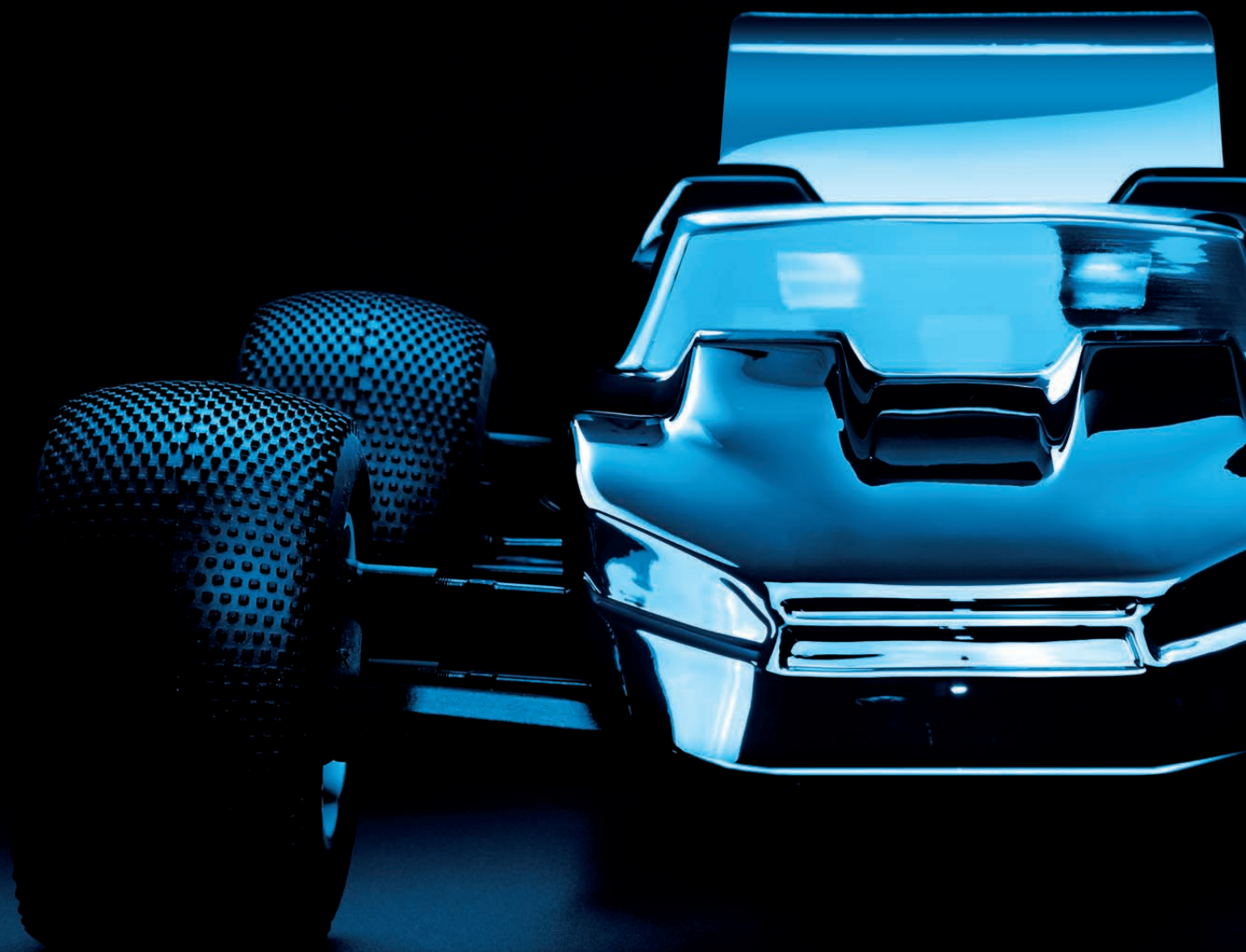


1/10 LUXURY ELECTRIC STADIUM TRUCK

# XRAY XT2



**INSTRUCTION MANUAL**  
FOR XT2C'24 & XT2D'24 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](mailto:info@teamxray.com). Also, please visit our Web site at [www.teamxray.com](http://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](http://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](mailto: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](mailto: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](http://www.teamxray.com) to get advice, or contact us via email at [info@teamxray.com](mailto: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)



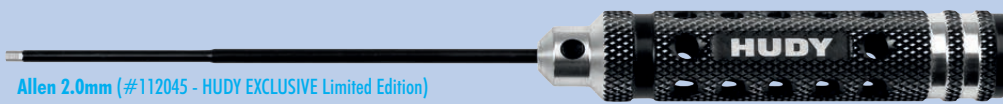
HUDY Tweezers Straight (HUDY #188970)



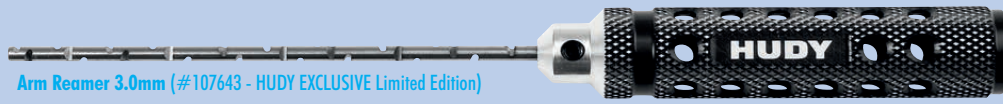
HUDY Tweezers Curved (HUDY #188971)



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)

# EQUIPMENT INCLUDED

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

300cSt (#106330)  
HUDY Premium Silicone Oils



400cSt (#106340)  
HUDY Premium Silicone Oils



10.000cSt (#106510)  
HUDY Premium Silicone Oils



(HUDY #106211)  
Premium Diff Grease



(HUDY #106210)  
Premium Graphite Grease



# EQUIPMENT REQUIRED

Transmitter



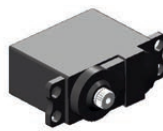
Receiver



Speed Controller



Steering Servo



Electric Motor & Pinion Gear  
with Setscrew



LiPo Battery



Battery Charger



Option Double-sided Tape  
(HUDY #107875)



Lexan™ Paint



4x Tires & Inserts



Option 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 | TYPE2 | OPTION 2 |
| #32XXXX | TYPE  | INCLUDED |
| #32XXXX | TYPE3 | OPTION 3 |

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.

325100

**STYLE D** - indicates parts that are optional.

## TECH TIPS

### TIP DRIVE SHAFT PIN SERVICING

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



DO NOT use drive shafts when the pins are worn.

Press out the worn pins.

Press in new pins and 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**

SAC

### MANUAL STEPS ONLY FOR CARPET

1. GEAR DIFFERENTIAL **CARPET**

SAC

### MANUAL DUAL STEPS FOR CARPET AND DIRT

3. REAR DRIVETRAIN **CARPET DIRT**

# 1. GEAR DIFFERENTIAL



### GEAR DIFF CASES

|           |          |          |
|-----------|----------|----------|
| #324912   | HARD     | INCLUDED |
| #324912-G | GRAPHITE | OPTION   |

### GEAR DIFF PULLEYS

|           |          |          |
|-----------|----------|----------|
| #324955   | HARD     | INCLUDED |
| #324955-G | GRAPHITE | OPTION   |

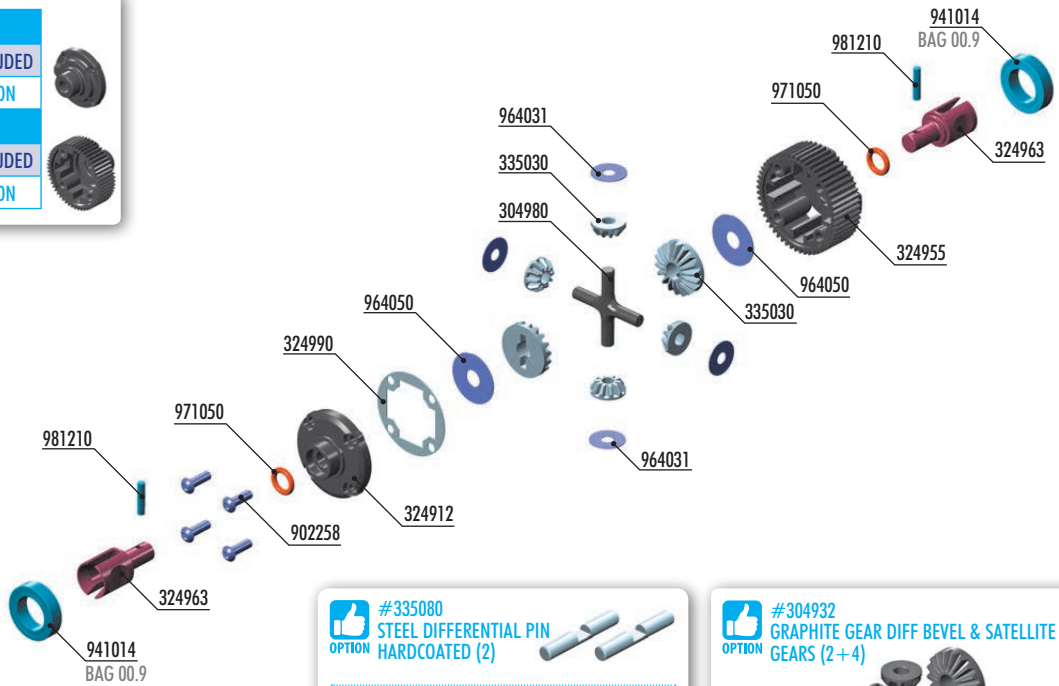


### #325101 XRAY XB2 ACTIVE DIFF - NARROW - SET



### ACTIVE DIFF SEGMENTS

|         |      |          |
|---------|------|----------|
| #325123 | 60°  | OPTION   |
| #325125 | 90°  | OPTION   |
| #325127 | 120° | INCLUDED |



**#335080**  
STEEL DIFFERENTIAL PIN  
HARDCOATED (2)

**#335081**  
ALU DIFFERENTIAL PIN  
HARDCOATED (2)

**#304932**  
GRAPHITE GEAR DIFF BEVEL & SATELLITE  
GEARS (2+4)



- 304980 COMPOSITE GEAR DIFF CROSS PIN
- 324990 DIFF GASKET (4)
- 324903 GEAR DIFFERENTIAL - LCG - NARROW - SET
- 324912 COMPOSITE GEAR DIFFERENTIAL COVER - LCG - NARROW
- 324955 COMPOSITE GEAR DIFFERENTIAL CASE WITH PULLEY 53T - LCG - NARROW
- 324963 GEAR DIFF OUTDRIVE ADAPTER - LCG - FOR NARROW DIFF - HSS™ (2)
- 335030 STEEL DIFF BEVEL & SATELLITE GEARS (2+4)

- 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)



1x 964050  
S 5x15x0.3

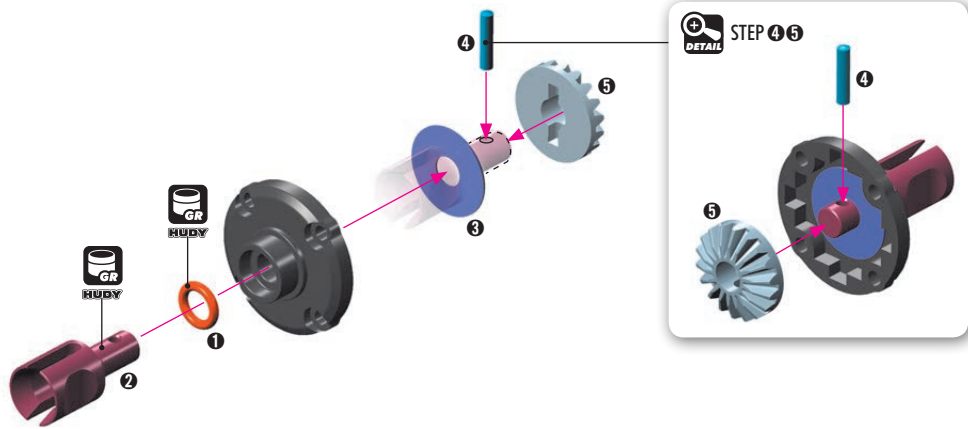


1x 971050  
O 5x1.5



1x 981210  
P 2x10

2x



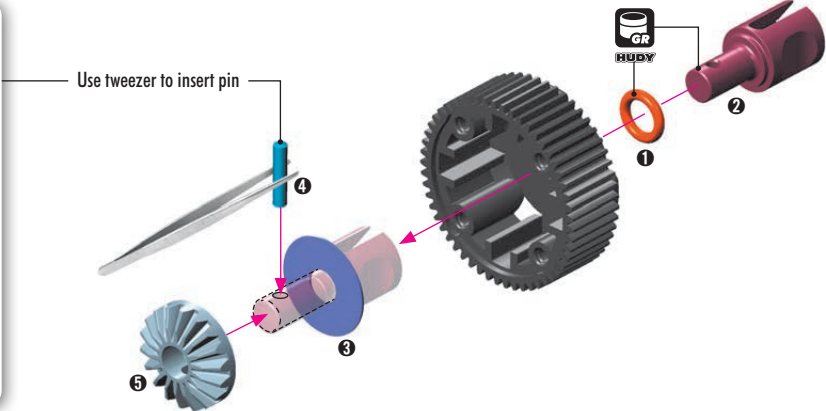
1x 964050  
S 5x15x0.3



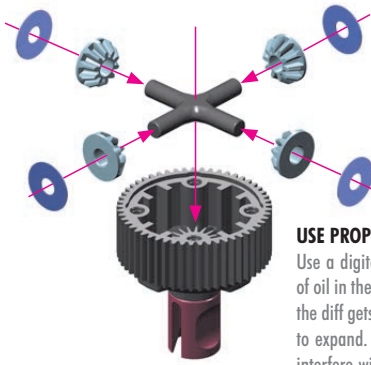
1x 971050  
O 5x1.5



1x 981210  
P 2x10



- 4x 964031  
S 3.5x10x0.2



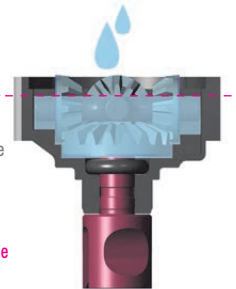
**USE PROPER AMOUNT OF OIL IN THE DIFFS**  
Use a digital scale to measure the exact amount of oil in the diff. Remember that during operation the diff gets hotter and the heat may allow the oil to expand. If there is too much oil inside it may interfere with the diff operation and damage the internal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

**Rear diff**  
Silicone oil 10.000cSt  
Fill just above the diff pin.

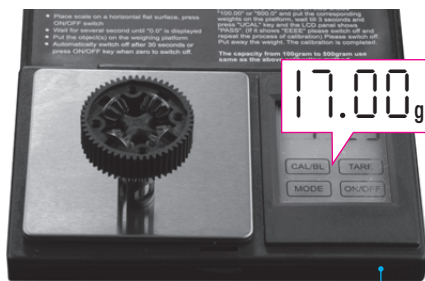


Fill differential up to the top of the diff pin.

**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 17.00g)

#107865  
HUDY Professional Digital Pocket Scale 300g/0.01g

#107866  
HUDY Professional Digital Pocket Scale 3000g/0.1g

$$17.00g + 1.30g = 18.30g$$



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 18.30g.

### TIP TIPS FOR REAR DIFFERENTIAL

LOW-MEDIUM TRACTION 5.000cSt (HUDY #106450)  
MEDIUM-HIGH TRACTION 15.000cSt (HUDY #106515)

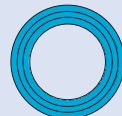
**NOTE:** Softer oil increases rear traction, harder oil increases on-power steering.

| HUDY ULTIMATE SILICONE OILS |                  |          |
|-----------------------------|------------------|----------|
| #106440                     | 4.000cSt - 50ml  | OPTION   |
| #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   |
| #106513                     | 13.000cSt - 50ml | OPTION   |
| #106515                     | 15.000cSt - 50ml | OPTION   |
| #106520                     | 20.000cSt - 50ml | OPTION   |
| #106530                     | 30.000cSt - 50ml | OPTION   |
| #106540                     | 40.000cSt - 50ml | OPTION   |
| #106550                     | 50.000cSt - 50ml | OPTION   |
| #106560                     | 60.000cSt - 50ml | OPTION   |
| #106580                     | 80.000cSt - 50ml | OPTION   |

### SET-UP BOOK

DIFFERENTIAL OIL

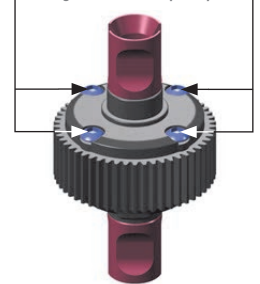
- 4x 902258  
SH M2.5x8



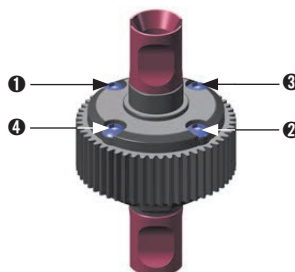
- 2x 941014  
BB 10x15x4



Install the screws equally but DO NOT tighten them completely.

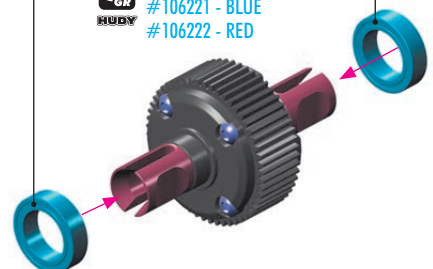


Finish tightening in this order.



Use HUDY Ball-Bearing Grease

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



# 1. BALL DIFFERENTIAL

**DIRT**

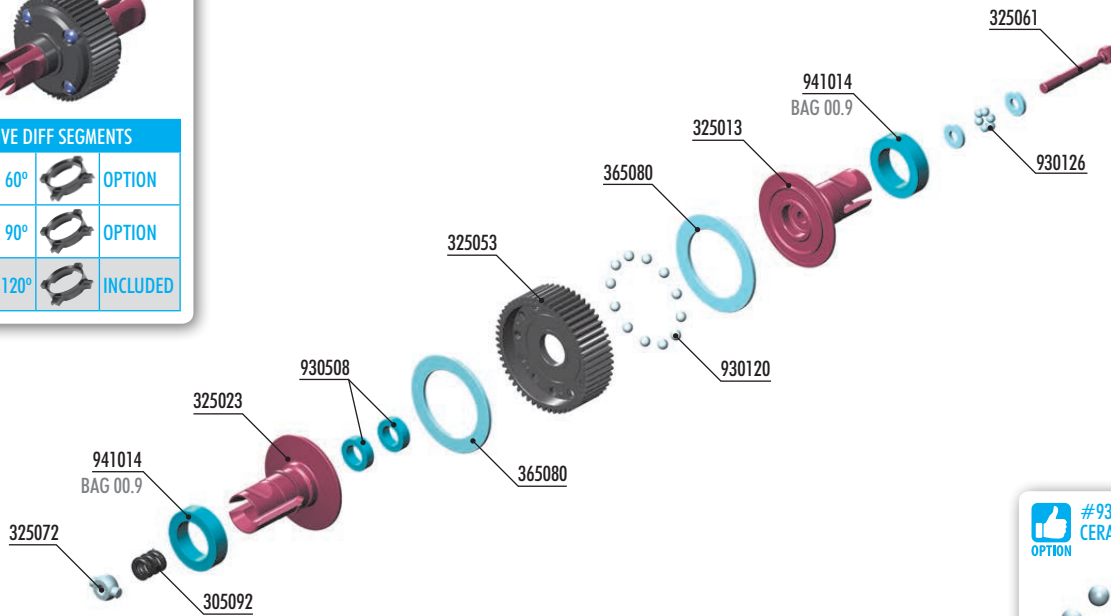
#325101 XRAY XB2 ACTIVE  
DIFF - NARROW - SET

OPTION

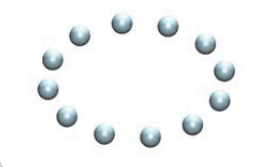


ACTIVE DIFF SEGMENTS

|         |      |  |          |
|---------|------|--|----------|
| #325123 | 60°  |  | OPTION   |
| #325125 | 90°  |  | OPTION   |
| #325127 | 120° |  | INCLUDED |



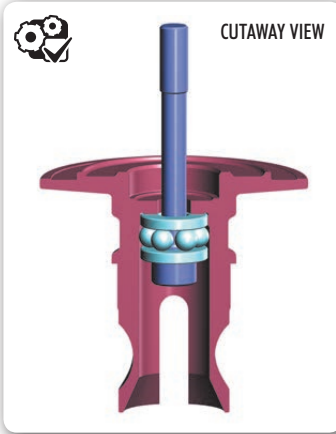
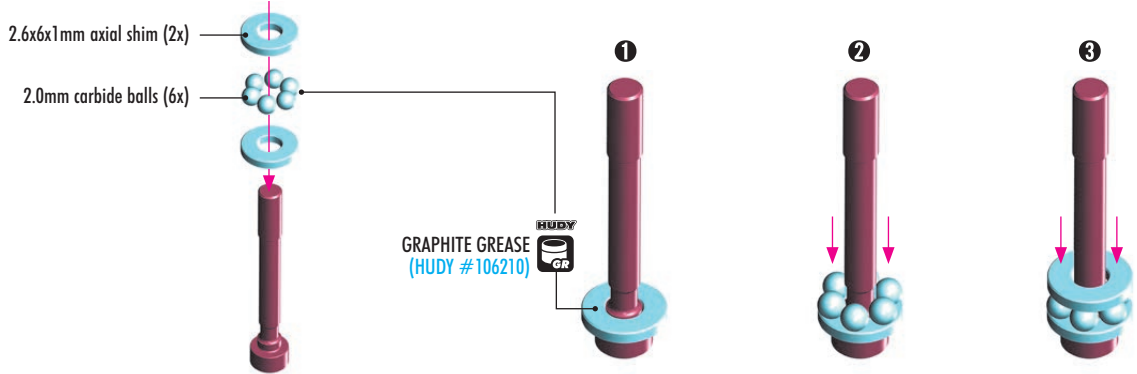
#930220  
CERAMIC BALL 2.4mm (12)



**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 2.6x6x1mm            |
| 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) |

