEFT = RIGHT 10 HOLDERS ALU 🔲 🔲 BRASS NARROW STEERING PLATE STEERING ARMS KIT **BALL JOINT** Ткіт WIDE COMPOSITE **BUMP STEER SHIM** COMPOSITE 0.5° \[\] \[\] 1° ALU AIII ALU BRASS GRAPHITE COMPOSITE GRAPHITE COMPOSITE FRONT CAMBER REAR CAMBER **REAR ANTI ROLL BAR** THICKNESS YES NO FRONT ARM REAR ARM REAR RONT **TIRES** MEDIUM MEDIUM П **TYPE** HARD HARD **INSERTS** GRAPHITE RIDE HEIGHT GRAPHITE RIDE HEIGHT RIDE HEIGHT WHEELS **ELECTRONICS SERVO WEIGHT** CHASSIS MOTOR STANDARD LOW PROFILE ALU 10 **CHASSIS BRACE** ALU FLEX **SPEEDO** MEDIUM GRAPHITE 0 0 **BATTERIES** HARD BALANCE BALANCE SERVO POSITION **ELECTRONICS LAYOUT** MOTOR POSITION MIDDLE REAR **CHASSIS FLEX** FRONT 0 ARM MOUNT FRONT REAR SCREW USED **BATTERY POSITION** MIDDLE COMPOSITE SCREW NOT USED **BOD**\ ALU D_ BRASS STANDARD LIGHT OTHER

www.feamxray.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















