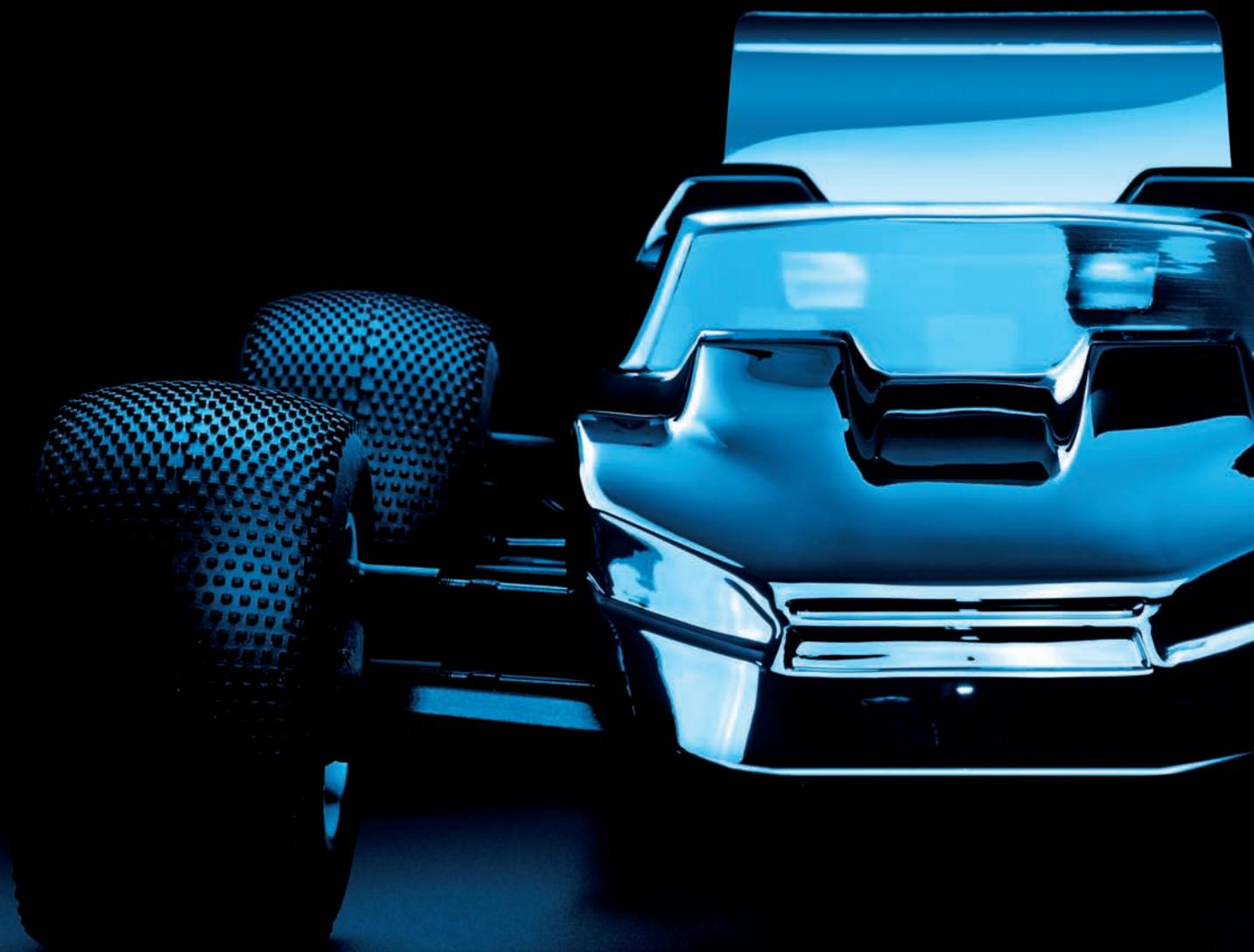


1/10 LUXURY ELECTRIC STADIUM TRUCK

XTRAY XT2



INSTRUCTION MANUAL
FOR XT2 '21 EDITION

BEFORE YOU START

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

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

CUSTOMER SUPPORT

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

You can join thousands of XRAY fans and enthusiasts in our online community at:

www.teamxray.com

Read carefully and fully understand the instructions before beginning assembly.

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

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

XRAY Europe

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

XRAY USA

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

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

SAFETY PRECAUTIONS

Contains:

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

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

CAUTION: CANCER HAZARD

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

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

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

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

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



IMPORTANT NOTES - GENERAL

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

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

IMPORTANT NOTES - ELECTRICAL

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

R/C & BUILDING TIPS

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

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

WARRANTY

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

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

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

Limitations of Liability

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

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

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

QUALITY CERTIFICATE

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

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

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

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

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

TOOLS REQUIRED



Combination Pliers
(HUDY #189020)



Side Cutters
(HUDY #189010)



Pocket Hobby Knife (HUDY #188981)



Special Tool for turnbuckles, nuts (HUDY #181090)



Turnbuckle Wrench 3mm (HUDY #181030)



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



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



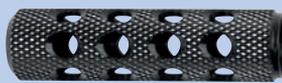
Arm Reamer 3.0mm (#107643 - HUDY EXCLUSIVE Limited Edition)



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



Socket 7.0mm (#177035 - HUDY EXCLUSIVE Limited Edition)



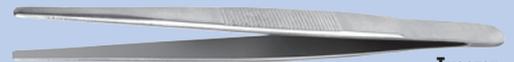
Reamer (#107602 - HUDY EXCLUSIVE Limited Edition)



Scissors (HUDY #188990)



Professional Multi Tool
(HUDY #183011)



Tweezer

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

650cSt (#106365)
HUDY Premium
Silicone Oils



500cSt (#106350)
HUDY Premium
Silicone Oils



10.000cSt (#106510)
HUDY Premium
Silicone Oils



CARPET

(HUDY #106211)
Premium
Diff Grease



DIRT

(HUDY #106210)
Premium
Graphite Grease



EQUIPMENT REQUIRED

Transmitter



Receiver



Speed Controller



Steering Servo



Electric Motor & Pinion Gear
with Setscrew



LiPo Battery



Battery Charger



Double-sided Tape
(HUDY #107875)



Lexan™ Paint



4x Tires & Inserts



Bearing Oil
(HUDY #106230)



Threadlock



CA glue



NOT INCLUDED



Follow 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.



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

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

COLOR INDICATIONS

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

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

- 321200** **STYLE 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.

TECH TIPS

TIP DRIVE SHAFT PIN SERVICING

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



Do not use drive shafts when the pins are worn.

Press out the worn pins.

Press in new pins and regularly inspect for wear.



For quick & easy drive pin replacements use #106000 HUDY Drive Pin Replacement Tool together with #106036 Ejector Pivot Pin & Alternating Pivot 2.5mm.



To replace the worn pins use only premium HUDY drive pins #106053.

MANUAL STEPS ONLY FOR DIRT

1. BALL DIFFERENTIAL **DIRT**

MANUAL STEPS ONLY FOR CARPET

1. GEAR DIFFERENTIAL **CARPET**

MANUAL DUAL STEPS FOR CARPET AND DIRT

3. REAR DRIVETRAIN **CARPET** **DIRT**

1. GEAR DIFFERENTIAL



GEAR DIFE CASE

#324911	HARD	INCLUDED
#324911-G	GRAPHITE	OPTION
GEAR DIFE PULLEY		
#324954	HARD	INCLUDED
#324954-G	GRAPHITE	OPTION



#325100
XRAY XB2 ACTIVE
DIFFERENTIAL - SET

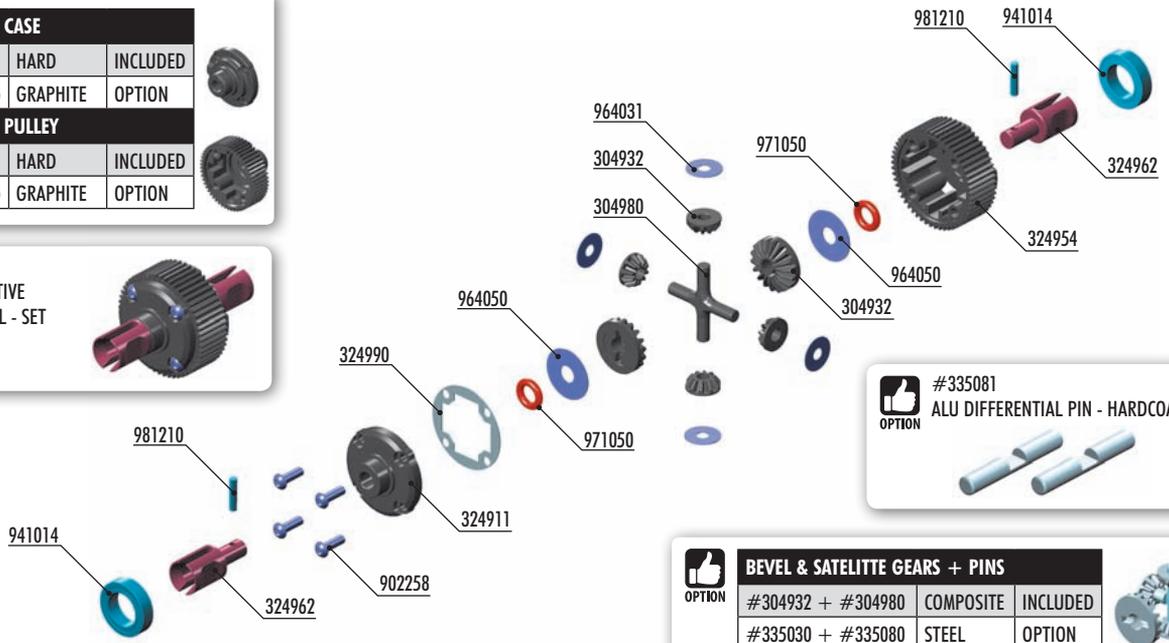


#335081
ALU DIFFERENTIAL PIN - HARDCOATED (2)



BEVEL & SATELLITE GEARS + PINS

#304932 + #304980	COMPOSITE	INCLUDED
#335030 + #335080	STEEL	OPTION



BAG

01

- 304932 GRAPHITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)
- 304980 COMPOSITE GEAR DIFF CROSS PIN
- 324990 DIFF GASKET (4)
- 324902 GEAR DIFFERENTIAL - LCG - SET
- 324911 COMPOSITE GEAR DIFFERENTIAL COVER - LCG
- 324954 COMPOSITE GEAR DIFFERENTIAL CASE - LCG - 53T
- 324962 GEAR DIFF OUTDRIVE ADAPTER - LCG - HUDY SPRING STEEL™ (2)

- 902258 HEX SCREW SH M2.5x8 (10)
- 941014 BALL-BEARING 10x15x4 RUBBER SEALED - GREASE (2)
- 964031 WASHER S 3.5x10x0.2 (10)
- 964050 WASHER S 5x15x0.3 (10)
- 971050 SILICONE O-RING 5x1.5 (10)
- 981210 PIN 2x10 (10)



964050
S 5x15x0.3

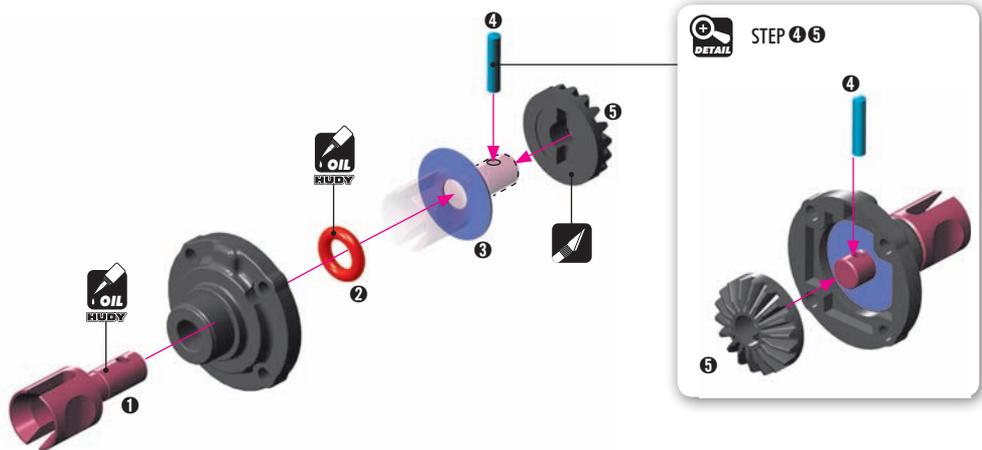


971050
O 5x1.5



981210
P 2x10

2x



STEP 4 5



964050
S 5x15x0.3



971050
O 5x1.5



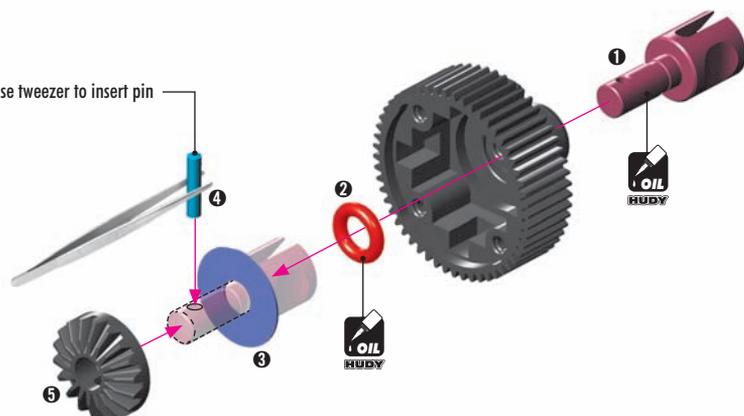
981210
P 2x10



NOTE ORIENTATION

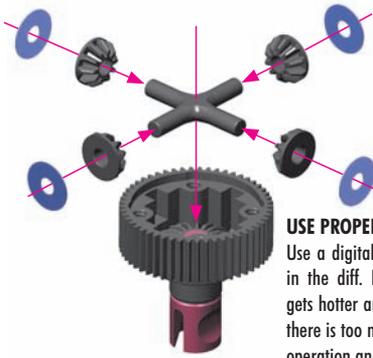


Use tweezers to insert pin





964031
S 3.5x10x0.2



USE PROPER AMOUNT OF OIL IN THE DIFFS

Use a digital scale to measure the exact amount of oil in the diff. Remember that during operation the diff gets hotter and the heat may allow the oil to expand. If there is too much oil inside it may interfere with the diff operation and damage the internal gears.



Rear diff

Silicone oil 10.000cSt
Fill just above the diff pin.



Fill differential up to the top of the diff pin.



DO NOT fill the diff to the top of the housing.



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



1 Put the diff (without oil) on the scale and check the weight (approximately 11.92g)

$$11.92g + 1.30g = 13.22g$$

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



2 Slowly pour oil into the diff and watch the weight. Add 1.30g of oil into the diff. The approximate weight of the diff including oil is 13.22g.

TIP TIPS FOR REAR DIFFERENTIAL

- LOW-MEDIUM TRACTION 10.000cSt (HUDY #106510)
- MEDIUM-HIGH TRACTION 15.000cSt (HUDY #106515)

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



HUDY ULTIMATE SILICONE OILS

OPTION	Part #	Oil Type	Volume	Status
	#106450	5.000cSt	50ml	OPTION
	#106460	6.000cSt	50ml	OPTION
	#106470	7.000cSt	50ml	OPTION
	#106480	8.000cSt	50ml	OPTION
	#106490	9.000cSt	50ml	OPTION
	#106510	10.000cSt	50ml	INCLUDED
	#106492	11.000cSt	50ml	OPTION
	#106512	12.000cSt	50ml	OPTION
	#106515	15.000cSt	50ml	OPTION
	#106520	20.000cSt	50ml	OPTION

SET-UP BOOK

DIFFERENTIAL OIL



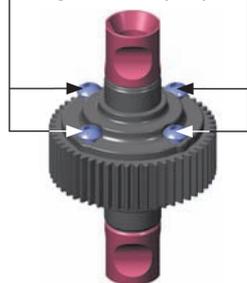
902258
SH M2.5x8



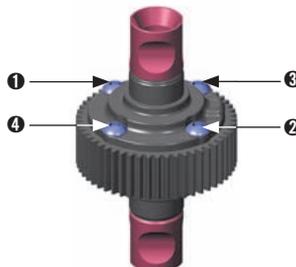
941014
BB 10x15x4



Tighten the screws equally but do NOT tighten them completely.



Finish tightening in this order.



Use HUDY Ball-Bearing Grease

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



1. BALL DIFFERENTIAL

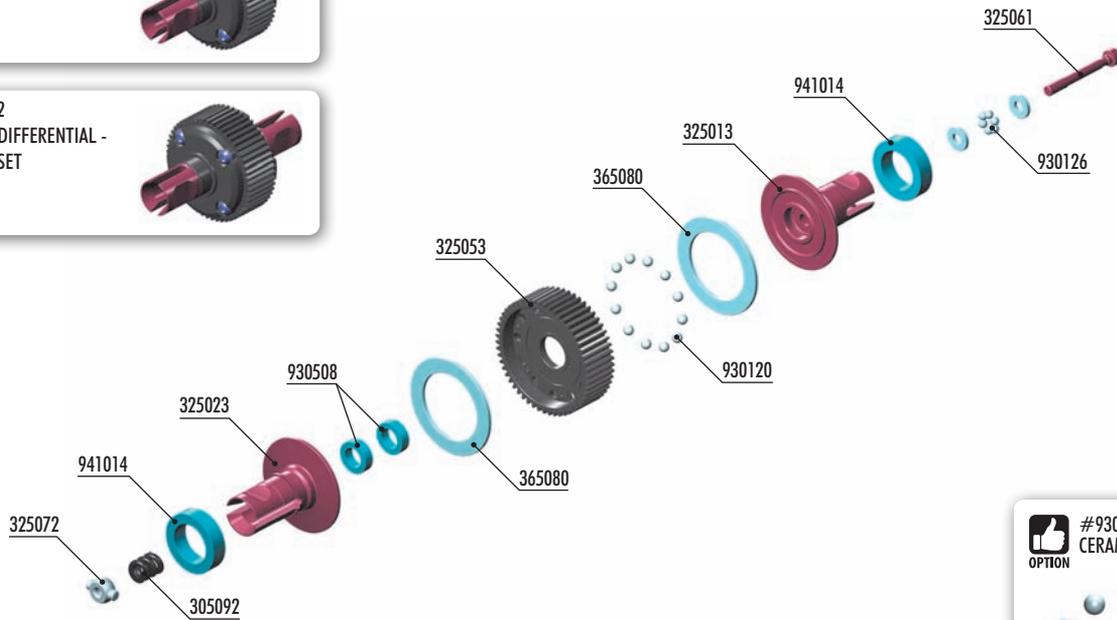
DIRT



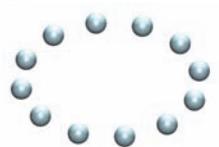
#325100
XRAY XB2 ACTIVE
DIFFERENTIAL - SET



324902
GEAR DIFFERENTIAL -
LCG - SET



#930220
CERAMIC BALL 2.4MM (12)



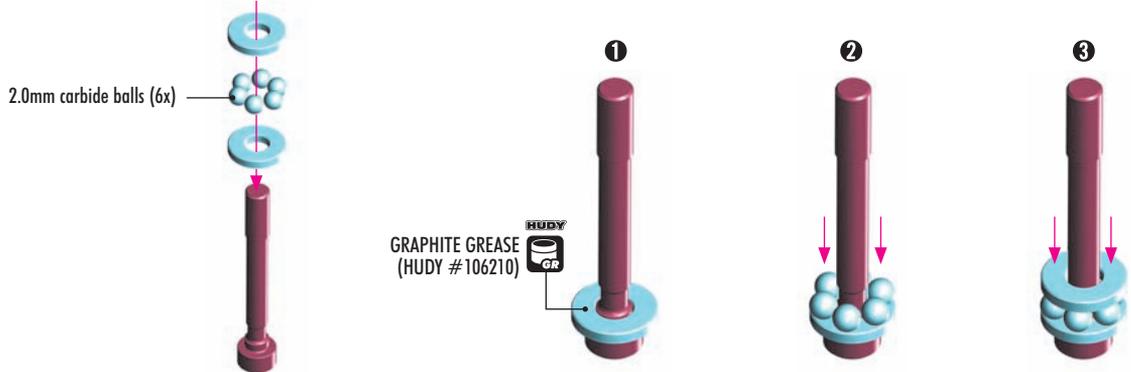
BAG

01

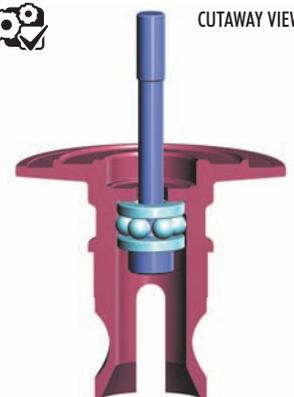
305092	BALL DIFFERENTIAL SPRING	325072	ALU BALL DIFFERENTIAL NUT
325003	BALL ADJUSTABLE DIFFERENTIAL - LCG - SET - HUDY SPRING STEEL™	365080	DIFF WASHER 17 x 24.5 x 1 (2)
325013	BALL DIFFERENTIAL SHORT OUTPUT SHAFT - LCG - HUDY SPRING STEEL™	930120	CARBIDE BALL 2.4MM FOR BALL DIFF (12)
325023	BALL DIFFERENTIAL LONG OUTPUT SHAFT - LCG - HUDY SPRING STEEL™	930126	CARBIDE BALL-BEARING AXIAL 2.6x6x1
325053	COMPOSITE BALL DIFFERENTIAL GEAR 53T	930508	BALL-BEARING 5x8x2.5 STEEL SEALED - OIL (2)
325061	SCREW FOR BALL DIFF ADJUSTMENT - SPRING STEEL™	941014	BALL-BEARING 10x15x4 RUBBER SEALED - GREASE (2)



930126
BA 2.6x6x1



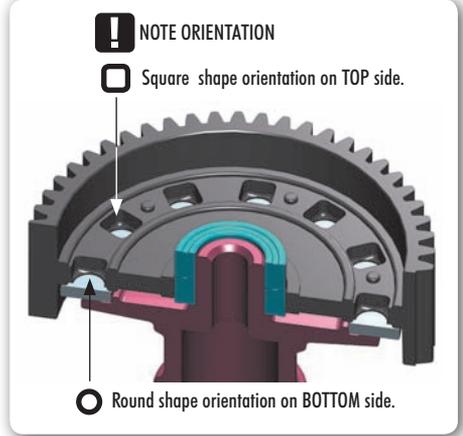
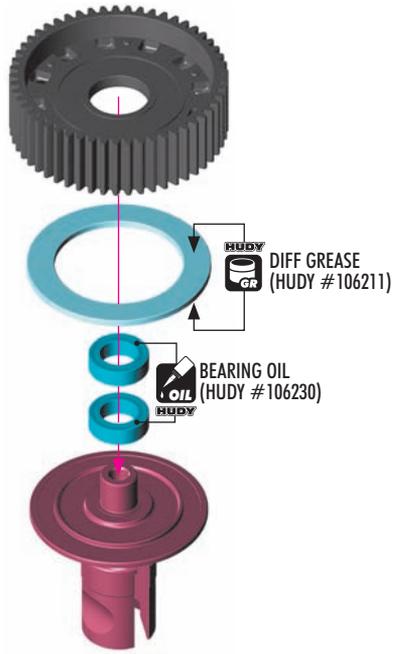
CUTAWAY VIEW



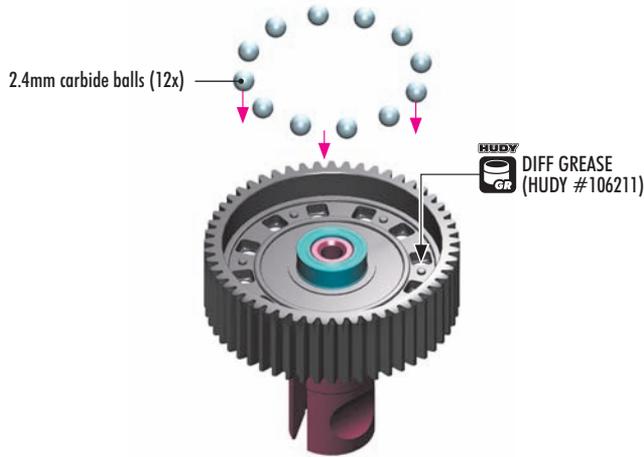
1. BALL DIFFERENTIAL



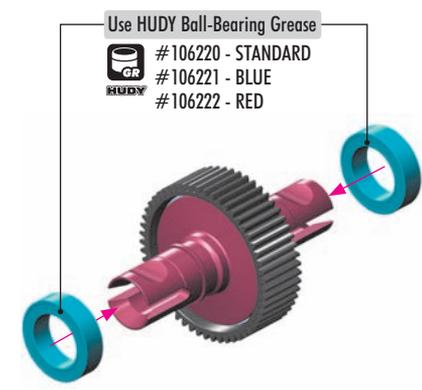
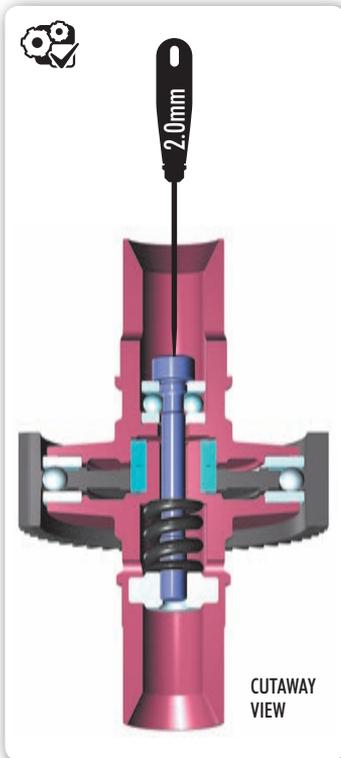
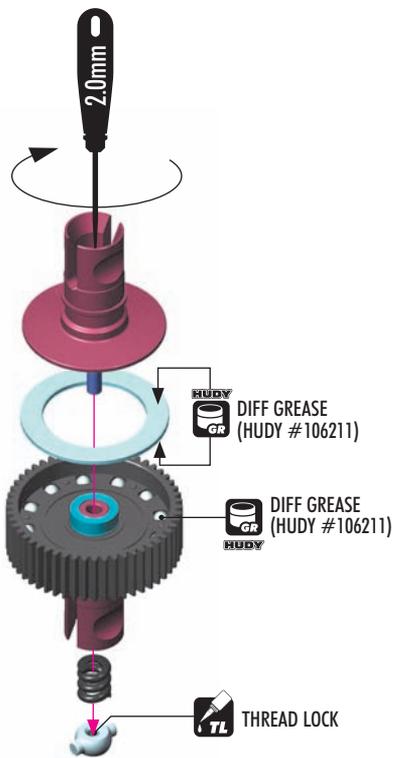
930508
BB 5x8x2.5



930120
B 2.4



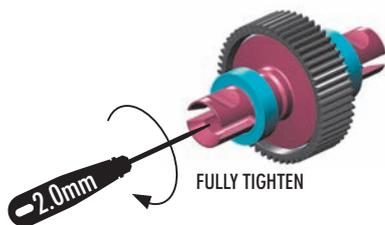
941014
BB 10x15x4



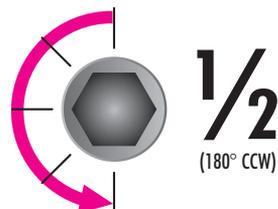
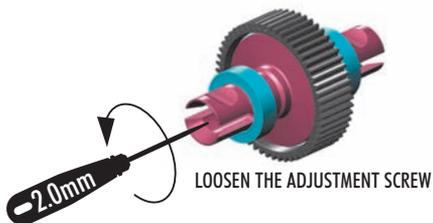


BEFORE RACING, follow these steps to properly break in the differential.