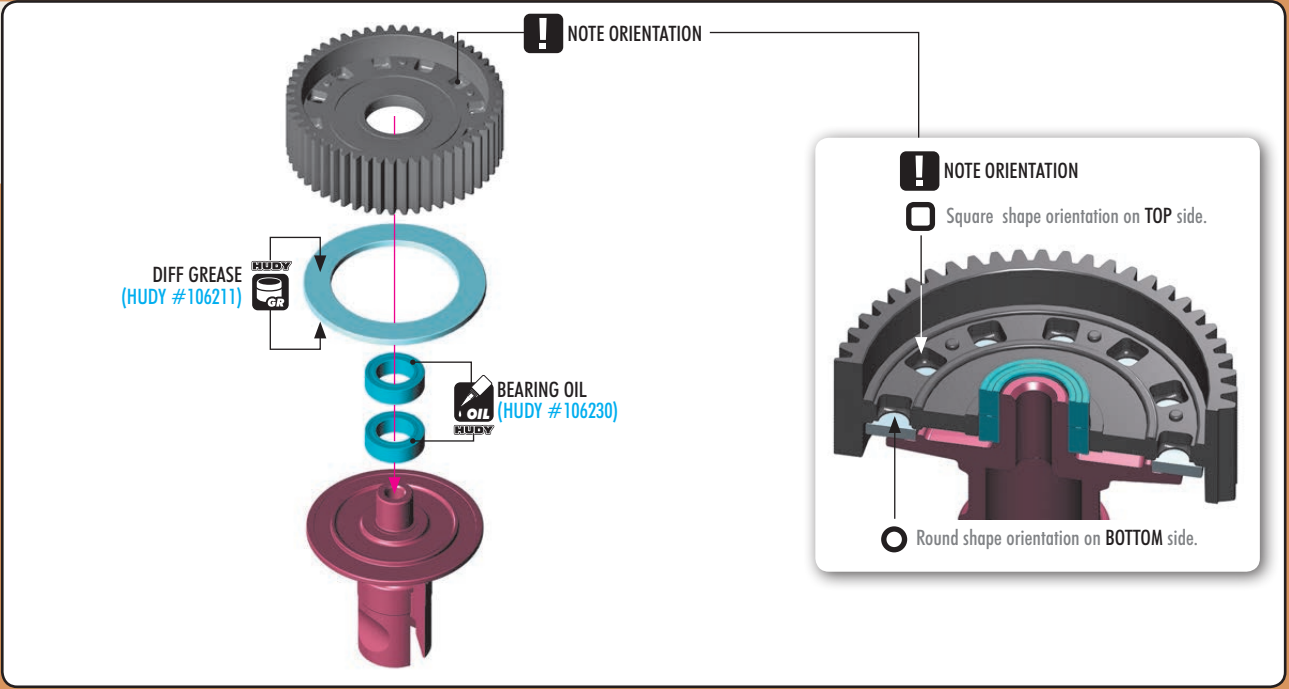
**01**  
1x 930126  
BA 2.6x6x1



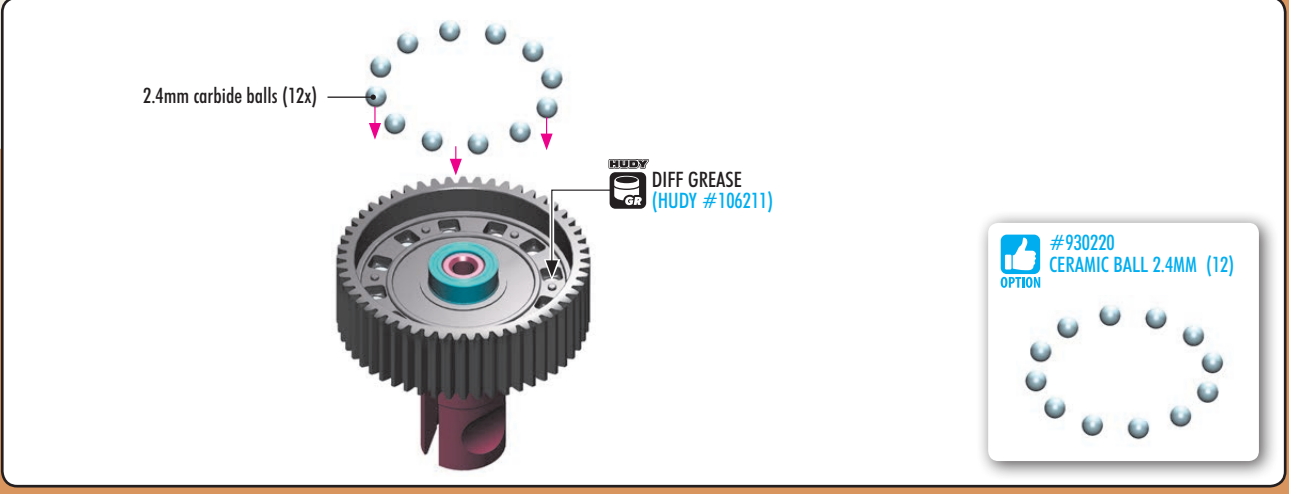


# 1. BALL DIFFERENTIAL

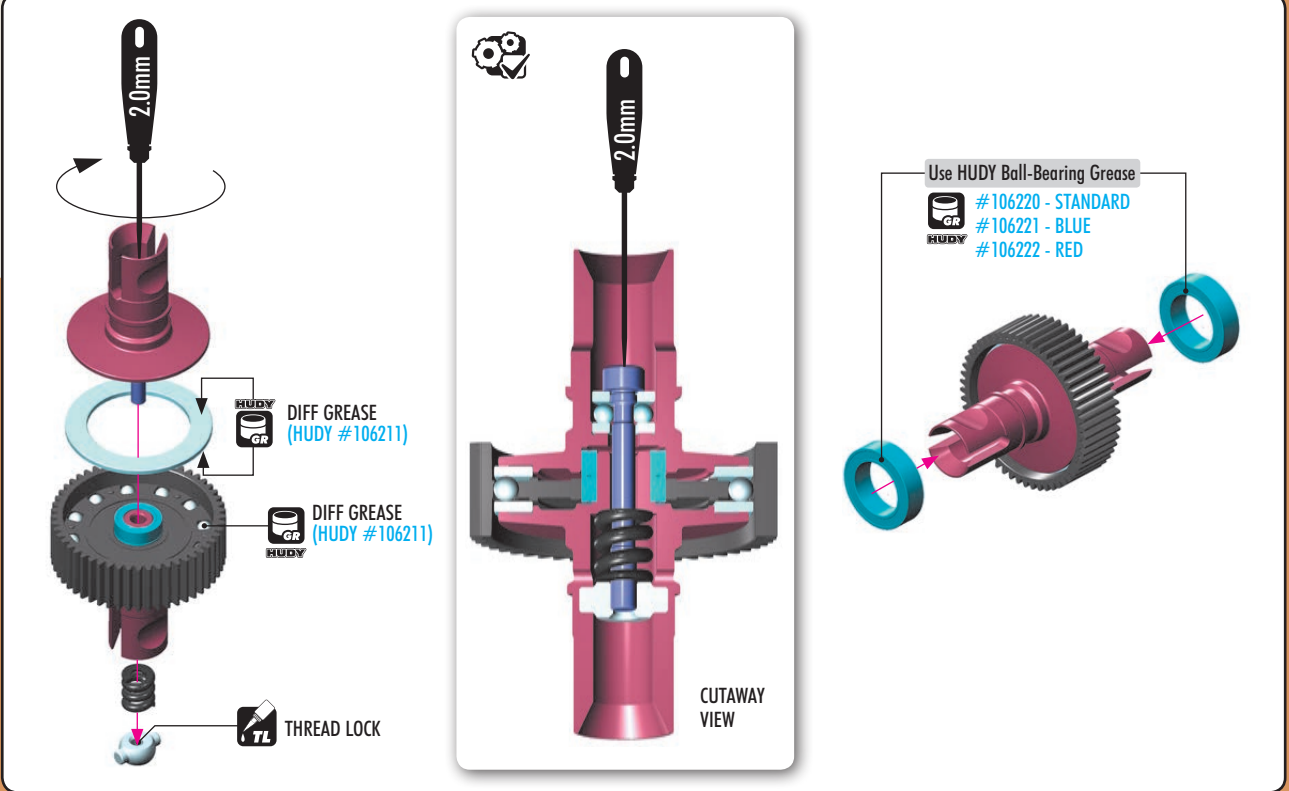
**10**  
 2x 930508  
 BB 5x8x2.5



**12x** 930120  
 B 2.4



**2x** 941014  
 BB 10x15x4

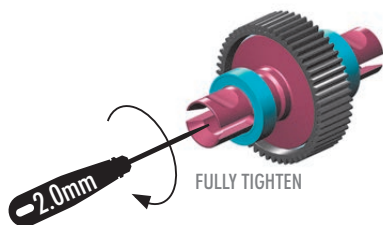


# BALL DIFF BREAK-IN & SET-UP INFO **DIRT**

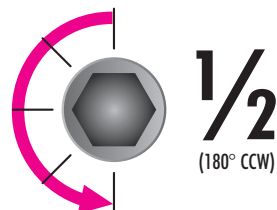
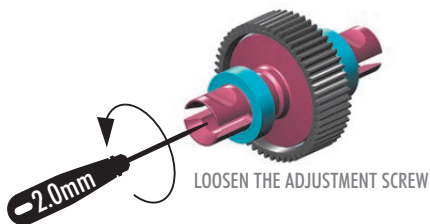


BEFORE RACING, follow these steps to properly break in the differential.

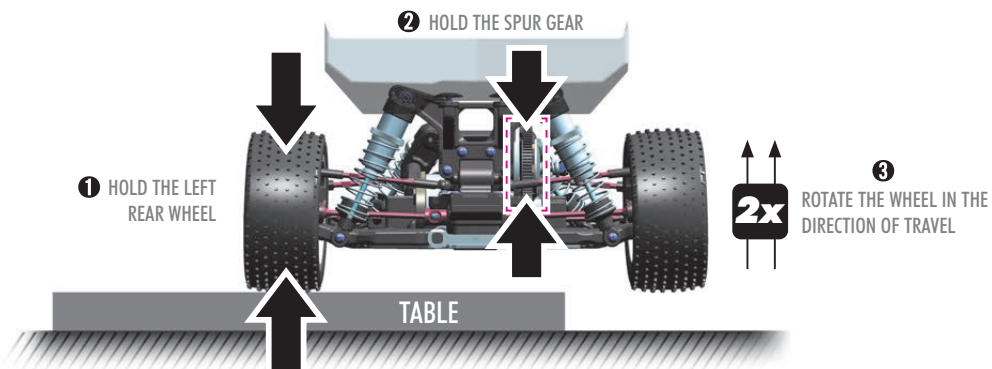
1



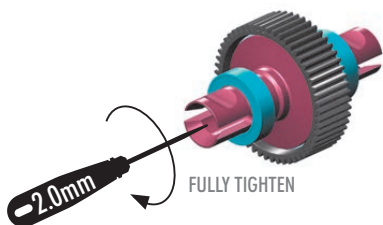
2 Loosen the adjustment screw 1/2 turn (180° CCW).



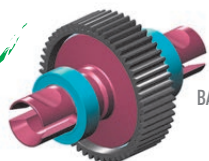
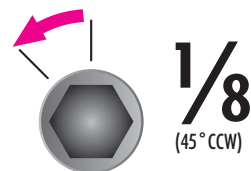
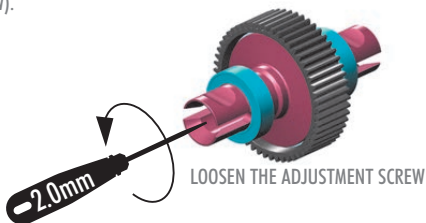
3



4



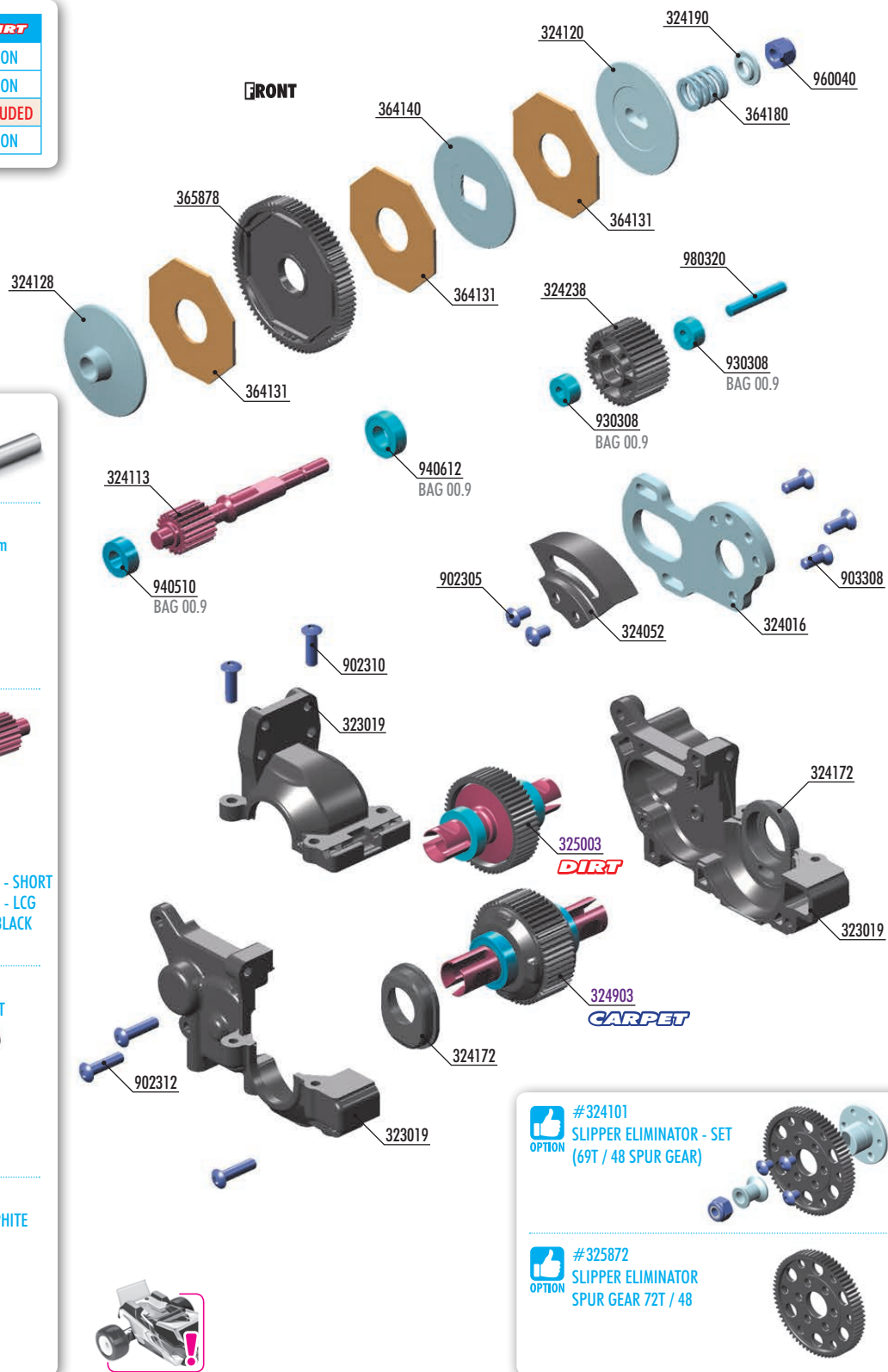
5 LOOSEN THE ADJUSTMENT SCREW 1/8 TURN (45° CCW).



BALL DIFFERENTIAL IS NOW READY



| SPUR GEARS  | CARPET   | DIRT     |
|-------------|----------|----------|
| #365872 72T | OPTION   | OPTION   |
| #365875 75T | OPTION   | OPTION   |
| #365878 78T | INCLUDED | INCLUDED |
| #365881 81T | OPTION   | OPTION   |



#980320-T  
TITAN PIN 3x20 (2)



324017  
GRAPHITE MOTOR PLATE - LCG - 3.0mm



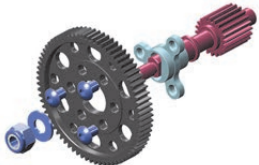
2-PAD SLIPPER



- #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



BAG



- 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)

CARPET

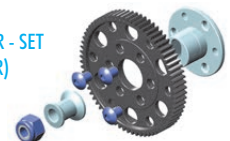
324903 GEAR DIFFERENTIAL - LCG - NARROW - SET

DIRT

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



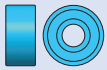
#324101  
SLIPPER ELIMINATOR - SET  
(69T / 48 SPUR GEAR)



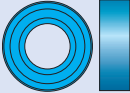
#325872  
SLIPPER ELIMINATOR  
SPUR GEAR 72T / 48



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



2x 930308  
BB 3x8x4



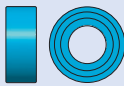
1x 940612  
BB 6x12x4



1x 980320  
P 3x20



3x 902312  
SH M3x12



1x 940510  
BB 5x10x4



2x 902310  
SH M3x10

### DIFFERENTIAL HEIGHT ADJUSTMENT

|            |        |        |        |        |               |
|------------|--------|--------|--------|--------|---------------|
| 2x HIGHEST | HIGHER | MIDDLE | 1 dots | 2 dots | 3 dots LOWEST |
| 3 dots     | 2 dots | 1 dots | MIDDLE | LOWER  |               |

INITIAL SETTING

**CARPET** Gear Diff

**DIRT** Ball Diff

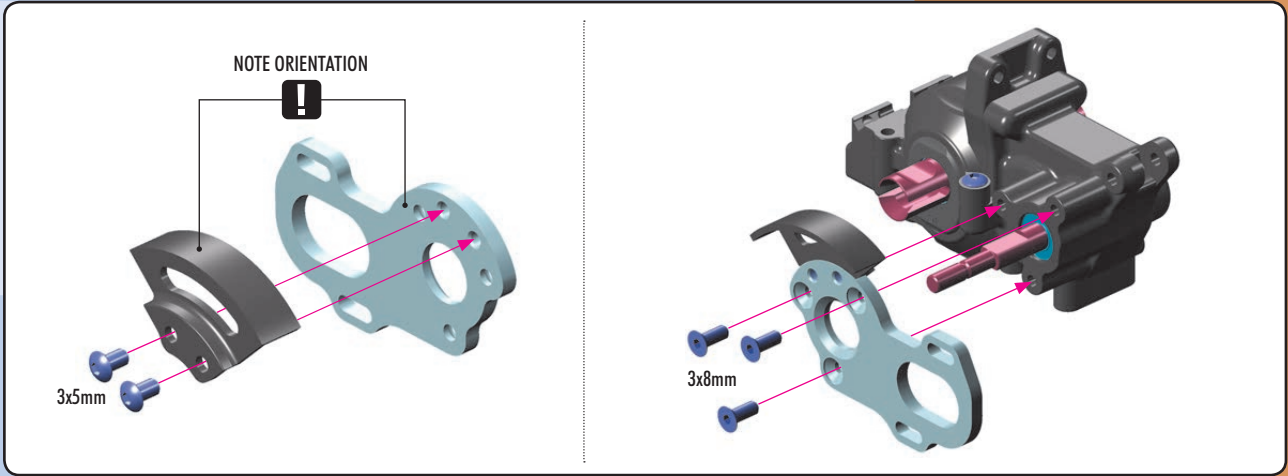
NOTE ORIENTATION  
Dots must have same orientation on each side (dots up or down).

**GEAR RATIO**  
Internal Gear Ratio = 2.65

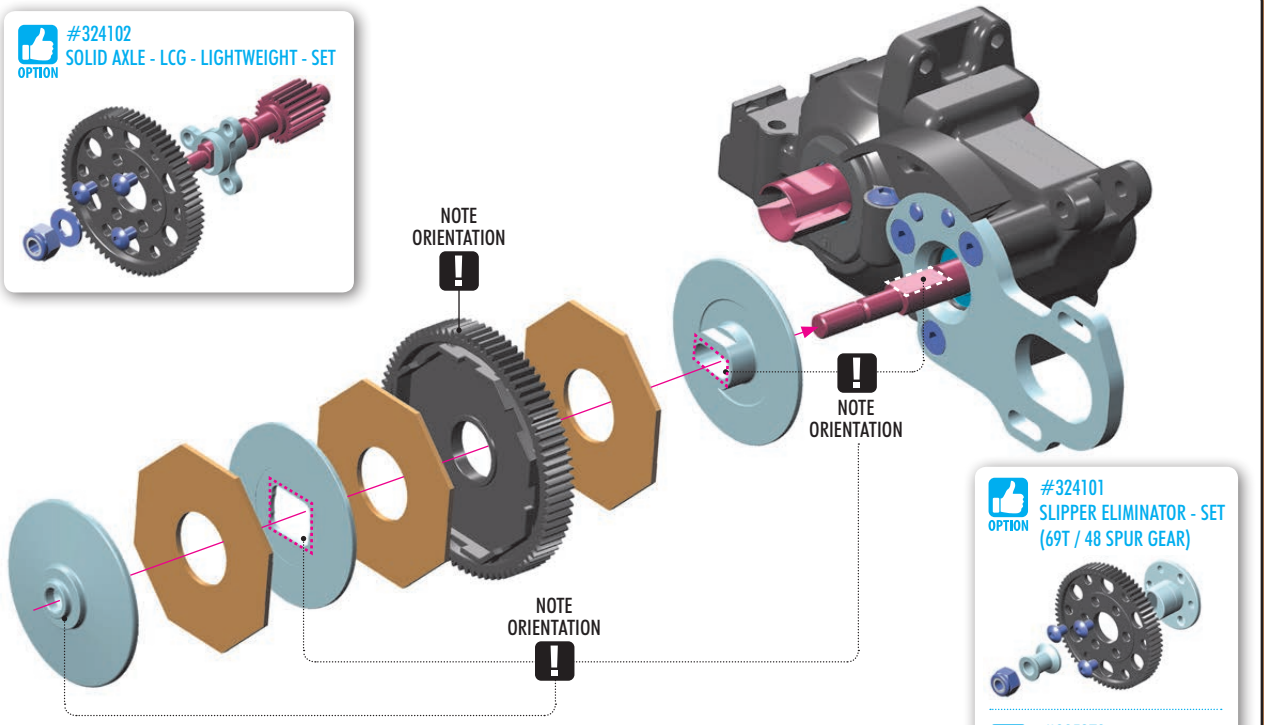
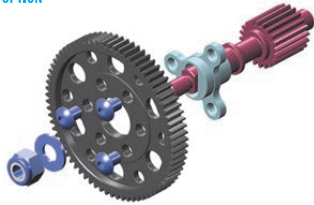
# 2. REAR TRANSMISSION **CARPET** **DIRT**

2x 902305  
SH M3x5

3x 903308  
SFH M3x8



#324102  
SOLID AXLE - LCG - LIGHTWEIGHT - SET  
OPTION



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



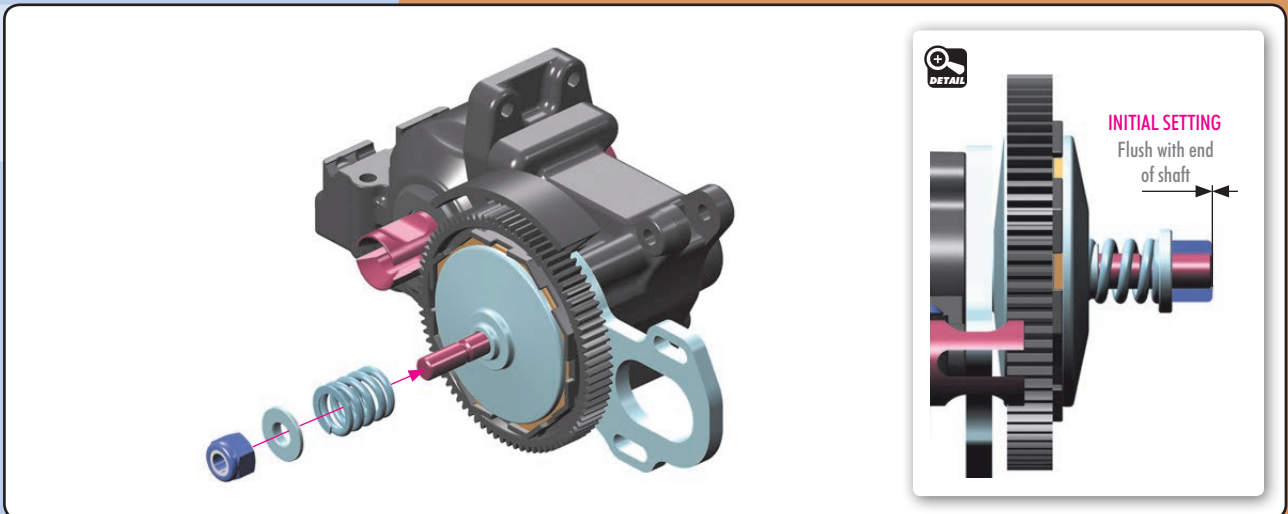
#325872  
SLIPPER ELIMINATOR  
SPUR GEAR 72T / 48  
OPTION



| OPTION  | SPUR GEARS | CARPET   | DIRT     |
|---------|------------|----------|----------|
| #365872 | 75T        | OPTION   | OPTION   |
| #365875 | 75T        | OPTION   | OPTION   |
| #365878 | 78T        | INCLUDED | INCLUDED |
| #365881 | 81T        | OPTION   | OPTION   |



1x 960040  
N M4



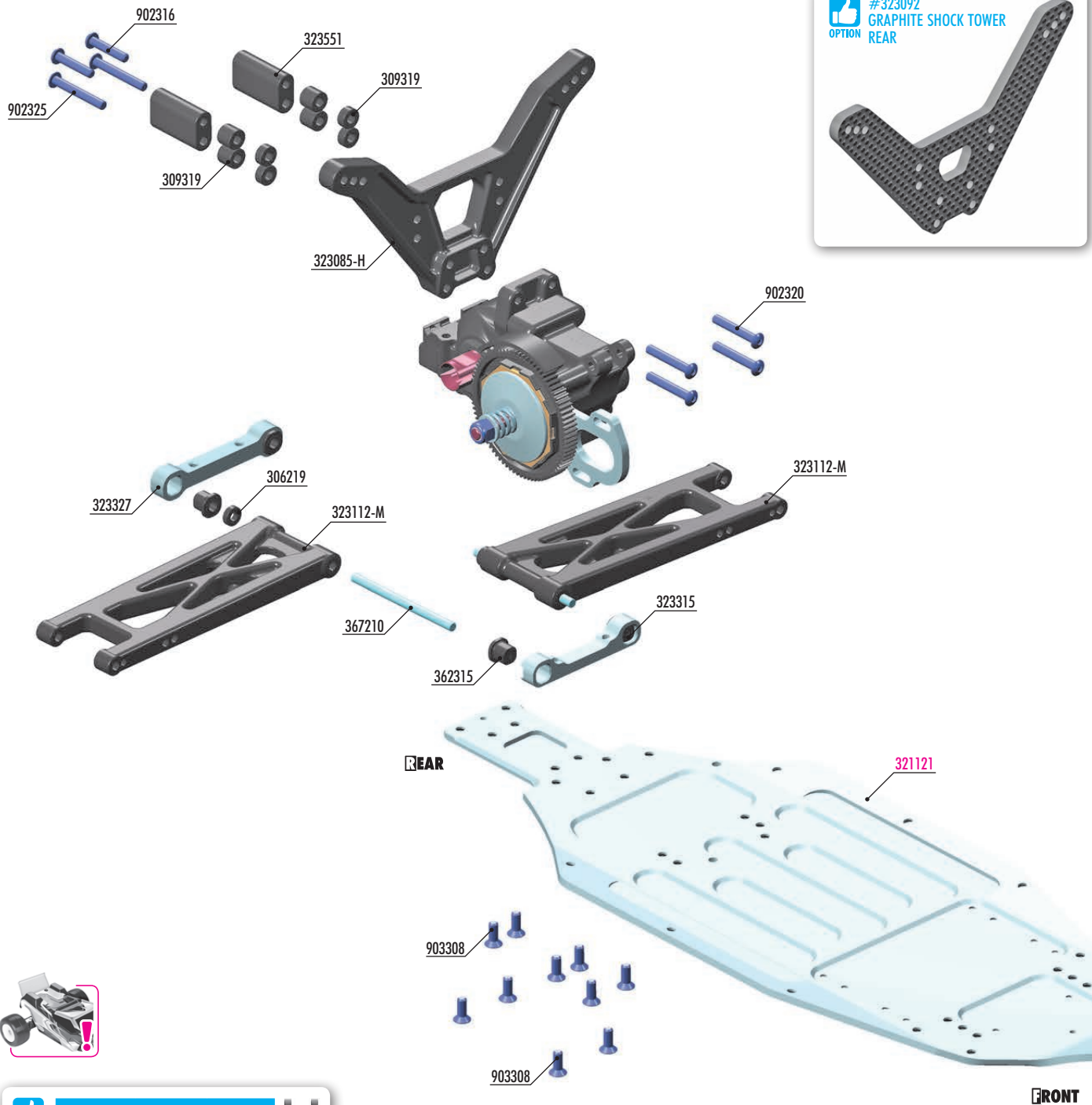
DETAIL

INITIAL SETTING


Flush with end of shaft


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

 #323092  
GRAPHITE SHOCK TOWER  
REAR



 OPTION

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

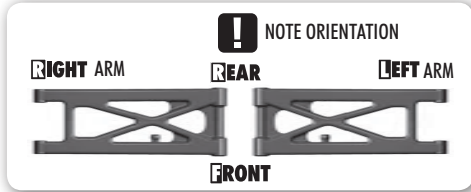
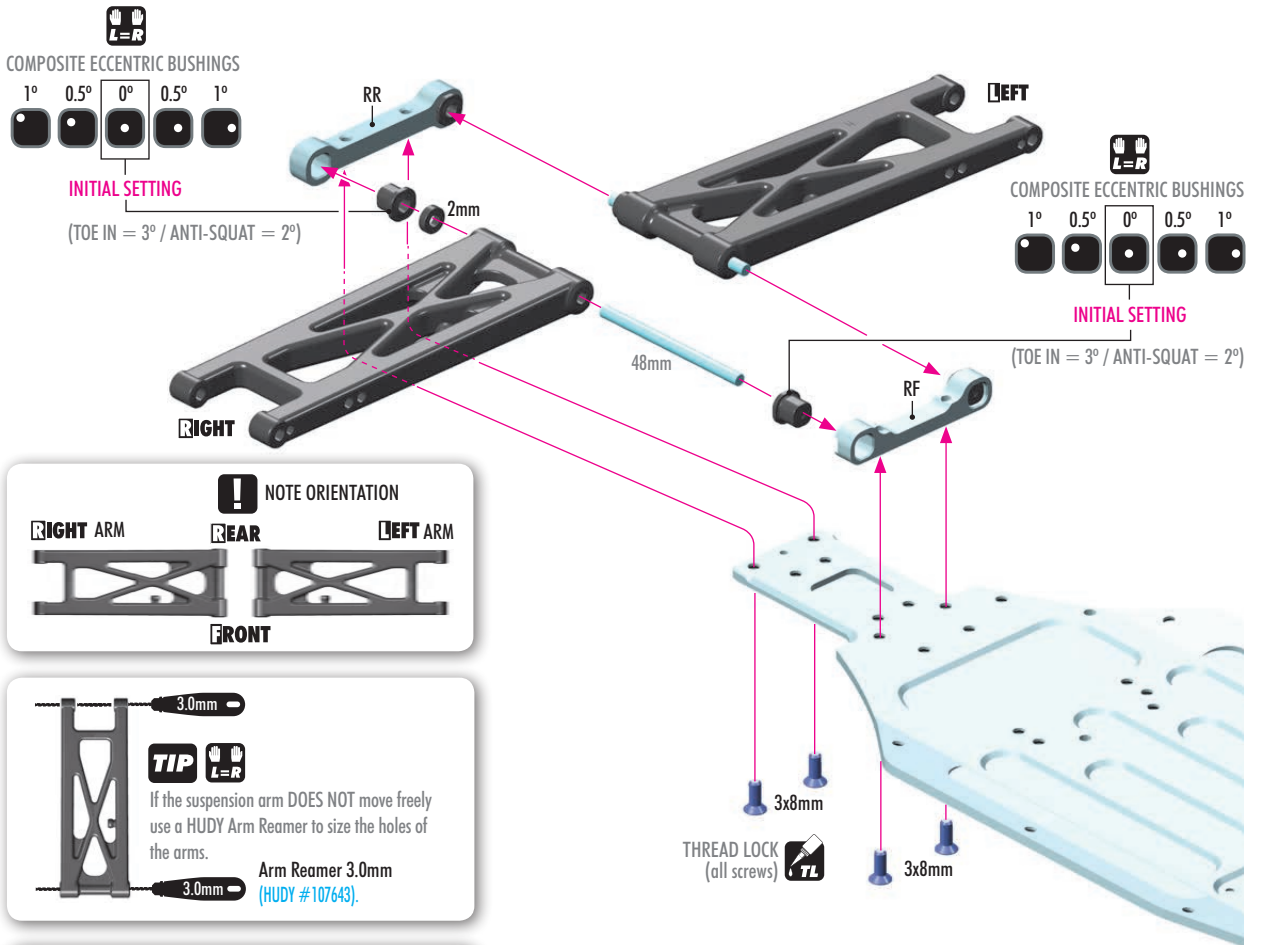
| REAR <b>SOLID</b> SUSPENSION ARMS |          |        |   |
|-----------------------------------|----------|--------|---|
| #323115-M                         | MEDIUM   | OPTION |  |
| #323115-H                         | HARD     | OPTION |   |
| #323115-G                         | GRAPHITE | OPTION |   |

**BAG**  
**03**

- |          |  |        |  |
|----------|--|--------|--|
| 306219   | COMPOSITE SET OF SERVO SHIMS (4)                   | 902316 | HEX SCREW SH M3x16 (10)                            |
| 309319   | UNIVERSAL SET OF PLASTIC TOWER SHIMS               | 902320 | HEX SCREW SH M3x20 (10)                            |
| 323085-H | XT2 COMPOSITE SHOCK TOWER REAR - LCG - HARD        | 902325 | HEX SCREW SH M3x25 (10)                            |
| 323551   | XT2 COMPOSITE REAR BODY MOUNT (2)                  | 903308 | HEX SCREW SFH M3x8 (10)                            |
| 323112-M | XT2 COMPOSITE SUSPENSION ARM REAR LOWER - MEDIUM   |        |  |
| 323315   | ALU REAR LOWER SUSPENSION HOLDER - WIDER - FRONT   | 321121 | ALU CHASSIS 1-PIECE - 2.5mm - LONG - SWISS 7075 T6 |
| 323327   | ALU REAR LOWER SUSPENSION HOLDER 3° - WIDER - REAR |        |  |
| 367210   | SUSPENSION PIVOT PIN (2)                           |        |  |
| 362315   | ECCENTRIC BUSHING SET (2)                          |        |  |

**10**  
2x 306219 SHIM 3x6x2

**4x** 903308 SFH M3x8



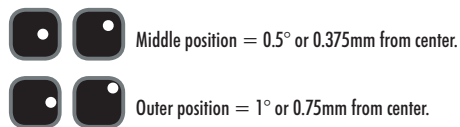
**TIP** If the suspension arm DOES NOT move freely use a HUDY Arm Reamer to size the holes of the arms.  
Arm Reamer 3.0mm (HUDY #107643).



### SET-UP BOOK

TOE-IN  
ANTI-SQUAT  
ROLL CENTER  
TRACK-WIDTH

**ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.**



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

| REAR SOLID SUSPENSION ARMS |          |        |
|----------------------------|----------|--------|
| #323115-M                  | MEDIUM   | OPTION |
| #323115-H                  | HARD     | OPTION |
| #323115-G                  | GRAPHITE | OPTION |

MEDIUM - For very-low & low traction.  
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-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 |

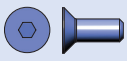
| TOE-IN |    |      |
|--------|----|------|
| RR     | RF | (°)  |
| 0      | 0  | = 3° |
| 0      | 0  | = 4° |
| 0      | 0  | = 2° |
| 0      | 0  | = 2° |
| 0      | 0  | = 3° |
| 0      | 0  | = 1° |
| 0      | 0  | = 4° |
| 0      | 0  | = 5° |
| 0      | 0  | = 3° |

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.

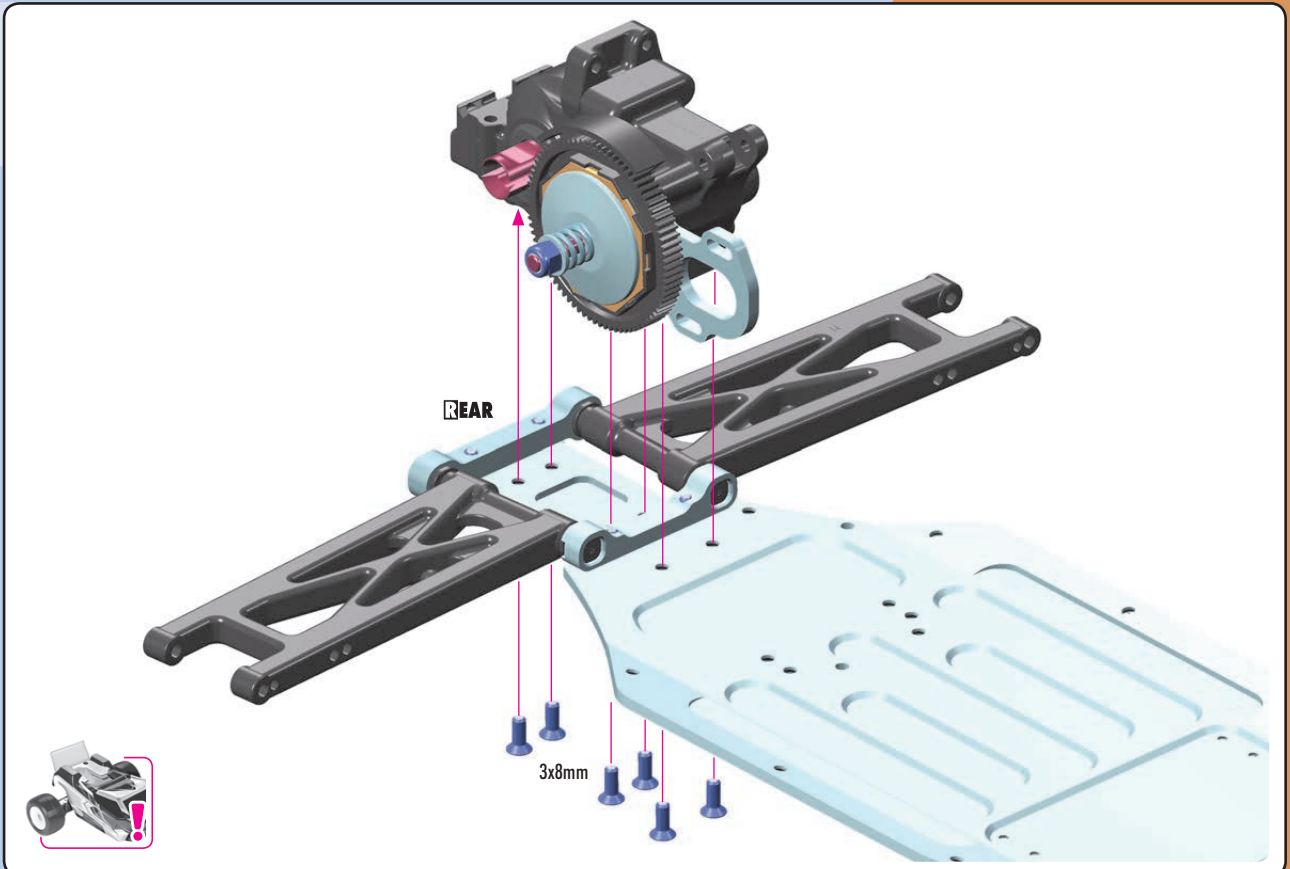
Example:  
 0(RR) - 0 (RF) = 2°   
 0(RR) - 0.5 (RF) = 2.5°   
 0(RR) - 1 (RF) = 3°

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

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



6x 903308  
SFH M3x8



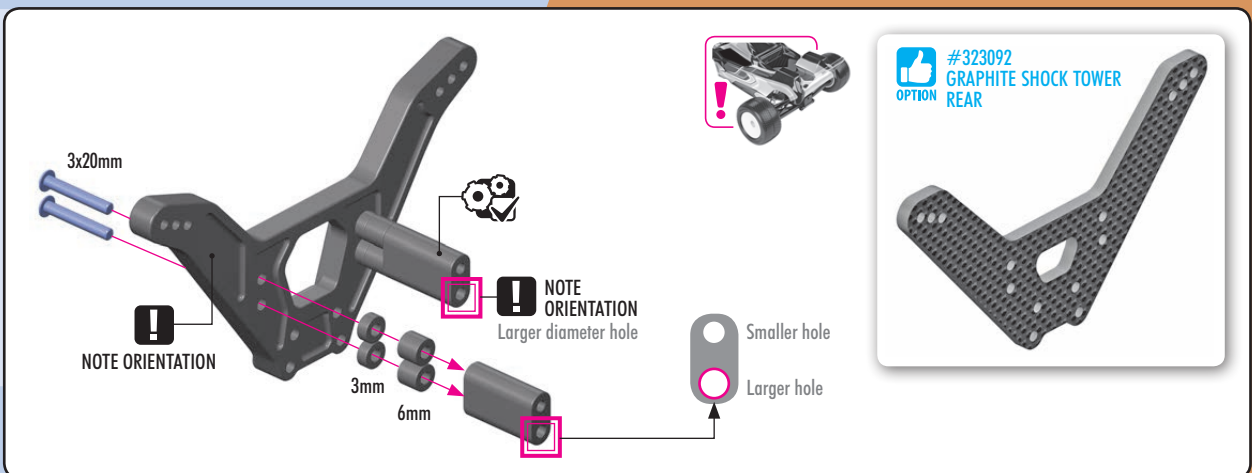
4x 309319  
SHIM 3x7x3



4x 902320  
SH M3x20



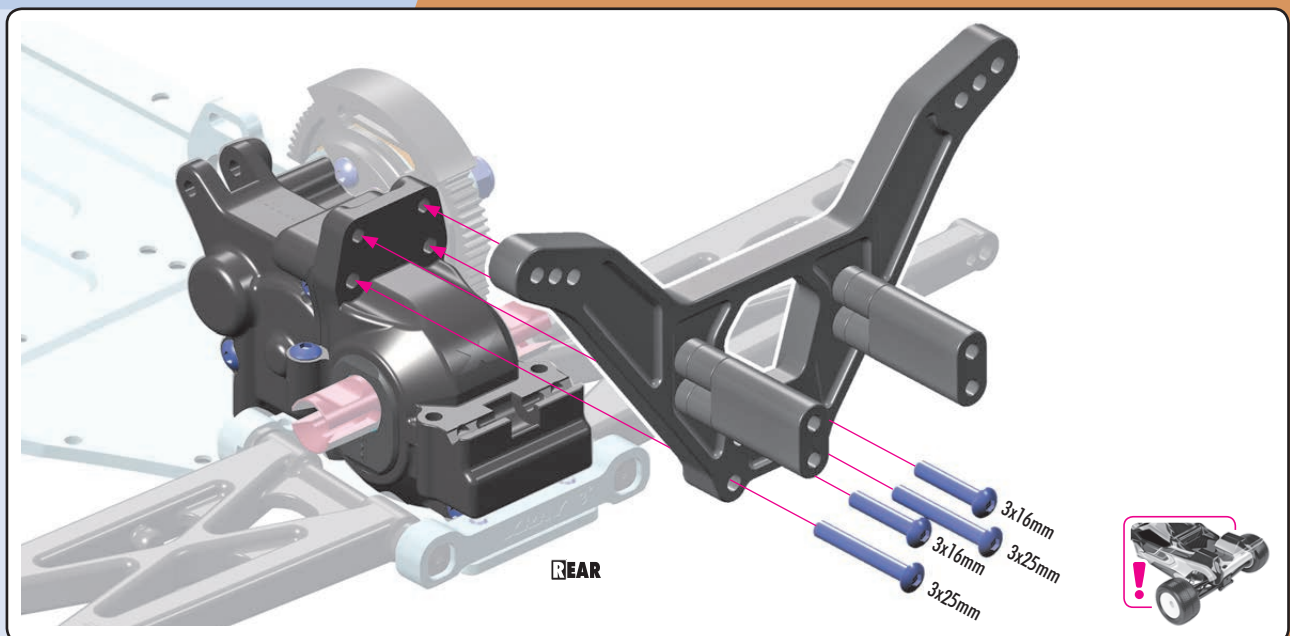
4x 309319  
SHIM 3x7x6



2x 902316  
SH M3x16




2x 902325  
SH M3x25





**OPTION** **XRAY BALL-BEARINGS**

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



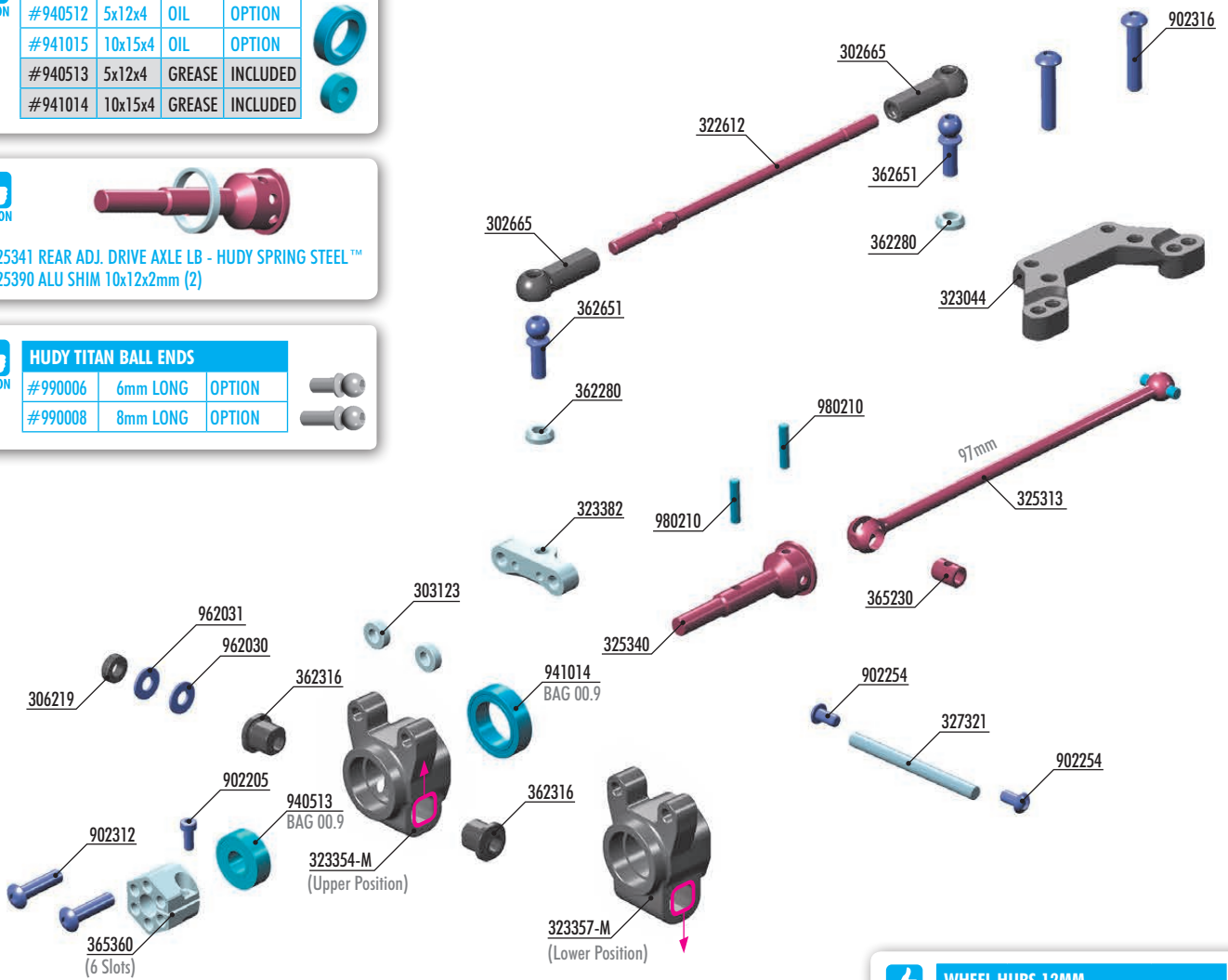
**OPTION**




#325341 REAR ADJ. DRIVE AXLE LB - HUDY SPRING STEEL™  
#325390 ALU SHIM 10x12x2mm (2)

**OPTION** **HUDY TITAN BALL ENDS**

|         |          |        |
|---------|----------|--------|
| #990006 | 6mm LONG | OPTION |
| #990008 | 8mm LONG | OPTION |





**OPTION** #305231 DRIVE SHAFT COUPLING HUDY SPRING STEEL




**OPTION** **REAR ROLL CENTER HOLDERS**

|           |          |          |
|-----------|----------|----------|
| #323044   | HARD     | INCLUDED |
| #323044-G | GRAPHITE | OPTION   |
| #323043   | ALU      | OPTION   |



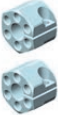
**OPTION** **REAR UPRIGHTS**

|           |          | Position |          |
|-----------|----------|----------|----------|
| #323354-M | MEDIUM   | UPPER    | INCLUDED |
| #323357-M | MEDIUM   | LOWER    | INCLUDED |
| #323354-H | HARD     | UPPER    | OPTION   |
| #323354-G | GRAPHITE | UPPER    | OPTION   |
| #323357-G | GRAPHITE | LOWER    | OPTION   |
| #323355   | ALU HIGH | UPPER    | OPTION   |
| #323356   | ALU LOW  | LOWER    | OPTION   |



**OPTION** **WHEEL 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.

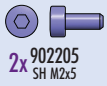
|                       |                       |
|-----------------------|-----------------------|
| <b>LESS OFFSET</b>    | <b>MORE OFFSET</b>    |
| Rear - more traction  | Rear - less traction  |
| Front - more steering | Front - less steering |



- 302665 COMPOSITE BALL JOINT 4.9mm - CLOSED WITH HOLE (4)
- 303123 ALU SHIM 3x6x2.0mm (10)
- 306219 COMPOSITE SET OF SERVO SHIMS (4)
- 322612 ADJUSTABLE TURNBUCKLE 75mm M3 L/R - HUDY SPRING STEEL™ (2)
- 323044 COMPOSITE REAR ROLL CENTER HOLDER
- 323354-M COMPOSITE UPRIGHT REAR - UPPER POSITION - MEDIUM
- 323357-M COMPOSITE UPRIGHT REAR - LOWER POSITION - MEDIUM
- 323382 ALU REAR HUB PLATE FOR MULTI ADJ. UPRIGHT - 1-HOLE - 7075 T6
- 325313 DRIVE SHAFT 97mm WITH 2.5mm PIN - HUDY SPRING STEEL™
- 325340 REAR DRIVE AXLE LB - HUDY SPRING STEEL™
- 327321 REAR ARM PIVOT PIN (2)
- 362280 ALU CONICAL SHIM 3x6x2.0mm (10)
- 362316 ECCENTRIC BUSHING SET - OPEN (2)

- 362651 BALL END 4.9mm WITH THREAD 8mm (2)
- 365230 DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
- 365360 ALU WHEEL HUB 12mm - OFFSET "+3.0mm" (2)
- 902205 HEX SCREW SH M2x5 (10)
- 902254 HEX SCREW SH M2.5x4 (10)
- 902312 HEX SCREW SH M3x12 (10)
- 902316 HEX SCREW SH M3x16 (10)
- 940513 BALL-BEARING 5x12x4 RUBBER SEALED - GREASE (2)
- 941014 BALL-BEARING 10x15x4 RUBBER SEALED - GREASE (2)
- 962030 WASHER S 3x6x0.3 (10)
- 962031 WASHER S 3x6x0.1 (10)
- 980210 PIN 2x9.8 (10)

# 3. REAR DRIVETRAIN **CARPET DIRT**



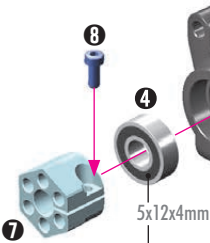
## UPRIGHT ALTERNATIVE 2

We recommend for these types of surfaces and traction:

- DIRT low & high traction
- Wet ASTRO



UPPER position DIRT



## UPRIGHT ALTERNATIVE 1

We recommend for these types of surfaces and traction:

- CARPET
- Dry ASTRO
- DIRT very high traction

Bearing with BLACK rubber covers

10x15x4mm

HUDY Ball-Bearing Grease

5x12x4mm

GRAPHITE GREASE (HUDY #106210)



### WHEEL HUBS 12MM

| OPTION | #       | Offset  | SLOTS     | INCLUDED |
|--------|---------|---------|-----------|----------|
|        | #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

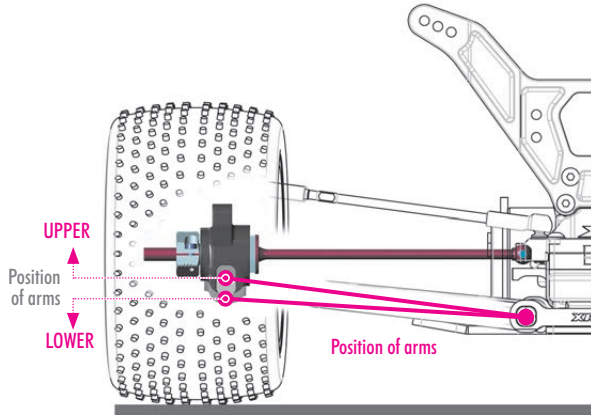
Different offset hex hubs are used to increase or decrease the track-width.