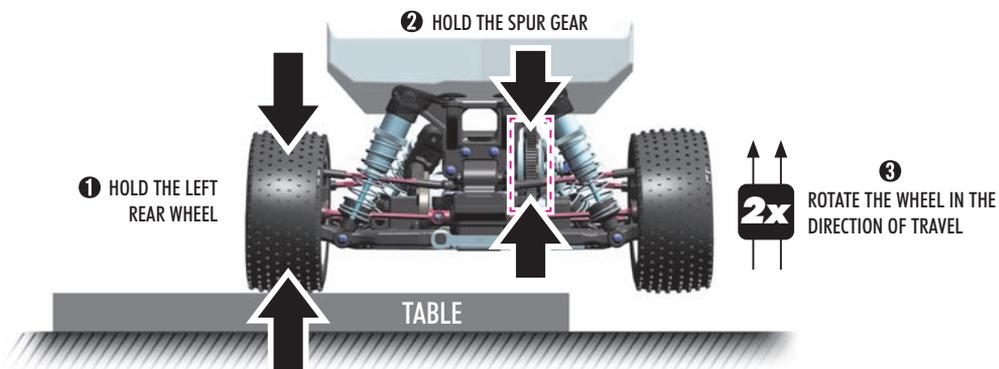
1



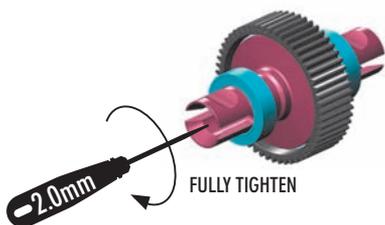
2 Loosen the adjustment screw 1/2 turn (180° CCW).



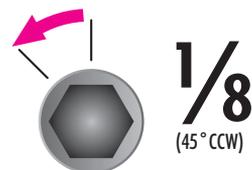
3



4



5 LOOSEN THE ADJUSTMENT SCREW 1/8 TURN (45° CCW).

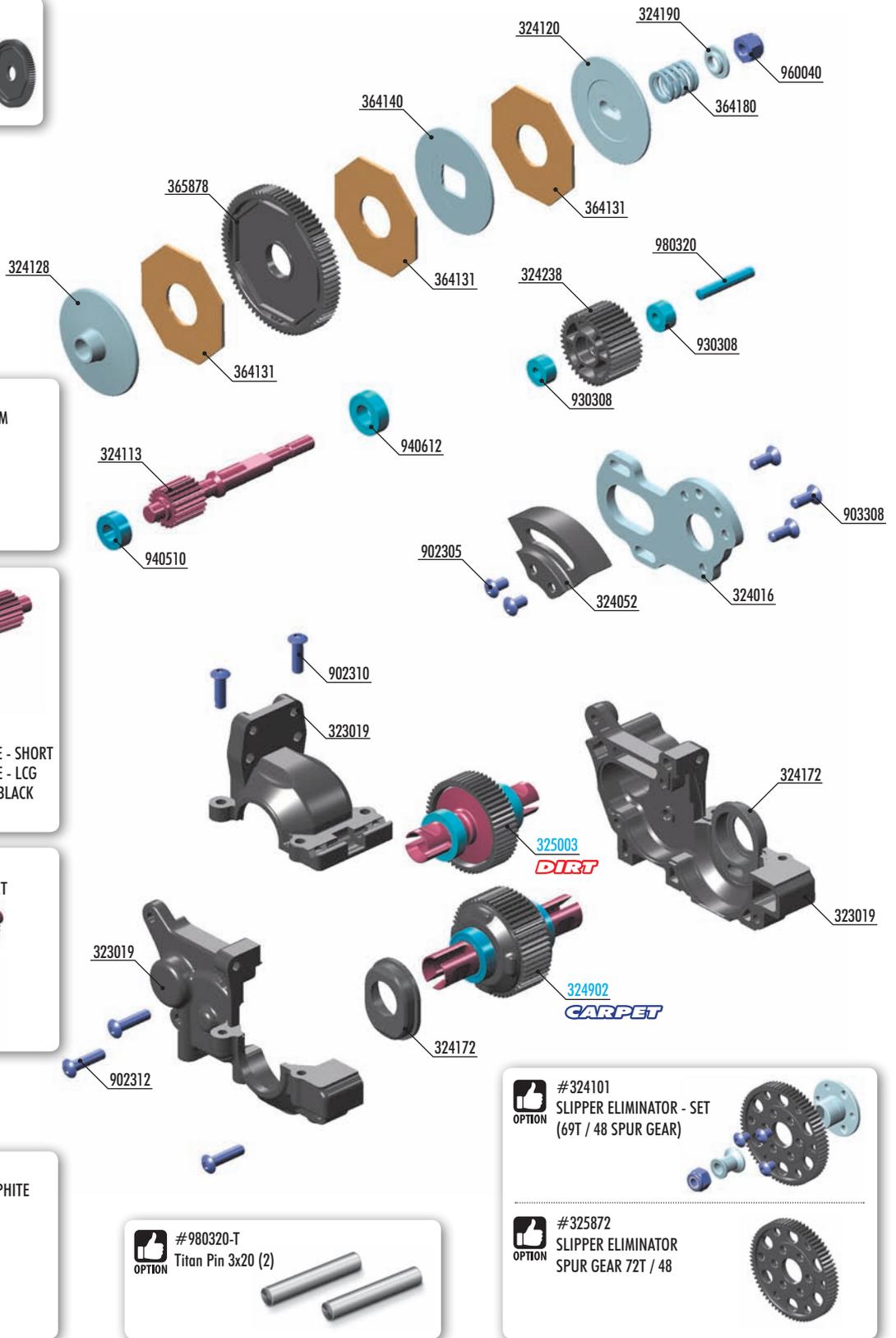


BALL DIFFERENTIAL IS NOW READY



SLIPPER CLUTCH SPUR GEARS

#365875	75T / 48	OPTION
#365878	78T / 48	INCLUDED
#365881	81T / 48	OPTION



#324017
GRAPHITE MOTOR PLATE - LCG - 3.0MM



2-PAD SLIPPER



- #324114 ALU 2-PAD TOP SHAFT 20T
- #324126 ALU 2-PAD SLIPPER CLUTCH PLATE - SHORT
- #324129 ALU 2-PAD SLIPPER CLUTCH PLATE - LCG
- #364181 SLIPPER CLUTCH SPRING C=45 - BLACK
- #324191 STEEL SLIPPER CLUTCH NUT



#324102
SOLID AXLE - LCG - LIGHTWEIGHT - SET



#323019-G
FRONT MOTOR GEAR BOX - LCG - GRAPHITE



#980320-T
Titan Pin 3x20 (2)



#324101
SLIPPER ELIMINATOR - SET
(69T / 48 SPUR GEAR)



#325872
SLIPPER ELIMINATOR
SPUR GEAR 72T / 48



BAG

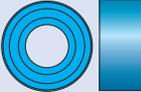
02

- 323019 COMPOSITE FRONT MOTOR GEAR BOX - LCG - SET
- 324016 ALU MOTOR PLATE - LCG - SWISS 7075 T6 (3MM)
- 324052 COMPOSITE GEAR COVER - LCG
- 324113 ALU 3-PAD TOP SHAFT 20T - LCG - SWISS 7075 T6 - HARD COATED
- 324120 ALU 3-PAD SLIPPER CLUTCH PLATE - SWISS 7075 T6
- 324128 ALU 3-PAD SLIPPER CLUTCH PLATE WITH ADAPTER - LCG
- 324172 COMPOSITE ADJUSTMENT BALL-BEARING HUB (2)
- 324190 ALU 3-PAD SLIPPER CLUTCH SHIM
- 324238 COMPOSITE GEAR 38T - LCG - GRAPHITE
- 364131 SLIPPER CLUTCH PAD SLS - SOFT (3)
- 364140 ALU 3-PAD SLIPPER CLUTCH PLATE DISC - 7075 T6
- 364180 SLIPPER CLUTCH SPRING C=30 - BLACK
- 365878 COMPOSITE 3-PAD SLIPPER CLUTCH SPUR GEAR 78T / 48

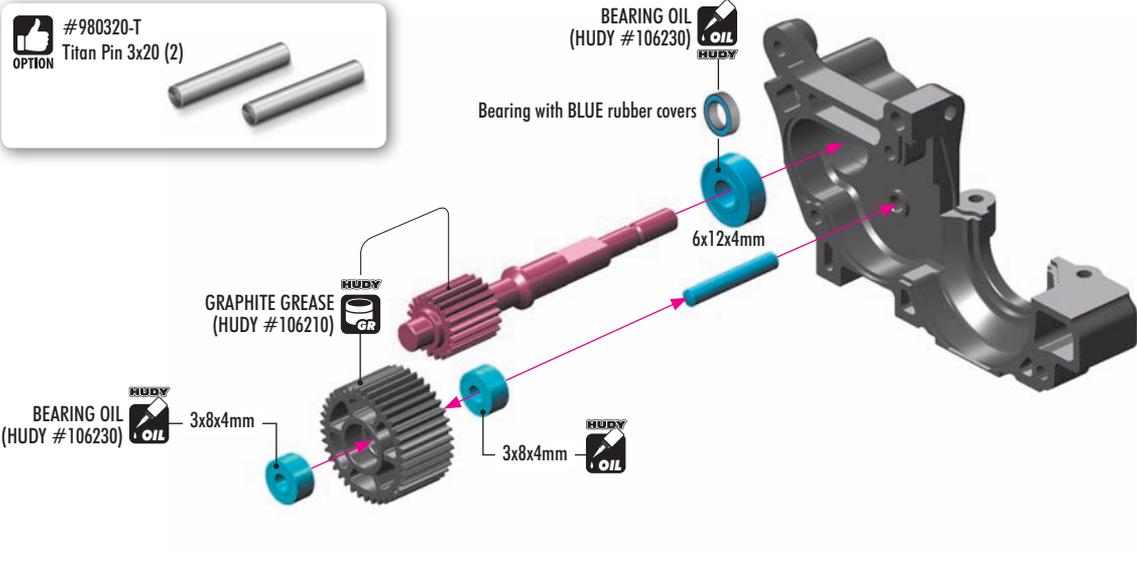
- 902305 HEX SCREW SH M3x5 (10)
- 902310 HEX SCREW SH M3x10 (10)
- 902312 HEX SCREW SH M3x12 (10)
- 903308 HEX SCREW SFH M3x8 (10)
- 930308 BALL-BEARING 3x8x4 STEEL SEALED - OIL (2)
- 940510 BALL-BEARING 5x10x4 RUBBER SEALED - OIL (2)
- 940612 BALL-BEARING 6x12x4 RUBBER SEALED - OIL (2)
- 960040 NUT M4 (10)
- 980320 PIN 3x20 (10)

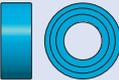
- 324902 GEAR DIFFERENTIAL - LCG - SET
- 325003 BALL ADJUSTABLE DIFFERENTIAL - LCG - SET - HUDY SPRING STEEL™

2. REAR TRANSMISSION **CARPET** **DIRT**

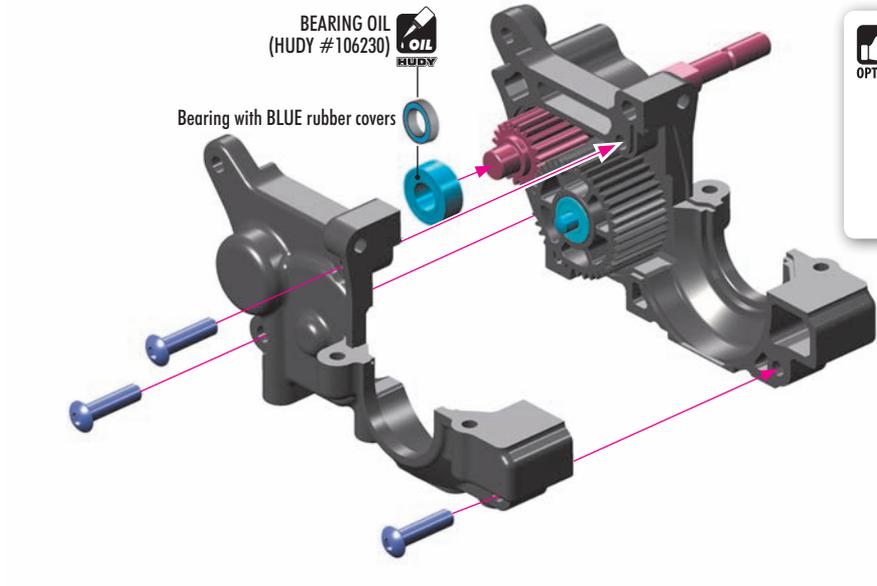
-  930308
BB 3x8x4
-  940612
BB 6x12x4
-  980320
P 3x20

#980320-T
Titan Pin 3x20 (2)
OPTION



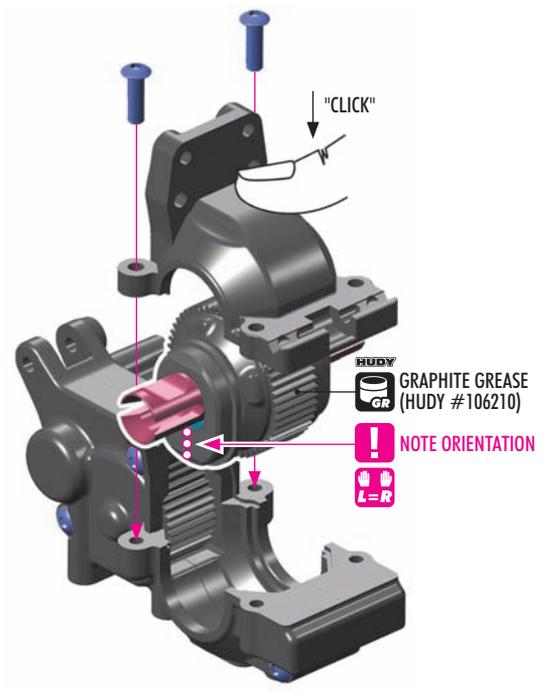
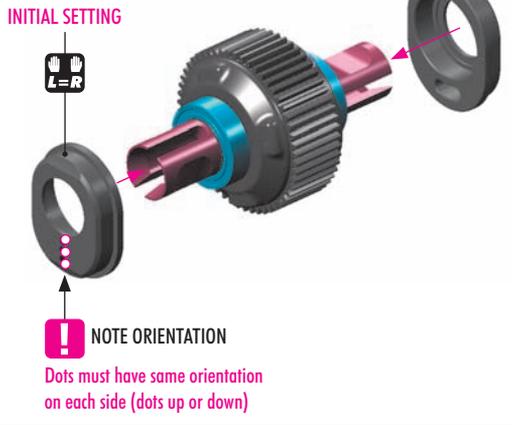
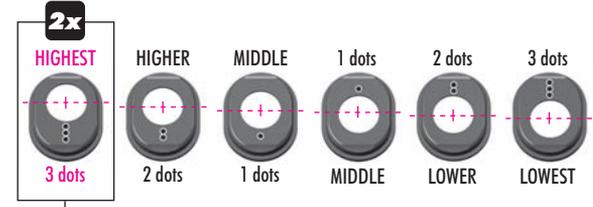
-  902312
SH M3x12
-  940510
BB 5x10x4

#323019-G
FRONT MOTOR GEAR BOX - LCG - GRAPHITE
OPTION



-  902310
SH M3x10

DIFFERENTIAL HEIGHT ADJUSTMENT



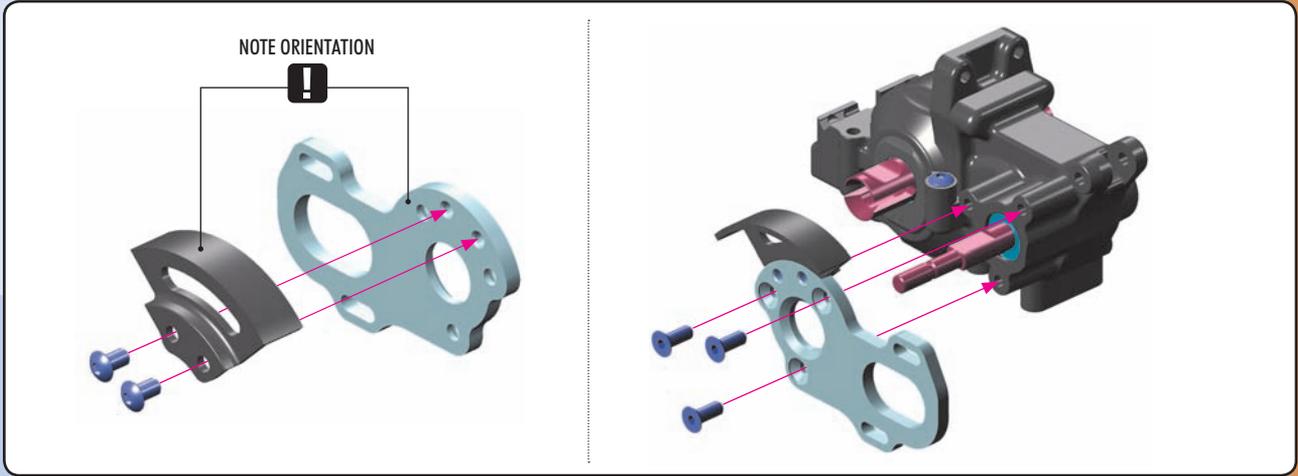
2. REAR TRANSMISSION **CARPET** **DIRT**



902305
SH M3x5



903308
SFH M3x8

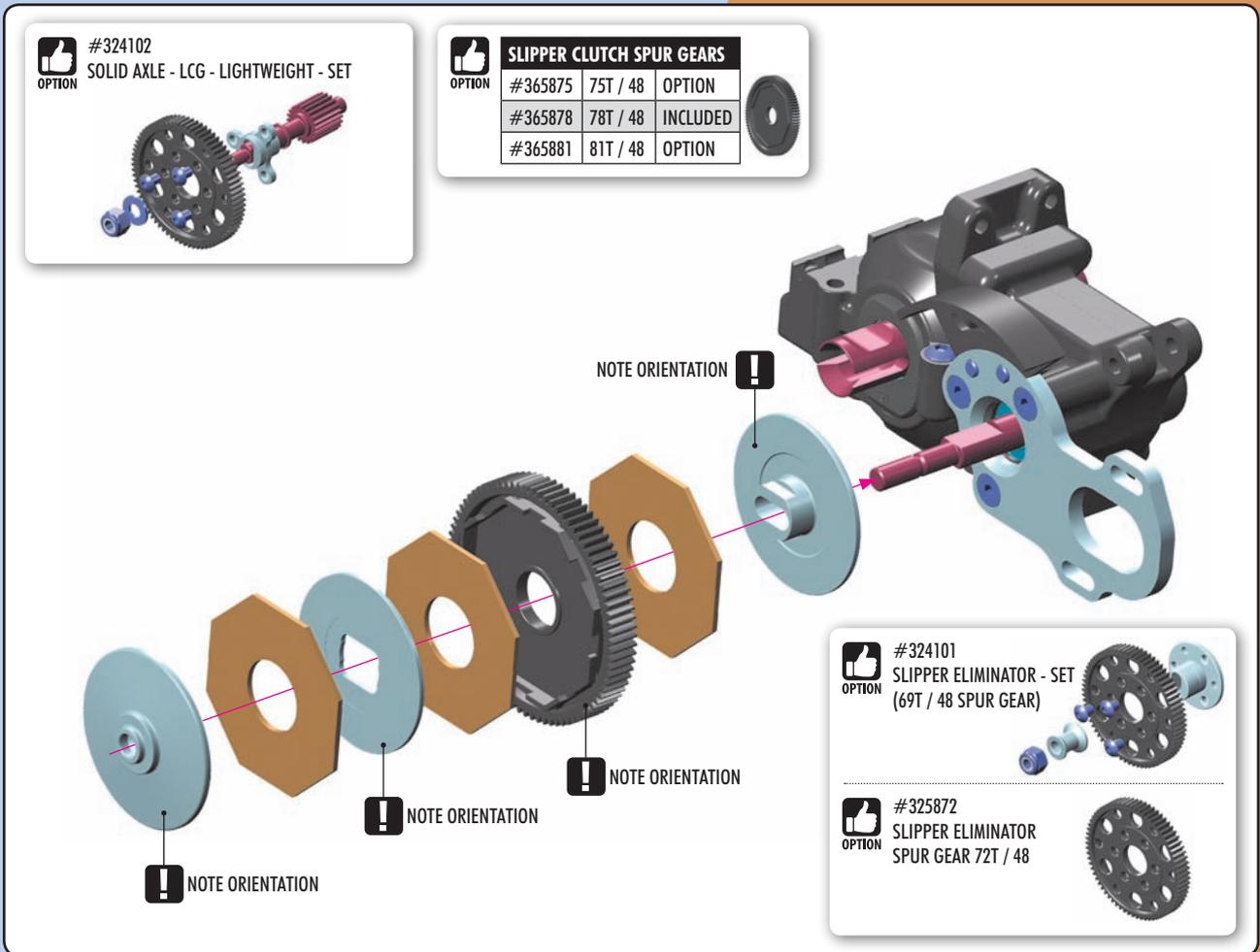


#324102
SOLID AXLE - LCG - LIGHTWEIGHT - SET



SLIPPER CLUTCH SPUR GEARS

#365875	75T / 48	OPTION
#365878	78T / 48	INCLUDED
#365881	81T / 48	OPTION



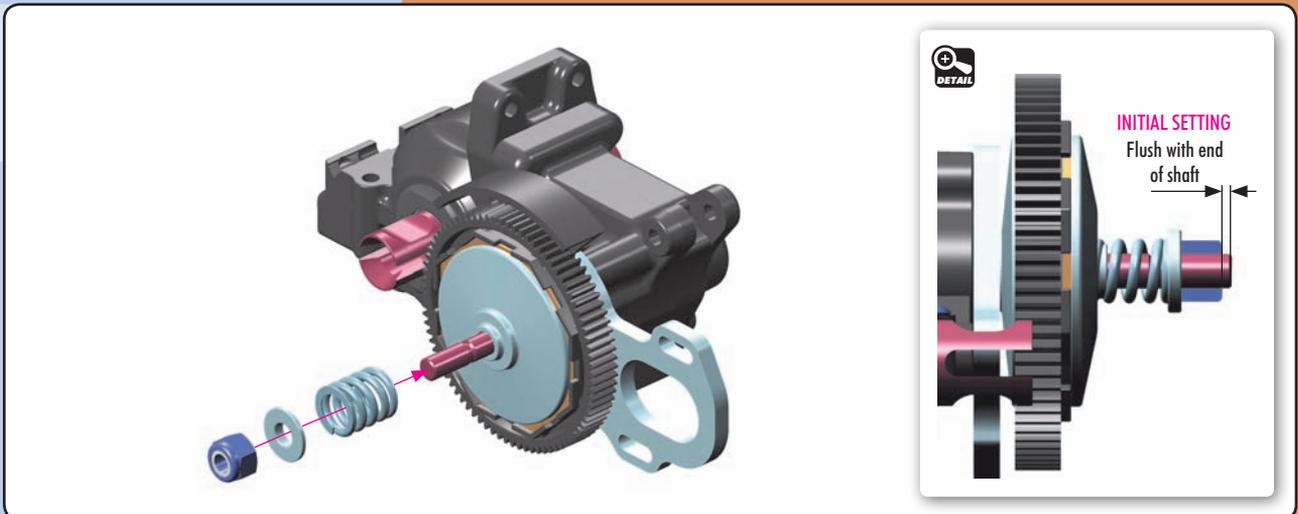
#324101
SLIPPER ELIMINATOR - SET
(69T / 48 SPUR GEAR)



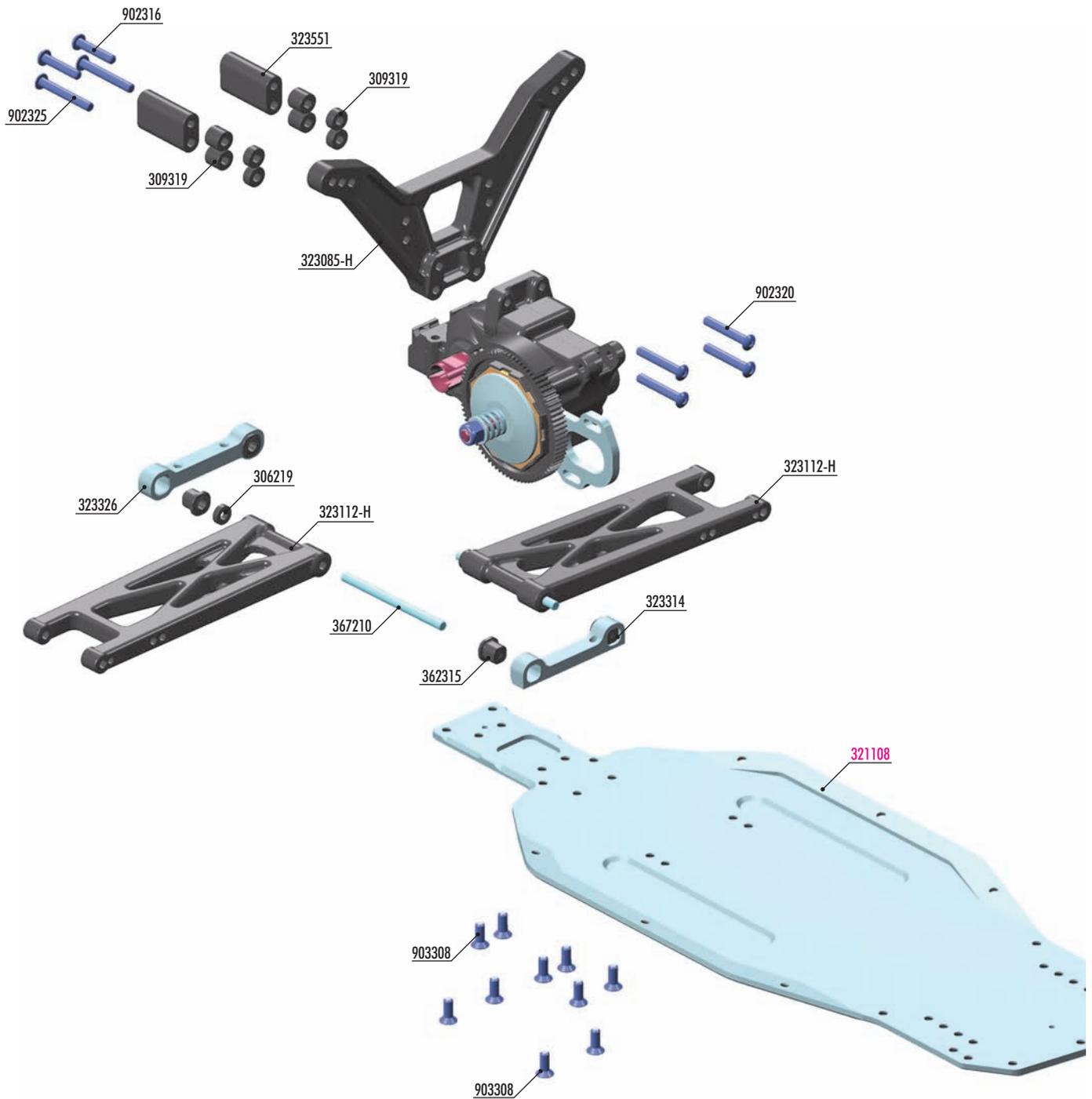
#325872
SLIPPER ELIMINATOR
SPUR GEAR 72T / 48