#### LESS OFFSET

Rear - more traction  
Front - more steering

#### MORE OFFSET

Rear - less traction  
Front - less steering



#325341 REAR ADJ. DRIVE AXLE LB - HUDY SPRING STEEL™  
#325390 ALU SHIM 10x12x2mm (2)



### XRAY BALL-BEARINGS

| OPTION | #       | Size    | Lubricant | INCLUDED |
|--------|---------|---------|-----------|----------|
|        | #940512 | 5x12x4  | OIL       | OPTION   |
|        | #941015 | 10x15x4 | OIL       | OPTION   |
|        | #940513 | 5x12x4  | GREASE    | INCLUDED |
|        | #941014 | 10x15x4 | GREASE    | INCLUDED |



### REAR UPRIGHTS

| OPTION | #         | Material | Position | INCLUDED |
|--------|-----------|----------|----------|----------|
|        | #323354-M | MEDIUM   | UPPER    | INCLUDED |
|        | #323357-M | MEDIUM   | LOWER    | INCLUDED |
|        | #323354-H | HARD     | UPPER    | OPTION   |
|        | #323354-G | GRAPHITE | UPPER    | OPTION   |
|        | #323357-G | GRAPHITE | LOWER    | OPTION   |
|        | #323355   | ALU HIGH | UPPER    | OPTION   |
|        | #323356   | ALU LOW  | LOWER    | OPTION   |



OPEN Bushings

2mm

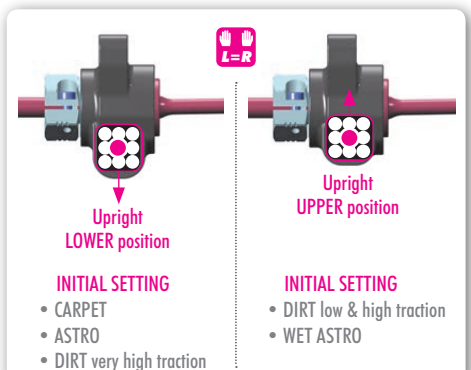
2mm

OPEN Bushings

INITIAL SETTING

NOTE ORIENTATION INITIAL SETTING

ALTERNATIVE ORIENTATION

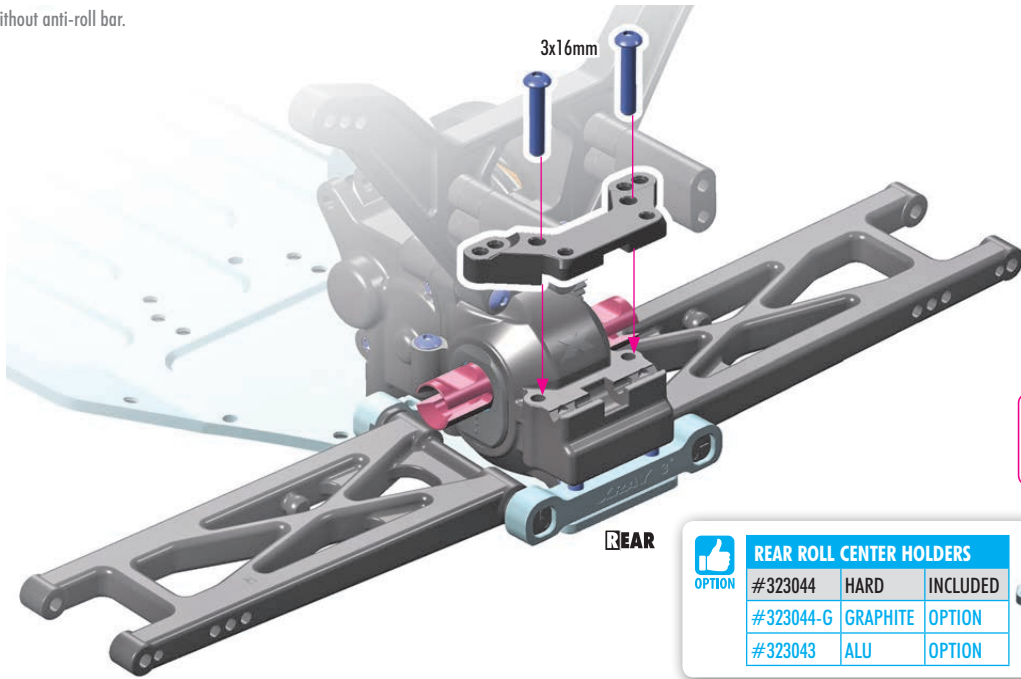


# 3. REAR DRIVETRAIN

# CARPET DIRT



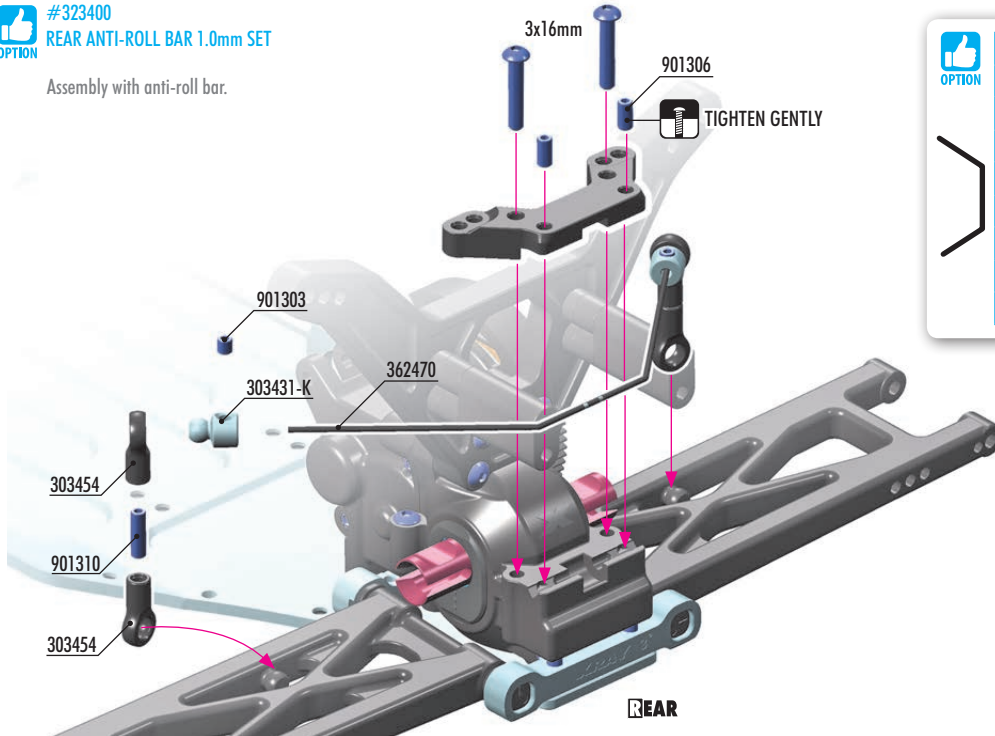
Assembly without anti-roll bar.



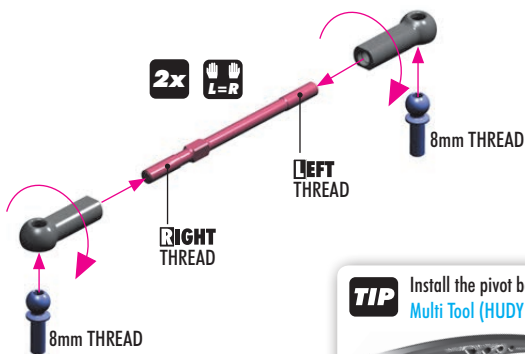
| OPTION    | REAR ROLL CENTER HOLDERS |          |  |
|-----------|--------------------------|----------|--|
| #323044   | HARD                     | INCLUDED |  |
| #323044-G | GRAPHITE                 | OPTION   |  |
| #323043   | ALU                      | OPTION   |  |

**#323400**  
REAR ANTI-ROLL BAR 1.0mm SET

Assembly with anti-roll bar.



| OPTION  | ANTI-ROLL BARS |        |  |
|---------|----------------|--------|--|
| #362470 | 1.0mm          | OPTION |  |
| #362471 | 1.1mm          | OPTION |  |
| #362472 | 1.2mm          | OPTION |  |
| #362473 | 1.3mm          | OPTION |  |
| #362474 | 1.4mm          | OPTION |  |
| #362476 | 1.6mm          | OPTION |  |
| #362478 | 1.8mm          | OPTION |  |
| #362480 | 2.0mm          | OPTION |  |



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



| OPTION  | HUDY TITAN BALL ENDS |        |  |
|---------|----------------------|--------|--|
| #990006 | 6mm LONG             | OPTION |  |
| #990008 | 8mm LONG             | OPTION |  |

# 3. REAR DRIVETRAIN

# CARPET DIRT

**IO**

2x 306219 SHIM 3x6x2



4x 902254 SH M2.5x4



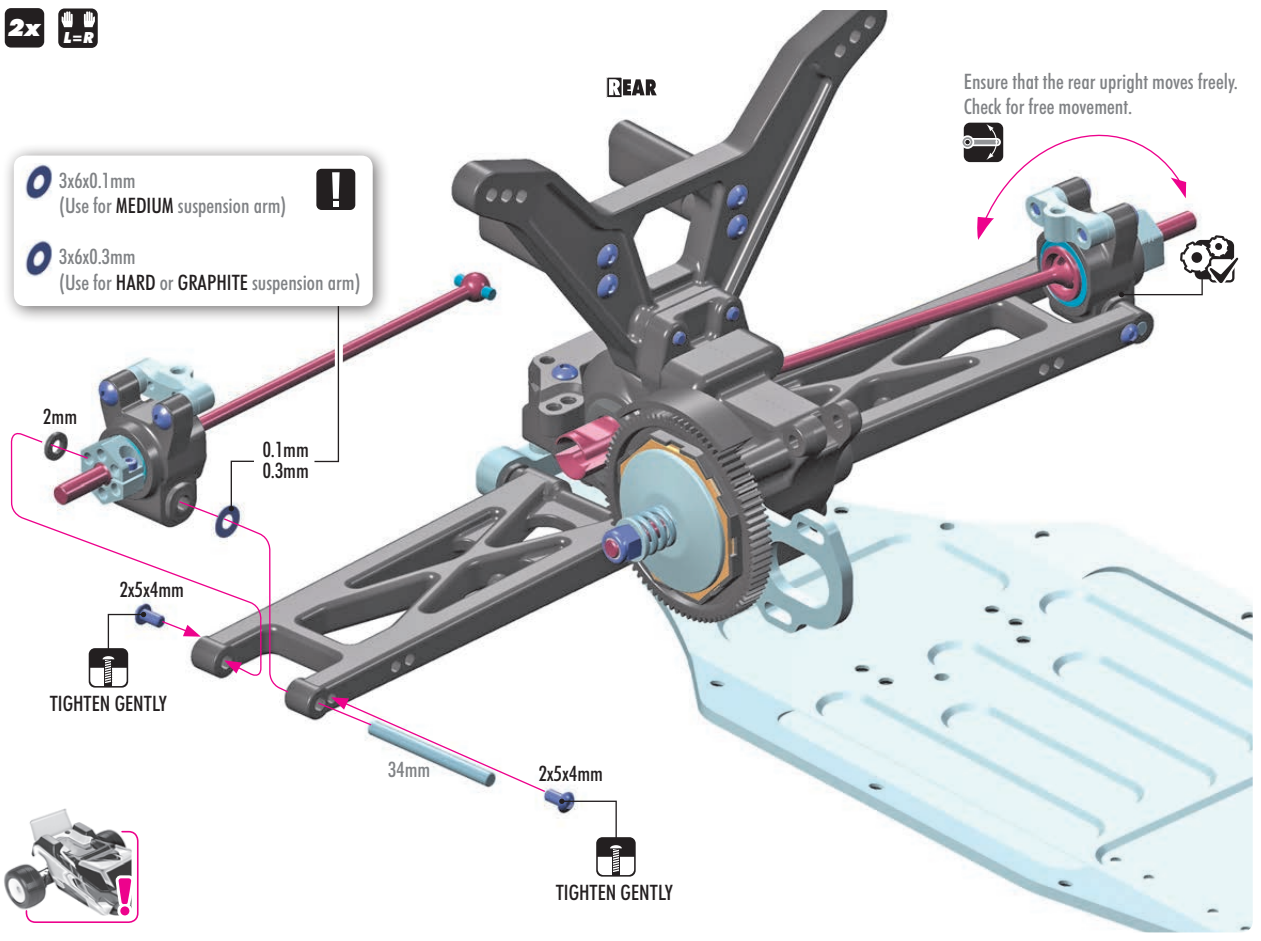
2x 962031 S 3x6x0.1



2x 962030 S 3x6x0.3

2x L=R

- 3x6x0.1mm (Use for MEDIUM suspension arm) **!**
- 3x6x0.3mm (Use for HARD or GRAPHITE suspension arm)



Ensure that the rear upright moves freely. Check for free movement.

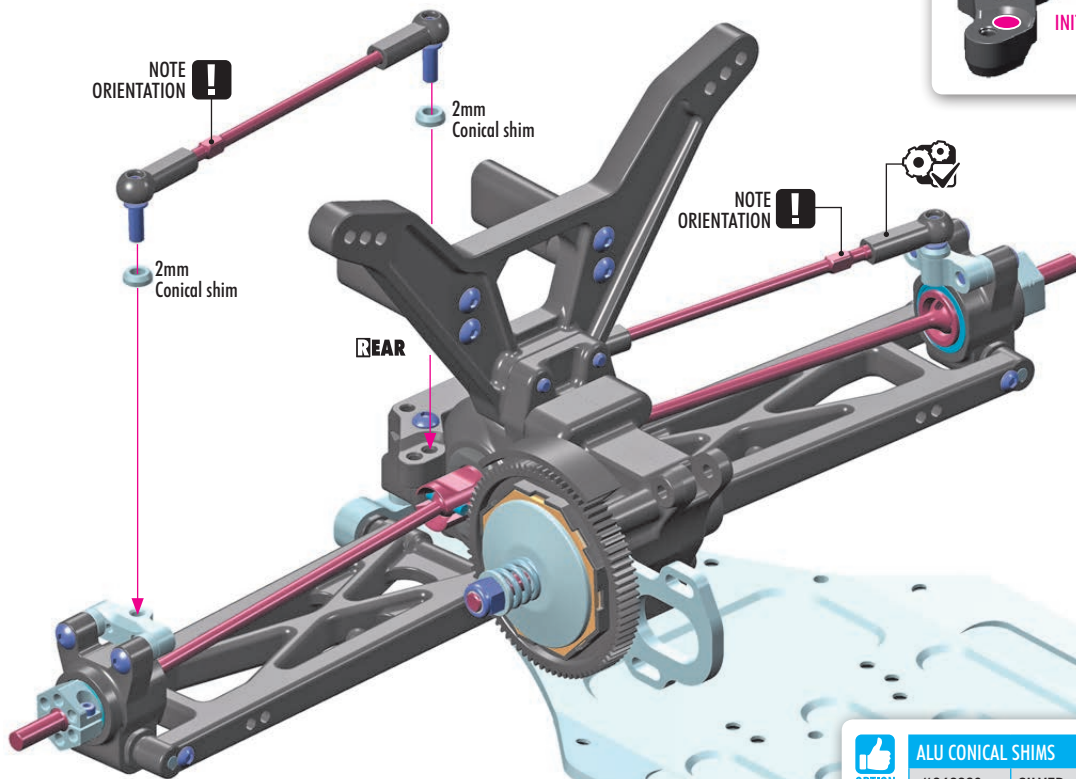


TIGHTEN GENTLY

TIGHTEN GENTLY

4x 362280 CON. SHIM 3x6x2

2x L=R



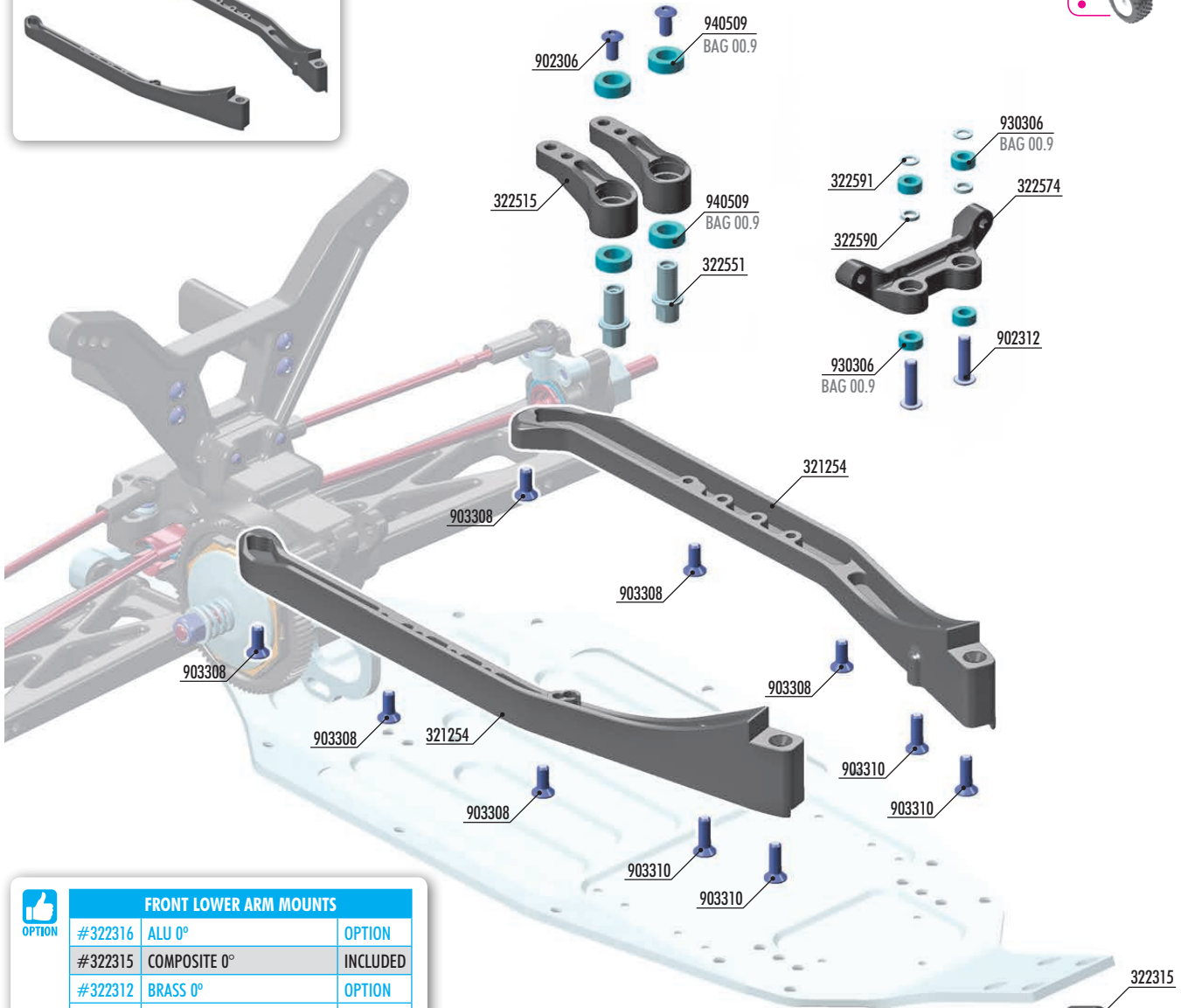
NOTE ORIENTATION **!**

NOTE ORIENTATION **!**

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

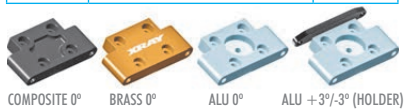


#321254-G  
COMPOSITE ELEVATED CHASSIS SIDE  
BRACES L + R - GRAPHITE



### FRONT LOWER ARM MOUNTS

|         |                            |          |
|---------|----------------------------|----------|
| #322316 | ALU 0°                     | OPTION   |
| #322315 | COMPOSITE 0°               | INCLUDED |
| #322312 | BRASS 0°                   | OPTION   |
| #322317 | ALU + 3°/-3°               | OPTION   |
| #321211 | SUSP. HOLDER BRACE +3°/-3° | OPTION   |



COMPOSITE 0° BRASS 0° ALU 0° ALU + 3°/-3° (HOLDER)

### ARM MOUNTS - WEIGHT

| Composite | BRASS | ALU   | ALU + Tungsten |
|-----------|-------|-------|----------------|
| 6g        | 46g   | 13.5g | 23.5g          |

COMPOSITE - Generates more traction in front.

ALU - Makes car more stable.

BRASS - Adds more weight in front, less weight transfer.



The alu arm mounts can be used with optional  
#293085 HUDY Pure Tungsten Weight - 10g.



### STEERING ARMS

|         |      |          |
|---------|------|----------|
| #322515 | HARD | INCLUDED |
| #322516 | ALU  | OPTION   |



### STEERING PLATES

|         |      |          |
|---------|------|----------|
| #322574 | HARD | INCLUDED |
| #322575 | ALU  | OPTION   |



### BAG

04


- 321254 COMPOSITE ELEVATED CHASSIS SIDE BRACES L+R
- 322315 COMPOSITE FRONT LOWER ARM MOUNT FOR 1-PIECE CHASSIS
- 322515 COMPOSITE STEERING ARM FOR 1-PIECE CHASSIS (2)
- 322551 ALU SERVO SAVER PIVOT SHAFT 15.3mm - SWISS 7075 T6 (2)
- 322574 COMPOSITE STEERING PLATE FOR 1-PIECE CHASSIS
- 322590 ALU SHIM 3x4.7x1.0mm (10)
- 322591 ALU SHIM 3x4.7x0.5mm (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)
- 930306 BALL-BEARING 3x6x2.5mm STEEL SEALED - OIL (2)
- 940509 BALL-BEARING 5x9x3mm RUBBER SEALED - OIL (2)

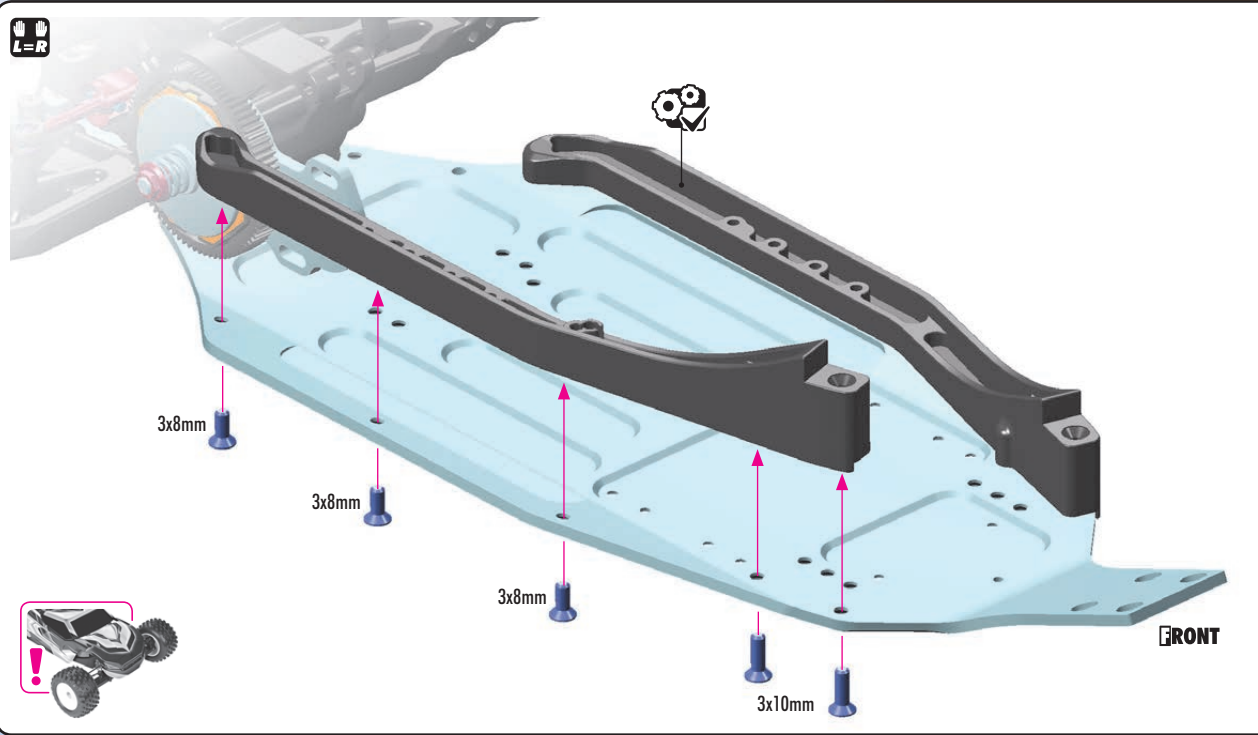
# 4. FRONT ASSEMBLY


# CARPET


# DIRT

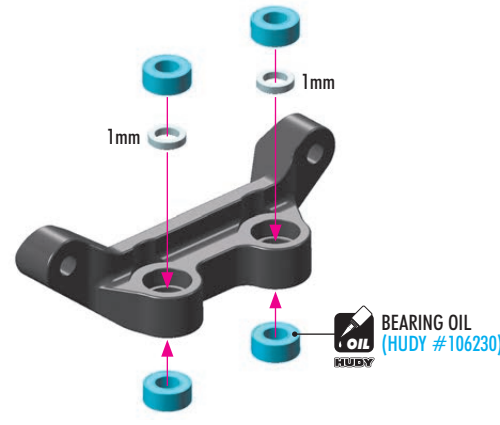
 **6x** 903308  
SFH M3x8

 **4x** 903310  
SFH M3x10



 **2x** 322590  
SHIM 3x4.7x1


 **4x** 930306  
BB 3x6x2.5




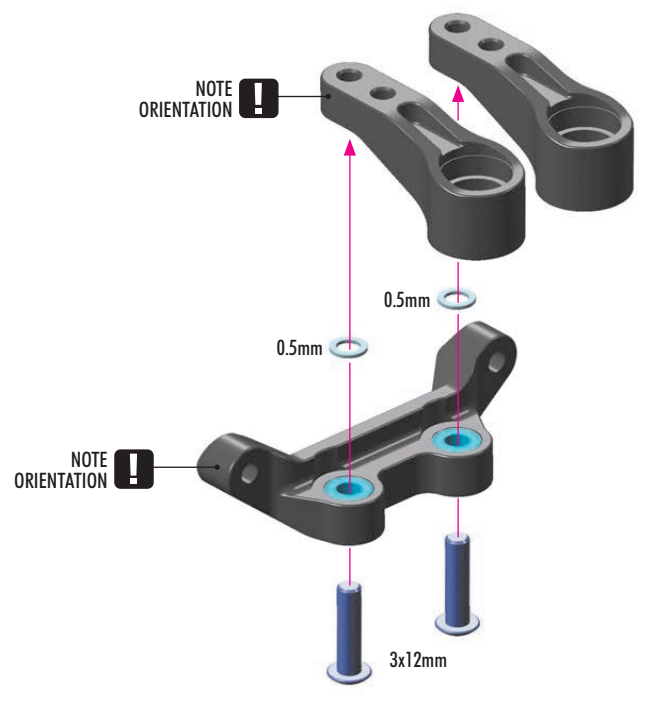
**BEARING OIL**  
(HUDY #106230)


**STEERING PLATES**


|         |      |          |
|---------|------|----------|
| #322574 | HARD | INCLUDED |
| #322575 | ALU  | OPTION   |

 **2x** 322591  
SHIM 3x4.7x0.5

 **2x** 902312  
SH M3x12

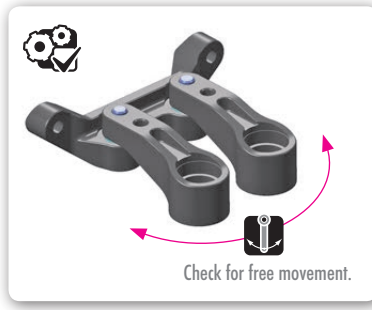


**NOTE ORIENTATION** 

**NOTE ORIENTATION** 

**STEERING ARMS**

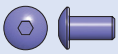
|         |      |          |
|---------|------|----------|
| #322515 | HARD | INCLUDED |
| #322516 | ALU  | OPTION   |



Check for free movement.

# 4. FRONT ASSEMBLY

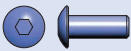
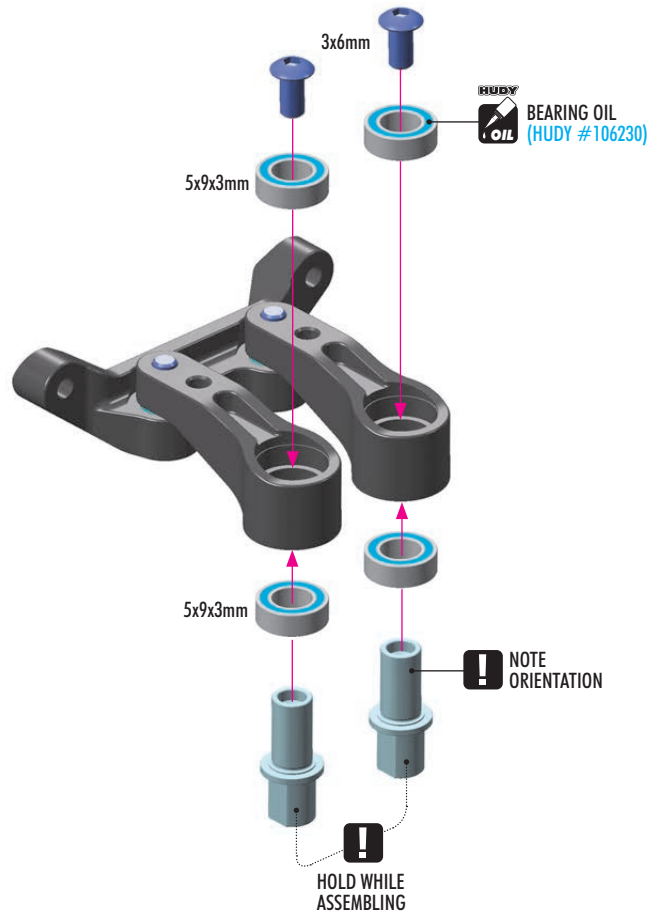
# CARPET DIRT



2x 902306  
SH M3x6



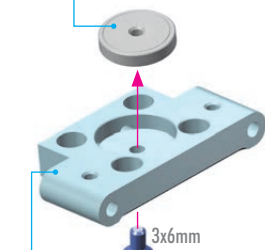
4x 940509  
BB 5x9x3



2x 902308  
SH M3x8

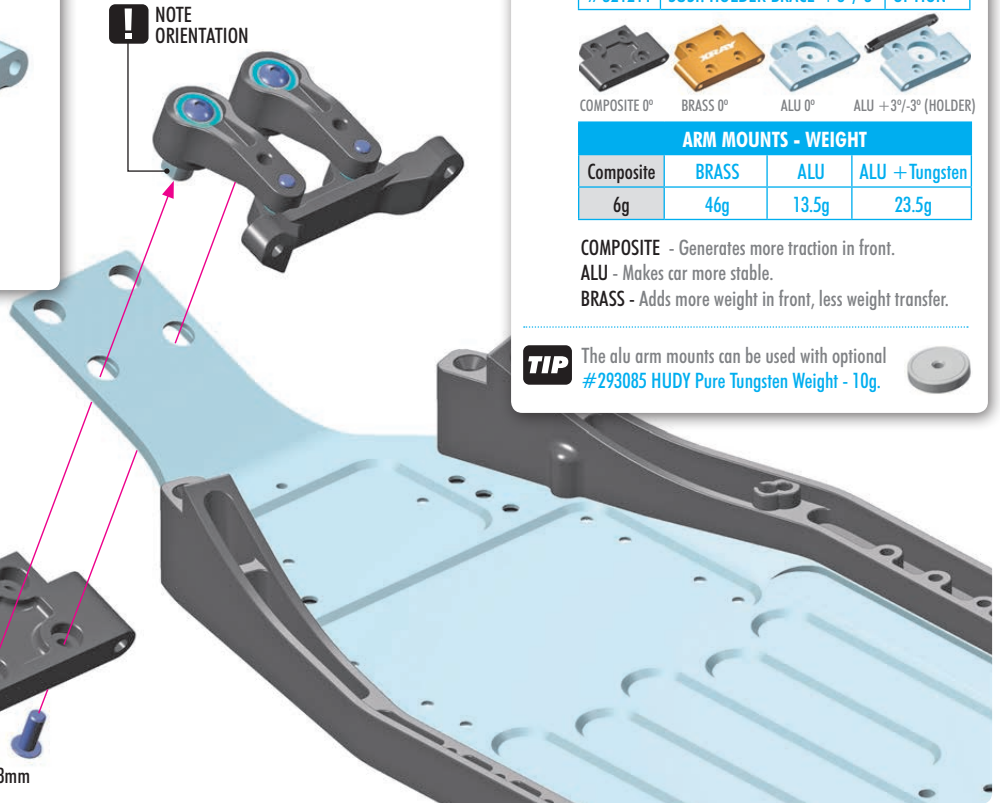
The alu arm mounts can be used with optional weight:

**OPTION** #293085  
HUDY Pure Tungsten Weight - 10g.



**OPTION** ALU FRONT LOWER ARM MOUNTS

**NOTE ORIENTATION**



**NOTE ORIENTATION**

3x8mm



### FRONT LOWER ARM MOUNTS

|         |                            |          |
|---------|----------------------------|----------|
| #322316 | ALU 0°                     | OPTION   |
| #322315 | COMPOSITE 0°               | INCLUDED |
| #322312 | BRASS 0°                   | OPTION   |
| #322317 | ALU +3°/-3°                | OPTION   |
| #321211 | SUSP. HOLDER BRACE +3°/-3° | OPTION   |



| ARM MOUNTS - WEIGHT |       |       |                |
|---------------------|-------|-------|----------------|
| Composite           | BRASS | ALU   | ALU + Tungsten |
| 6g                  | 46g   | 13.5g | 23.5g          |

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



**TIP** The alu arm mounts can be used with optional #293085 HUDY Pure Tungsten Weight - 10g.



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



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



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



| HUDY TITAN BALL ENDS |            |        |
|----------------------|------------|--------|
| #990006              | 6mm Thread | OPTION |
| #990008              | 8mm Thread | OPTION |



| FRONT SUSPENSION ARMS |          |          |
|-----------------------|----------|----------|
| #322114-M             | MEDIUM   | INCLUDED |
| #322114-H             | HARD     | OPTION   |
| #322114-G             | GRAPHITE | OPTION   |

| FRONT <b>SOLID</b> SUSPENSION ARMS |          |        |
|------------------------------------|----------|--------|
| #322115-M                          | MEDIUM   | OPTION |
| #322115-H                          | HARD     | OPTION |
| #322115-G                          | GRAPHITE | OPTION |



| FRONT ROLL CENTER HOLDERS |      |          |
|---------------------------|------|----------|
| #322045                   | HARD | INCLUDED |
| #322046                   | ALU  | OPTION   |



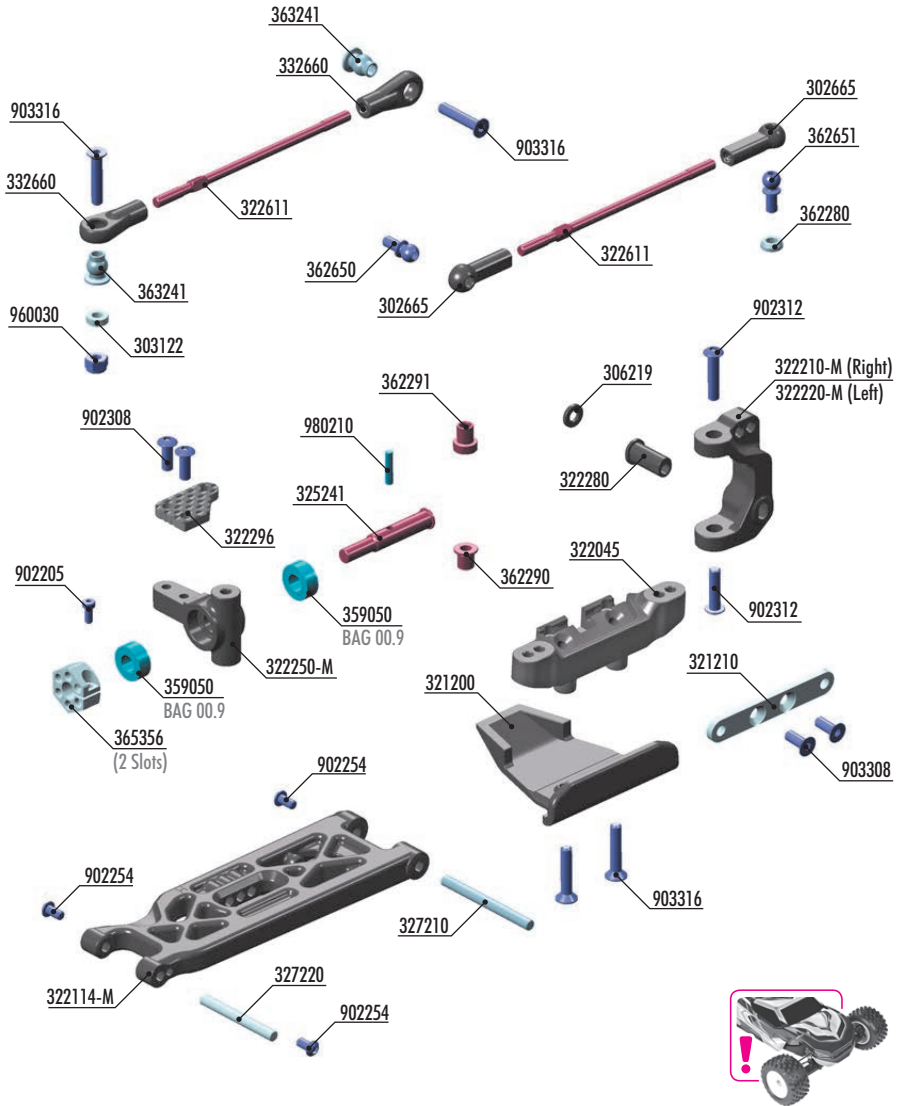
| STEERING BLOCK EXTENSION |        |          |
|--------------------------|--------|----------|
| #322294                  | 1 DOT  | OPTION   |
| #322295                  | 2 DOTS | OPTION   |
| #322296                  | 3 DOTS | INCLUDED |



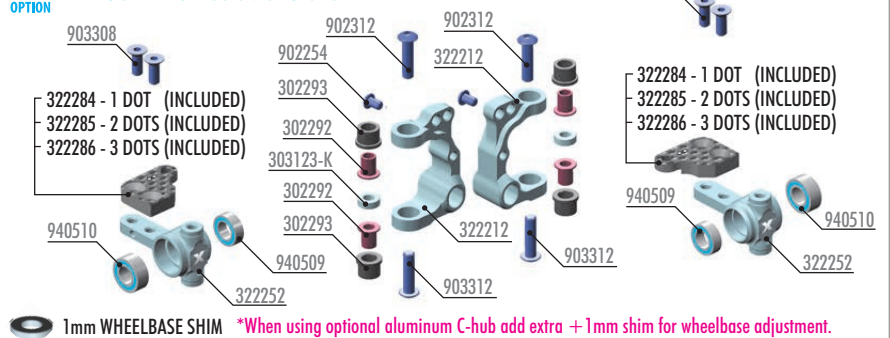
| C-HUBS    |       |          |          |
|-----------|-------|----------|----------|
| #322210-M | RIGHT | MEDIUM   | INCLUDED |
| #322210-H | RIGHT | HARD     | OPTION   |
| #322210-G | RIGHT | GRAPHITE | OPTION   |
| #322220-M | LEFT  | MEDIUM   | INCLUDED |
| #322220-H | LEFT  | HARD     | OPTION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



| 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   |



## #320904 XB2 ALU STEERING BLOCKS & C-HUBS - SET



1mm WHEELBASE SHIM \*When using optional aluminum C-hub add extra +1mm shim for wheelbase adjustment.

### BAG



- 302665 COMPOSITE BALL JOINT 4.9mm - CLOSED WITH HOLE (4)
- 303122 ALU SHIM 3x6x1.0mm (10)
- 306219 COMPOSITE SET OF SERVO SHIMS (4)
- 321200 COMPOSITE FRONT BUMPER
- 321210 ALU SUSPENSION HOLDER BRACE - SWISS 7075 T6 (3mm)
- 322045 COMPOSITE FRONT ROLL-CENTER HOLDER FOR BRIDGE UPPER DECK
- 322114-M COMPOSITE SUSPENSION ARM FRONT LOWER - MEDIUM
- 322210-M COMPOSITE C-HUB 0° DEG. RIGHT - MEDIUM
- 322220-M COMPOSITE C-HUB 0° DEG. LEFT - MEDIUM
- 322250-M COMPOSITE STEERING BLOCK - MEDIUM
- 322280 COMPOSITE CASTER ECCENTRIC BUSHING (2+2+2)
- 322296 GRAPHITE EXTENSION FOR STEERING BLOCK - 3 DOTS (2)
- 322611 ADJUSTABLE TURNBUCKLE 70mm M3 L/R - HUDY SPRING STEEL™ (2)
- 325241 XT2 FRONT DRIVE AXLE - HUDY SPRING STEEL™
- 327210 FRONT SUSPENSION PIVOT PIN (2)
- 327220 FRONT ARM PIVOT PIN (2)
- 332660 COMPOSITE STEERING & SERVO BALL JOINT 5.8mm (4+2)

- 362280 ALU CONICAL SHIM 3x6x2.0mm (10)
- 362290 STEEL STEERING BUSHING - SHORT (2)
- 362291 STEEL STEERING BUSHING - LONG (2)
- 362650 BALL END 4.9mm WITH THREAD 6mm (2)
- 362651 BALL END 4.9mm WITH THREAD 8mm (2)
- 363241 BALL UNIVERSAL 5.75mm WITH BACKSTOP (2)
- 365356 ALU WHEEL HUB 12mm - OFFSET "+1.50mm" (2)
- 359050 BALL-BEARING 5x10x4 STEEL SEALED - GREASE (2)
- 902205 HEX SCREW SH M2x5 (10)
- 902254 HEX SCREW SH M2.5x4 (10)
- 902308 HEX SCREW SH M3x8 (10)
- 902312 HEX SCREW SH M3x12 (10)
- 903308 HEX SCREW SFH M3x8 (10)
- 903316 HEX SCREW SFH M3x16 (10)
- 960030 NUT M3 (10)
- 980210 PIN 2x9.8 (10)
- 322284 - 1 DOT (INCLUDED)
- 322285 - 2 DOTS (INCLUDED)
- 322286 - 3 DOTS (INCLUDED)
- 940509
- 940510
- 322252



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

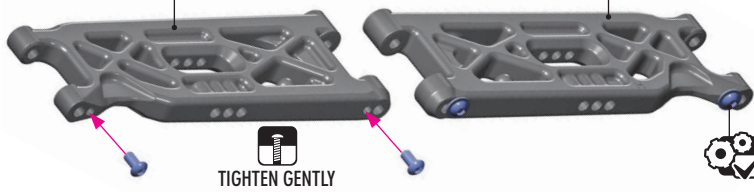


2x

NOTE ORIENTATION !

LEFT ARM = RIGHT ARM

NOTE ORIENTATION !



TIGHTEN GENTLY



### FRONT SUSPENSION ARMS

| OPTION | FRONT SUSPENSION ARMS              |          |          |
|--------|------------------------------------|----------|----------|
|        | #322114-M                          | MEDIUM   | INCLUDED |
|        | #322114-H                          | HARD     | OPTION   |
|        | #322114-G                          | GRAPHITE | OPTION   |
|        | <b>FRONT SOLID SUSPENSION ARMS</b> |          |          |
|        | #322115-M                          | MEDIUM   | OPTION   |
|        | #322115-H                          | HARD     | OPTION   |
|        | #322115-G                          | GRAPHITE | OPTION   |

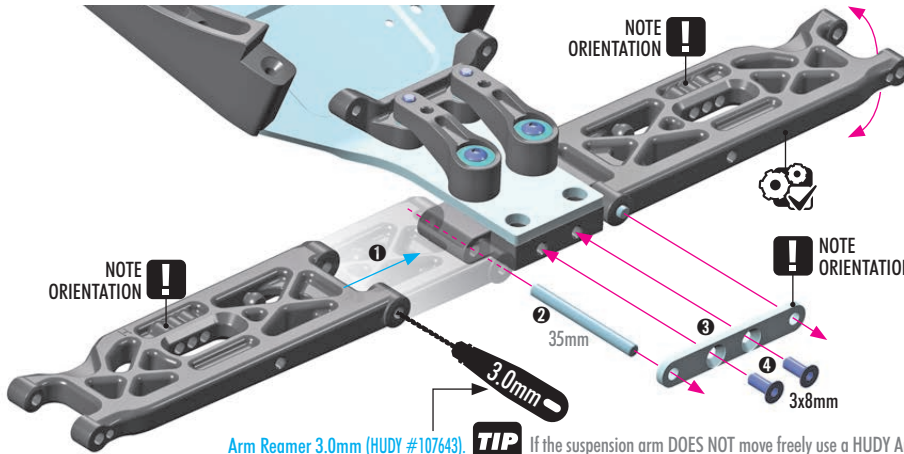


NOTE ORIENTATION !

NOTE ORIENTATION !

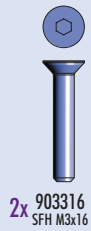


Check for free movement.



Arm Reamer 3.0mm (HUDY #107643)

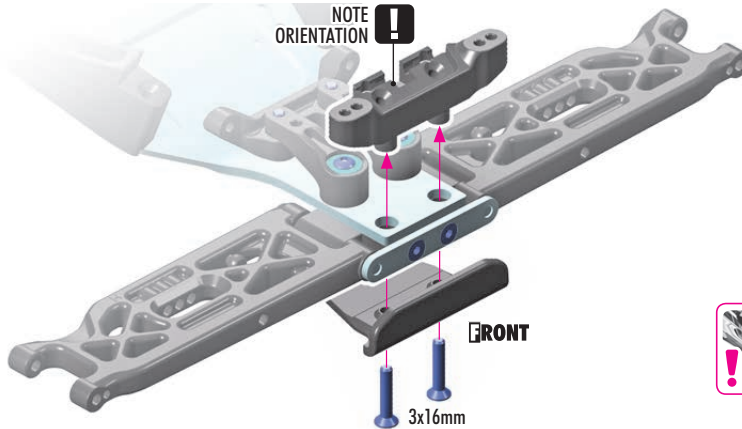
**TIP** If the suspension arm DOES NOT move freely use a HUDY Arm Reamer to size the holes of the arms.



NOTE ORIENTATION !



#322046 ALU FRONT ROLL-CENTER HOLDER FOR BRIDGE UPPER DECK

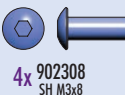


FRONT

3x16mm



3x14mm

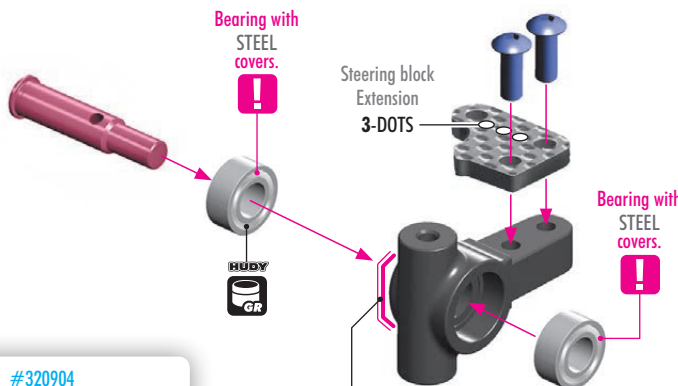


2x

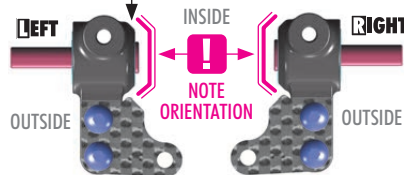
Bearing with STEEL covers. !

Steering block Extension 3-DOTS

Bearing with STEEL covers. !

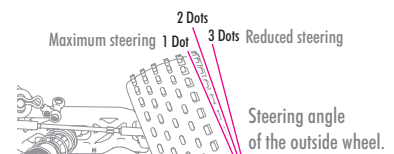


#320904 ALU STEERING BLOCKS & C-HUBS WITH BACKSTOP



### STEERING BLOCK EXTENSION

| OPTION | STEERING BLOCK EXTENSION |        |          |
|--------|--------------------------|--------|----------|
|        | #322294                  | 1 DOT  | OPTION   |
|        | #322295                  | 2 DOTS | OPTION   |
|        | #322296                  | 3 DOTS | INCLUDED |



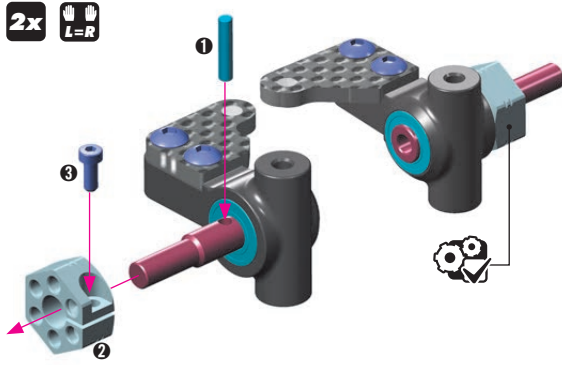
### STEERING BLOCKS

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

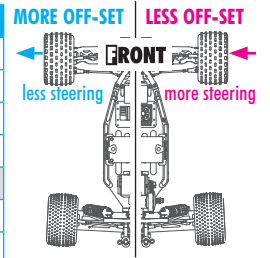
MEDIUM - More steering on low traction.  
 HARD - More free in corner on high traction.  
 GRAPHITE - Less stopping in corner on high traction.

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

- 2x 902205 SH M2x5
- 2x 981210 P 2x10

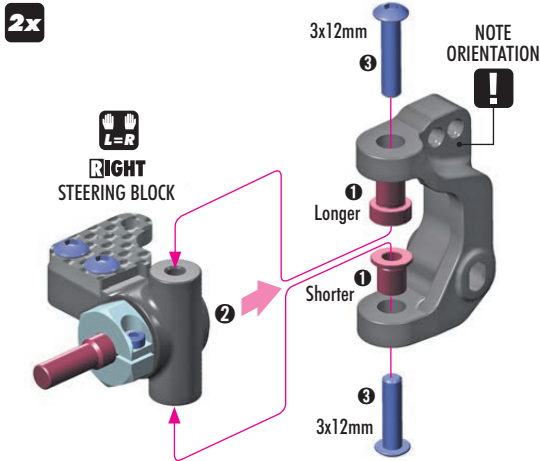


| WHEEL HEX HUBS 12MM |         |         |          |
|---------------------|---------|---------|----------|
| #365360             | +4.5mm  | 6 SLOTS | OPTION   |
| #365359             | +3.75mm | 5 SLOTS | OPTION   |
| #365358             | +3.0mm  | 4 SLOTS | OPTION   |
| #365357             | +2.25mm | 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   |

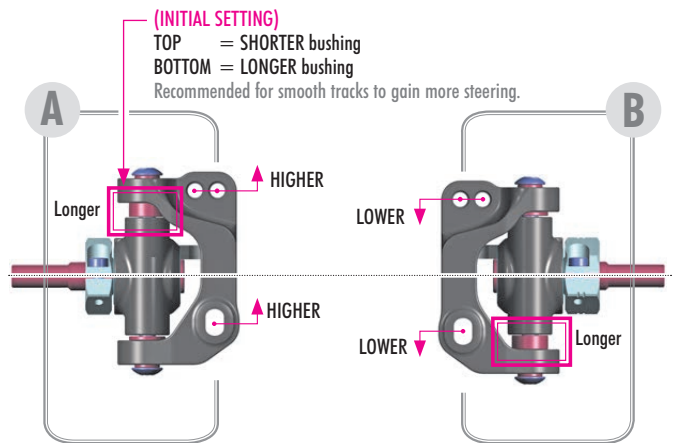


**OPTIONAL HEX HUB EFFECTS**  
Different off-set hex hubs are used to increase or decrease the track-width.

- 4x 902312 SH M3x12



## ROLL CENTER ALTERNATIVES



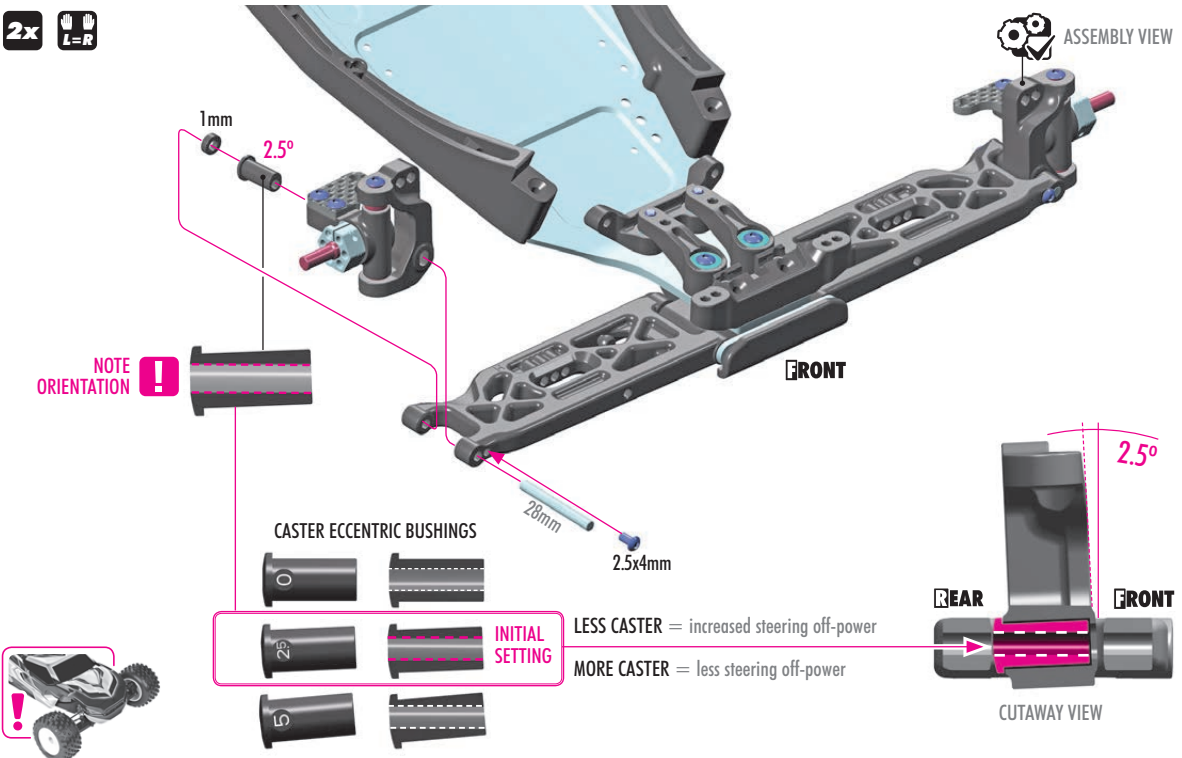
| C-HUBS - LEFT |          |          |
|---------------|----------|----------|
| #322220-M     | MEDIUM   | INCLUDED |
| #322220-H     | HARD     | OPTION   |
| #322220-G     | GRAPHITE | OPTION   |

| C-HUBS - RIGHT |          |          |
|----------------|----------|----------|
| #322210-M      | MEDIUM   | INCLUDED |
| #322210-H      | HARD     | OPTION   |
| #322210-G      | 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 stopping in corners.