960040
N M4



3. REAR SUSPENSION **CARPET** **DIRT**



REAR SUSPENSION ARMS

#	DESCRIPTION	STATUS
#323112-M	MEDIUM	OPTION
#323112-H	HARD	INCLUDED
#323112-G	GRAPHITE	OPTION



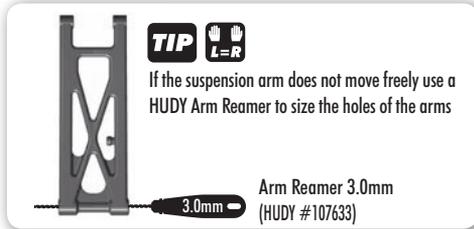
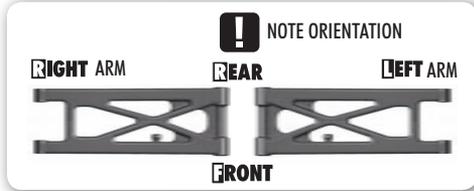
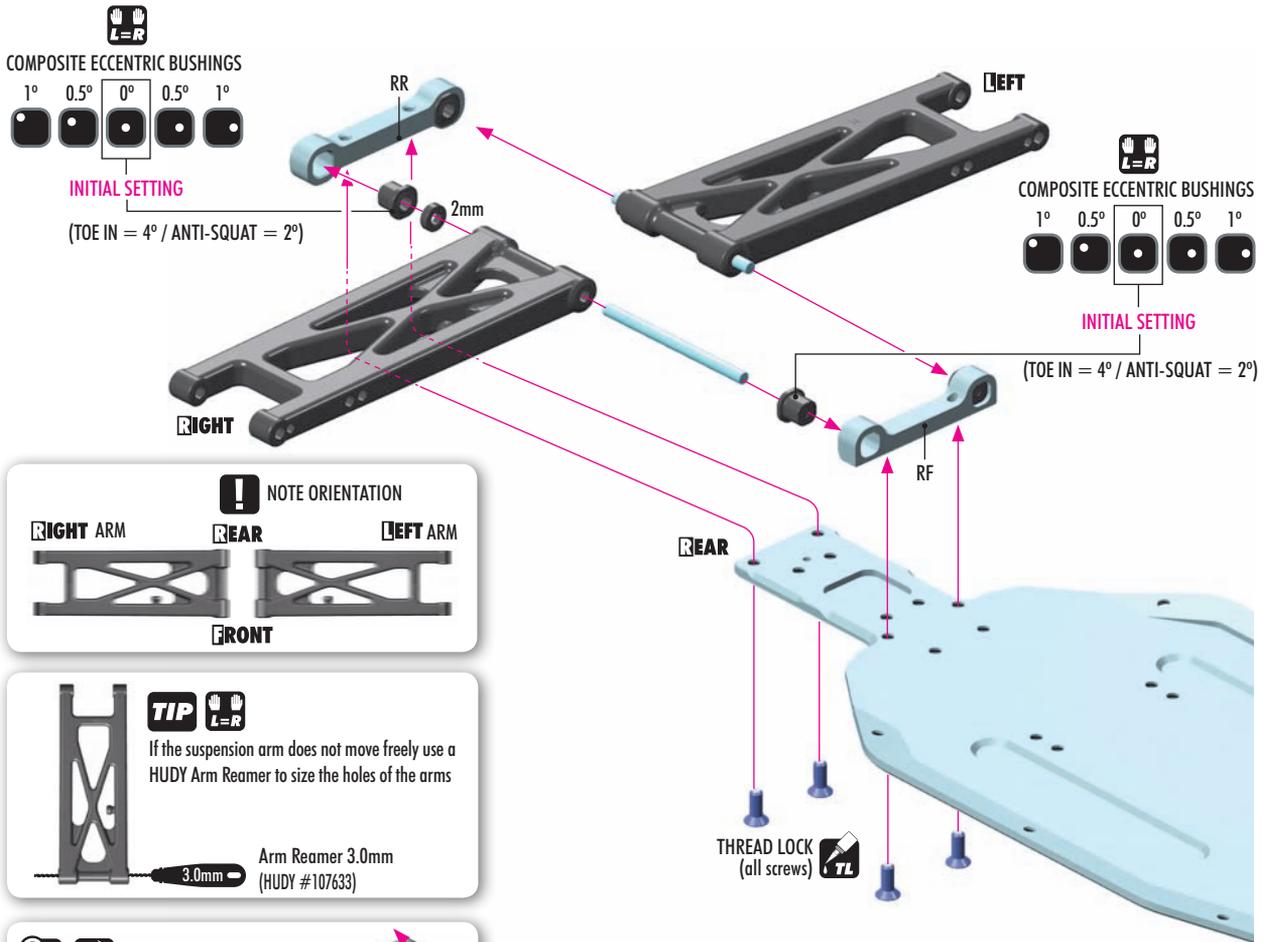
- 306219 COMPOSITE SET OF SERVO SHIMS (4)
- 309319 UNIVERSAL SET OF PLASTIC SHIMS
- 323085-H XT2 COMPOSITE SHOCK TOWER REAR - LCG - HARD
- 323551 XT2 COMPOSITE REAR BODY MOUNT (2)
- 323112-H XT2 COMPOSITE SUSPENSION ARM REAR LOWER - HARD
- 323314 ALU REAR LOWER SUSP. HOLDER FOR BENT SIDES CHASSIS - FRONT
- 323326 ALU REAR LOWER SUSP. HOLDER FOR BENT SIDES CHASSIS - REAR
- 367210 SUSPENSION PIVOT PIN (2)
- 362315 ECCENTRIC BUSHING SET (2)

- 902316 HEX SCREW SH M3x16 (10)
- 902320 HEX SCREW SH M3x20 (10)
- 902325 HEX SCREW SH M3x25 (10)
- 903308 HEX SCREW SFH M3x8 (10)

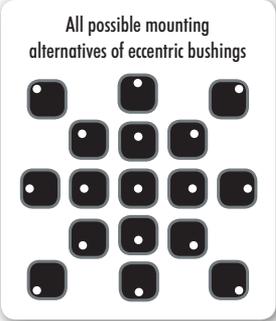
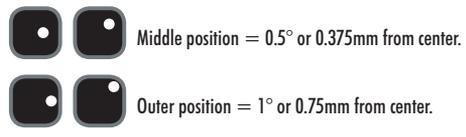
321108 ALU CHASSIS WITH BENT SIDES - LONG - SWISS 7075 T6 (2.5MM)

IO
306219
SHIM 3x6x2

903308
SFH M3x8



ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.



REAR SUSPENSION ARMS		
#323112-M	MEDIUM	OPTION
#323112-H	HARD	INCLUDED
#323112-G	GRAPHITE	OPTION

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

SET-UP BOOK
TOE-IN
ANTI-SQUAT
ROLL CENTER
TRACK-WIDTH

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

ROLL CENTER		
RR	RF	(mm)
0	0	= +0.75mm
0	0	= 0mm
0	0	= -0.75mm

TRACK-WIDTH		
RR	RF	(mm)
0	0	= +1.5mm
0	0	= 0mm
0	0	= -1.5mm

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

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.

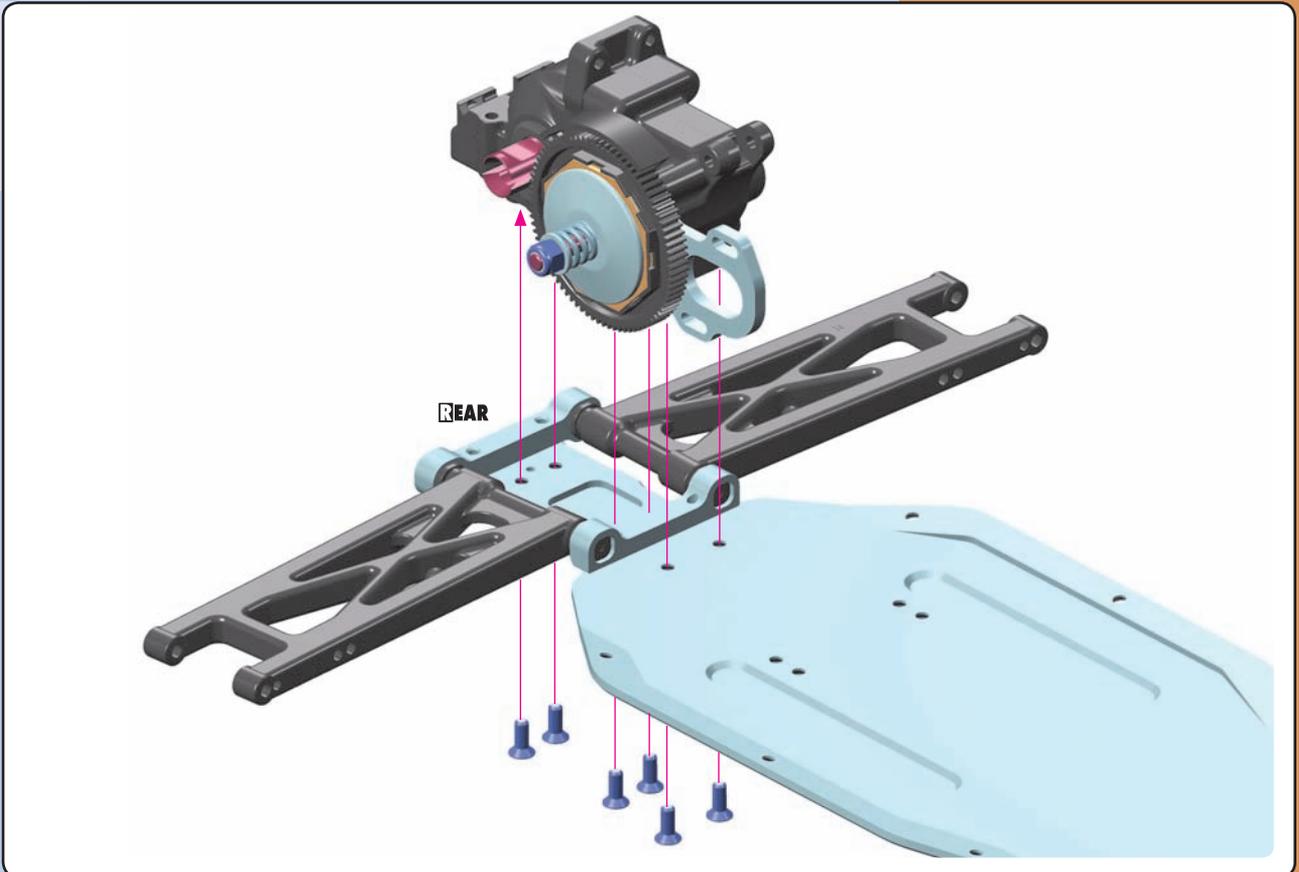
Example:
 0(RR) - 0 (RF) = 2° = 2°
 0(RR) - 0.5 (RF) = 2.5° = 2.5°
 0(RR) - 1 (RF) = 3° = 3°

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

3. REAR SUSPENSION **CARPET** **DIRT**



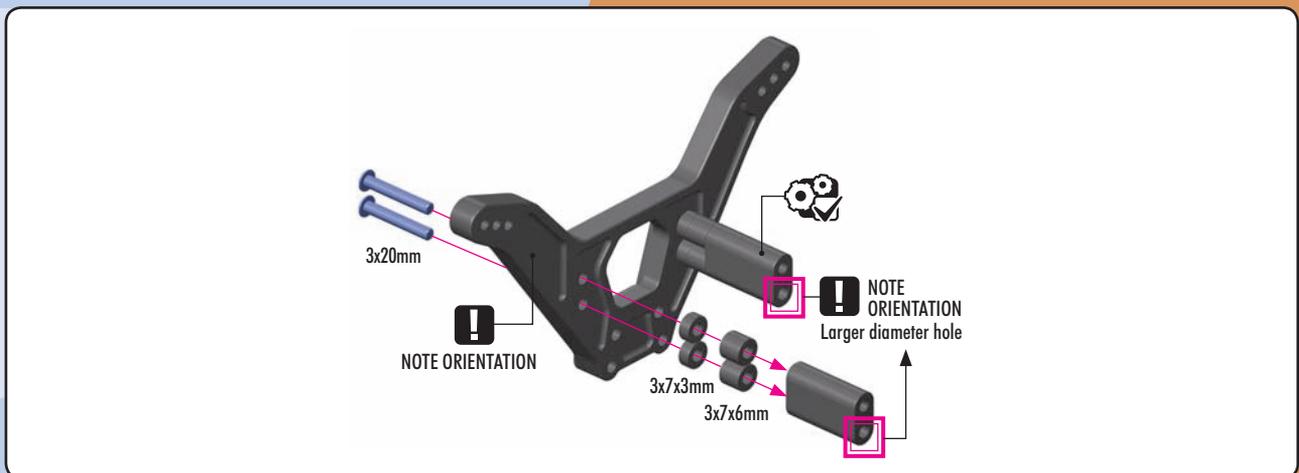
903308
SFH M3x8



309319
SHIM 3x7x3



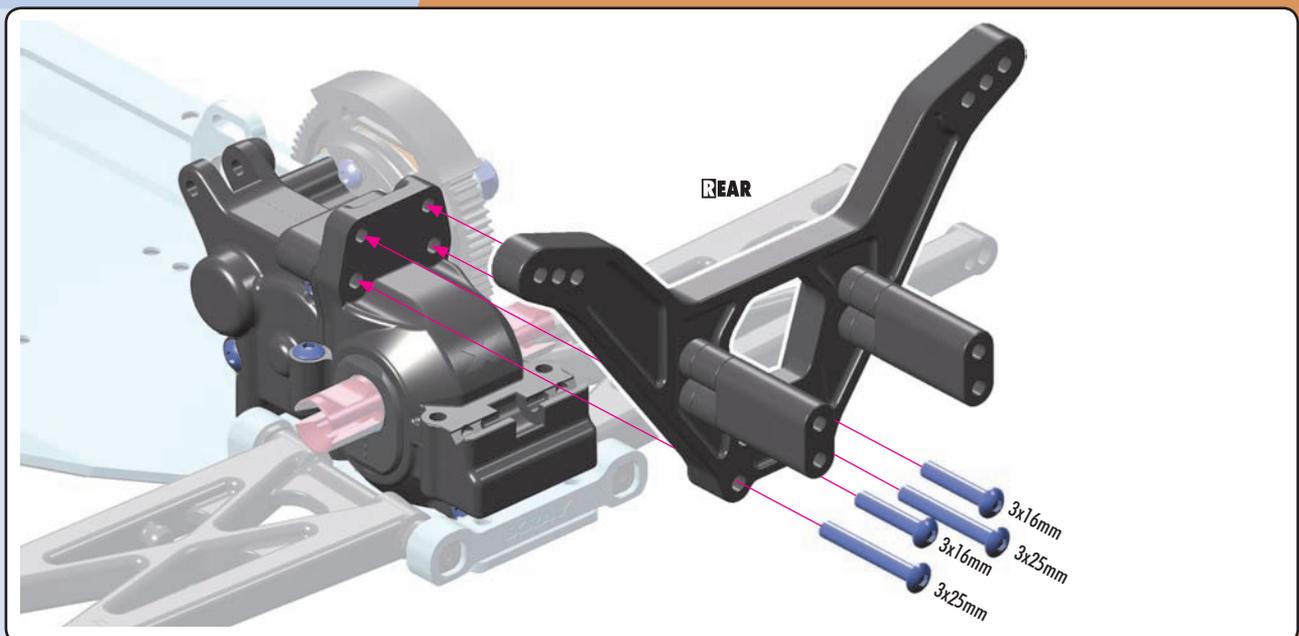
309319
SHIM 3x7x6



902316
SH M3x16



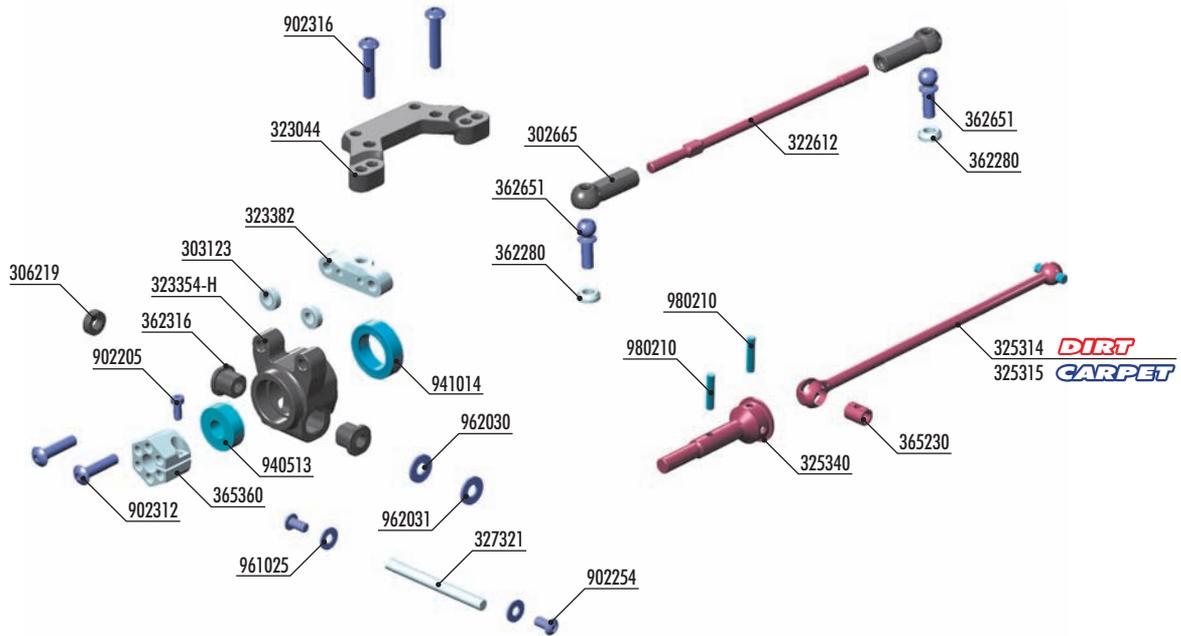
902325
SH M3x25



3. REAR DRIVETRAIN

CARPET DIRT

2x L=R



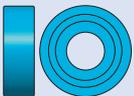
BAG

03

- | | | | |
|----------|--|--------|---|
| 302665 | COMPOSITE BALL JOINT 4.9MM - CLOSED WITH HOLE (4) | 362651 | BALL END 4.9MM WITH THREAD 8MM (2) |
| 303123 | ALU SHIM 3x6x2.0MM (10) | 365230 | DRIVE SHAFT COUPLING - HUDY SPRING STEEL™ |
| 306219 | COMPOSITE SET OF SERVO SHIMS (4) | 365360 | ALU WHEEL HUB 12MM - OFFSET "+3.0MM" (2) |
| 322612 | ADJUSTABLE TURNBUCKLE 75MM M3 L/R - HUDY SPRING STEEL™ (2) | 902205 | HEX SCREW SH M2x5 (10) |
| 323044 | COMPOSITE REAR ROLL CENTER HOLDER | 902254 | HEX SCREW SH M2.5x4 (10) |
| 323354-H | COMPOSITE UPRIGHT REAR - HARD | 902312 | HEX SCREW SH M3x12 (10) |
| 325314 | DRIVE SHAFT 96MM WITH 2.5MM PIN - HUDY SPRING STEEL™ | 902316 | HEX SCREW SH M3x16 (10) |
| 325315 | DRIVE SHAFT 94MM WITH 2.5MM PIN - HUDY SPRING STEEL™ | 940513 | BALL-BEARING 5x12x4 RUBBER SEALED - GREASE (2) |
| 325340 | REAR DRIVE AXLE LB - HUDY SPRING STEEL™ | 941014 | BALL-BEARING 10x15x4 RUBBER SEALED - GREASE (2) |
| 327321 | REAR ARM PIVOT PIN (2) | 961025 | WASHER S 2.5 (10) |
| 362280 | ALU CONICAL SHIM 3x6x2.0MM (10) | 962030 | WASHER S 3x6x0.3 (10) |
| 362316 | ECCENTRIC BUSHING SET - OPEN (2) | 962031 | WASHER S 3x6x0.1 (10) |
| | | 980210 | PIN 2x9.8 (10) |



902205 SH M2x5



940513 BB 5x12x4

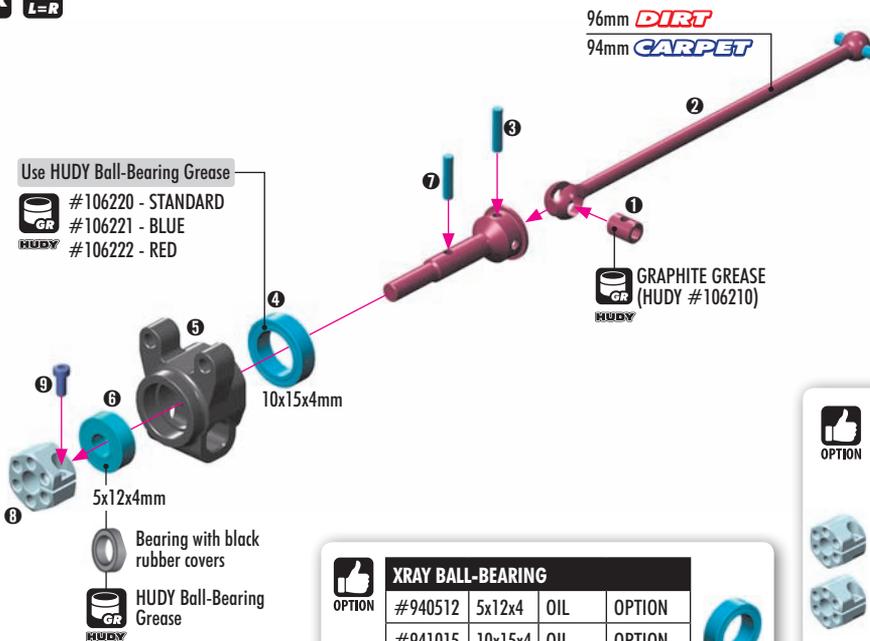


941014 BB 10x15x4



980210 P 2x10

2x L=R



Use HUDY Ball-Bearing Grease

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

GRAPHITE GREASE (HUDY #106210)



Bearing with black rubber covers
HUDY Ball-Bearing Grease

OPTION

XRAY BALL-BEARING

#940512	5x12x4	OIL	OPTION
#941015	10x15x4	OIL	OPTION
#940513	5x12x4	GREASE	INCLUDED
#941014	10x15x4	GREASE	INCLUDED

OPTION

#305231 DRIVE SHAFT COUPLING HUDY SPRING STEEL

OPTION

REAR UPRIGHTS

#323354-H	HARD	INCLUDED
#323354-G	GRAPHITE	OPTION
#323355	ALU	OPTION

OPTION

#325341 REAR ADJUSTABLE DRIVE AXLE LB HUDY SPRING STEEL™



OPTION

#325390 ALU SHIM 10x12x2MM (2)

OPTION

WHEEL HEX HUBS 12MM

#365360	+4.5mm	6 slots	INCLUDED
#365359	+3.75mm	5 slots	OPTION
#365358	+3.0mm	4 slots	OPTION
#365357	+2.25mm	3 slots	OPTION
#365356	+1.5mm	2 slots	OPTION
#365355	+0.75mm	1 slot	OPTION
#365353	0mm	0 slots	OPTION
#365354	-0.75mm	Lightw.	OPTION
#365361	-1.25mm	Lightw.	OPTION

OPTIONAL HEX HUB EFFECTS

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

LESS OFFSET

Rear - more traction
Front - more steering

MORE OFFSET

Rear - less traction
Front - less steering

3. REAR DRIVETRAIN **CARPET** **DIRT**

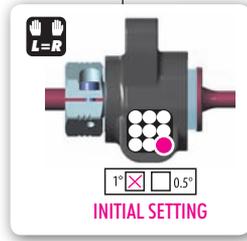
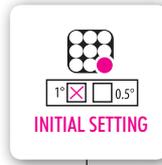


303123
SHIM 3x6x2

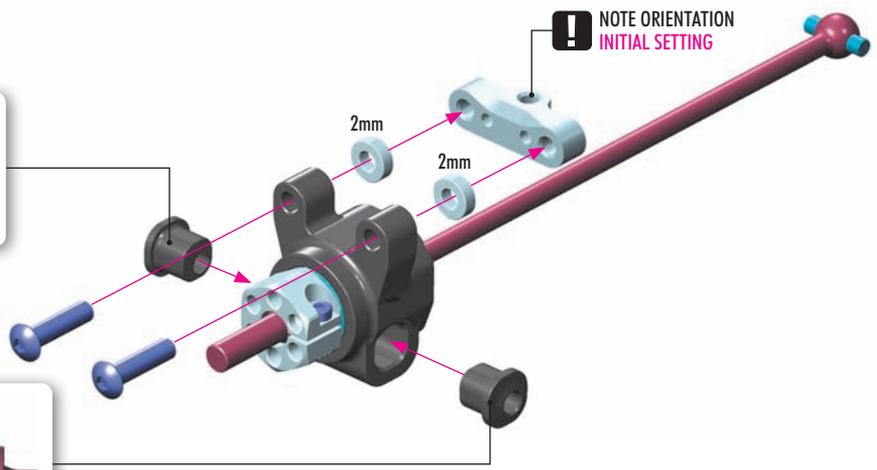


902312
SH M3x12

2x L=R



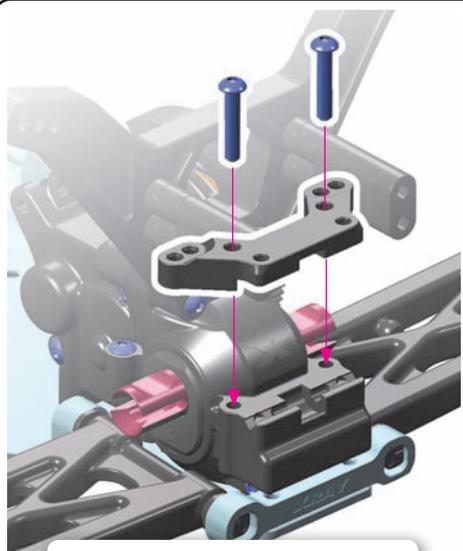
NOTE ORIENTATION
INITIAL SETTING



#32381
ALU REAR HUB PLATE FOR MULTI ADJUSTABLE UPRIGHT - SWISS 7075 T6



902316
SH M3x16



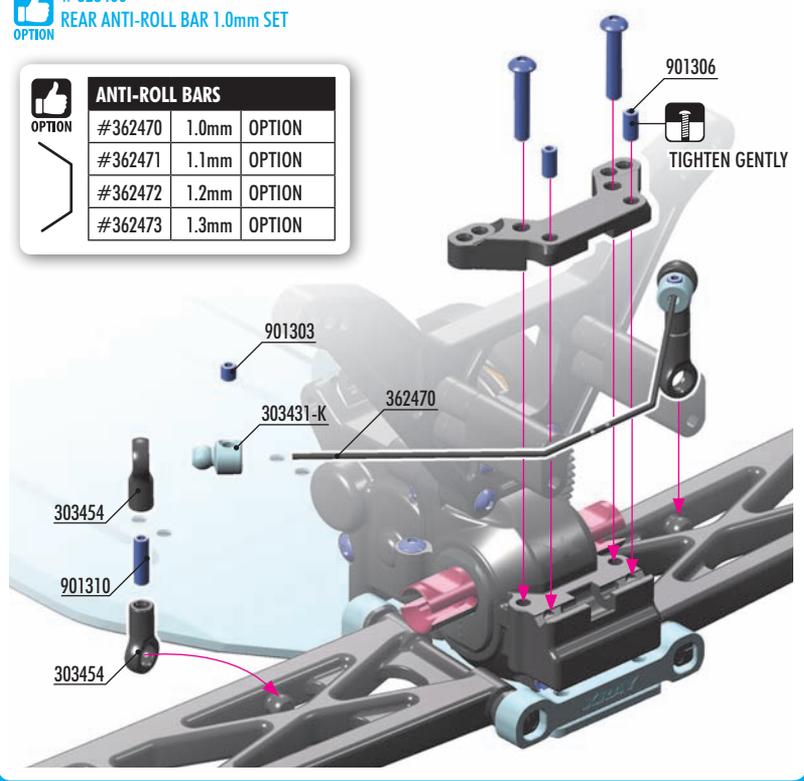
REAR ROLL CENTER HOLDER

OPTION	Part #	Material	Included
	#323044	COMPOSITE	INCLUDED
	#323043	ALU	OPTION
	#323044-G	COMPOSITE	OPTION