- 2x 306219 SHIM 3x6x1
- 2x 902254 SH M2.5x4



### FRONT ROLL CENTER LINKS

**2x** **L=R**

**NOTE ORIENTATION**

6mm THREAD

LEFT THREAD

RIGHT THREAD

8mm THREAD

**HUDY TITAN BALL ENDS**

|        |         |            |        |
|--------|---------|------------|--------|
| OPTION | #990006 | 6mm Thread | OPTION |
| OPTION | #990008 | 8mm Thread | OPTION |

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

**2x** **L=R**

52.6mm

**2x**

362280  
CON. SHIM 3x6x2

### FRONT ROLL CENTER LINKS

**2x** **L=R**

**NOTE ORIENTATION**

ASSEMBLY VIEW

Conical shim 2mm

8mm THREAD

6mm THREAD

**FRONT**

**INITIAL SETTING**

**ALU CONICAL SHIMS**

|        |           |        |          |
|--------|-----------|--------|----------|
| OPTION | #362280   | SILVER | INCLUDED |
| OPTION | #362280-K | BLACK  | OPTION   |
| OPTION | #362280-O | ORANGE | OPTION   |

### STEERING LINKS

**2x** **L=R**

**NOTE ORIENTATION**

LEFT THREAD

RIGHT THREAD

55.2mm

**2x** **L=R**

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

**2x**

303122  
SHIM 3x6x1

**4x**

903316  
SFH M3x16

**2x**

960030  
NUT M3

### STEERING LINKS

**2x** **L=R**

**NOTE ORIENTATION**

**FRONT**

1mm

**NOTE ORIENTATION**

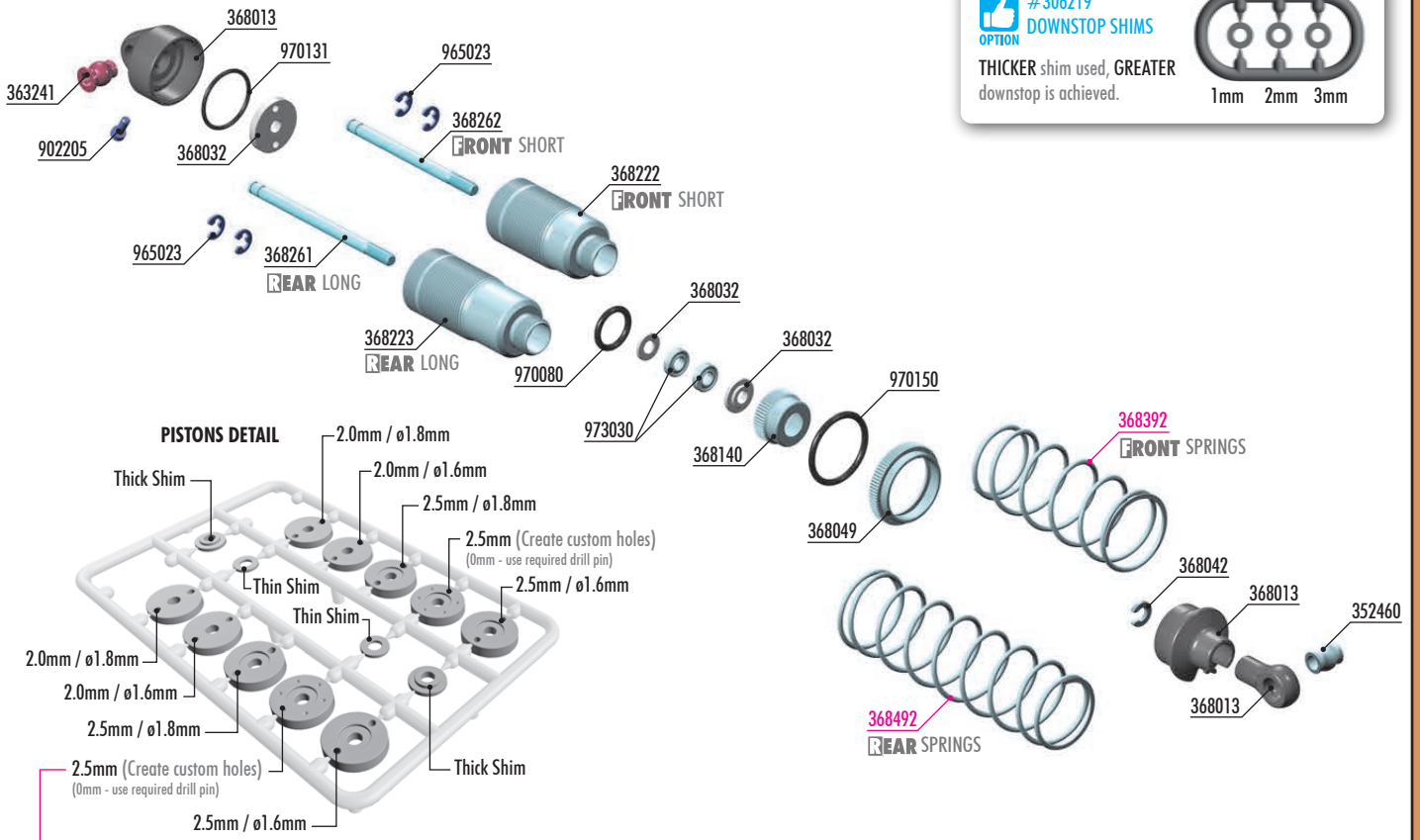
**ALU NUTS M3**

|        |           |        |        |
|--------|-----------|--------|--------|
| OPTION | #296530-B | BLUE   | OPTION |
| OPTION | #296530-K | BLACK  | OPTION |
| OPTION | #296530-O | ORANGE | OPTION |
| OPTION | #960031   | SILVER | OPTION |

# 6. SHOCK ABSORBERS

CARPET

DIRT



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

**!** These pistons can NOT be used in shocks without making the custom holes by yourselves.

#368033  
OPTION PRECISION GROUND SHOCK PISTON BLANKS 2.5MM - BIG BORE (4)

#368034 PRECISION GROUND SHOCK PISTON BLANKS 2.0MM - BIG BORE (4)  
OPTION

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

#368054  
OPTION ALU SHOCK CAP-NUT - BIG BORE (2)

#368021  
OPTION ALU SHOCK SPRING RETAINING COLLAR (4)

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

#368023  
OPTION ALU SHOCK SPRING RETAINING COLLAR -4mm (4)

#368011  
OPTION COMPOSITE SHOCK BALL JOINT +2mm & +4mm (2+2)

BAG  
06

- 352460 PIVOT BALL 5.8mm (2)
- 363241 BALL UNIVERSAL 5.75mm WITH BACKSTOP (2)
- 368013 COMPOSITE SHOCK PARTS FOR 2 SHOCKS - BIG BORE
- 368032 SHOCK PISTONS - COMPLETE SET - DELRIN - BIG BORE
- 368042 COMPOSITE SHOCK BUSHING & SHIM (2+2)
- 368049 ALU SHOCK ADJUSTABLE NUT - BIG BORE (2)
- 368140 ALU LOWER SHOCK BODY CAP (2)
- 368201 REAR SHOCK ABSORBERS - BIG BORE - SET (2)
- 368222 ALU SHOCK BODY - BIG BORE (2)
- 368223 XT2/XT4 ALU REAR SHOCK BODY - BIG BORE (2)
- 368261 XT2/XT4 REAR HARDENED SHOCK SHAFT 56mm (2)
- 368262 REAR HARDENED SHOCK SHAFT 47mm (2)
- 902205 HEX SCREW SH M2x5 (10)
- 965023 E-CLIP 2.3 (10)

- 970080 O-RING 8x1 (10)
- 970131 O-RING 13 x 1.0 (10)
- 970150 O-RING 15 x 1.5 (10)
- 973030 SILICONE X-RING PRE-OILED 3x2 (8)
- 368392 FRONT BIG BORE CONICAL SPRING-SET L=49mm - 2 DOTS (2)
- 368492 REAR BIG BORE CONICAL SPRING-SET L=67mm - 2 DOTS (2)

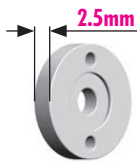
8x 965023  
C.2.3

**SET-UP BOOK**

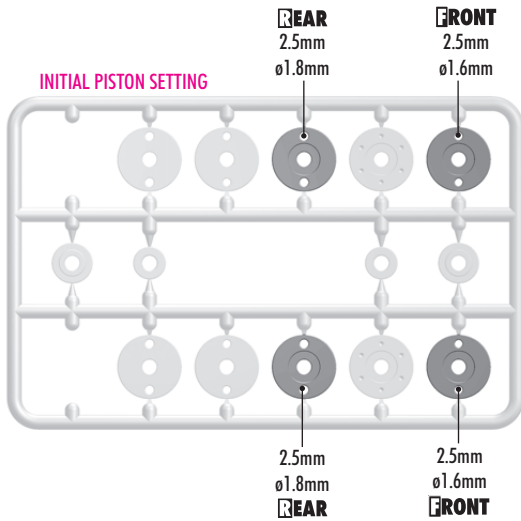
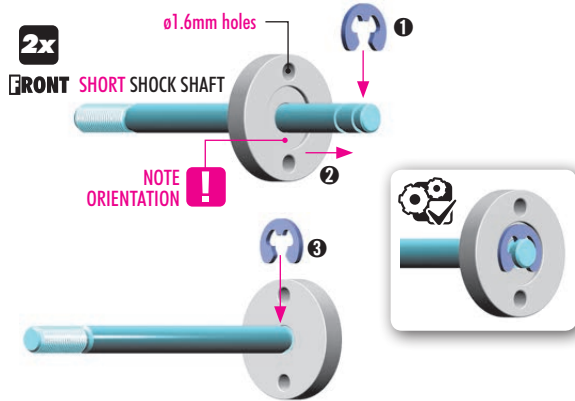
SHOCK DAMPING  
SHOCK PISTONS

**PISTONS  
ALTERNATIVE 1**

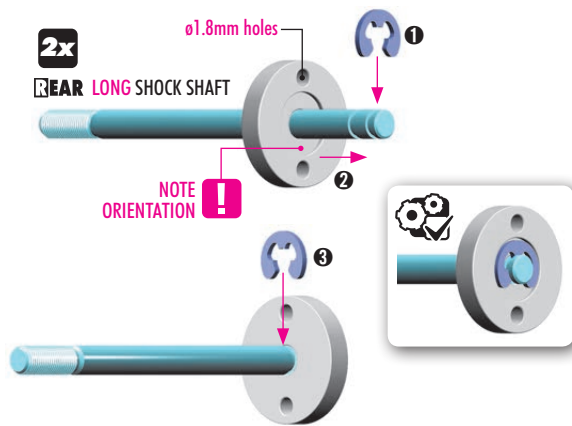
We recommend for these types of surfaces and traction levels:  
**CARPET •**



## FRONT



## REAR

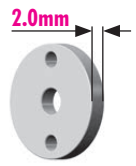


#368033  
PRECISION GROUND SHOCK PISTON BLANKS 2.5MM - BIG BORE (4)  
OPTION

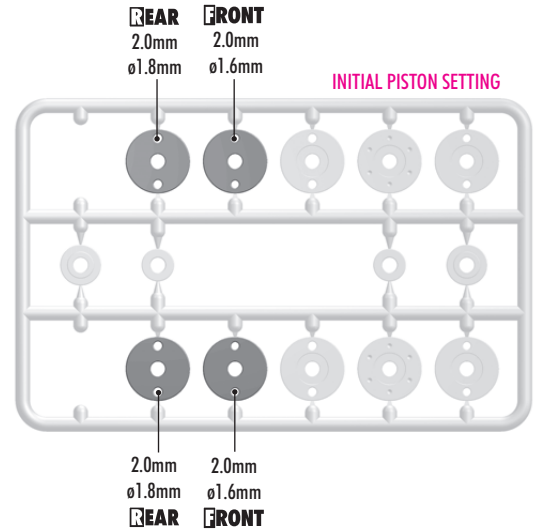
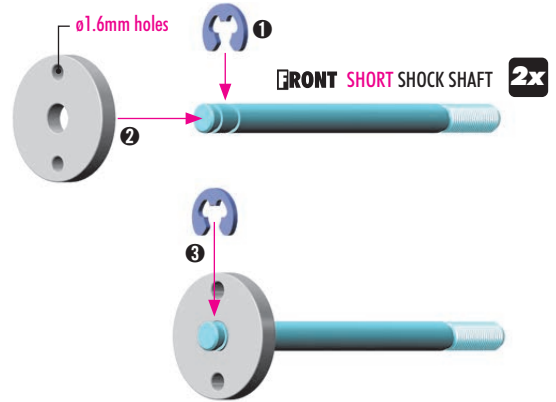


**PISTONS  
ALTERNATIVE 2**

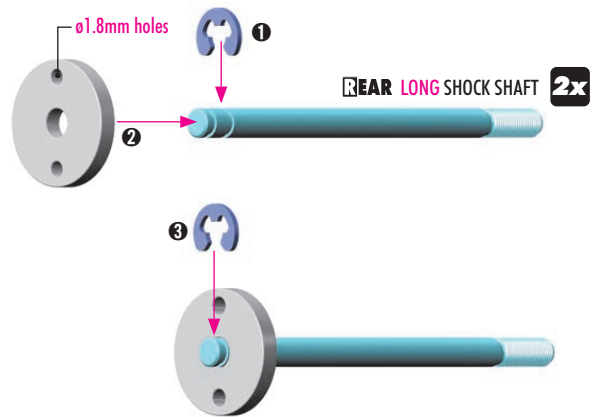
We recommend for these types of surfaces and traction levels:  
**• ASTRO  
• DIRT**



## FRONT



## REAR



#368034  
PRECISION GROUND SHOCK PISTON BLANKS 2.0MM - BIG BORE (4)  
OPTION

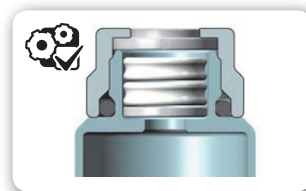
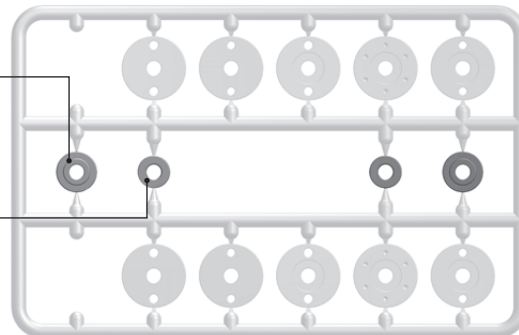
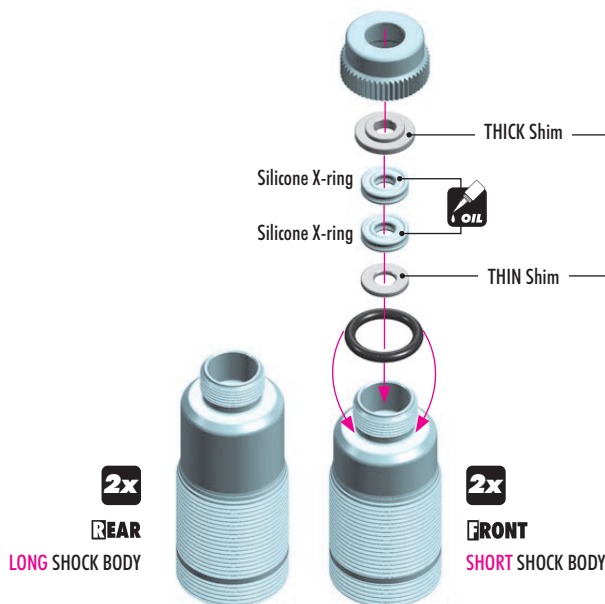


Use drill bits to create your own piston holes

# 6. SHOCK ABSORBERS **CARPET** **DIRT**

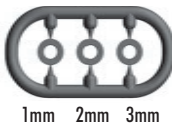


There are two different thickness shims, use them as shown. Use the same procedure when building both front and rear shocks.



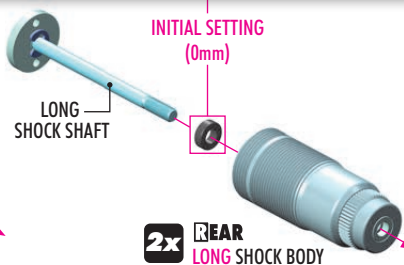
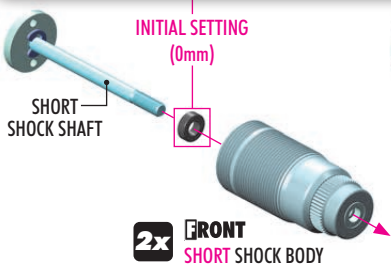
### #306219 DOWNSTOP SHIMS

Add downstop shims to limit suspension travel. Thicker shims increase downstop and reduce droop. Thicker downstop shims reduce suspension travel.



### ! IMPORTANT

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



INCORRECT

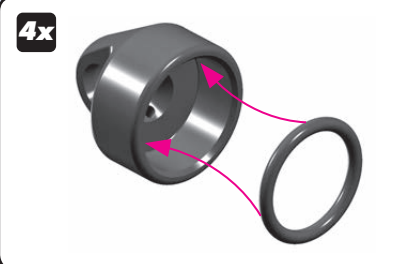
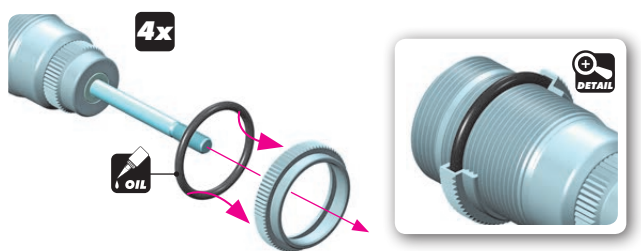
DO NOT PUSH the shock rod straight through the lower shock body assembly; X-ring damage may result.

### ! EXTREMELY IMPORTANT

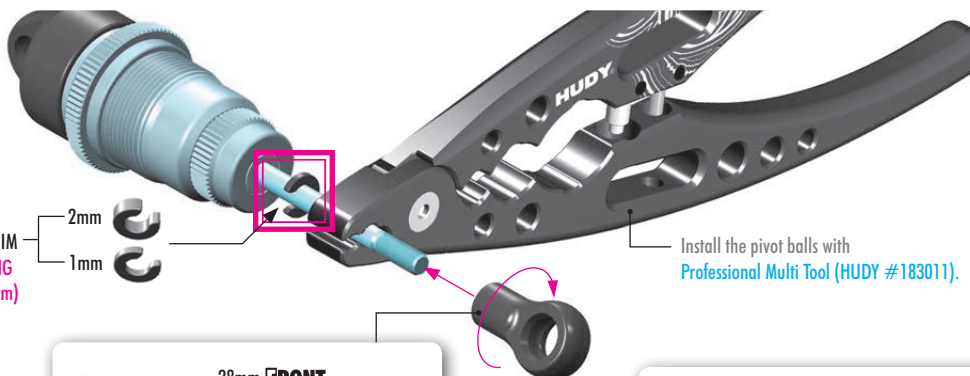


CORRECT

TWIST THE SHOCK ROD through the lower shock body assembly.



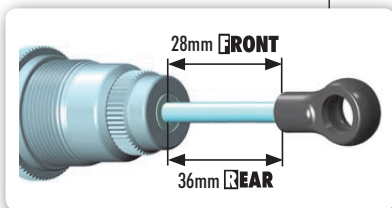
4x



UPSTOP "C" SHIM  
INITIAL SETTING  
(No shim = 0mm)

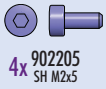


Install the pivot balls with Professional Multi Tool (HUDDY #183011).



### #368011 COMPOSITE SHOCK BALL JOINT +2mm & +4mm (2+2)





**OIL**  
**CARPET**  
 FRONT (SHORT)  
 Oil 400cSt  
 REAR (LONG)  
 Oil 300cSt

**OIL**  
**DIRT**  
 FRONT (SHORT)  
 Oil 400cSt  
 REAR (LONG)  
 Oil 300cSt

## DEFAULT SHOCK REBOUND SETTING 0% REBOUND

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

- 1** Extend the shock shaft completely. Fill the shock body with the shock oil. For the **FRONT** shocks (short) use **400cSt** oil. For the **REAR** shocks (long) use **300cSt** oil.
- 2** Move the shock shaft up and down a few times to release the air bubbles trapped beneath the piston. **3~5x UP & DOWN**
- 3** Orient the filled shock vertically for several minutes with the shock shaft fully extended. The remaining air bubbles will release.
- 4** Gently place the shock cap onto the filled shock body and start to tighten the cap. Tighten the cap fully. **TIGHTEN FULLY**
- 5** Gently push the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.
- 6** Keep the shock shaft pushed in the shock body and insert the screw into the shock cap. Tighten gently.
- 7** 6x push the shaft up and down. **6x UP & DOWN**
- 8** Untighten the screw.
- 9** Gently push the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.
- 10** Tighten the screw. The rebound will be at approx. 0%.

**SET-UP BOOK**  
 SHOCK OIL

**SHORT FRONT SHOCKS** Short Springs **2x** **2x** **LONG REAR SHOCKS** Long Springs

**WIDE NUT**  
**SPRINGS**  
**NOTE ORIENTATION**  
**NARROW COLLAR**

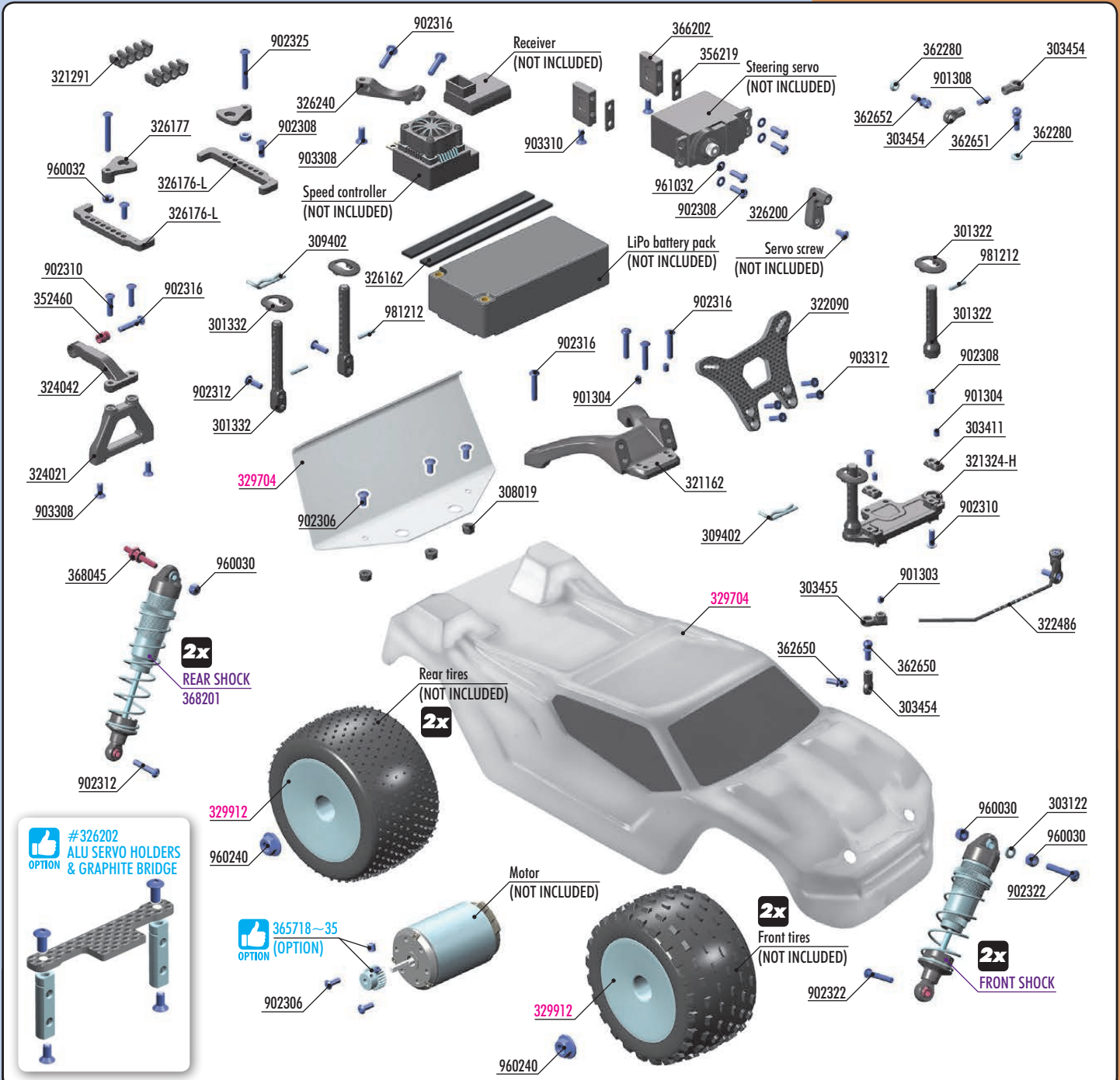
**WIDE SIDE ON TOP**  
**NARROW SIDE ON BOTTOM**

**REAR** **FRONT**

**OPTION** #368021 **ALU SHOCK SPRING RETAINING COLLAR (4)**  
**OPTION** #368022 **ALU SHOCK SPRING RETAINING COLLAR -2mm (4)**  
**OPTION** #368023 **ALU SHOCK SPRING RETAINING COLLAR -4mm (4)**

**IMPORTANT**  
 Check that Front and Rear shock pairs are the same overall length.

**2x FRONT**  
**2x REAR**



#326202  
ALU SERVO HOLDERS  
& GRAPHITE BRIDGE  
OPTION

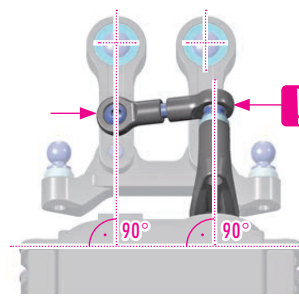
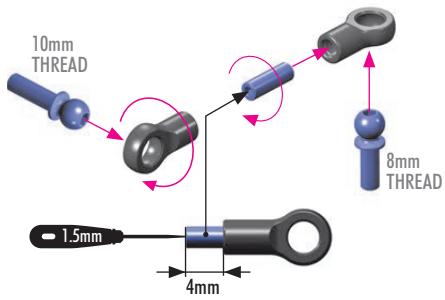
365718~35  
(OPTION)  
OPTION