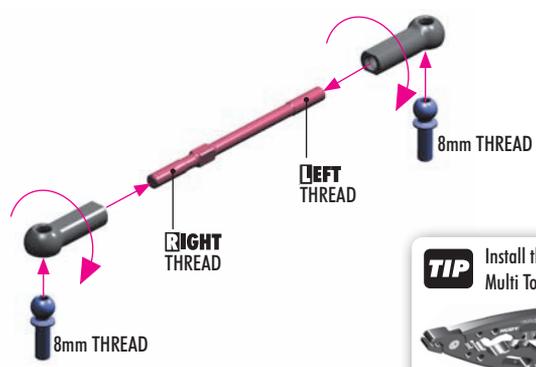
#323400
REAR ANTI-ROLL BAR 1.0mm SET

ANTI-ROLL BARS

OPTION	Part #	Thickness	Included
	#362470	1.0mm	OPTION
	#362471	1.1mm	OPTION
	#362472	1.2mm	OPTION
	#362473	1.3mm	OPTION



2x L=R



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

10

306219
SHIM 3x6x2



902254
SH M2.5x4



961025
S 2.5



962030
S 3x6x0.3

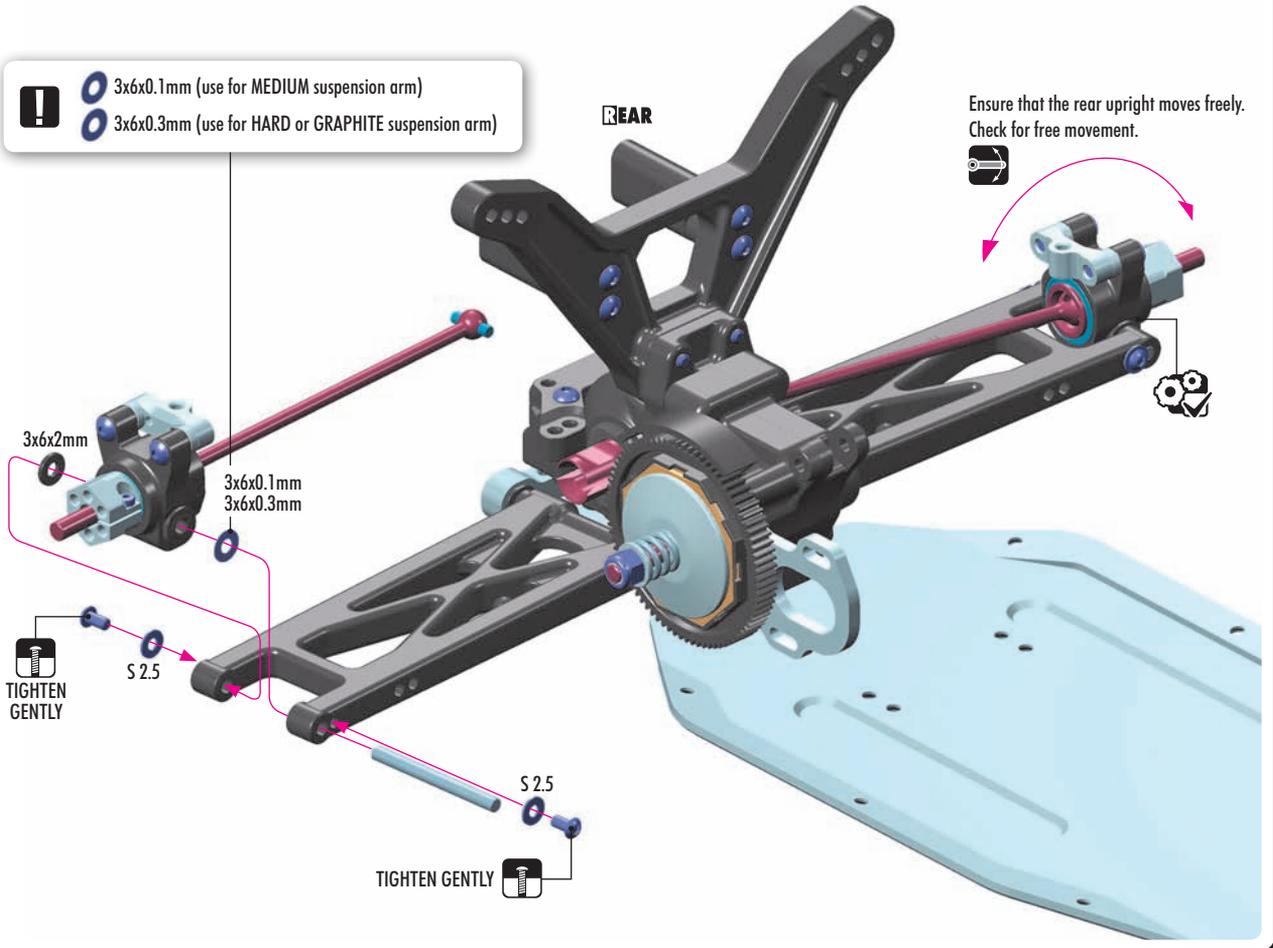


962031
S 3x6x0.1

2x

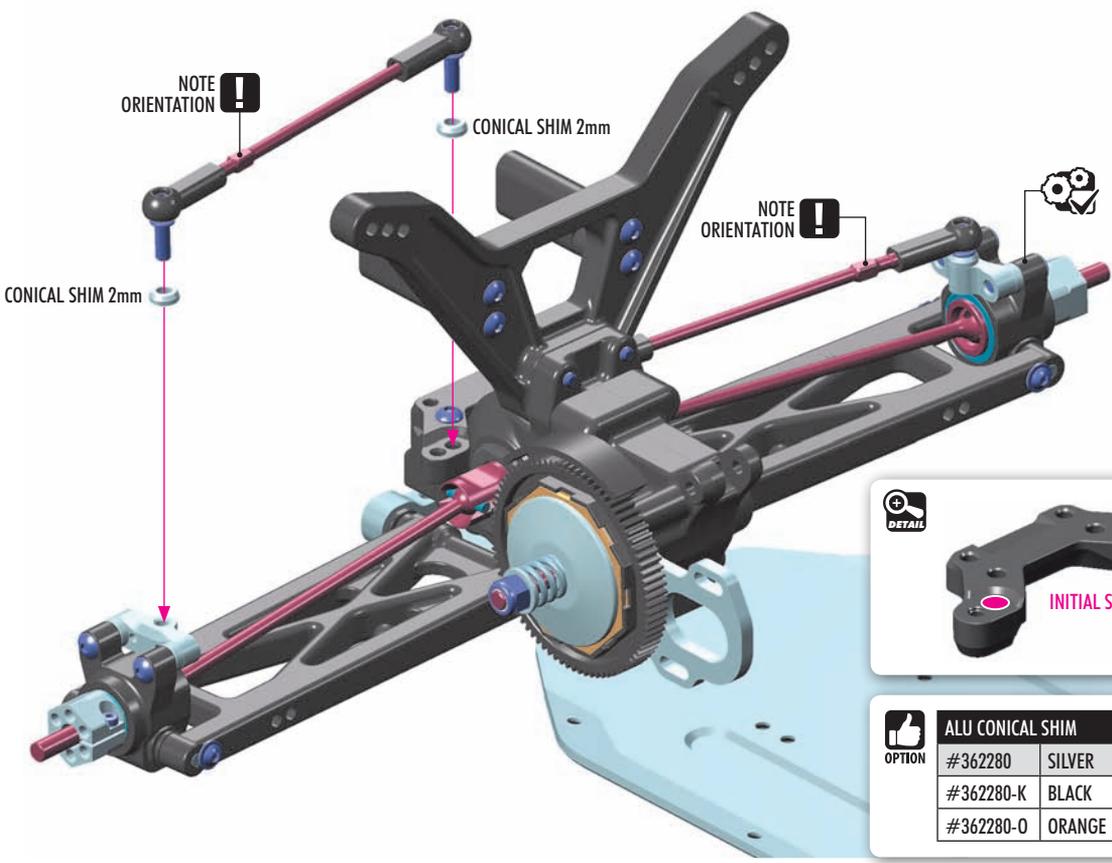


- 3x6x0.1mm (use for MEDIUM suspension arm)
- 3x6x0.3mm (use for HARD or GRAPHITE suspension arm)



362280
CON. SHIM 3x6x2

2x





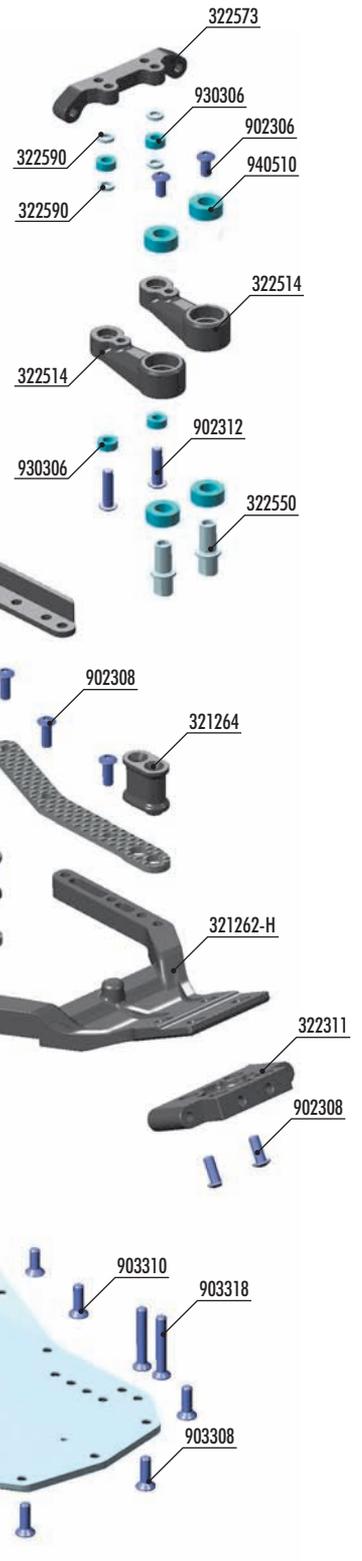
FRONT LOWER ARM MOUNT		
#322310	ALU 26°	OPTION
#322311	COMPOSITE 26°	INCLUDED
#322312	BRASS 26°	OPTION
#322313	ALU 23°/29°	OPTION
#321211	SUSP. HOLDER BRACE 23°/29°	OPTION
#322314	BRASS 23°/29°	OPTION
#321211	SUSP. HOLDER BRACE 23°/29°	OPTION



#322572
ALU STEERING PLATE



#322512
ALU STEERING ARMS



STEERING ARMS

#322514	HARD	INCLUDED
#322514-G	GRAPHITE	OPTION
#322512	ALU	OPTION



STEERING PLATE

#322573	HARD	INCLUDED
#322573-G	GRAPHITE	OPTION
#322572	ALU	OPTION



BAG

04

- 321250 COMPOSITE CHASSIS SIDE GUARDS FOR BENT SIDES CHASSIS L+R
- 321262-H COMPOSITE CHASSIS FRONT GUARD - HARD - V2
- 321264 COMPOSITE FRONT CHASSIS SIDE BRACE - SHORT (2)
- 321271 GRAPHITE CHASSIS SIDE GUARD BRACE FOR BENT SIDES CHASSIS (2)
- 322311 COMPOSITE FRONT LOWER SUSPENSION HOLDER
- 322514 COMPOSITE STEERING ARM WITH STEERING MOUNT HOLE (2)
- 322550 ALU SERVO SAVER PIVOT SHAFT (2)
- 322573 COMPOSITE STEERING PLATE - FRONT/REAR MOUNTING POSITIONS
- 322590 ALU SHIM 3x4.7x1.0MM (10)

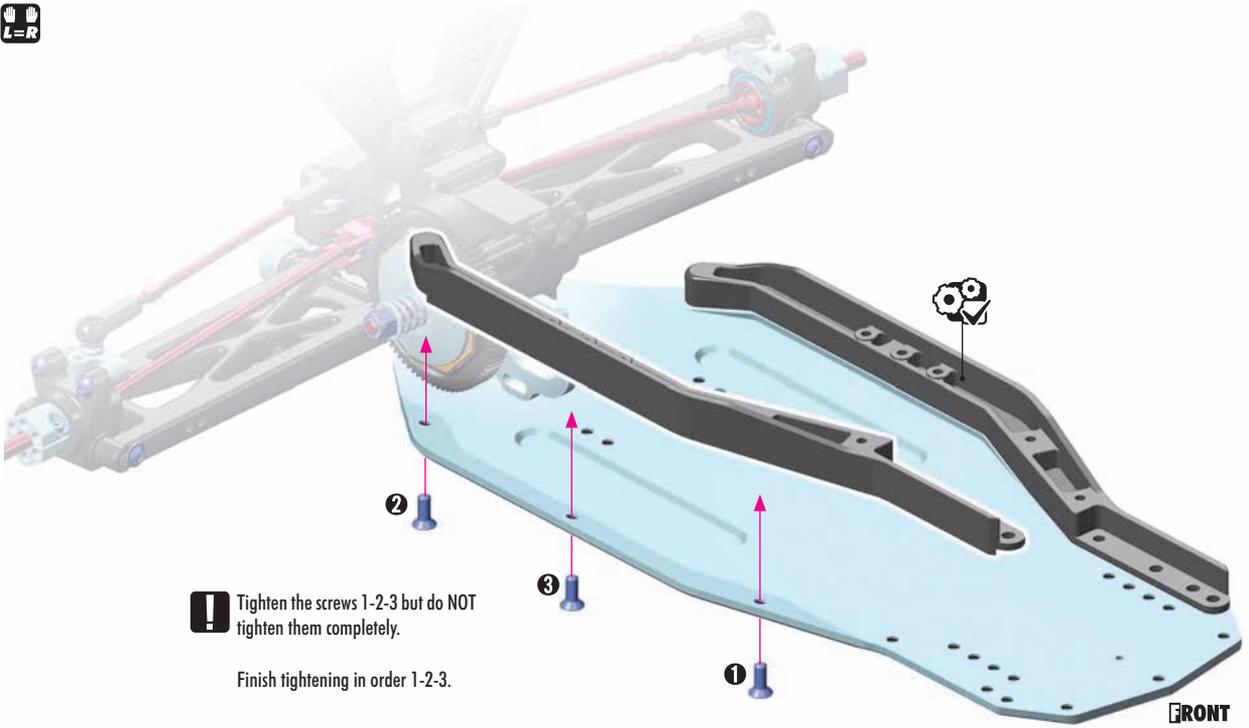
- 902306 HEX SCREW SH M3x6 (10)
- 902308 HEX SCREW SH M3x8 (10)
- 902312 HEX SCREW SH M3x12 (10)
- 903308 HEX SCREW SFH M3x8 (10)
- 903310 HEX SCREW SFH M3x10 (10)
- 903318 HEX SCREW SFH M3x18 (10)
- 930306 BALL-BEARING 3x6x2.5 STEEL SEALED - OIL (2)
- 940510 BALL-BEARING 5x10x4 RUBBER SEALED - OIL (2)

4. FRONT ASSEMBLY

CARPET DIRT



903308
SFH M3x8



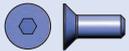
! Tighten the screws 1-2-3 but do NOT tighten them completely.

Finish tightening in order 1-2-3.

FRONT



902308
SH M3x8



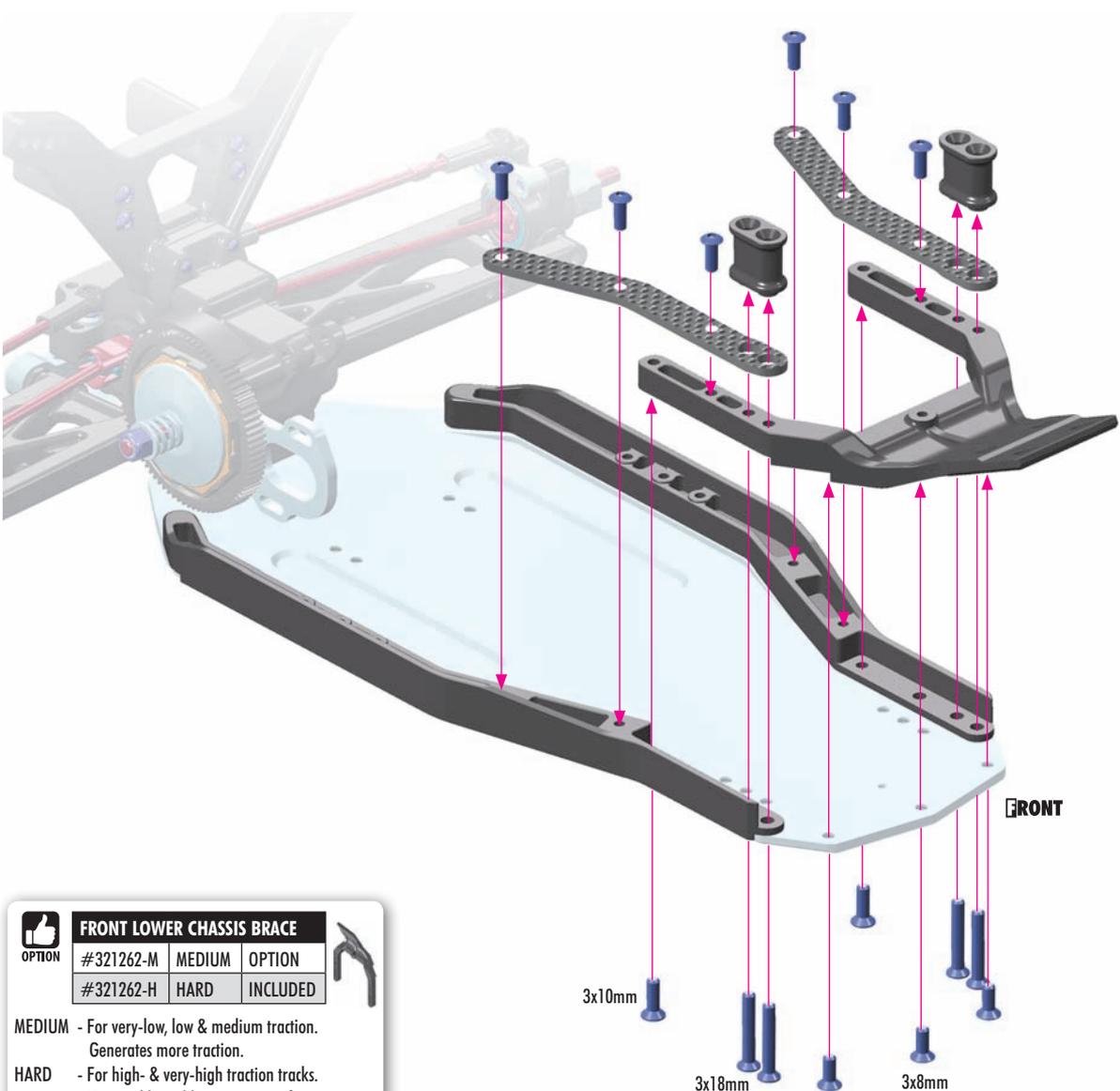
903308
SFH M3x8



903310
SFH M3x10



903318
SFH M3x18



OPTION

FRONT LOWER CHASSIS BRACE

#321262-M	MEDIUM	OPTION
#321262-H	HARD	INCLUDED

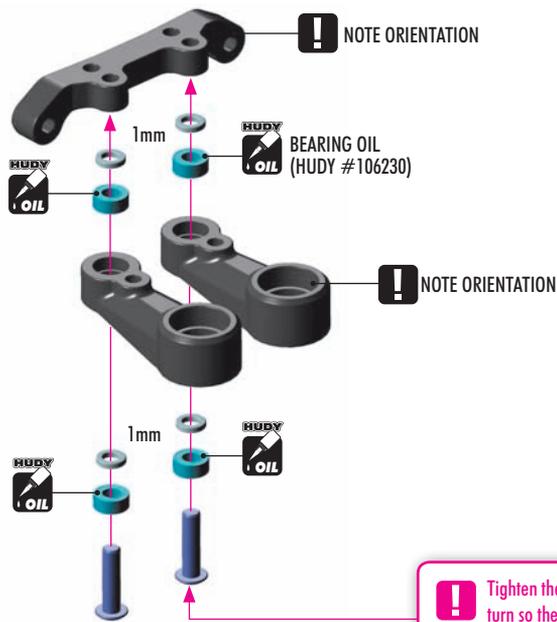
- MEDIUM** - For very-low, low & medium traction.
Generates more traction.
- HARD** - For high- & very-high traction tracks.
More stable and less traction on front susp.

3x10mm

3x18mm

3x8mm

FRONT



STEERING PLATE		
#322573	HARD	INCLUDED
#322573-G	GRAPHITE	OPTION
#322572	ALU	OPTION

COMPOSITE - Easy to drive, more forgiving, less steering.
ALU - More aggressive, more steering, more precise steering.

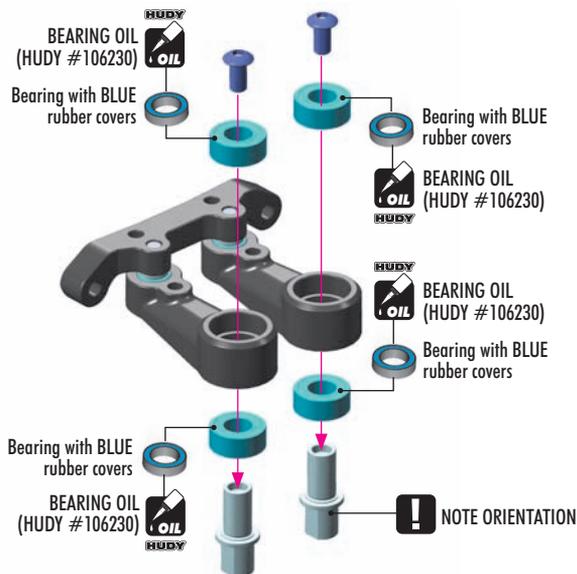


STEERING ARMS		
#322514	HARD	INCLUDED
#322514-G	GRAPHITE	OPTION
#322512	ALU	OPTION

COMPOSITE - Easy to drive and more forgiving.
ALU - More aggressive, more precise steering.

! Tighten the screws gently but fully, and then loosen 1/3 turn so the composite dual servo saver moves freely.

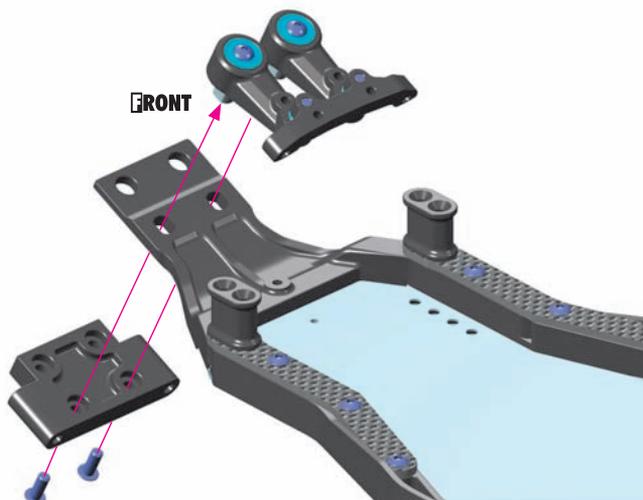
- 1 tighten fully
- 2 loosen 1/3 ccw
- 3 check moves freely



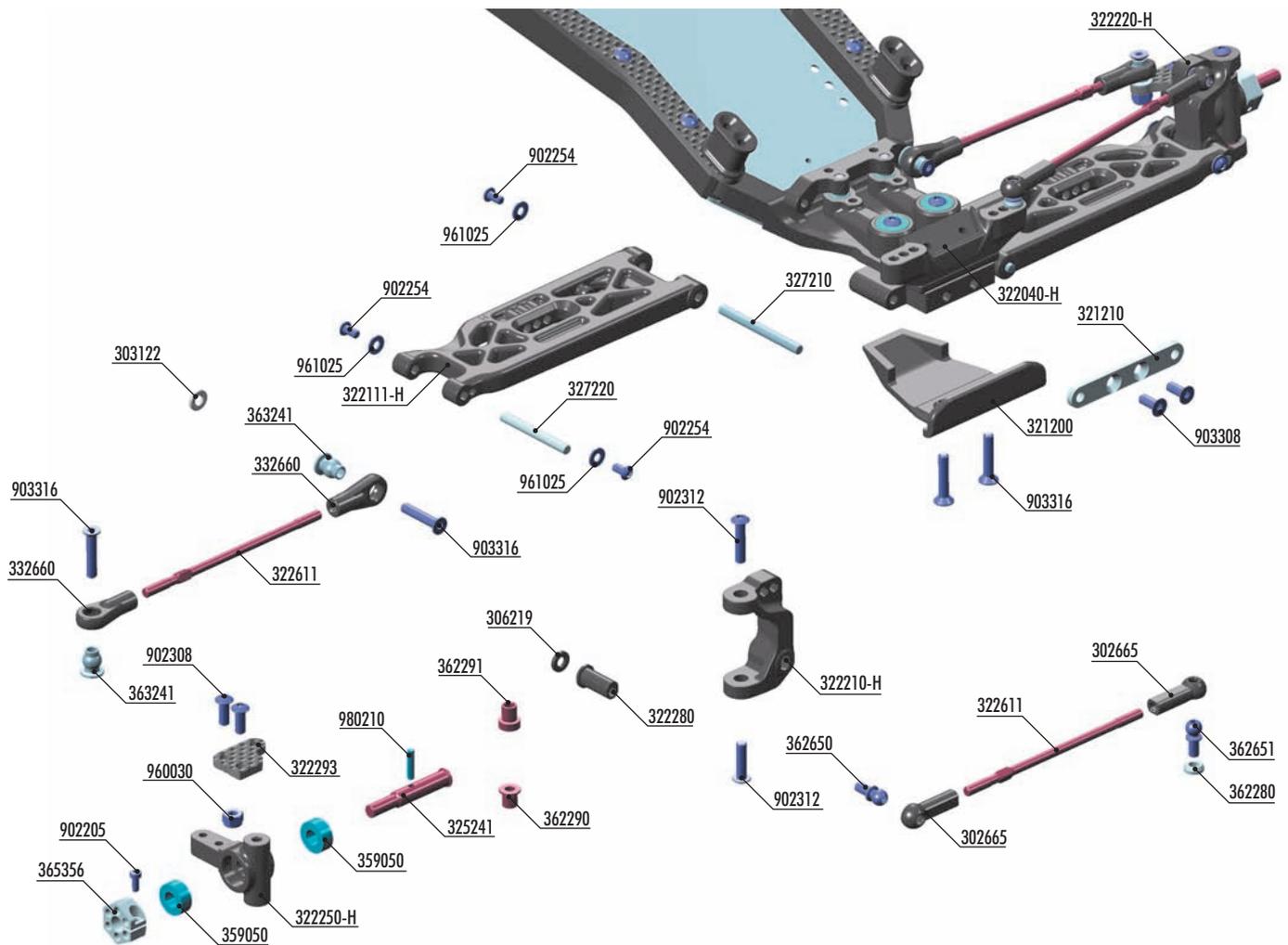
FRONT LOWER ARM MOUNT		
#322310	ALU 26°	OPTION
#322311	COMPOSITE 26°	INCLUDED
#322312	BRASS 26°	OPTION
#322313	ALU 23°/29°	OPTION
#321211	SUSP. HOLDER BRACE 23°/29°	OPTION
#322314	BRASS 23°/29°	OPTION
#321211	SUSP. HOLDER BRACE 23°/29°	OPTION



COMPOSITE - Generates more traction in front.
ALU - Makes car more stable.
BRASS - Adds more weight in front, less weight transfer.



5. FRONT SUSPENSION **CARPET** **DIRT**



WHEEL HEX HUBS 12MM				
#365360	+4.5mm	6 slots	OPTION	
#365359	+3.75mm	5 slots	OPTION	
#365358	+3.0mm	4 slots	OPTION	
#365357	+2.25mm	3 slots	OPTION	
#365356	+1.5mm	2 slots	INCLUDED	
#365355	+0.75mm	1 slot	OPTION	
#365353	0mm	0 slots	OPTION	
#365354	-0.75mm	Lightw.	OPTION	
#365361	-1.25mm	Lightw.	OPTION	

XRAY BALL-BEARING				
#940510	5x10x4	OIL	OPTION	
#359050	5x10x4	GREASE	INCLUDED	

FRONT ROLL CENTER HOLDER			
#322040-M	MEDIUM	OPTION	
#322040-H	HARD	INCLUDED	

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

STEERING BLOCK EXTENSION			
#322290	2-SLOTS	OPTION	
#322291	1-SLOT	OPTION	
#322292	0-SLOTS	OPTION	
#322293	3-SLOTS	INCLUDED	

C-HUB			
#322210-M	RIGHT	MEDIUM	OPTION
#322210-H	RIGHT	HARD	INCLUDED
#322210-G	RIGHT	GRAPHITE	OPTION
#322220-M	LEFT	MEDIUM	OPTION
#322220-H	LEFT	HARD	INCLUDED
#322220-G	LEFT	GRAPHITE	OPTION

SUSPENSION ARM			
#322111-M	MEDIUM	OPTION	
#322111-H	HARD	INCLUDED	
#322111-G	GRAPHITE	OPTION	

BAG
05

- | | | | |
|-----------|--|---------|---|
| 30 2665 | COMPOSITE BALL JOINT 4.9MM - CLOSED WITH HOLE (4) | 36 2290 | STEEL STEERING BUSHING - SHORT (2) |
| 30 3122 | ALU SHIM 3x6x1.0MM (10) | 36 2291 | STEEL STEERING BUSHING - LONG (2) |
| 30 6219 | COMPOSITE SET OF SERVO SHIMS (4) | 36 2650 | BALL END 4.9MM WITH THREAD 6MM (2) |
| 32 1200 | COMPOSITE FRONT BUMPER | 36 2651 | BALL END 4.9MM WITH THREAD 8MM (2) |
| 32 1210 | ALU SUSPENSION HOLDER BRACE - SWISS 7075 T6 (3MM) | 36 3241 | BALL UNIVERSAL 5.75MM WITH BACKSTOP (2) |
| 32 2040-H | COMPOSITE FRONT ROLL-CENTER HOLDER - HARD | 36 5356 | ALU WHEEL HUB 12MM - OFFSET "+1.50MM" (2) |
| 32 2111-H | COMPOSITE SUSPENSION ARM FRONT LOWER - HARD | | |
| 32 2210-H | COMPOSITE C-HUB 0° DEG. RIGHT - HARD | 35 9050 | BALL-BEARING 5x10x4 STEEL SEALED - GREASE (2) |
| 32 2220-H | COMPOSITE C-HUB 0° DEG. LEFT - HARD | 90 2205 | HEX SCREW SH M2x5 (10) |
| 32 2250-H | COMPOSITE STEERING BLOCK - HARD | 90 2254 | HEX SCREW SH M2.5x4 (10) |
| 32 2280 | COMPOSITE CASTER ECCENTRIC BUSHING (2+2+2) | 90 2308 | HEX SCREW SH M3x8 (10) |
| 32 2293 | GRAPHITE EXTENSION FOR STEERING BLOCK (2) - 3 SLOTS | 90 2312 | HEX SCREW SH M3x12 (10) |
| 32 2611 | ADJUSTABLE TURNBUCKLE 70MM M3 L/R - HUDY SPRING STEEL™ (2) | 90 3308 | HEX SCREW SFH M3x8 (10) |
| 32 5241 | XT2 FRONT DRIVE AXLE - HUDY SPRING STEEL™ | 90 3316 | HEX SCREW SFH M3x16 (10) |
| 32 7210 | FRONT SUSPENSION PIVOT PIN (2) | 96 1025 | WASHER S 2.5 (10) |
| 32 7220 | FRONT ARM PIVOT PIN (2) | 96 0030 | NUT M3 (10) |
| 33 2660 | COMPOSITE STEERING & SERVO BALL JOINT 5.8 MM (4+2) | 98 0210 | PIN 2x9.8 (10) |
| 36 2280 | ALU CONICAL SHIM 3x6x2.0MM (10) | | |

5. FRONT SUSPENSION **CARPET** **DIRT**

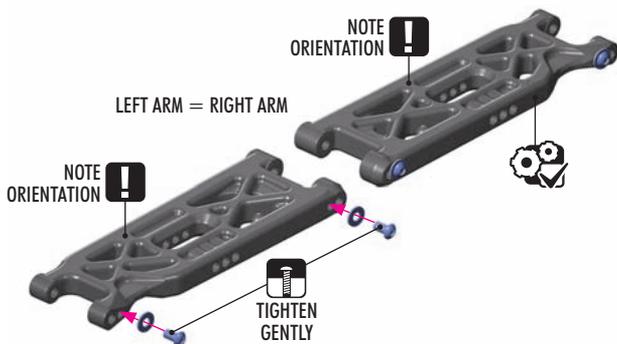


902254
SH M2.5x4



961025
S 2.5

2x L=R



OPTION

SUSPENSION ARM

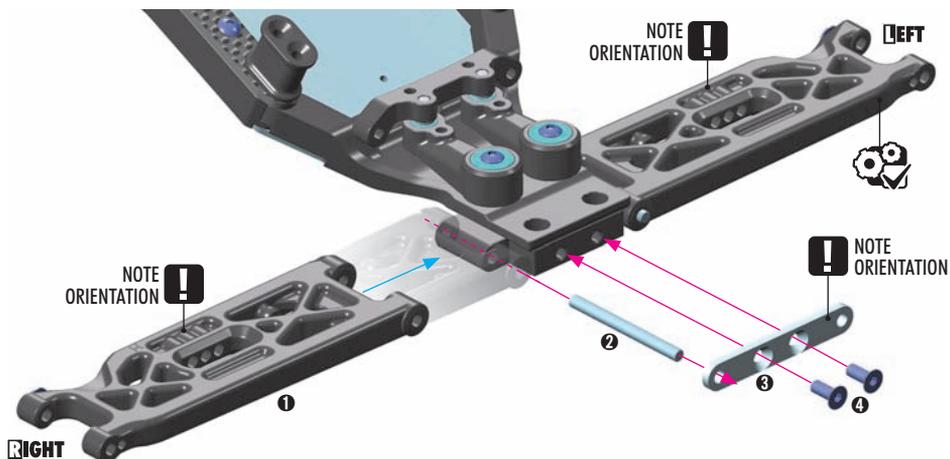
#322111-M	MEDIUM	OPTION
#322111-H	HARD	INCLUDED
#322111-G	GRAPHITE	OPTION

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



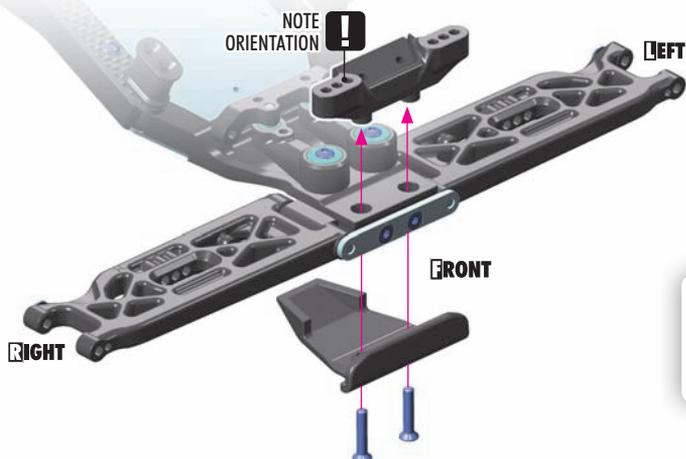
903308
SFH M3x8

L=R



903316
SFH M3x16

NOTE ORIENTATION



OPTION

FRONT ROLL CENTER HOLDER

#322040-M	MEDIUM	OPTION
#322040-H	HARD	INCLUDED



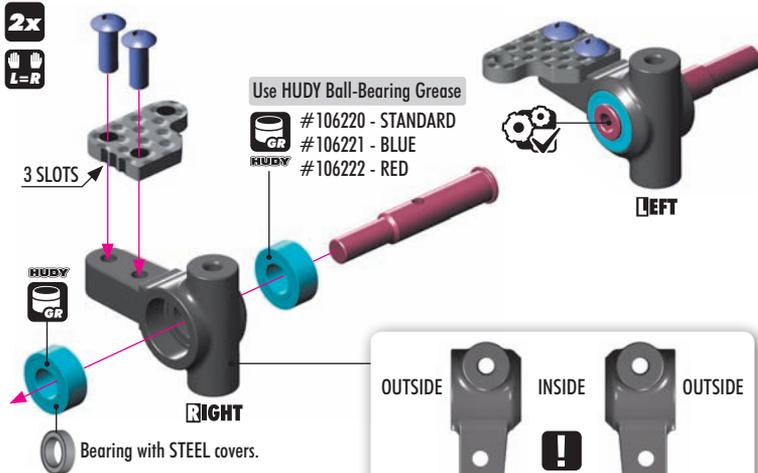
902308
SH M3x8



940510
BB 5x10x4

2x

L=R



OPTION

STEERING BLOCK EXTENSION

#322290	2-SLOTS	OPTION
#322291	1-SLOT	OPTION
#322292	0-SLOTS	OPTION
#322293	3-SLOTS	INCLUDED

3 SLOTS - Increased steering angle which increases steering in slow corners.
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



OPTION

STEERING BLOCK

#322250-M	MEDIUM	OPTION
#322250-H	HARD	INCLUDED
#322250-G	GRAPHITE	OPTION

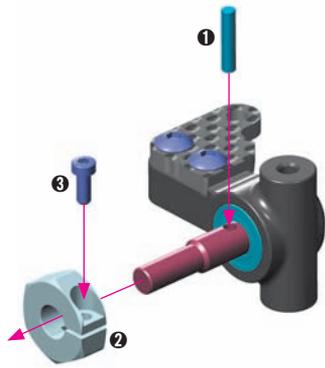
MEDIUM - More steering on low traction
HARD - More free in corner on high grip
GRAPHITE - Less stoping in corner on high traction

5. FRONT SUSPENSION

CARPET DIRT

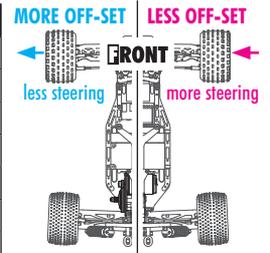


2x L=R



WHEEL HEX HUBS 12MM

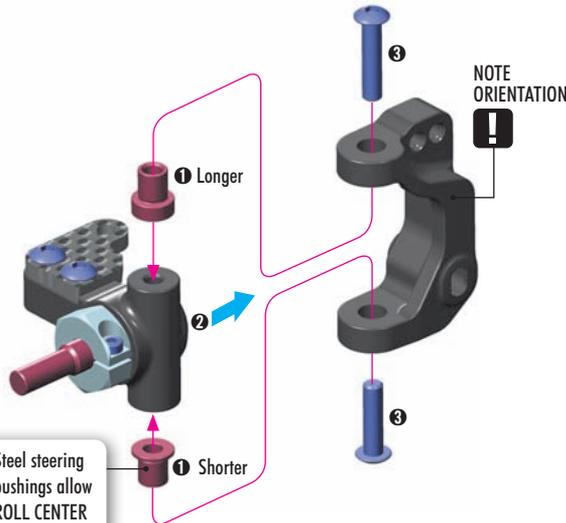
#365360	+4.5mm	6 slots	OPTION
#365359	+3.75mm	5 slots	OPTION
#365358	+3.0mm	4 slots	OPTION
#365357	+2.25mm	3 slots	OPTION
#365356	+1.5mm	2 slots	INCLUDED
#365355	+0.75mm	1 slot	OPTION
#365353	0mm	0 slots	OPTION
#365354	-0.75mm	Lightw.	OPTION
#365361	-1.25mm	Lightw.	OPTION



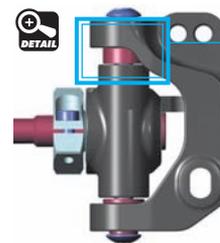
OPTIONAL HEX HUB EFFECTS
Different off-set hex hubs are used to increase or decrease the track-width.



2x L=R

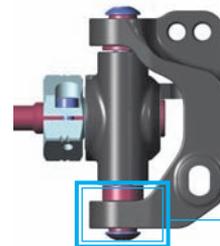


Steel steering bushings allow ROLL CENTER adjustment.



LOWER ROLL CENTER (INITIAL SETTING)

TOP = LONGER bushing
BOTTOM = SHORTER bushing
Recommended for rough tracks to improve stability.



HIGHER ROLL CENTER

TOP = SHORTER bushing
BOTTOM = LONGER bushing
Recommended for smooth tracks to gain more steering.



C-HUB

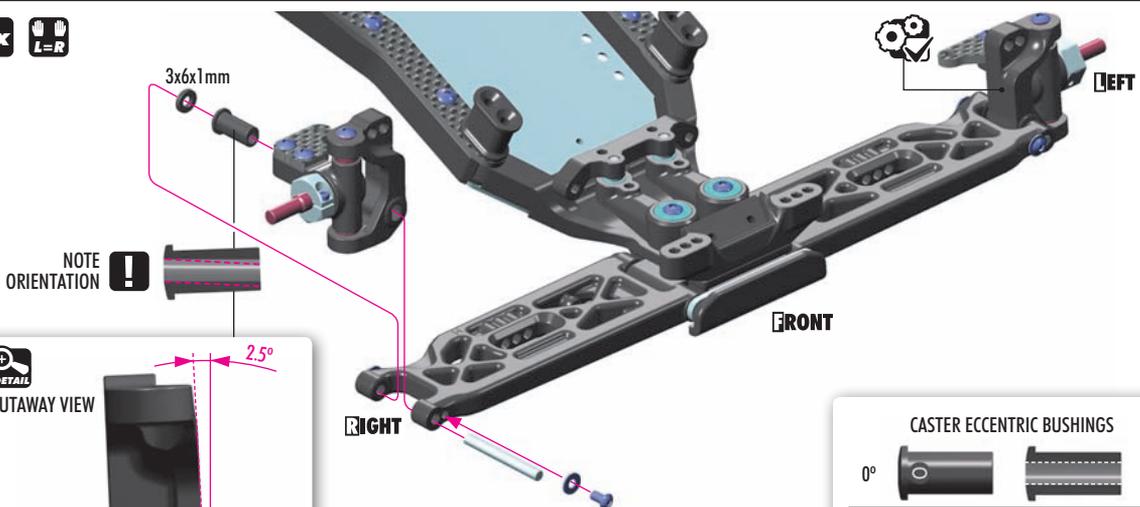
#322210-M	RIGHT	MEDIUM	OPTION
#322210-H	RIGHT	HARD	INCLUDED
#322210-G	RIGHT	GRAPHITE	OPTION
#322220-M	LEFT	MEDIUM	OPTION
#322220-H	LEFT	HARD	INCLUDED
#322220-G	LEFT	GRAPHITE	OPTION



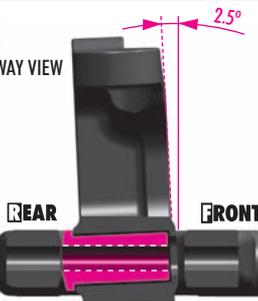
MEDIUM - For low traction. More steering on low grip.
HARD - For medium traction. More steering, more free in corners.
GRAPHITE - For high traction. More precise steering, less stoping in corners.



2x L=R

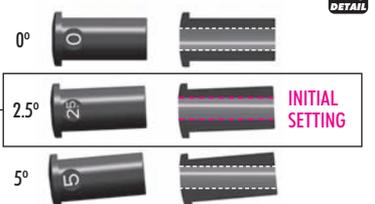


CUTAWAY VIEW



LESS CASTER = increased steering off-power
MORE CASTER = less steering off-power

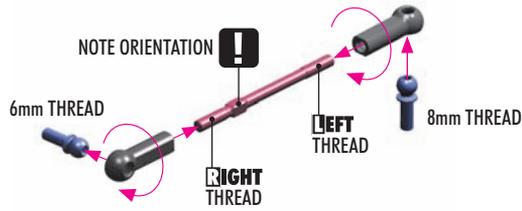
CASTER ECCENTRIC BUSHINGS



5. FRONT SUSPENSION **CARPET** **DIRT**

ROLL CENTER LINKS

2x



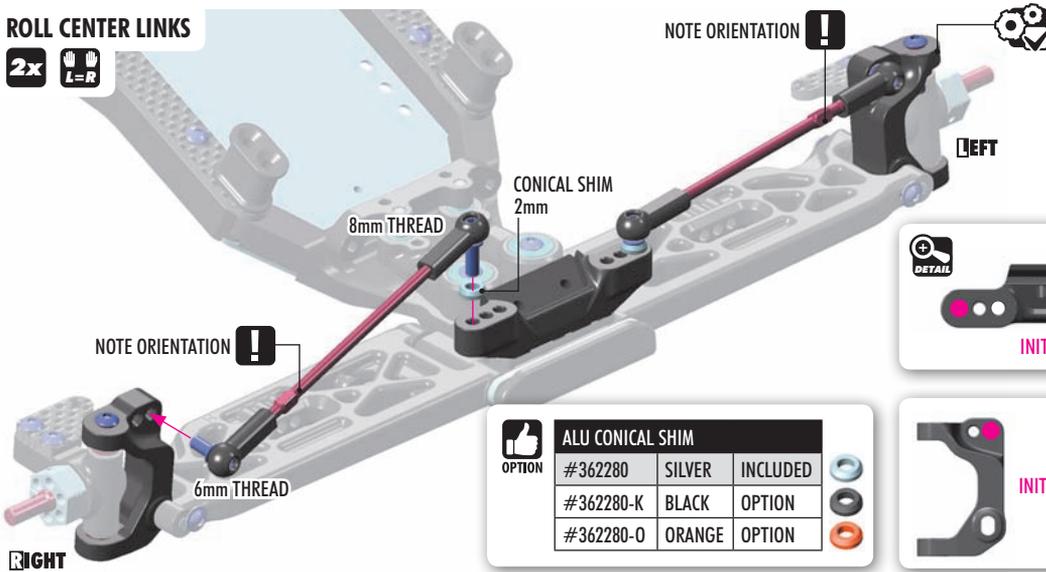
TIP Install the pivot balls with Professional Multi Tool (HUDY #183011)



362280
CON. SHIM 3x6x2

ROLL CENTER LINKS

2x

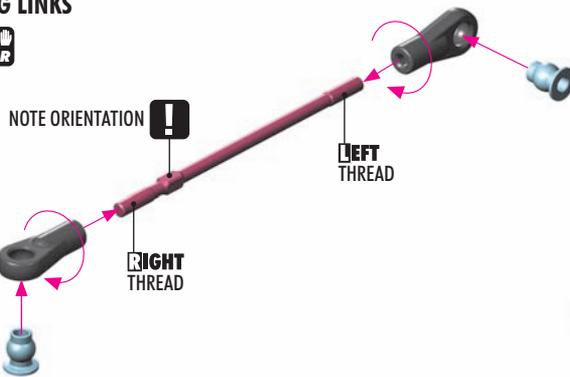


OPTION	ALU CONICAL SHIM		
#362280	SILVER	INCLUDED	
#362280-K	BLACK	OPTION	
#362280-O	ORANGE	OPTION	

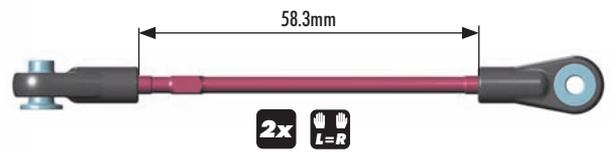


STEERING LINKS

2x



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



303122
SHIM 3x6x1

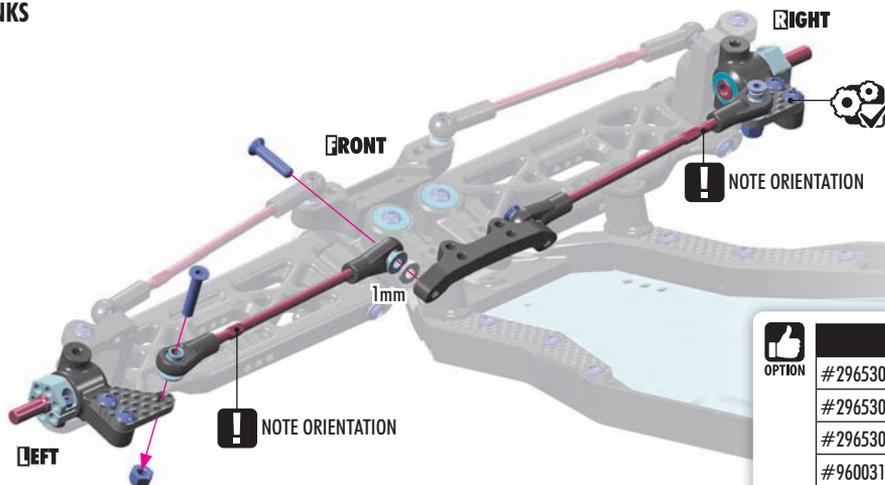


903316
SFH M3x16

960030
NUT M3

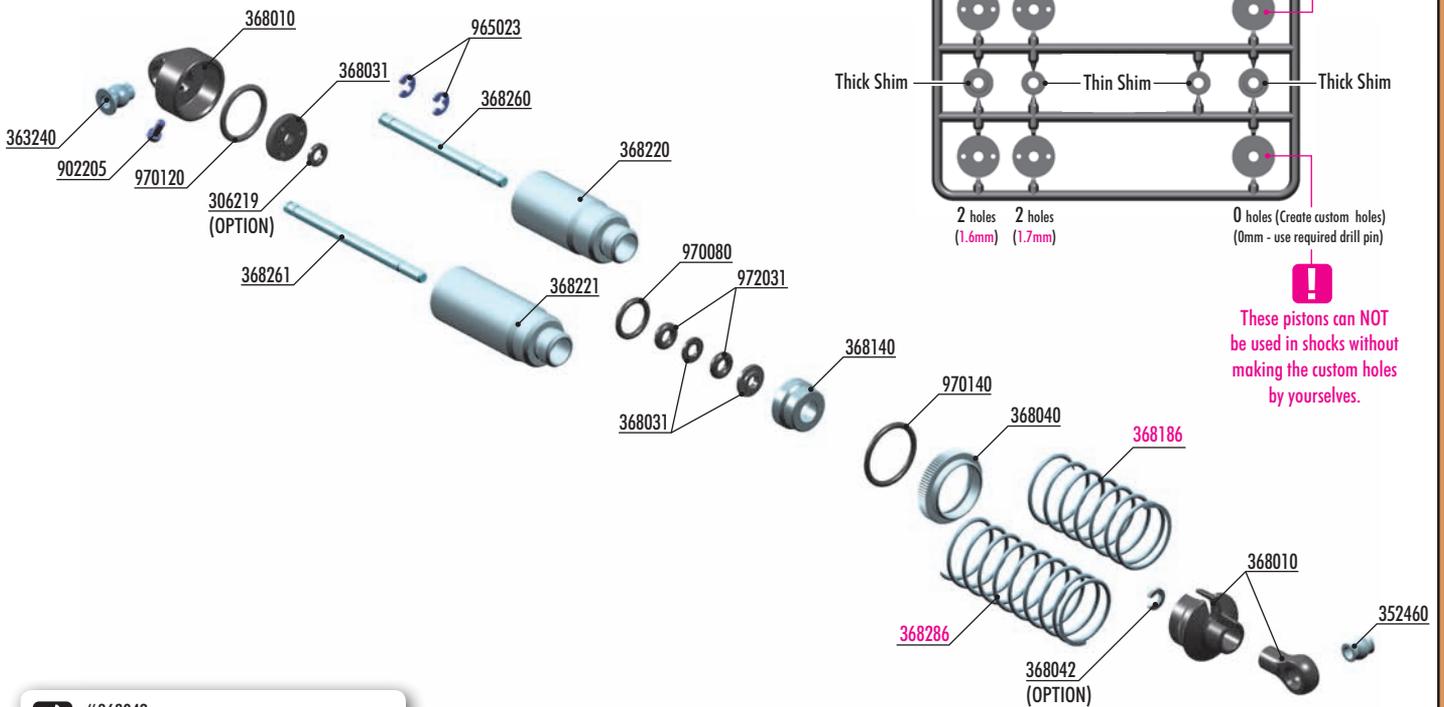
STEERING LINKS

2x



OPTION	ALU NUTS M3		
#296530-B	BLUE	OPTION	
#296530-K	BLACK	OPTION	
#296530-O	ORANGE	OPTION	
#960031	SILVER	OPTION	

6. SHOCK ABSORBERS **CARPET DIRT**



#368042
COMPOSITE SHOCK BUSHING & SHIM (2+2)