**BAG**  
**07**

- |          |  |           |   |
|----------|--|-----------|---|
| 301322   | FRONT BODY MOUNT SET 6mm                             | 362652    | BALL END 4.9mm WITH THREAD 10mm (2)                 |
| 301332   | REAR BODY MOUNT SET 6mm                              | 365718~35 | ALU PINION GEAR - HARD COATED 18T~35T / 48 (OPTION) |
| 303122   | ALU SHIM 3x6x1.0mm (10)                              | 366202    | COMPOSITE SERVO MOUNT - HIGHER                      |
| 303411   | COMPOSITE ANTI-ROLL BAR HOLDERS                      | 368045    | STEEL SCREW SHOCK PIVOT BALL WITH HEX (2)           |
| 303454   | BALL JOINT 4.9mm - OPEN (4)                          | 901303    | HEX SCREW SB M3x3 (10)                              |
| 303455   | COMPOSITE ANTI-ROLL BAR BALL JOINT 4.9mm (4)         | 901304    | HEX SCREW SB M3x4 (10)                              |
| 308019   | COMPOSITE SET OF SHOCKS SHIMS & NUTS (2)             | 901308    | HEX SCREW SB M3x8 (10)                              |
| 309402   | BODY CLIP FOR 6mm BODY POST (4)                      | 902306    | HEX SCREW SH M3x6 (10)                              |
| 321162   | COMPOSITE FRONT BRIDGE UPPER DECK                    | 902308    | HEX SCREW SH M3x8 (10)                              |
| 321291   | COMPOSITE 5-WIRES HOLDER - SET                       | 902310    | HEX SCREW SH M3x10 (10)                             |
| 321324-H | XT2 COMPOSITE FRONT BODY MOUNT FOR 1-PIECE CHASSIS   | 902312    | HEX SCREW SH M3x12 (10)                             |
| 322090   | XT2 GRAPHITE SHOCK TOWER FOR 1-PIECE CHASSIS - FRONT | 902316    | HEX SCREW SH M3x16 (10)                             |
| 322486   | XT2 FRONT ANTI-ROLL BAR 1.6mm                        | 902322    | HEX SCREW SH M3x22 (10)                             |
| 324021   | COMPOSITE MOUNT FOR UPPER BRACE - LCG                | 902325    | HEX SCREW SH M3x25 (10)                             |
| 324042   | COMPOSITE MOTOR UPPER BRACE - LCG                    | 903308    | HEX SCREW SFH M3x8 (10)                             |
| 326162   | SELF-ADHESIVE RUBBER 1.5x6.5x155mm (2)               | 903310    | HEX SCREW SFH M3x10 (10)                            |
| 326176-L | COMPOSITE LIPO BATTERY HOLDER - LONG (2+2)           | 903312    | HEX SCREW SFH M3x12 (10)                            |
| 326177   | COMPOSITE BATTERY CLAMP (2)                          | 960030    | NUT M3 (10)   |
| 326200   | COMPOSITE STEERING SERVO ARMS - EXTENDED - 23T + 25T | 960032    | NUT M3 (10)   |
| 326240   | COMPOSITE FAN HOLDER                                 | 960240    | NUT M4 WITH SERRATED FLANGE (10)                    |
| 352460   | PIVOT BALL 5.8 (10)                                  | 961032    | WASHER S 3.2 (10)                                   |
| 356219   | COMPOSITE SERVO SHIMS 1.0, 1.5 & 2.5mm (2+2+2)       | 981212    | PIN 2x12 (10)                                       |
| 362280   | ALU CONICAL SHIM 3x6x2.0mm (10)                      | 368201    | REAR SHOCK ABSORBERS - BIG BORE - SET (2)           |
| 362650   | BALL END 4.9mm WITH THREAD 6mm (2)                   | 329704    | XRAY XT2 BODY - FRONT/REARWARD SHOCK POSITION       |
| 362651   | BALL END 4.9mm WITH THREAD 8mm (2)                   | 329912    | STADIUM TRUCK WHEEL WITH 12mm HEX - WHITE (2)       |



1x 901308  
SB M3x8



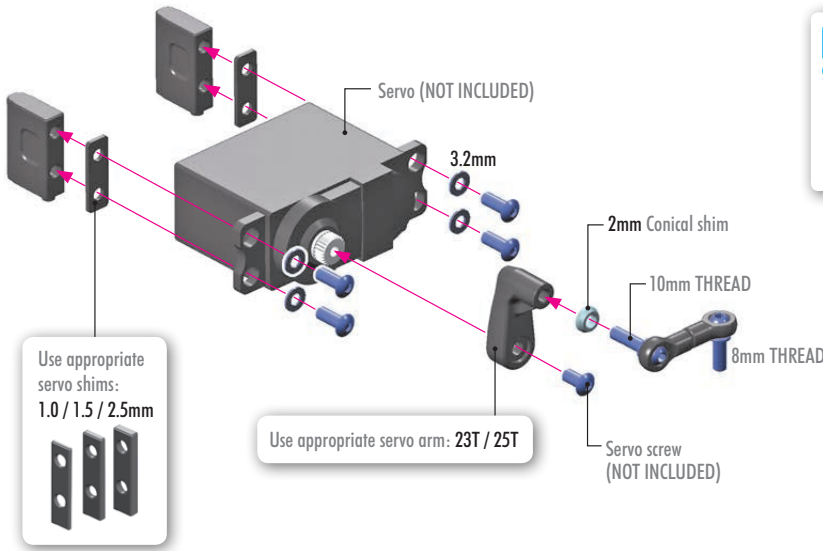
Adjust the servo links length according to the type of servo.

| OPTION  | HUDY TITAN BALL ENDS | OPTION |
|---------|----------------------|--------|
| #990008 | 8mm Thread           | OPTION |
| #990010 | 10mm Thread          | OPTION |

1x 362280  
CON. SHIM 3x6x2

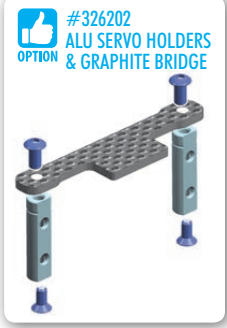
4x 902308  
SH M3x8

4x 961032  
SHIM S 3.2



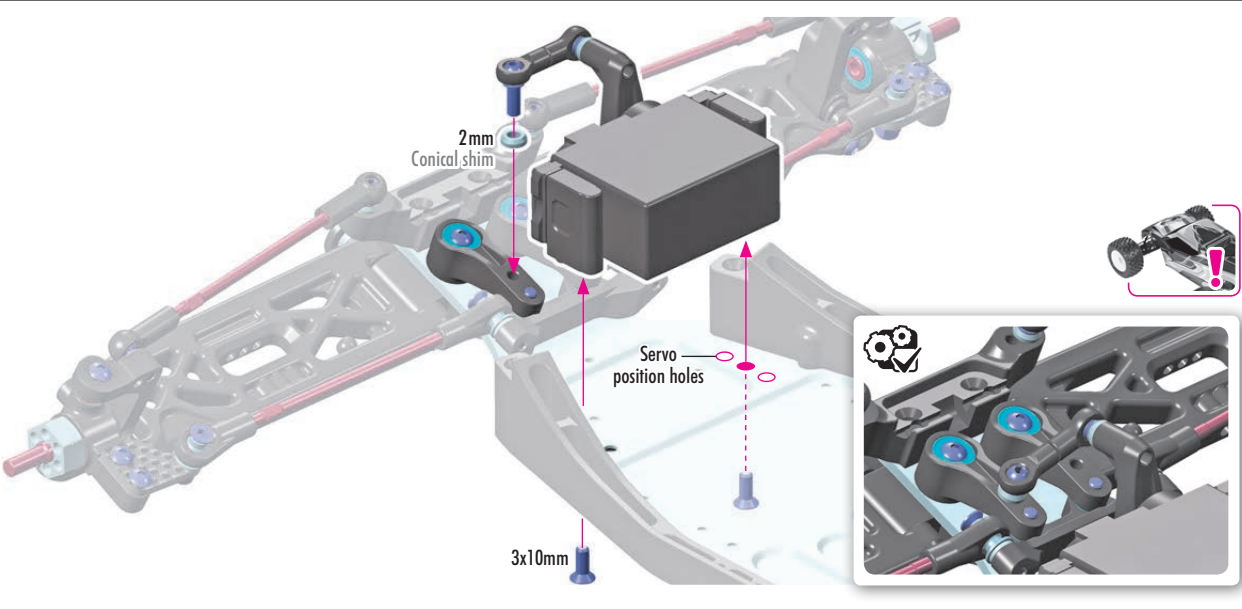
| OPTION  | CLAMP ALU SERVO HORNS - EXTENDED |
|---------|----------------------------------|
| #293421 | KO, Sanwa - 23T                  |
| #293422 | Futaba, Savox - 25T              |

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

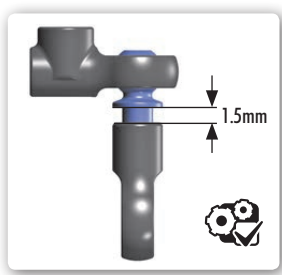
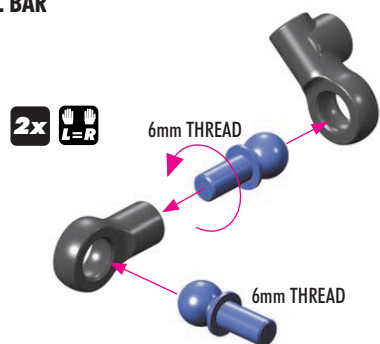


1x 362280  
CON. SHIM 3x6x2

2x 903310  
SFH M3x10

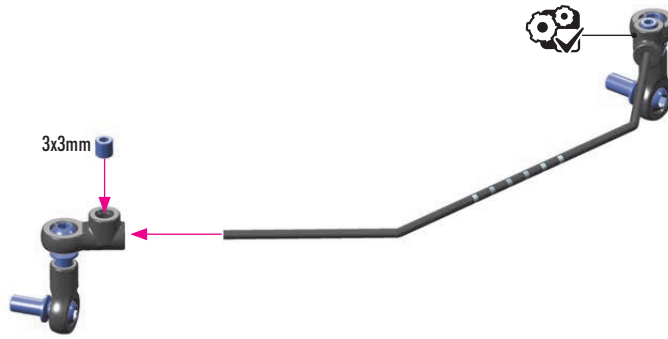


## FRONT ANTI-ROLL BAR



| OPTION  | HUDY TITAN BALL ENDS | OPTION |
|---------|----------------------|--------|
| #990006 | 6mm Thread           | OPTION |

2x 901303  
SB M3x3

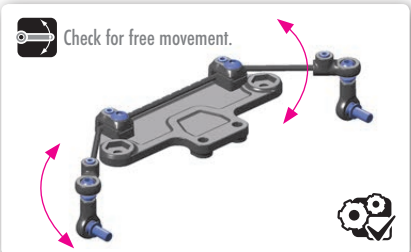
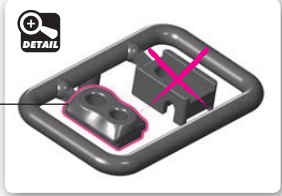
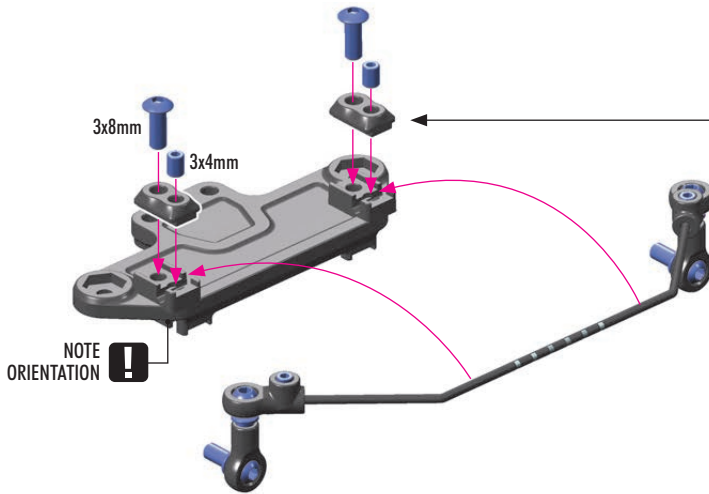


### ANTI-ROLL BARS

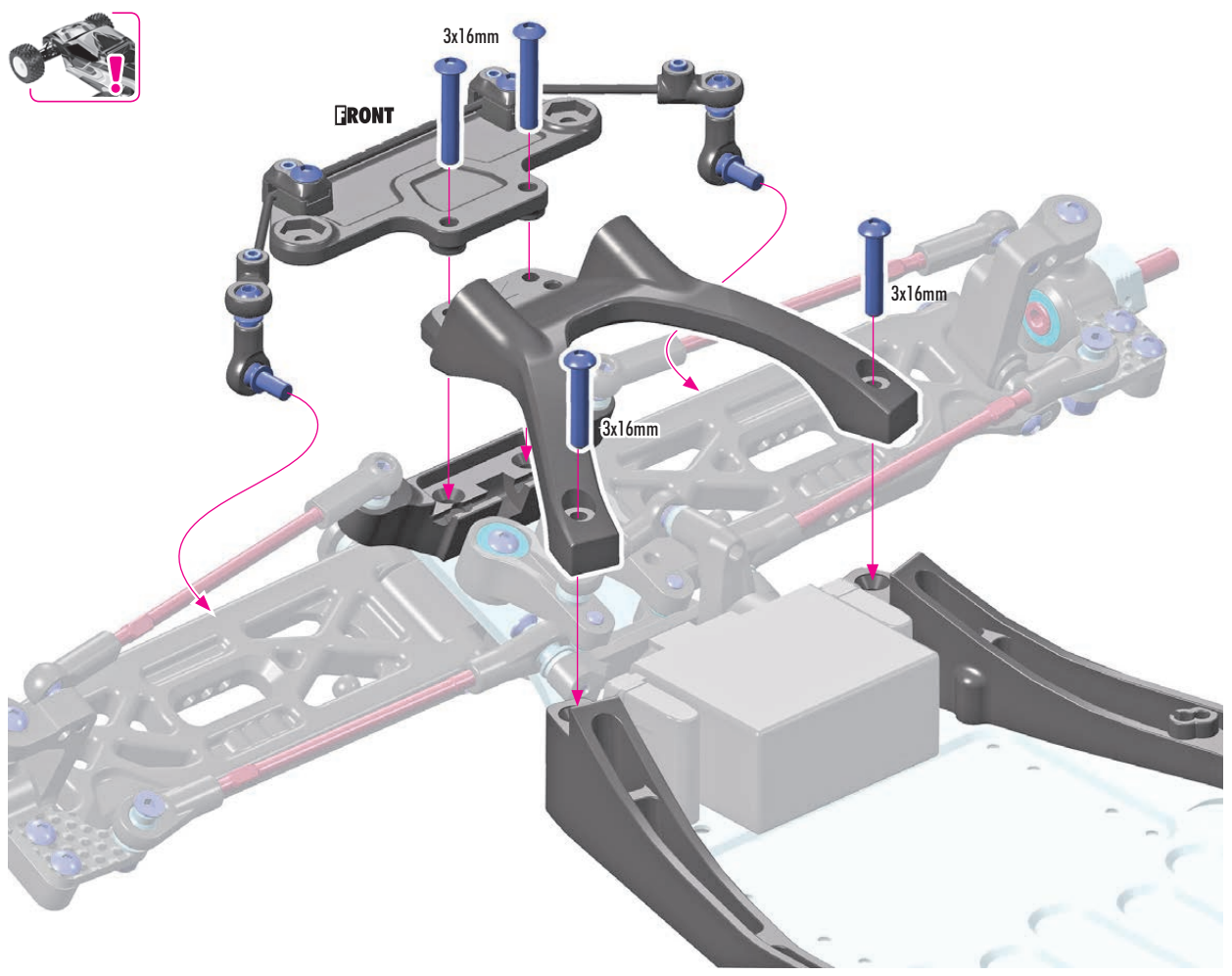
|        |         |       |          |
|--------|---------|-------|----------|
| OPTION | #322484 | 1.4mm | OPTION   |
|        | #322486 | 1.6mm | INCLUDED |
|        | #322488 | 1.8mm | OPTION   |

2x 901304  
SB M3x4

2x 902308  
SH M3x8



4x 902316  
SH M3x16



4x 903312 SFH M3x12

3x12mm

NOTE ORIENTATION !

2x 303122 SHIM 3x6x1

4x 902322 SH M3x22

4x 960030 NUT M3

2x L=R

3x22mm

FRONT

1mm

SHORT SHOCK

NOTE BALL ORIENTATION !

INITIAL SETTING

INITIAL SETTING

OPTION #323092 GRAPHITE SHOCK TOWER REAR

2x 902312 SH M3x12

2x 960030 NUT M3

OPTION #323092 GRAPHITE SHOCK TOWER REAR

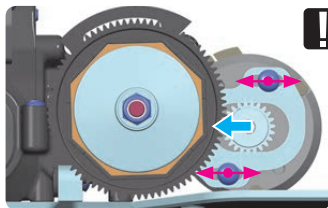
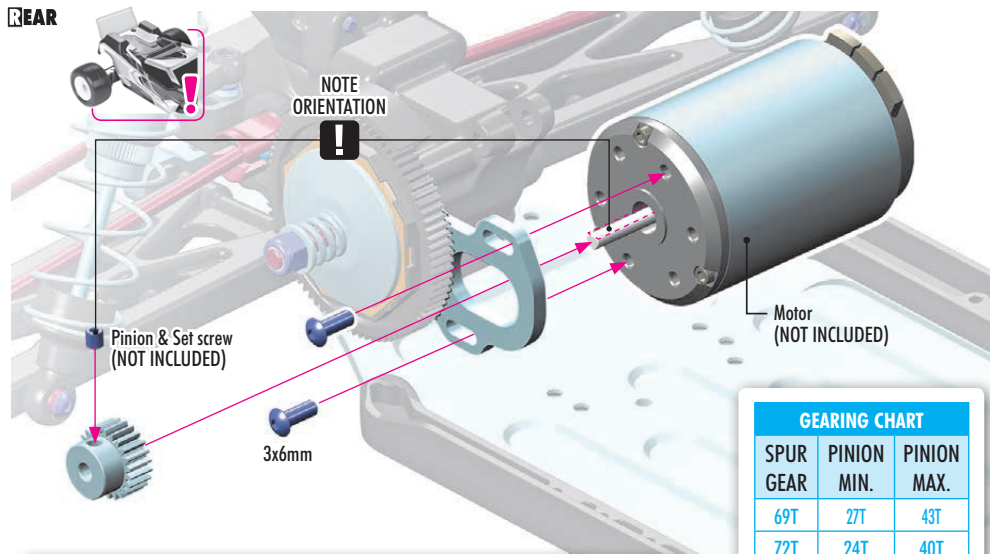
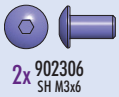
REAR

NOTE BALL ORIENTATION !

3x12mm

INITIAL SETTING

INITIAL SETTING



**GEAR MESH**  
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.

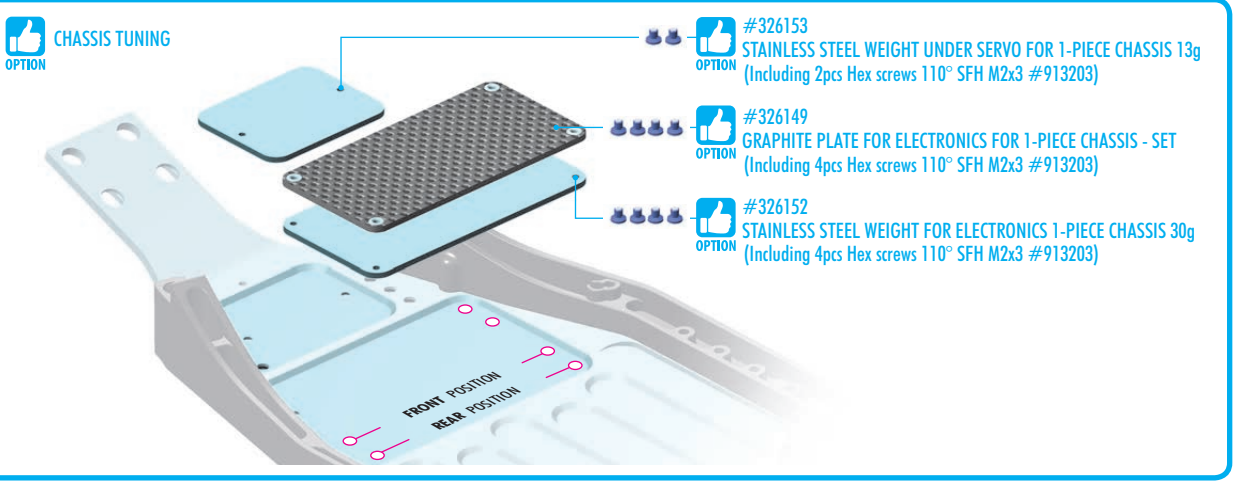
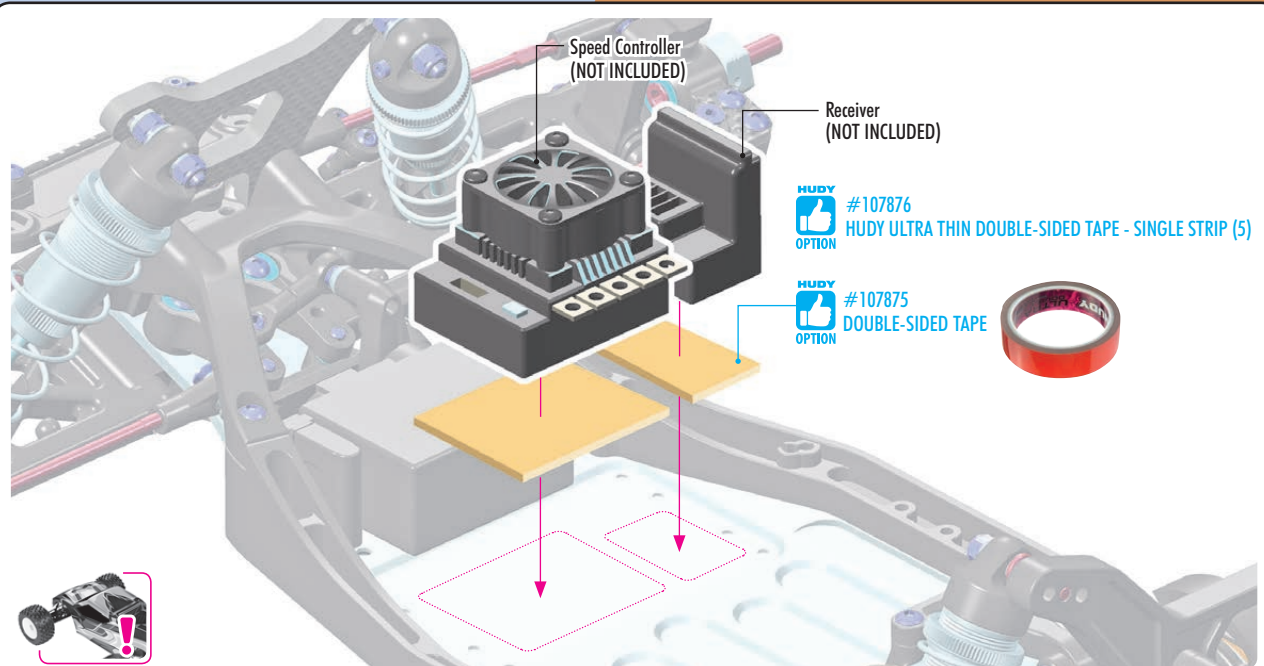
**GEARING CHART**




| SPUR GEAR | PINION MIN. | PINION MAX. |
|-----------|-------------|-------------|
| 69T       | 27T         | 43T         |
| 72T       | 24T         | 40T         |
| 75T       | 21T         | 37T         |
| 78T       | 18T         | 34T         |
| 81T       | 15T         | 31T         |

**GEAR RATIO** Final Drive Ratio  
 $78 : X \times 2.65 = \text{FDR}$   
(Spur) (Pinion) (IGR)

**PINIONS (48P)**

|         |     |
|---------|-----|
| #294017 | 17T |
| #305918 | 18T |
| #294019 | 19T |
| #294020 | 20T |
| #294021 | 21T |
| #294022 | 22T |
| #294023 | 23T |
| #294024 | 24T |
| #305925 | 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 |



-  2x 902310 SH M3x10
-  1x 902316 SH M3x16
-  2x 902308 SFH M3x8

**ADJUSTMENT WITHOUT UPPER BRACE**

**INCORRECT** **IMPORTANT** **CORRECT**

The screw must be used even though the brace is NOT mounted. Make sure to NOT overtighten the screw. The screw cannot stick out past the gearbox.

-  2x 902308 SH M3x8
-  2x 902325 SH M3x25
-  2x 960032 NUT M3

**NOTE ORIENTATION for LOW BATTERY PACK**

**NOTE ORIENTATION for STANDARD BATTERY PACK**

**DO NOT overtighten the screw to avoid side guard damage.**

**BATTERY (NOT INCLUDED)**

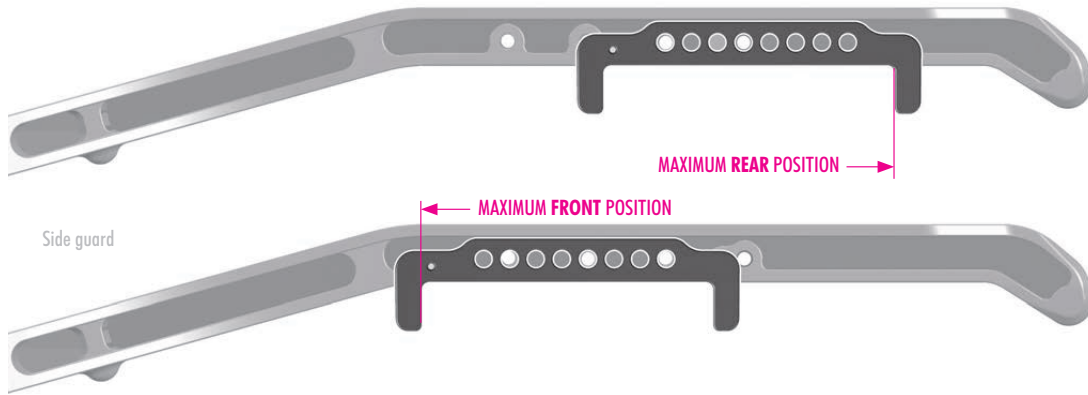
**BATTERY POSITION SETTING**  
For **INITIAL SETTING** use the battery position setting maximum in rearward position.