FRONT SPRINGS				
#368174	PROGRESS. 45mm	2 STRIPES	OPTION	
#368175	PROGRESS. 40mm	3 DOTS	OPTION	
#368182	LINEAR 45mm	1 STRIPE & 3 DOTS	OPTION	
#368183	LINEAR 45mm	1 DOT	OPTION	
#368184	LINEAR 45mm	2 DOTS	OPTION	
#368185	LINEAR 45mm	3 DOTS	OPTION	
#368186	LINEAR 45mm	4 DOTS	INCLUDED	

REAR SPRINGS				
#368273	PROGRESS. 60mm	2 STRIPES	OPTION	
#368275	PROGRESS. 55mm	2 DOTS	OPTION	
#368283	LINEAR 63mm	1 STRIPE & 3 DOTS	OPTION	
#368284	LINEAR 60mm	1 DOT	OPTION	
#368285	LINEAR 60mm	2 DOTS	OPTION	
#368286	LINEAR	3 DOTS	INCLUDED	
#368287	LINEAR 60mm	4 DOTS	OPTION	

#328011
COMPOSITE SHOCK BALL JOINT 21MM (2)

#972030
SILICONE O-RING 3x2mm (10)

#368051
ALU SHOCK CAP-NUT WITH VENT HOLE (2)

#104004
HUDY AIR VAC - VACUUM PUMP - 1/10 OFF-ROAD

#368021
ALU SHOCK SPRING RETAINING COLLAR (4)

#368022
ALU SHOCK SPRING RETAINING COLLAR -2MM (4)

BAG
06

- 30 6219 COMPOSITE SET OF SERVO SHIMS (4) (OPTION)
- 35 2460 PIVOT BALL 5.8 - V3 (10)
- 36 3240 BALL UNIVERSAL 5.8MM WITH BACKSTOP (2)
- 36 8010 COMPOSITE SHOCK PARTS
- 36 8031 SHOCK PISTONS - COMPLETE SET - DERLIN
- 36 8040 ALU SHOCK ADJUSTABLE NUT (2)
- 368042 COMPOSITE SHOCK BUSHING & SHIM (2+2) (OPTION)
- 36 8140 ALU LOWER SHOCK BODY CAP (2)
- 36 8200 REAR SHOCK ABSORBERS COMPLETE SET (2)
- 36 8220 ALU SHOCK BODY (2)
- 36 8221 XT2 ALU REAR SHOCK BODY (2)
- 36 8260 HARDENED SHOCK SHAFT (2)
- 36 8261 XT2 REAR HARDENED SHOCK SHAFT (2)

- 90 2205 HEX SCREW SH M2x5 (10)
- 96 5023 E-CLIP 2.3 (10)
- 97 0080 O-RING 8x1 (10)
- 97 0120 O-RING 12 x 1.0 (10)
- 97 0140 O-RING 14 x 1.5 (10)
- 97 2031 SILICONE O-RING 3x2.1 (10)

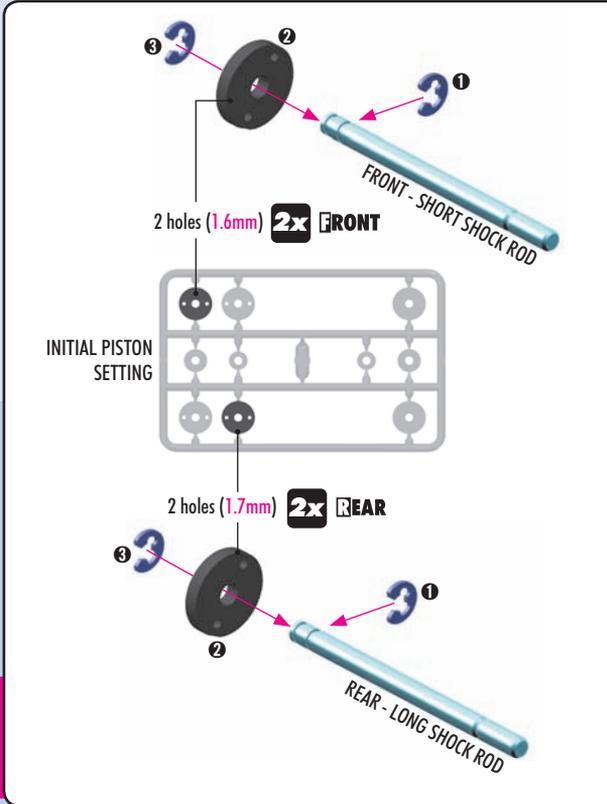
- 36 8186 FRONT SPRING-SET - 4 DOTS (2)
- 36 8286 REAR SPRING-SET LINEAR - 3 DOTS (2)

6. SHOCK ABSORBERS **CARPET DIRT**

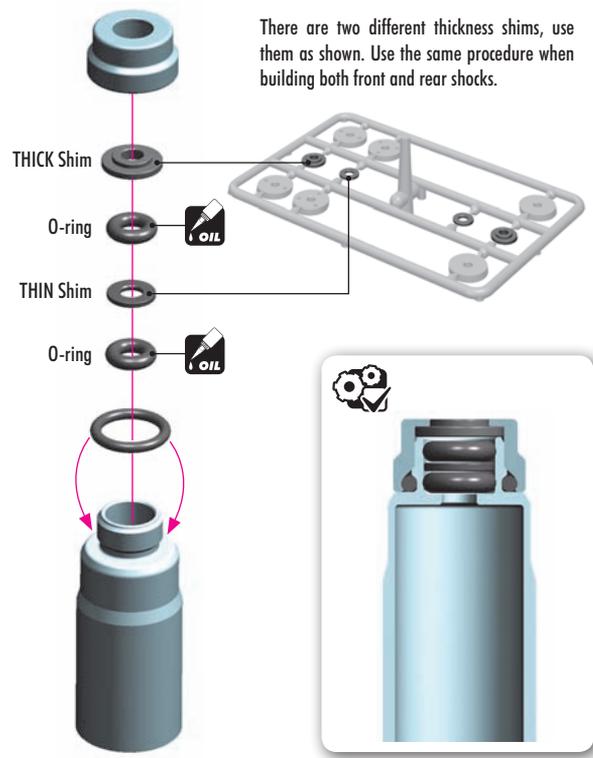
965023
C 2.3

970080
O 8x1

972031
O 3x2.1



4x

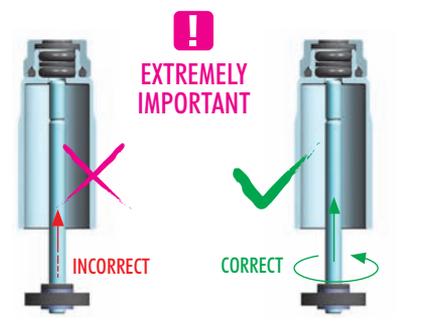
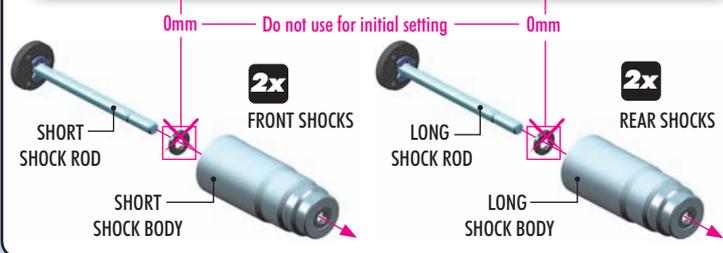


SET-UP BOOK
SHOCK DAMPING
SHOCK PISTONS

#306219
OPTION DOWNSTOP SHIMS
THICKER shim used, GREATER downstop is achieved.



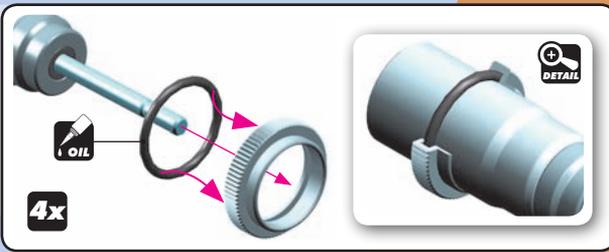
! IMPORTANT
Always use same shim thickness on right and left side to achieve same downstop.



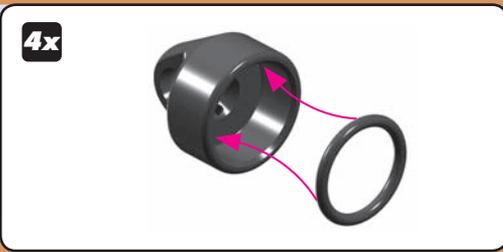
Do not push the shock rod straight through the lower shock body assembly; O-ring damage may result.

Twist the shock rod through the lower shock body assembly.

970140
O 14x1.5

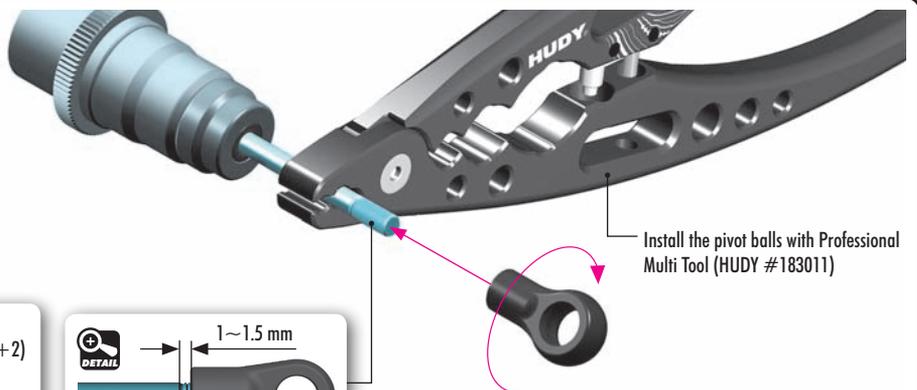
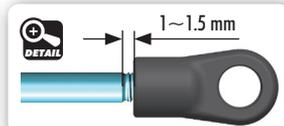


970120
O 12x1



4x

#368042
OPTION COMPOSITE SHOCK BUSHING & SHIM (2+2)





902205
SH M2x5



CARPET

FRONT (SHORT)

Oil 650cSt

REAR (LONG)

Oil 500cSt



DIRT

FRONT (SHORT)

Oil 650cSt

REAR (LONG)

Oil 500cSt

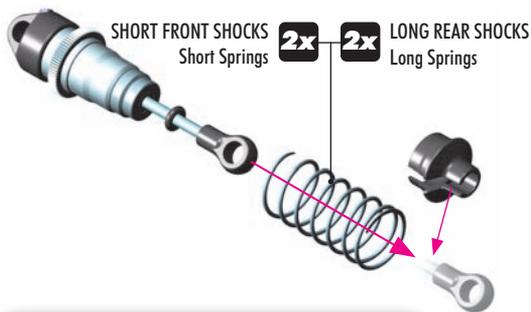
DEFAULT SHOCK REBOUND SETTING 0% REBOUND

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 650cSt 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 piston. 3~5x UP & DOWN
- 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 cap. Tighten the cap fully. TIGHTEN 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. 6x UP & DOWN
- Untighten the screw.
- Gently push the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.
- Tighten the screw. The rebound will be at approx. 0%.

SET-UP BOOK

SHOCK OIL



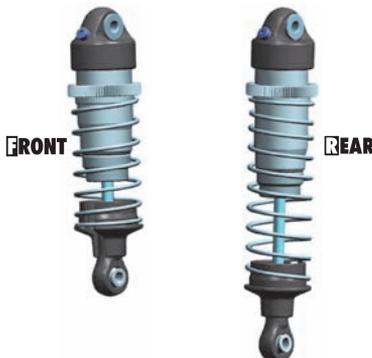
#368022
ALU SHOCK SPRING RETAINING COLLAR -2MM (4)
OPTION

#368021
ALU SHOCK SPRING RETAINING COLLAR (4)
OPTION



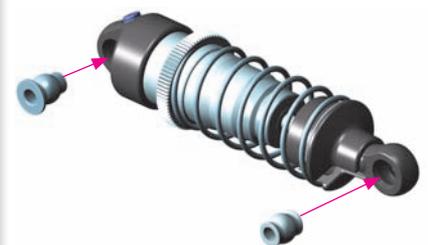
IMPORTANT

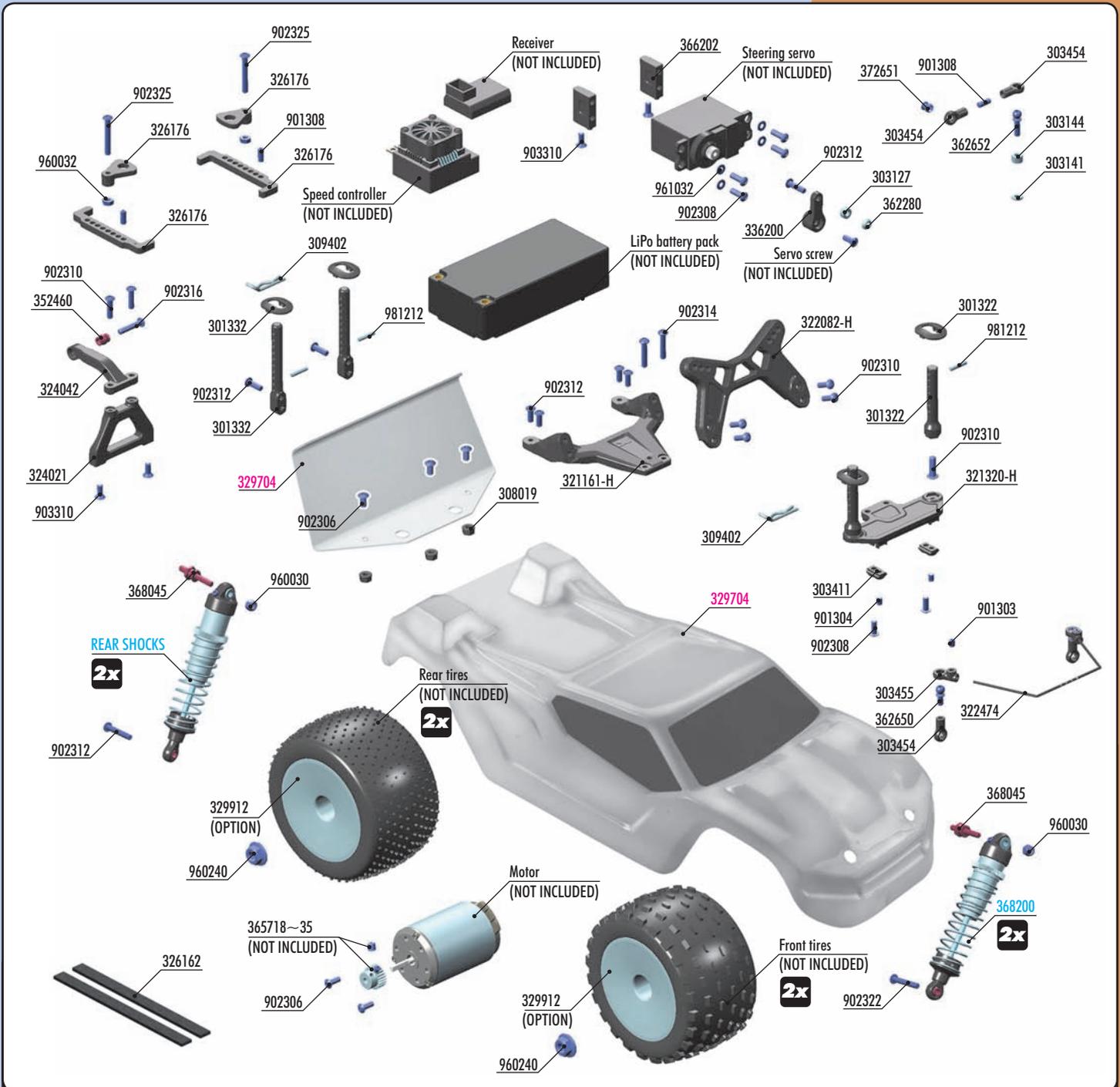
Both FRONT SHOCKS must be the same overall length.
Both REAR SHOCKS must be the same overall length.



2x FRONT SHOCKS (SHORT)

2x REAR SHOCKS (LONG)





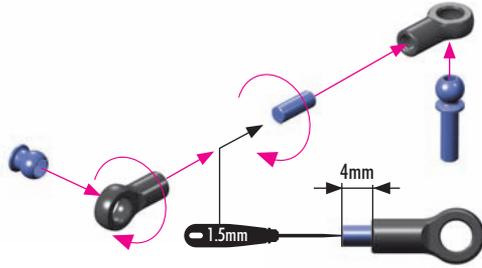
BAG

07

- | | | | |
|-----------|--|------------|--|
| 30 1322 | FRONT BODY MOUNT SET 6MM | 36 5718~35 | ALU PINION GEAR - HARD COATED 18T~35T / 48 (OPTION) |
| 30 1332 | REAR BODY MOUNT SET 6MM | 36 6202 | COMPOSITE SERVO MOUNT - HIGHER |
| 30 3127 | ALU SHIM 3x6x4.0MM (10) | 36 8045 | STEEL SCREW SHOCK PIVOT BALL WITH HEX (2) |
| 30 3141 | ALU SHIM 3x5x1.0MM (10) | 37 2651 | PIVOT BALL UNIVERSAL 4.9 MM - HUDY SPRING STEEL™ (2) |
| 30 3144 | ALU SHIM 3x5x4.0MM (10) | | |
| 30 3411 | COMPOSITE ANTI-ROLL BAR HOLDERS | 90 1303 | HEX SCREW SB M3x3 (10) |
| 30 3454 | BALL JOINT 4.9MM - OPEN (4) | 90 1304 | HEX SCREW SB M3x4 (10) |
| 30 3455 | COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9 MM (4) | 90 1308 | HEX SCREW SB M3x8 (10) |
| 30 8019 | COMPOSITE SET OF SHOCKS SHIMS & NUTS (2) | 90 2306 | HEX SCREW SH M3x6 (10) |
| 30 9402 | BODY CLIP FOR 6MM BODY POST (4) | 90 2308 | HEX SCREW SH M3x8 (10) |
| 32 1161-H | COMPOSITE FRONT UPPER DECK FOR ANTI-ROLL BAR - HARD | 90 2310 | HEX SCREW SH M3x10 (10) |
| 32 1320-H | XT2 COMPOSITE FRONT BODY MOUNT - HARD | 90 2312 | HEX SCREW SH M3x12 (10) |
| 32 2082-H | XT2 COMPOSITE SHOCK TOWER FRONT - HARD | 90 2314 | HEX SCREW SH M3x14 (10) |
| 32 2474 | XT2 FRONT ANTI-ROLL BAR 1.4 MM | 90 2316 | HEX SCREW SH M3x16 (10) |
| 32 4021 | COMPOSITE MOUNT FOR UPPER BRACE - LCG | 90 2322 | HEX SCREW SH M3x22 (10) |
| 32 4042 | COMPOSITE MOTOR UPPER BRACE - LCG | 90 2325 | HEX SCREW SH M3x25 (10) |
| 32 6162 | SELF-ADHESIVE RUBBER 1.5x6.5x155MM (2) | 90 3310 | HEX SCREW SFH M3x10 (10) |
| 326176 | COMPOSITE LIPO BATTERY BACKSTOP FOR BENT SIDES CHASSIS (2+2) | 96 0030 | NUT M3 (10) |
| 32 9912 | STADIUM TRUCK WHEEL WITH 12MM HEX - WHITE (2) (OPTION) | 960032 | NUT M3 (10) |
| 33 6200 | COMPOSITE STEERING SERVO ARMS - SET | 96 0240 | NUT M4 WITH SERRATED FLANGE (10) |
| 352460 | PIVOT BALL 5.8 (10) | 98 1212 | PIN 2x12 (10) |
| 36 2280 | ALU CONICAL SHIM 3x6x2.0MM (10) | | |
| 36 2650 | BALL END 4.9MM WITH THREAD 8MM (2) | 36 8200 | SHOCK ABSORBERS COMPLETE SET (2) |
| 36 2652 | BALL END 4.9MM WITH THREAD 10MM (2) | 32 9704 | XRAY XT2 BODY - FRONT/REARWARD SHOCK POSITION |



901308
SB M3x8



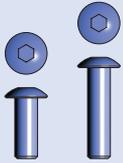
TIP Install the pivot balls with Professional Multi Tool (HUDY #183011)



303127
SHIM 3x6x4



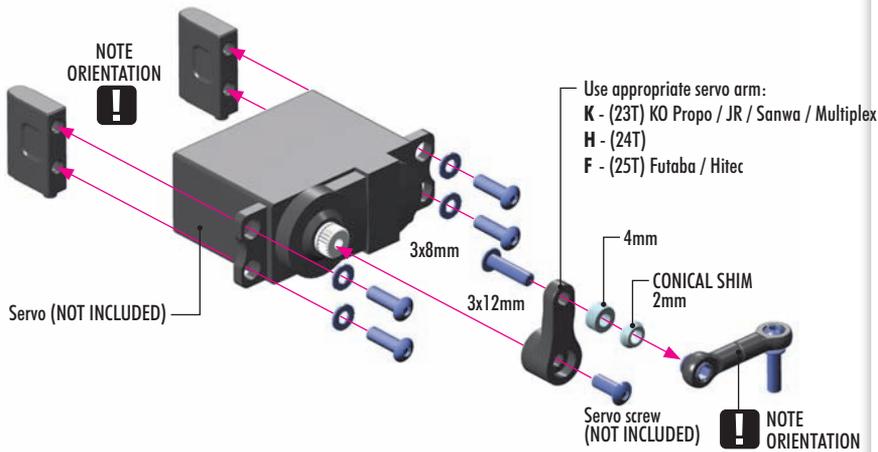
362280
CON. SHIM 3x6x2



902308 SH M3x8
902312 SH M3x12



961032
SHIM S 3.2



HUDY ALU SERVO HORNS

#293497	23T
#293498	24T
#293499	25T



HUDY CLAMP ALU SERVO HORNS

#293404	23T
#293405	24T
#293406	25T

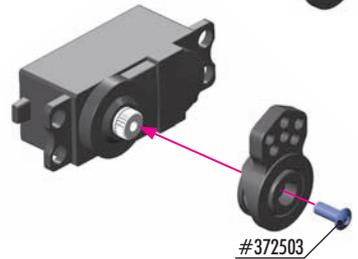
For more in-corner steering and better steering response, aluminum servo horns may be used.



TIP For increased safety of the servo during a crash we suggest to use optional servo saver that will absorb impacts and will eliminate servo damage. To install the servo saver the optional alu stands.



#372503
COMPOSITE SERVO SAVER - STIFF



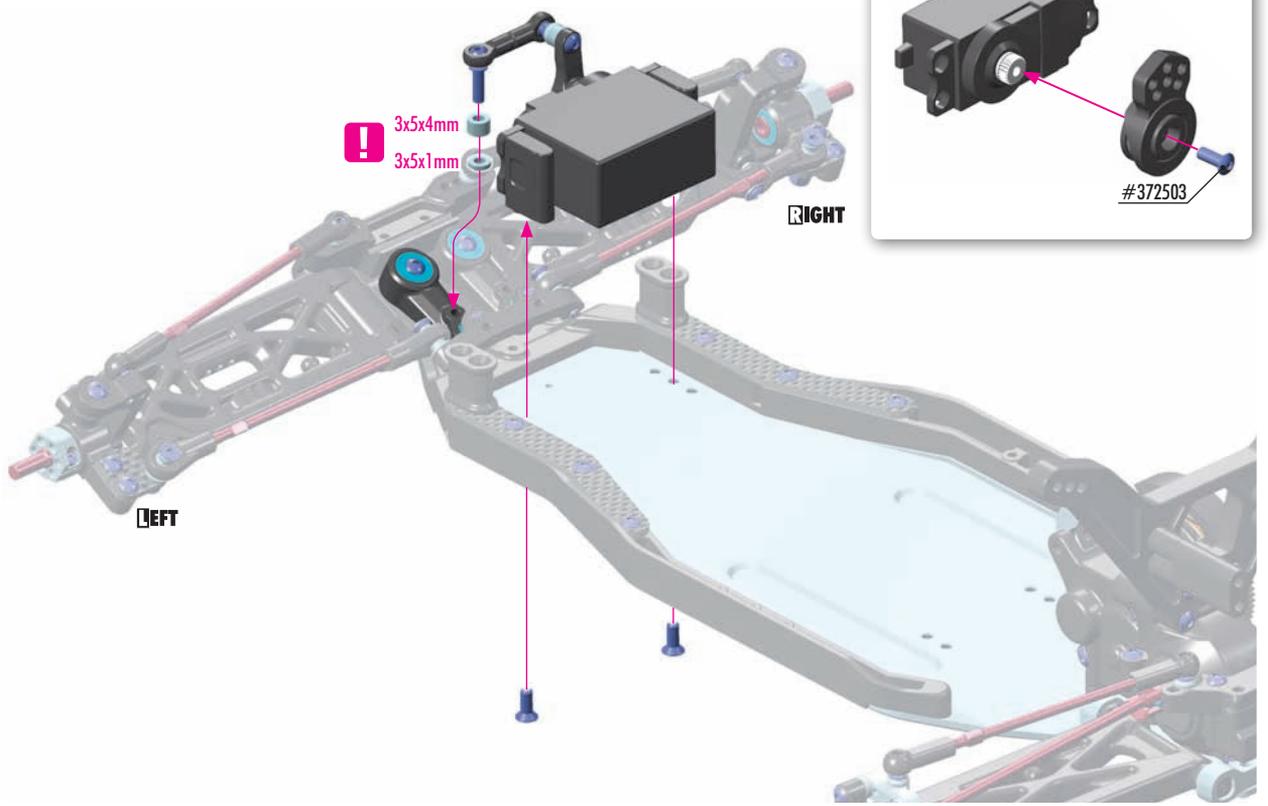
303141
SHIM 3x5x1



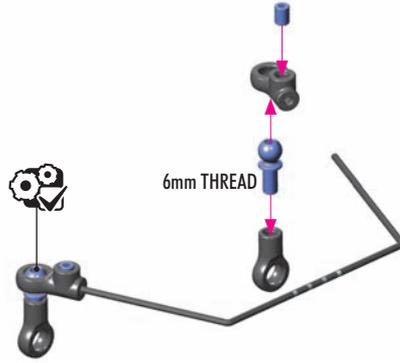
303144
SHIM 3x5x4



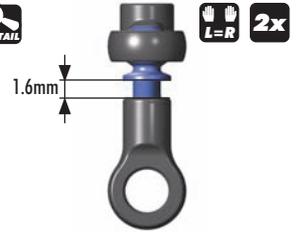
903310
SFH M3x10



901303
SB M3x3

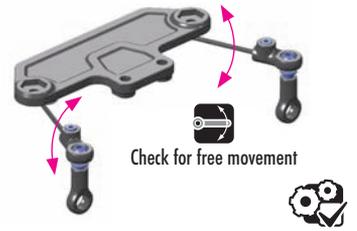
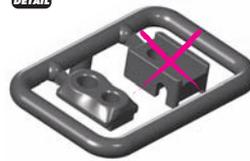
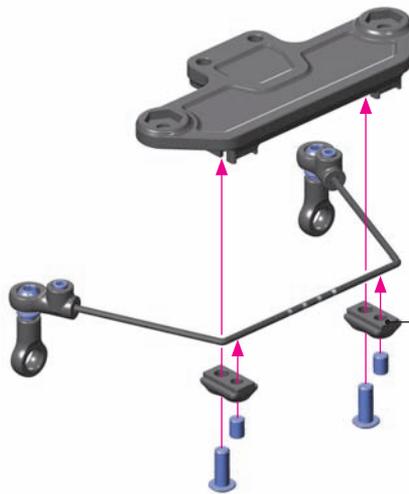


ANTI-ROLL BARS			
OPTION	#322472	1.2mm	OPTION
	#322474	1.4mm	INCLUDED
	#322476	1.6mm	OPTION
	#322478	1.8mm	OPTION



901304
SB M3x4

902308
SH M3x8



902312
SH M3x12

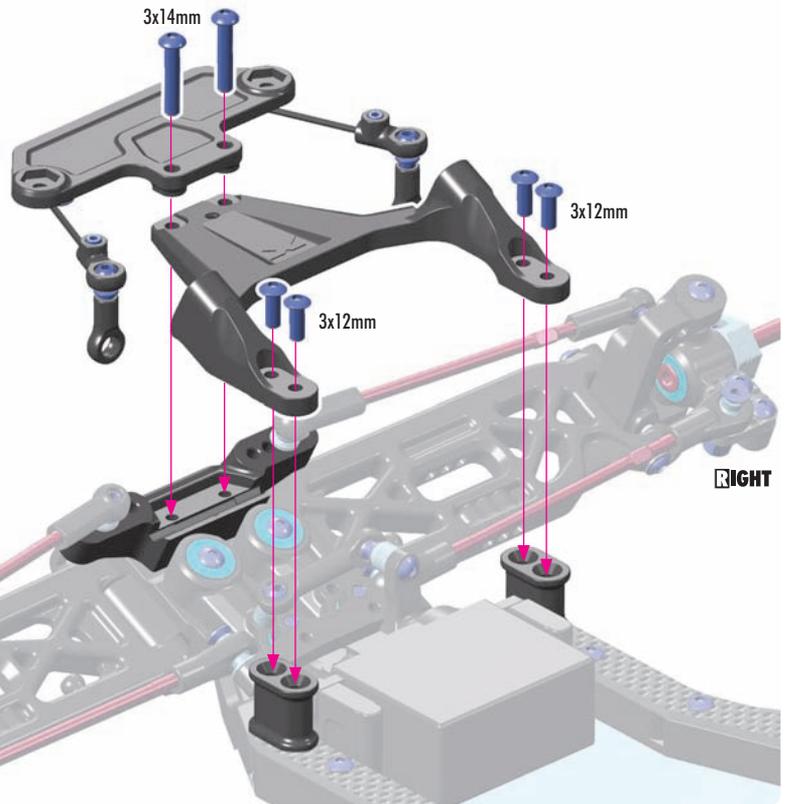
902314
SH M3x14



FRONT UPPER DECK		
OPTION	#321160-M	MEDIUM OPTION
	#321161-H	HARD INCLUDED

MEDIUM - For very-low, low and medium traction tracks. Generates more traction, absorbs bumps better.

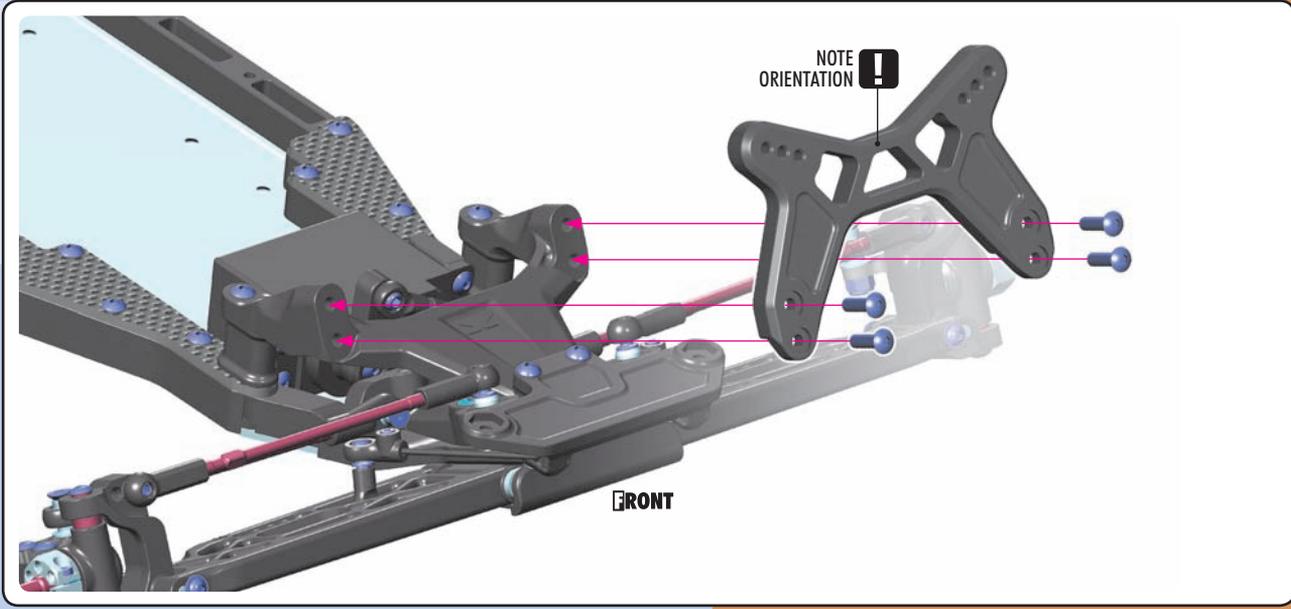
HARD - For high & very-high traction tracks. Makes the car more precise.



LEFT



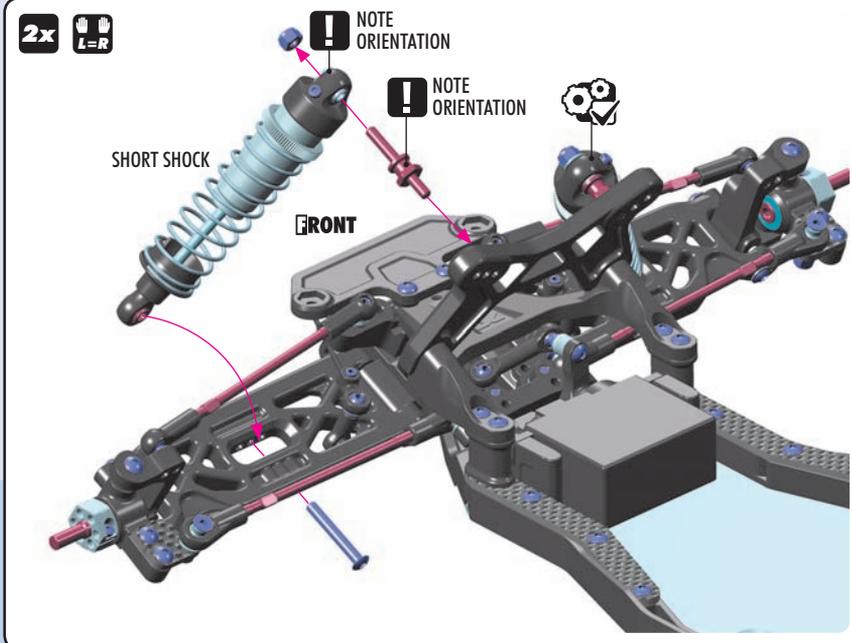
902310
SH M3x10



902322
SH M3x22



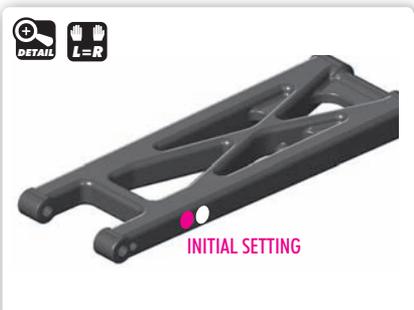
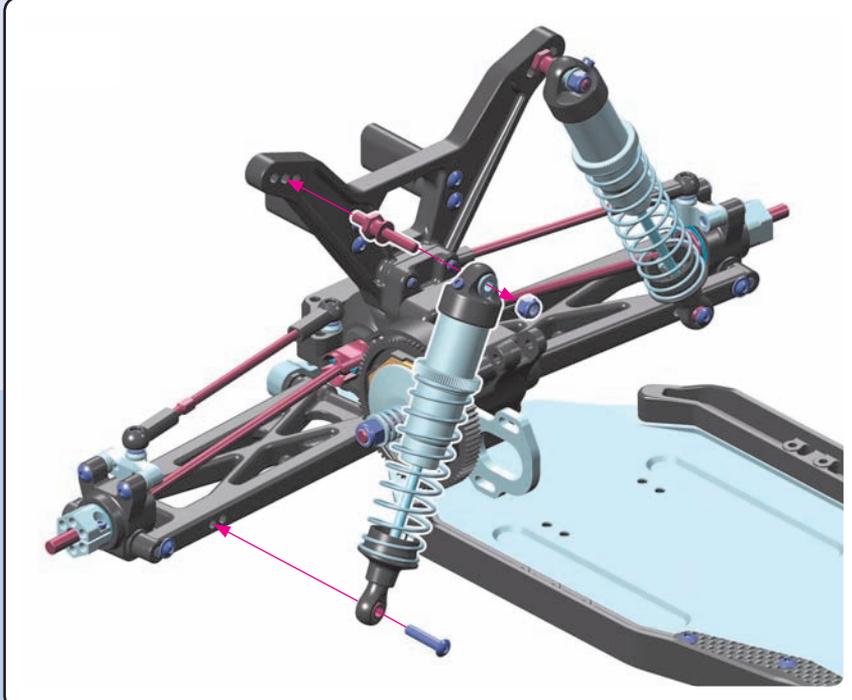
960030
NUT M3



902312
SH M3x12

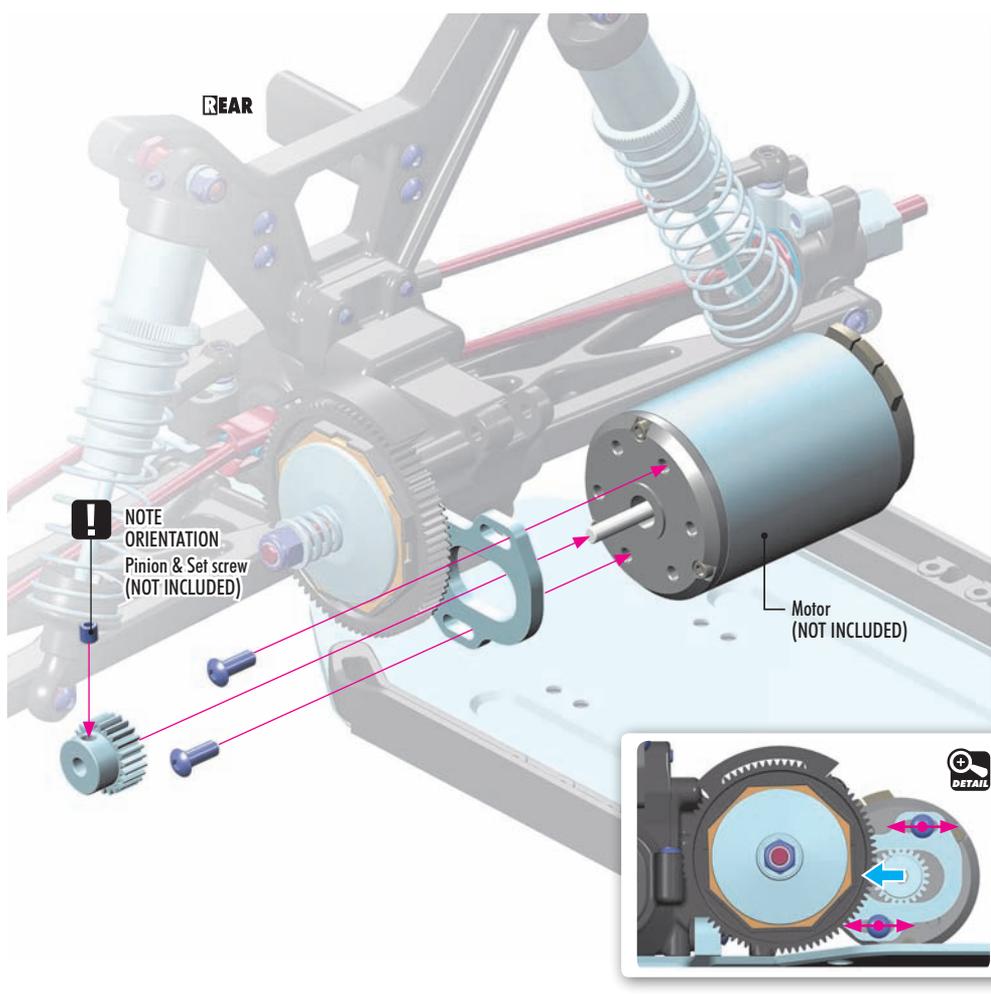


960030
NUT M3



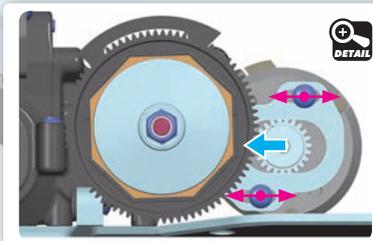


902306
SH M3x6



XRAY PINIONS (48P)

OPTION	Pinion #	Teeth
	#365718	18T
	#365719	19T
	#365720	20T
	#365721	21T
	#365722	22T
	#365723	23T
	#365724	24T
	#365725	25T
	#365726	26T
	#365727	27T
	#365728	28T
	#365729	29T
	#365730	30T
	#365731	31T
	#365732	32T
	#365733	33T
	#365734	34T
	#365735	35T
	#365736	36T
	#365737	37T
	#365738	38T



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.



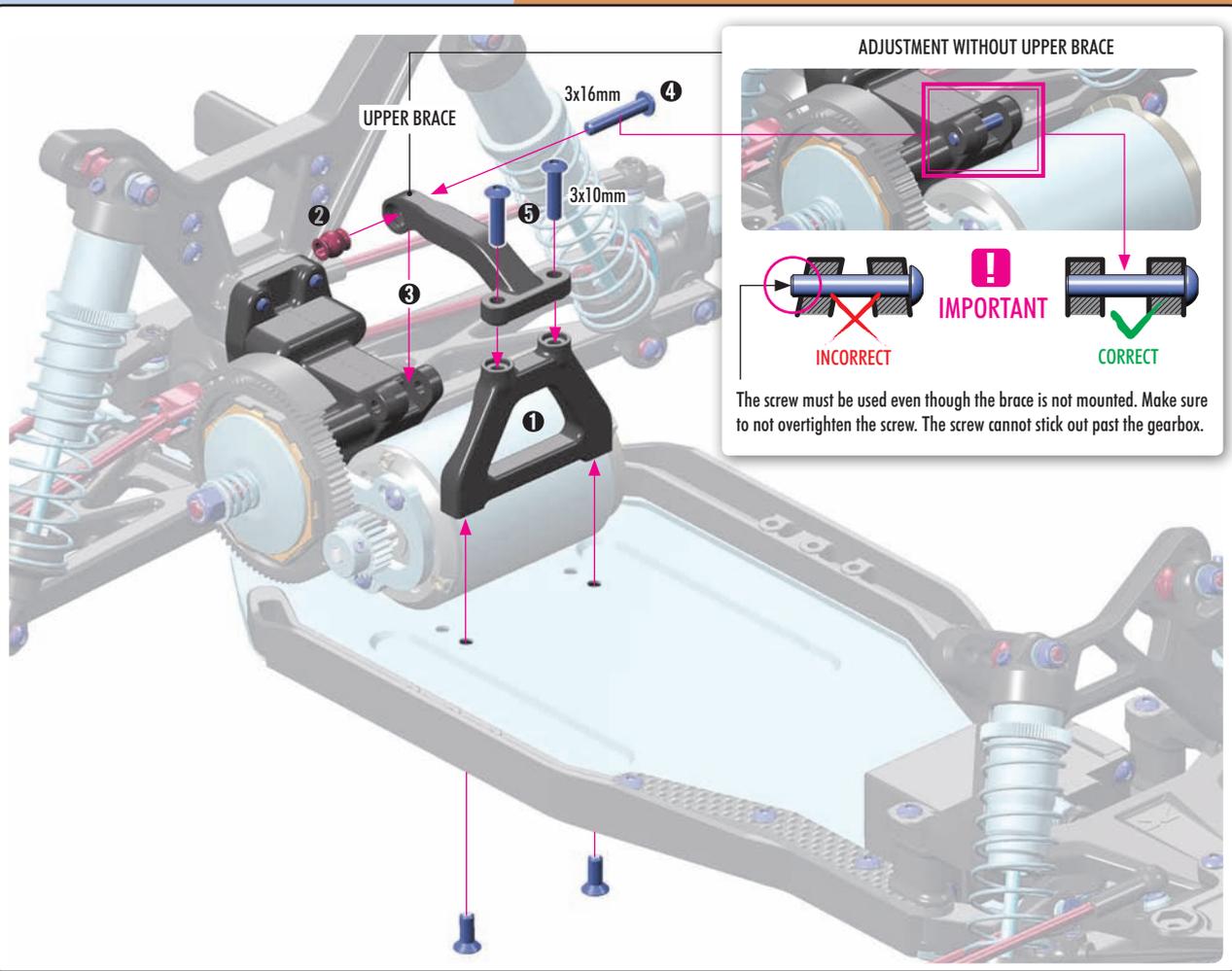
902310
SH M3x10

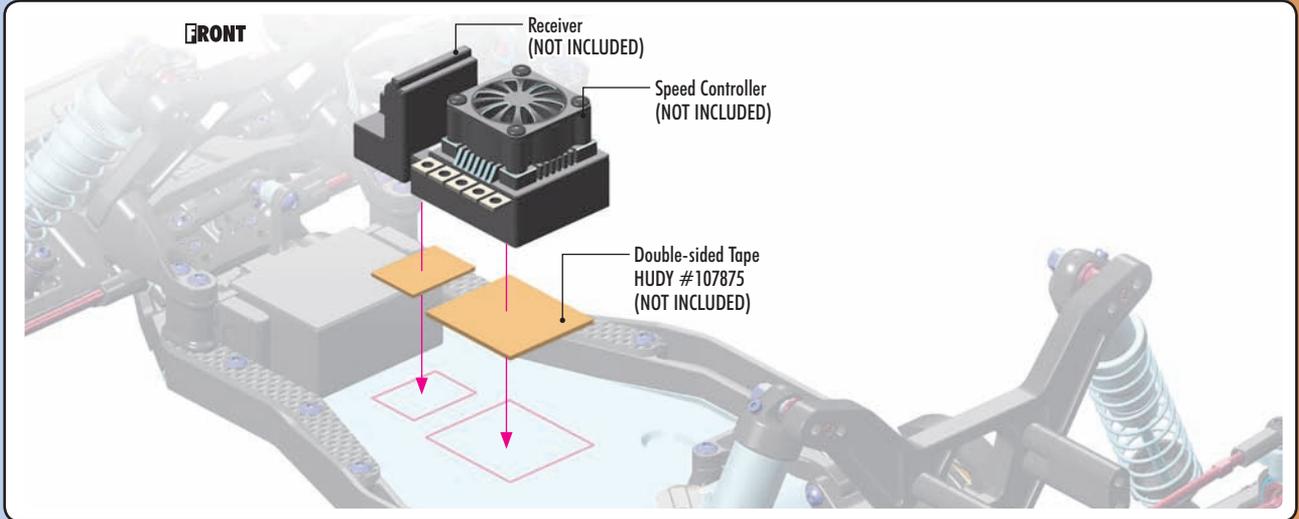


902316
SH M3x16



903310
SFH M3x10





901308
SB M3x8

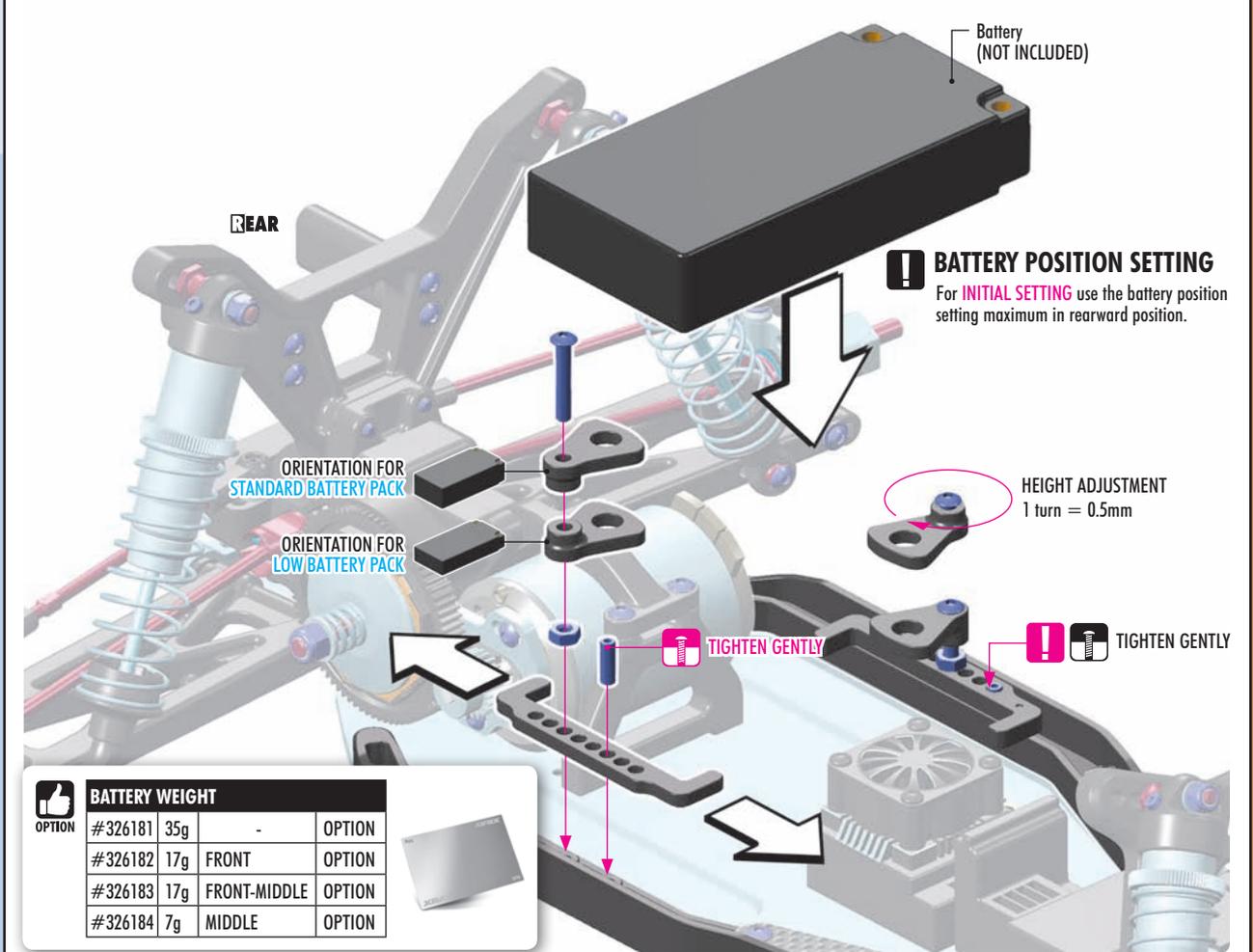
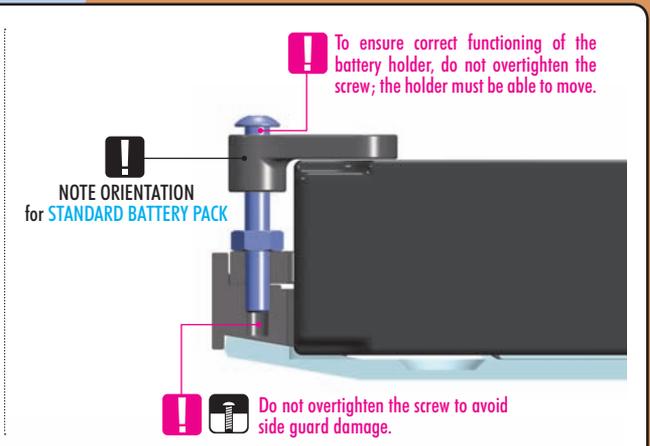
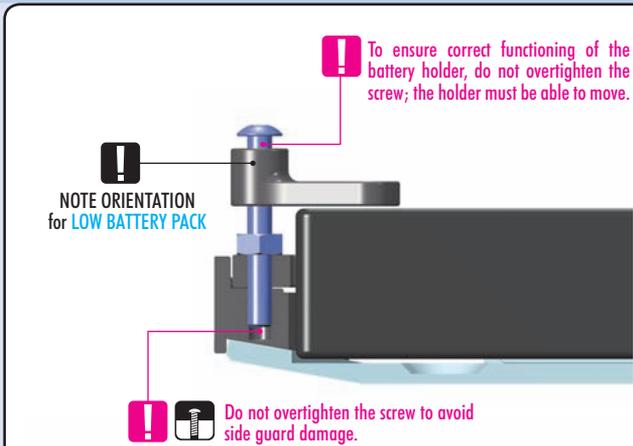


NOTE ORIENTATION
for LOW BATTERY PACK

902325
SH M3x25



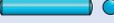
960032
NUT M3



BATTERY WEIGHT				
OPTION	#326181	35g	-	OPTION
	#326182	17g	FRONT	OPTION
	#326183	17g	FRONT-MIDDLE	OPTION
	#326184	7g	MIDDLE	OPTION

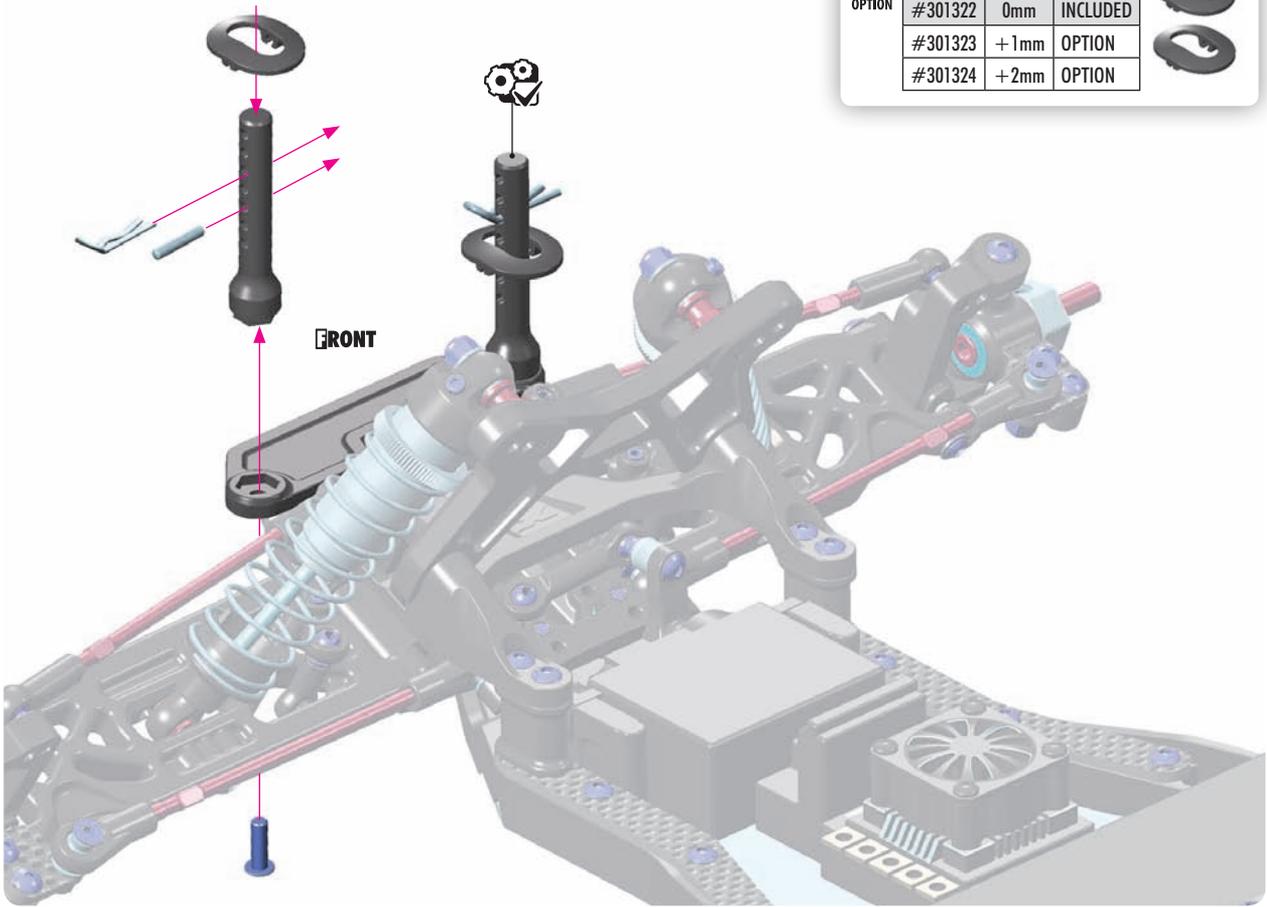


 902310
 SH M3x10



 981212
 P 2x12



FRONT

FRONT BODY MOUNT SET			
OPTION	#301322	0mm	INCLUDED
	#301323	+1mm	OPTION
	#301324	+2mm	OPTION

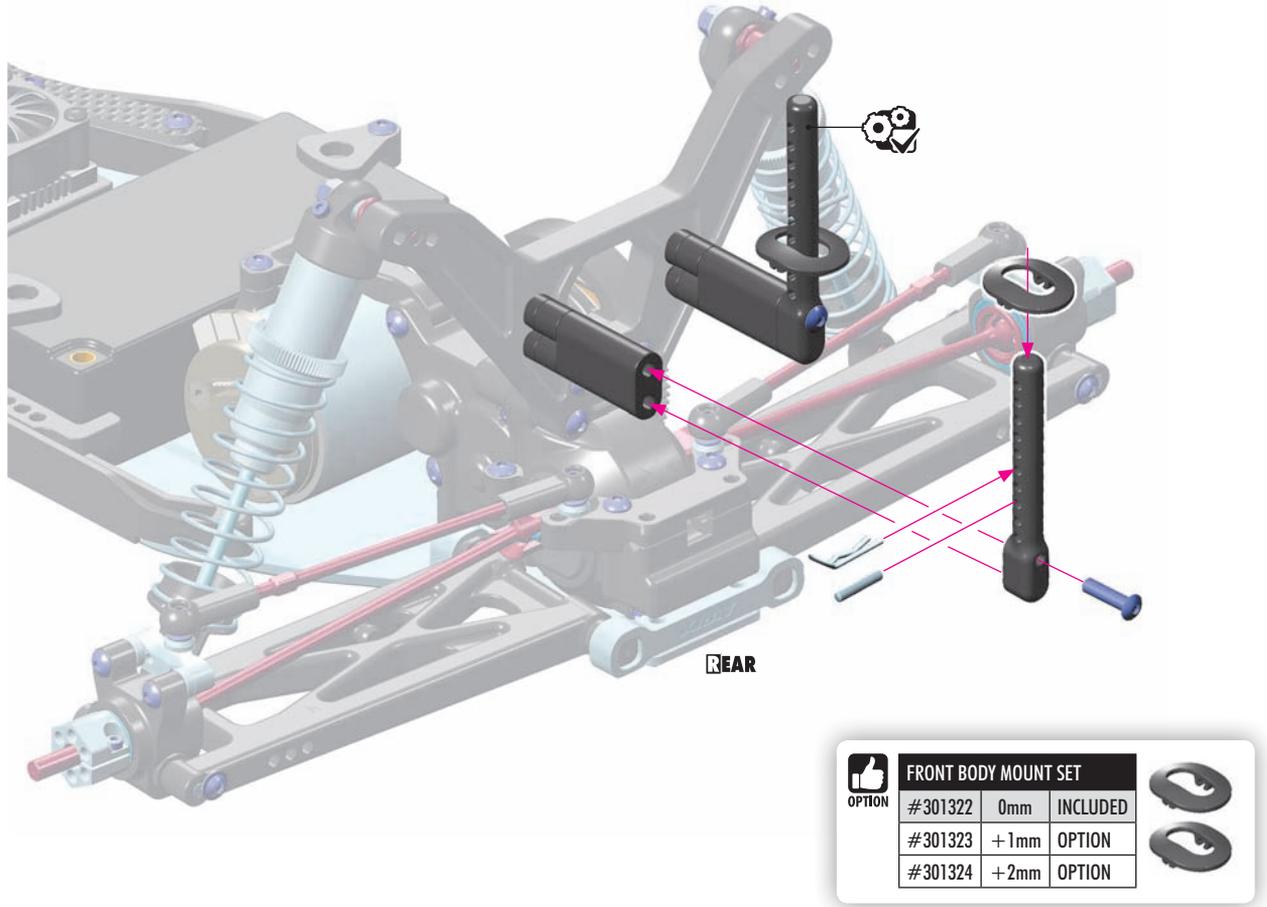


 902312
 SH M3x12



 981212
 P 2x12



REAR

FRONT BODY MOUNT SET			
OPTION	#301322	0mm	INCLUDED
	#301323	+1mm	OPTION
	#301324	+2mm	OPTION



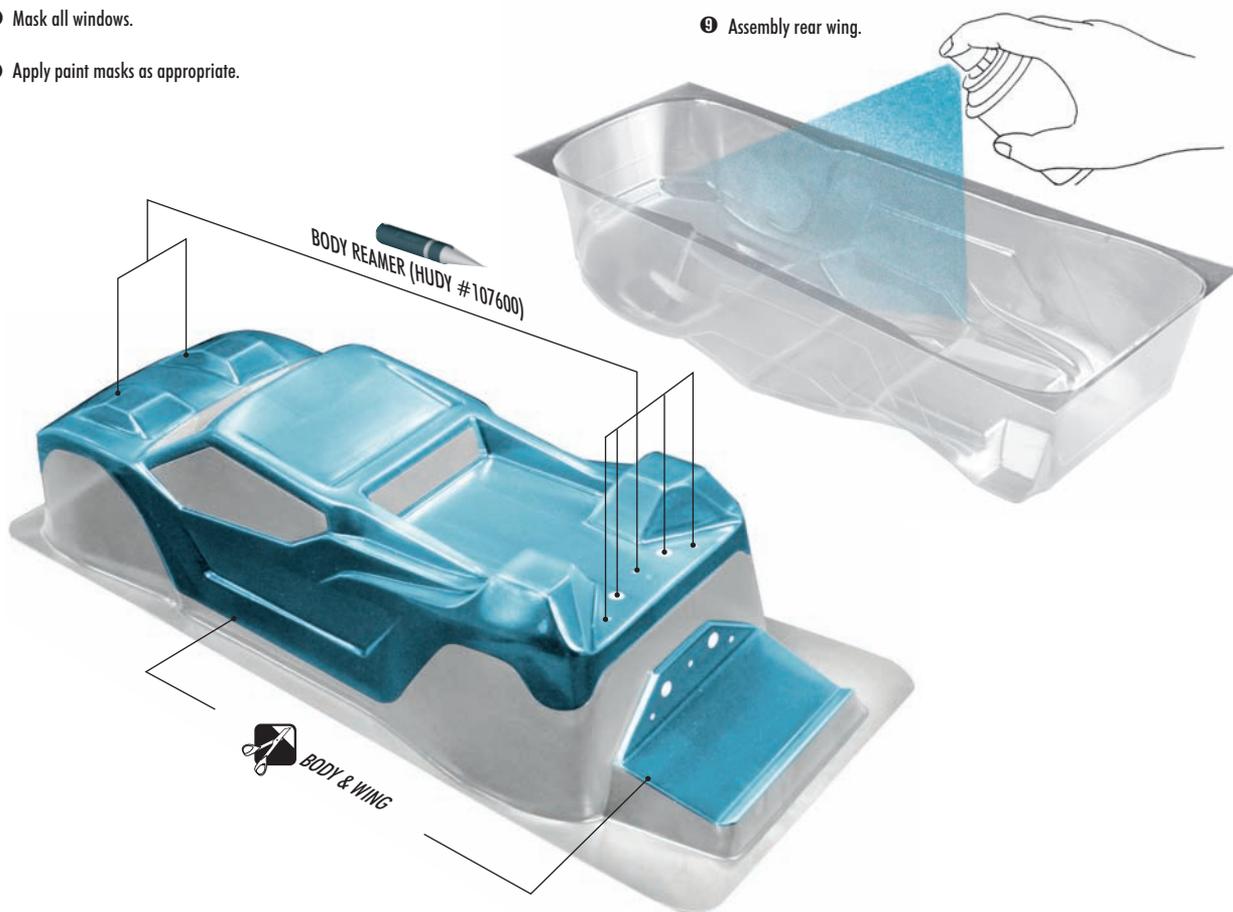
902306
SH M3x6



308019
NUT M3

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

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



OPTION

BODY STADIUM TRUCK

#329704	1.0mm	F/R SHOCK POSITION	INCLUDED
#329705	0.75mm	F/R SHOCK POSITION	OPTION



OPTION

REAR WING

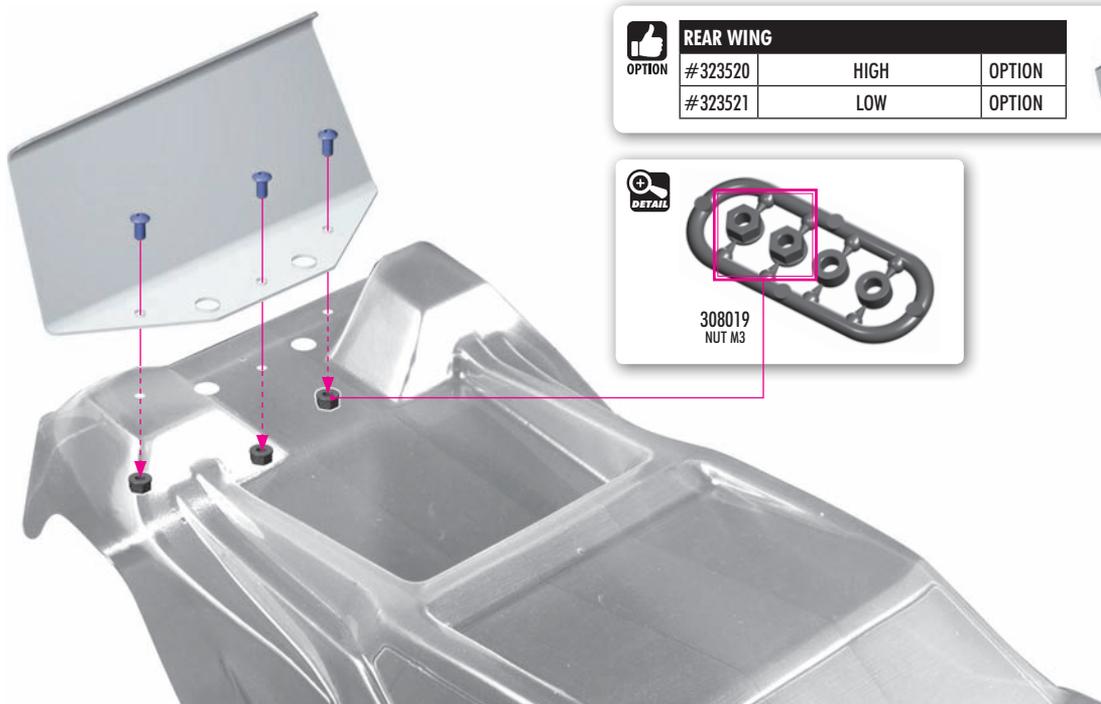
#323520	HIGH	OPTION
#323521	LOW	OPTION

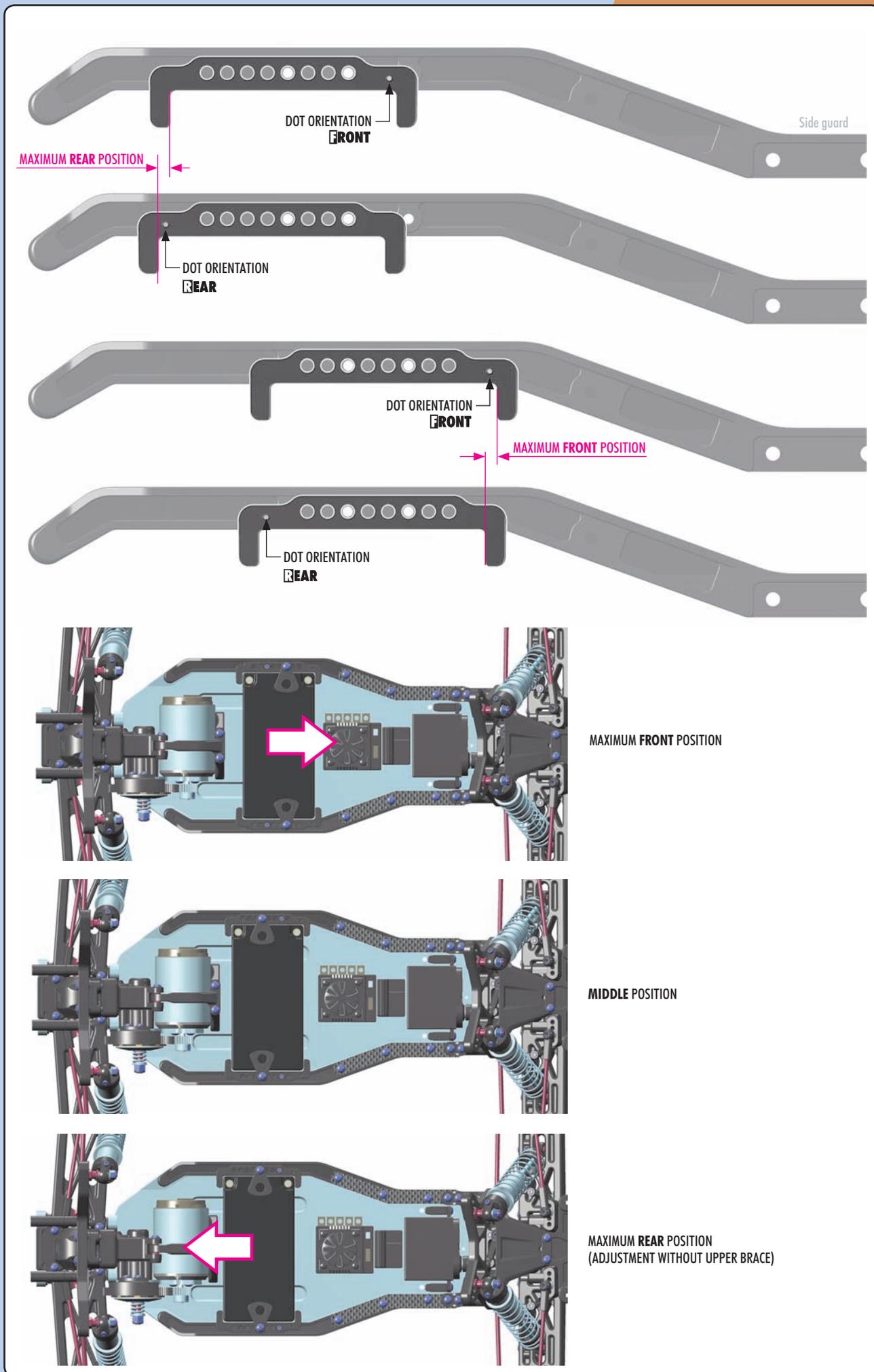


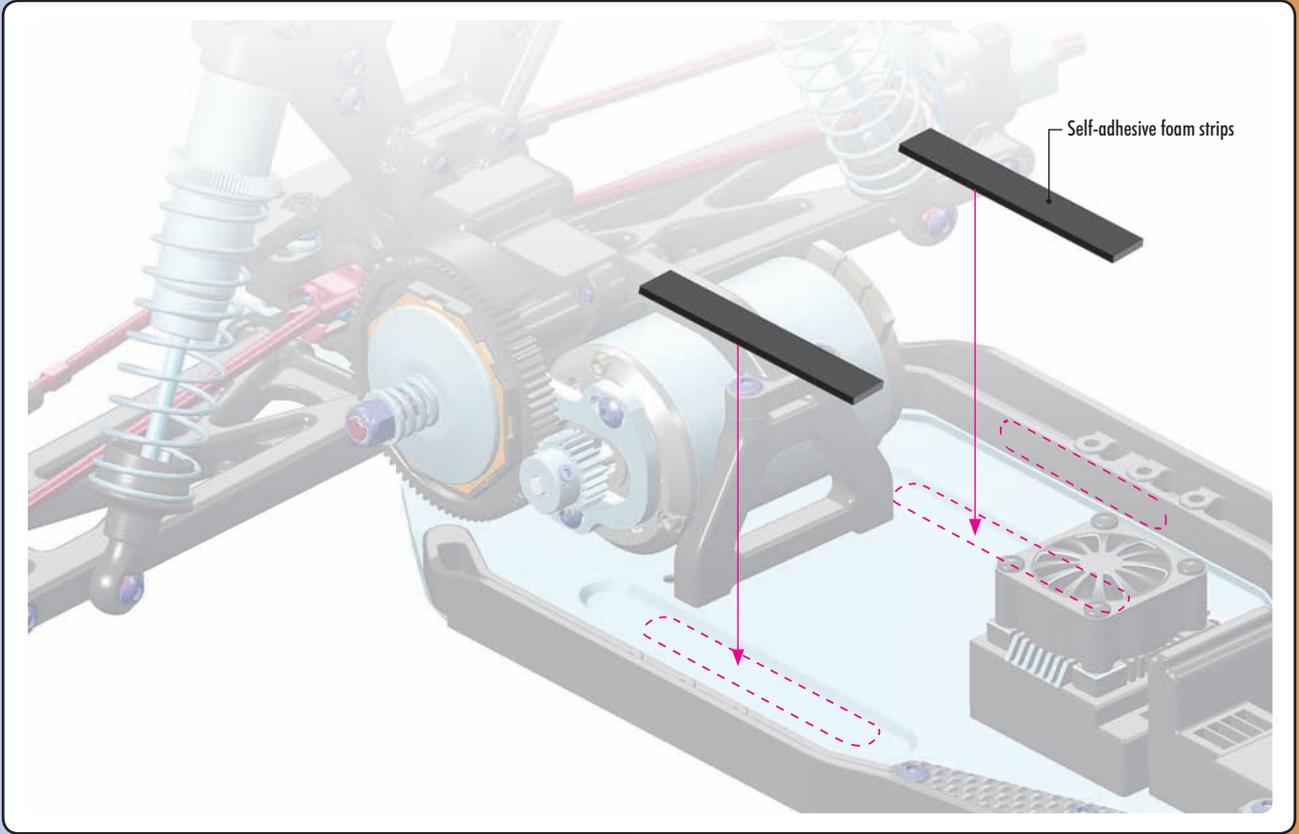
DETAIL



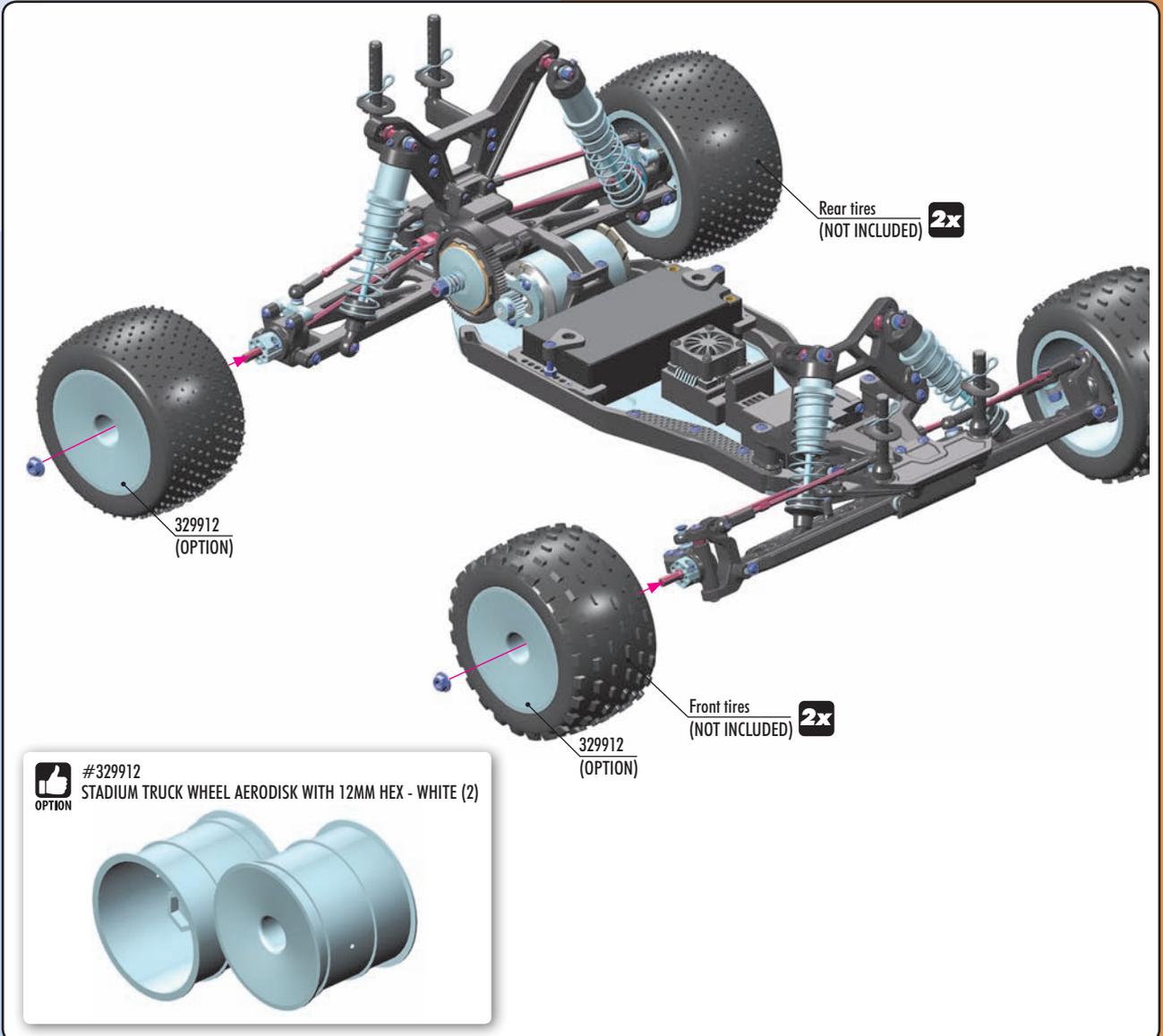
308019
NUT M3







960240
N M4



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 ball-bearings are degreased and are lubricated with HUDY Bearing Oil or HUDY Grease. 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.

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

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

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

RECOMMENDED PRODUCTS

- Use correct oil or grease to lubricate the bearings:
 #106230 HUDY Bearing Oil
 #106220 HUDY Bearing Grease - Standard
 #106221 HUDY Bearing Grease - Blue
 #106222 HUDY Bearing Grease - Red



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 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 3x12 (#106051).
- 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.



#106210 HUDY GRAPHITE GREASE or #106213 HUDY JOINT GREASE

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.

EXCLUSIVE PROFESSIONAL

HUDY



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

- 108160 HUDY 1/10 OFF-ROAD CAR STAND - V2
- 108190 HUDY ALU TRAY FOR PARTS
- 108201 FLAT SET-UP BOARD FOR 1/10 TOURING CARS
- 108203 FLAT SET-UP BOARD FOR 1/10 TOURING CARS - SILVER GREY
- 108204 FLAT SET-UP BOARD FOR 1/10 TOURING CARS - TITAN
- 108205 FLAT SET-UP BOARD FOR 1/10 TOURING CARS - DARK GREY
- 108840 UPSIDE MEASURE PLATE FOR 1/8 OFF-ROAD
- 108905 UNIVERSAL EXCLUSIVE SET-UP SYSTEM (WITH #108840)
- 108960 ALU NUT FOR 1/10 OFF-ROAD SET-UP SYSTEM (4)
- 109801 HUDY ALU TRAY FOR 1/10 OFF-ROAD DIFF & SHOCKS
- 109840 HUDY ALU TRAY FOR 1/10 OFF-ROAD DIFF ASSEMBLY
- 109860 HUDY ALU TRAY FOR SET-UP SYSTEM



- 109880 HUDY ALU TRAY FOR ACCESSORIES & PIT LED
- 111545 LIMITED EDITION - ALLEN WRENCH # 1.5MM
- 112045 LIMITED EDITION - ALLEN WRENCH # 2.0MM
- 132045 LIMITED EDITION - ALLEN WRENCH + BALL REPL. TIP # 2.0MM
- 153055 LIMITED EDITION - SLOTTED SCREWDRIVER # 3.0MM - LONG
- 175535 LIMITED EDITION - SOCKET DRIVER # 5.5MM
- 177035 LIMITED EDITION - SOCKET DRIVER # 7.0MM
- 181030 HUDY SPRING STEEL TURNBUCKLE WRENCH 3 MM
- 181090 HUDY SPECIAL TOOL FOR TURNBUCKLES & NUTS
- 183011 HUDY PROFESSIONAL MULTI TOOL
- 188990 HUDY PROFESSIONAL BODY SCISSORS
- 199060 HUDY ALU TOOL STAND

- 199183 HUDY CAR BAG - 1/10 OFF-ROAD
- 199270 HUDY LIPO SAFETY BAG
- 293110 HUDY BRUSHLESS RC FAN 30MM
- 298100 HUDY TIN ROUND BOX 80X30MM
- 293110XL HUDY BRUSHLESS RC FAN 30MM - SET OF 12PCS

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

www.hudy.net



www.teamxray.com

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