**HEIGHT ADJUSTMENT**  
1 turn = 0.5mm

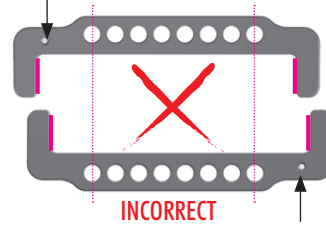
**TIGHTEN GENTLY**

**TIGHTEN GENTLY**

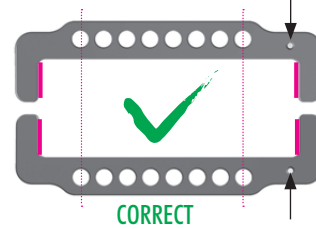
**#326181 STAINLESS STEEL BATTERY WEIGHT 35g**  
OPTION



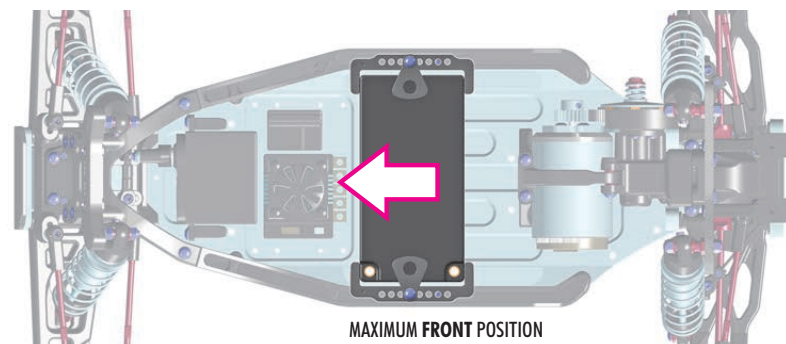
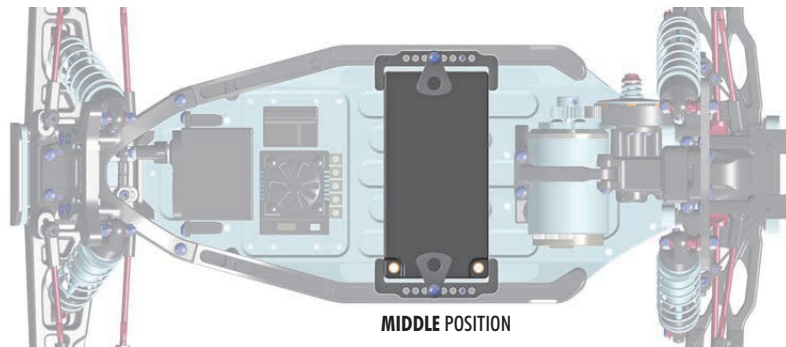
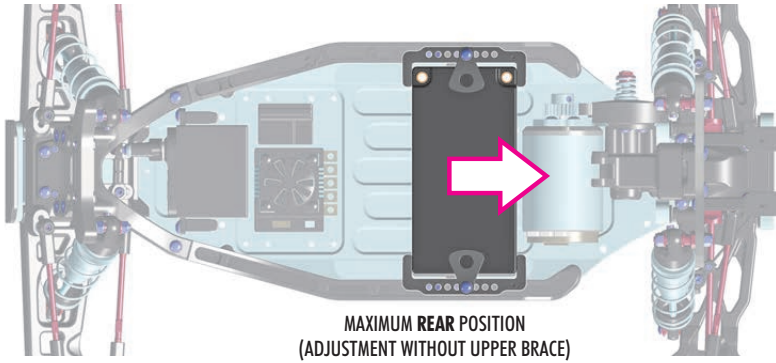
NOTE DOT ORIENTATION





NOTE DOT ORIENTATION





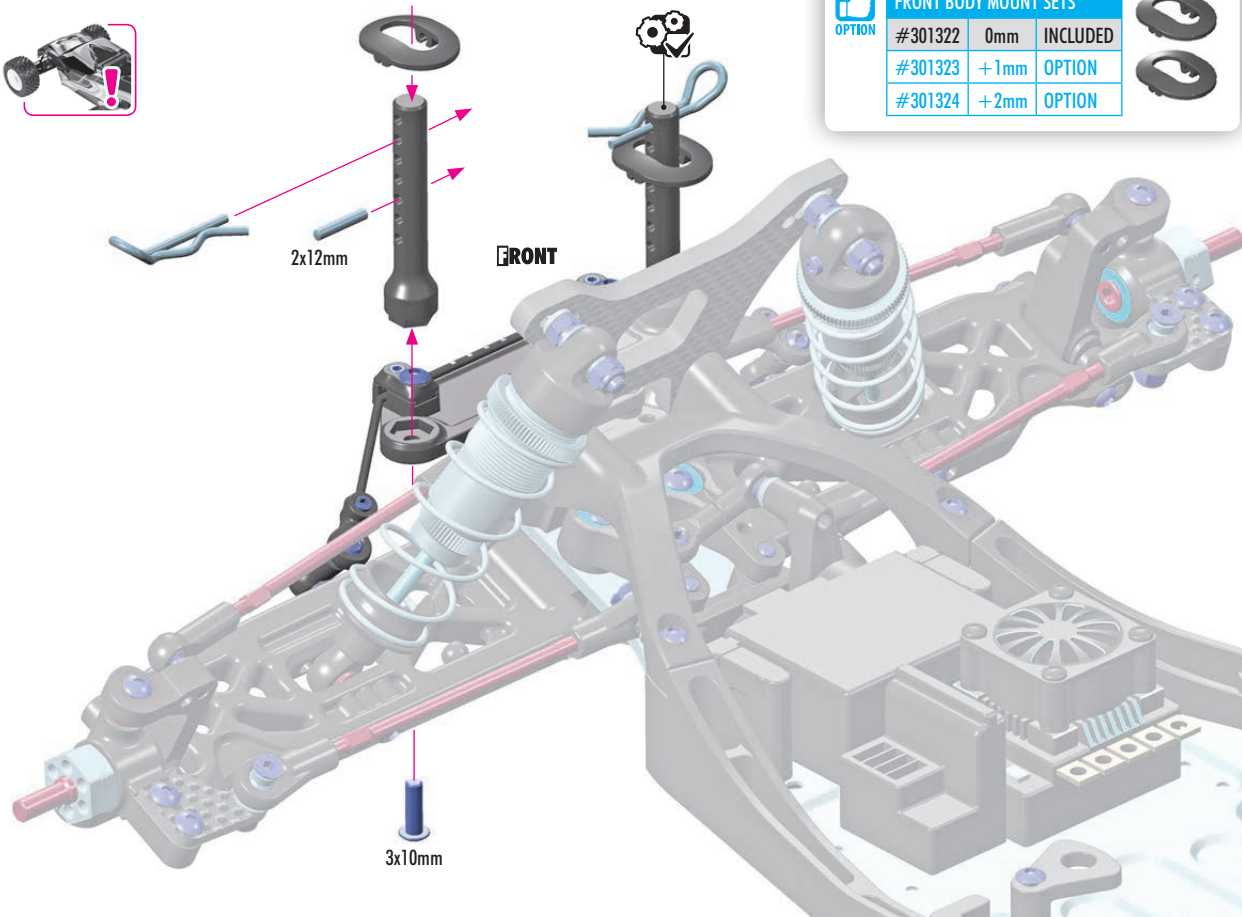
NOTE DOT ORIENTATION



**2x**  902310  
SH M3x10

**2x**  981212  
P 2x12


**2x**  





**FRONT**


2x12mm



3x10mm

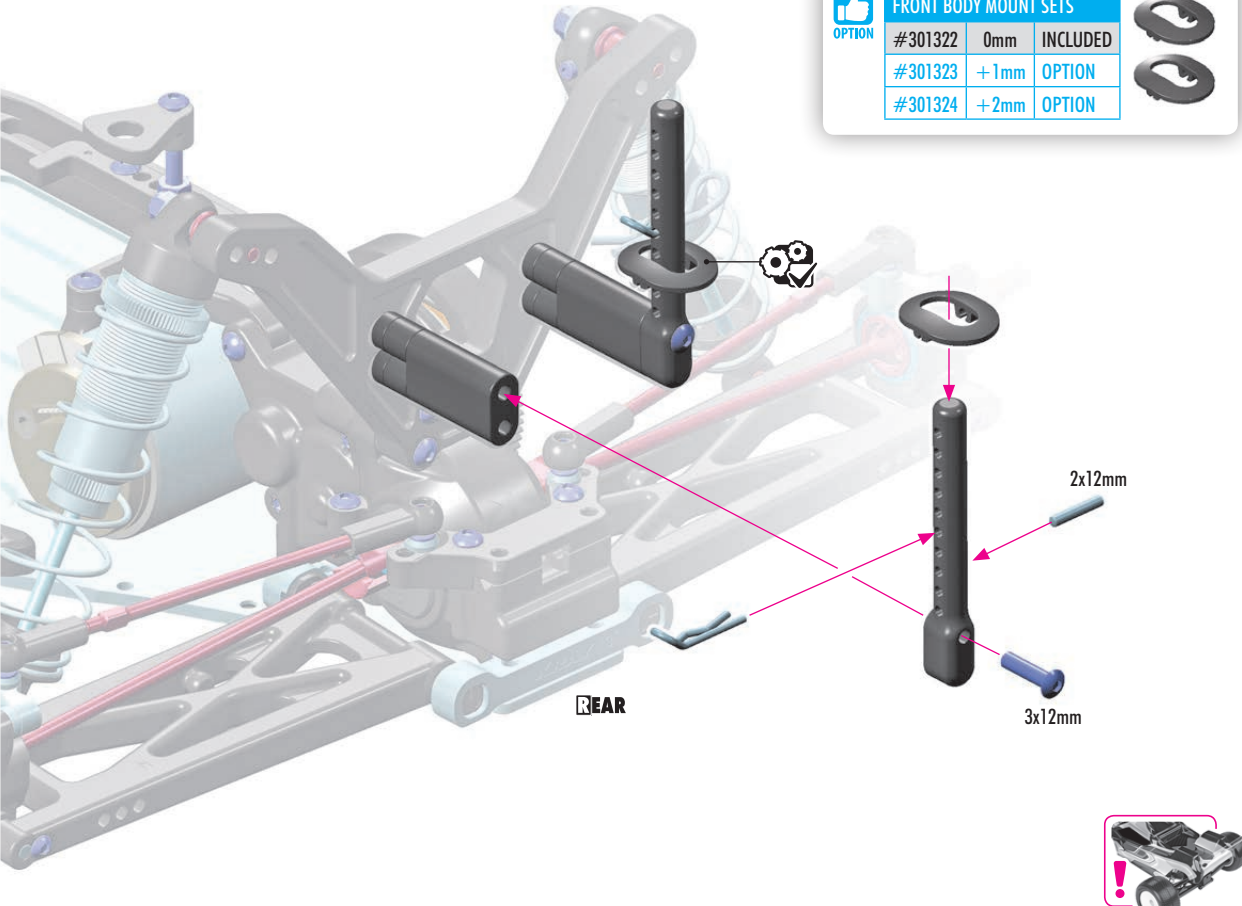
| FRONT BODY MOUNT SETS   |         |      |          |
|---|---------|------|----------|
|  <small>OPTION</small> | #301322 | 0mm  | INCLUDED |
|   | #301323 | +1mm | OPTION   |
|   | #301324 | +2mm | OPTION   |



**2x**  902312  
SH M3x12

**2x**  981212  
P 2x12


**2x**  





**REAR**

2x12mm

3x12mm

| FRONT BODY MOUNT SETS   |         |      |          |
|---|---------|------|----------|
|  <small>OPTION</small> | #301322 | 0mm  | INCLUDED |
|   | #301323 | +1mm | OPTION   |
|   | #301324 | +2mm | OPTION   |







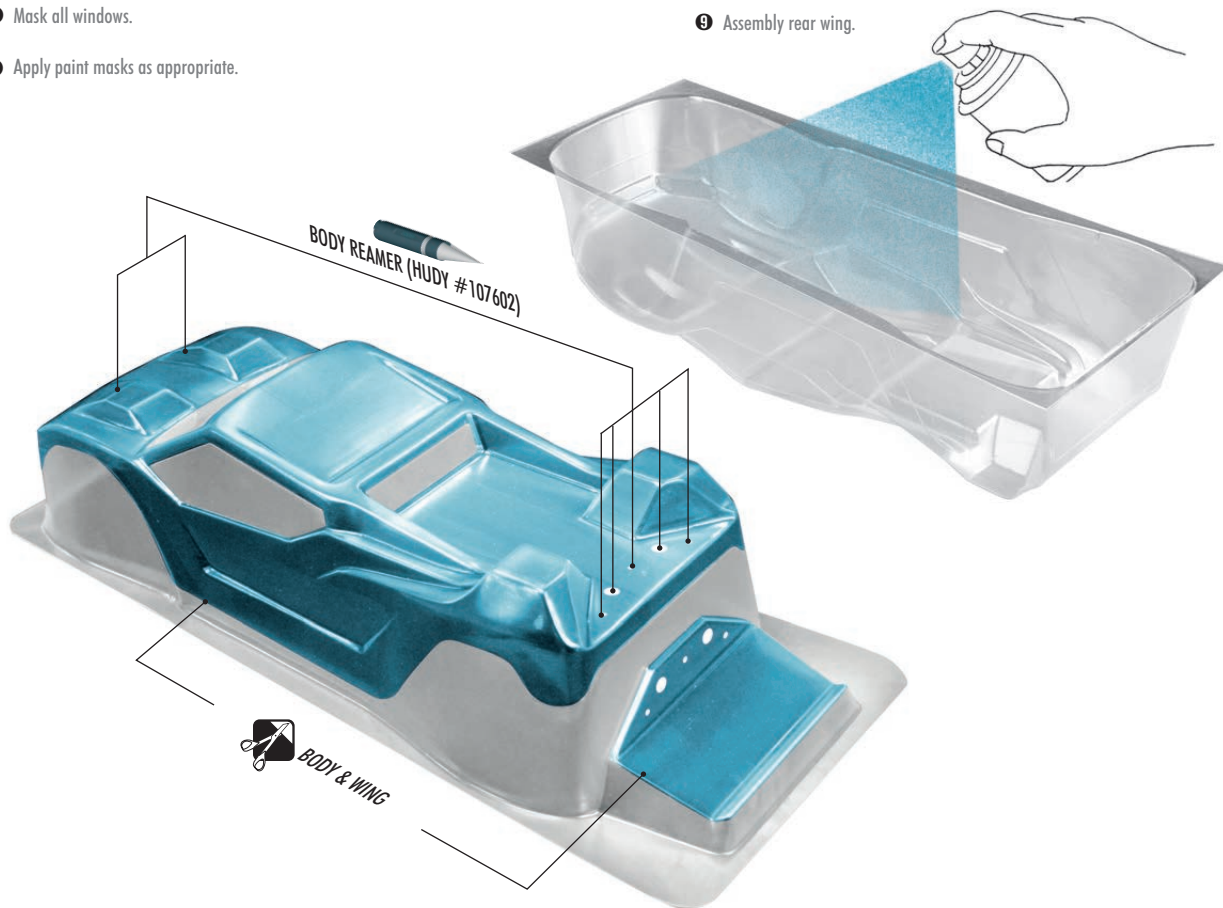
3x 902306  
SH M3x6



3x 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.



### BODY STADIUM TRUCK

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

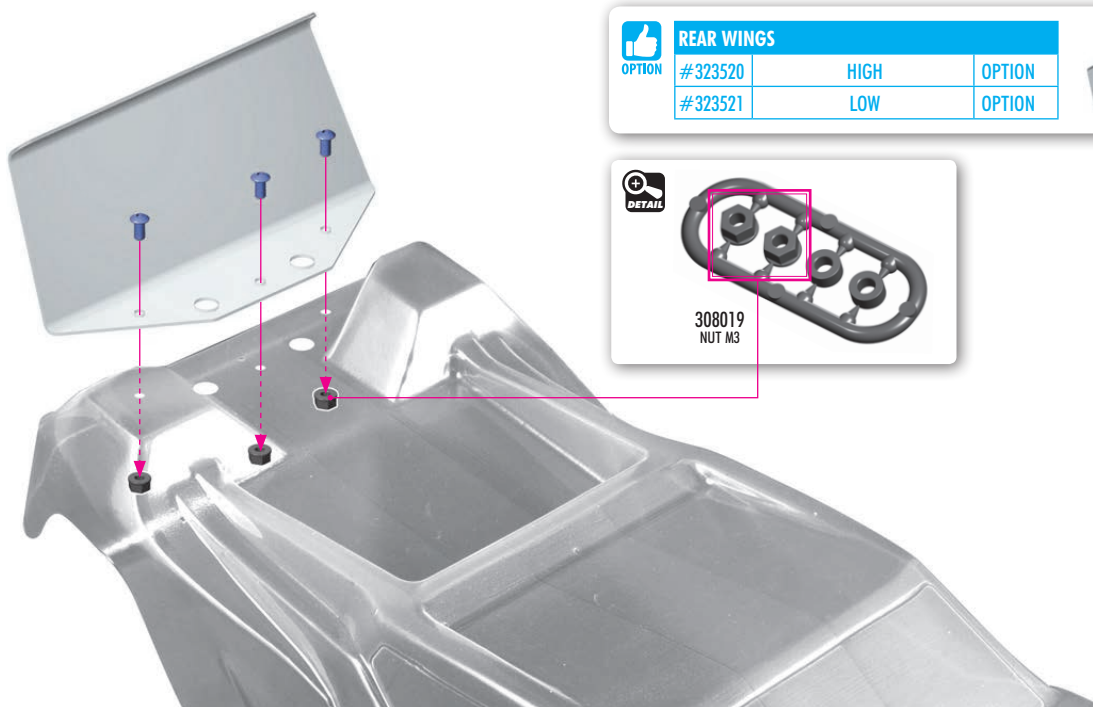


### REAR WINGS

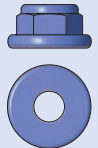
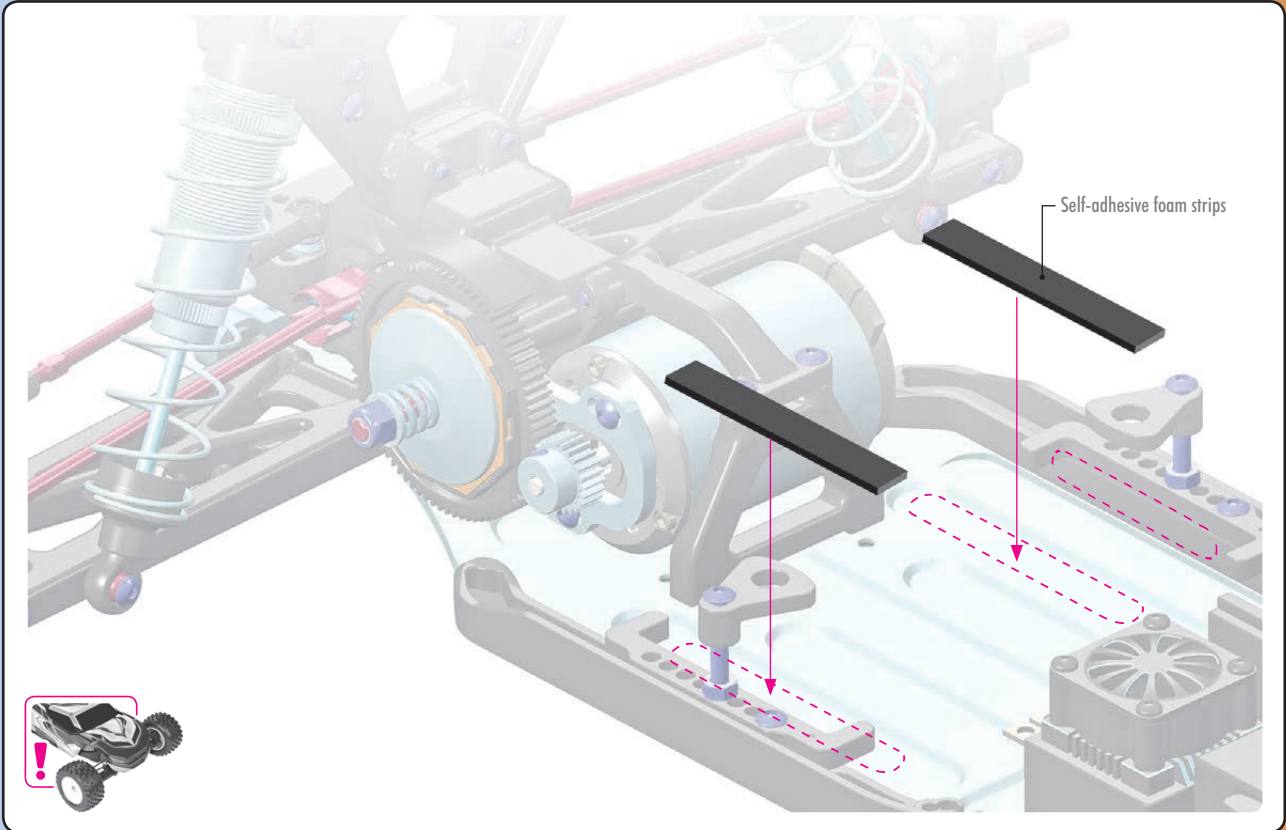
|         |      |        |
|---------|------|--------|
| #323520 | HIGH | OPTION |
| #323521 | LOW  | OPTION |



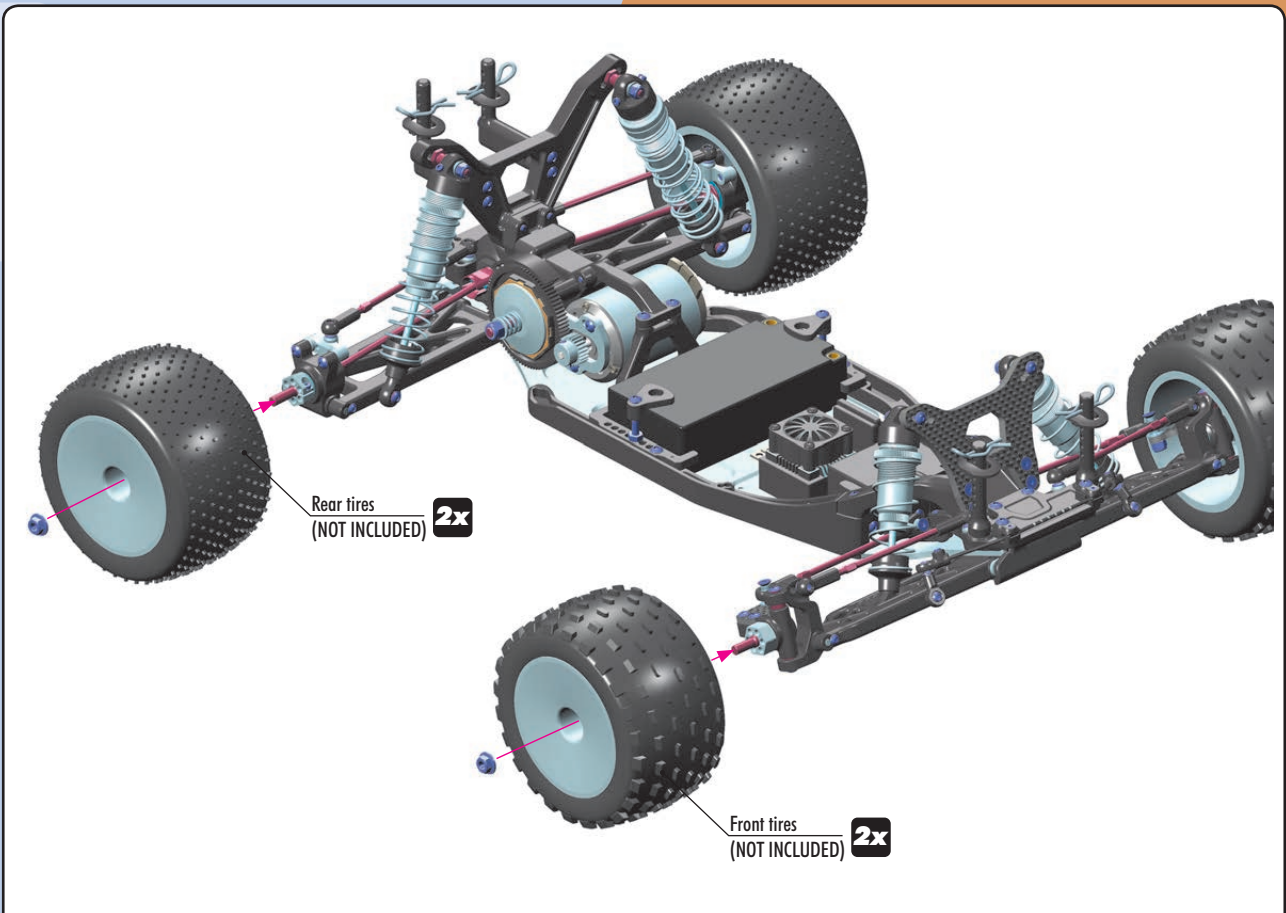
308019  
NUT M3







4x 960240  
N M4

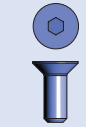


| OPTION    | ALU NUT SERRATED FLANGE |          |  |  |
|-----------|-------------------------|----------|--|--|
| #960240   | SILVER                  | INCLUDED |  |  |
| #960241-O | ORANGE                  | OPTION   |  |  |
| #960241-K | BLACK                   | OPTION   |  |  |

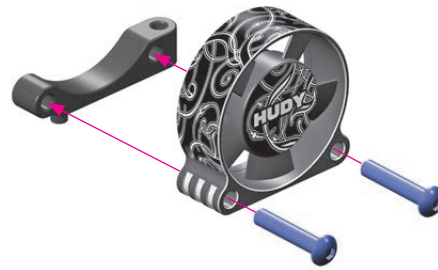
| OPTION  | XRAY REAR AERODISK WHEELS |       |          |  |
|---------|---------------------------|-------|----------|--|
| #329902 | WHITE                     | 10pcs | OPTION   |  |
| #329912 | WHITE                     | 2pcs  | INCLUDED |  |



2x 902316  
SH M3x16



1x 903308  
SFH M3x8



**#293101**  
OPTION HUDY ALU RC FAN 30MM  
SIDE MOUNT 2 HOLE



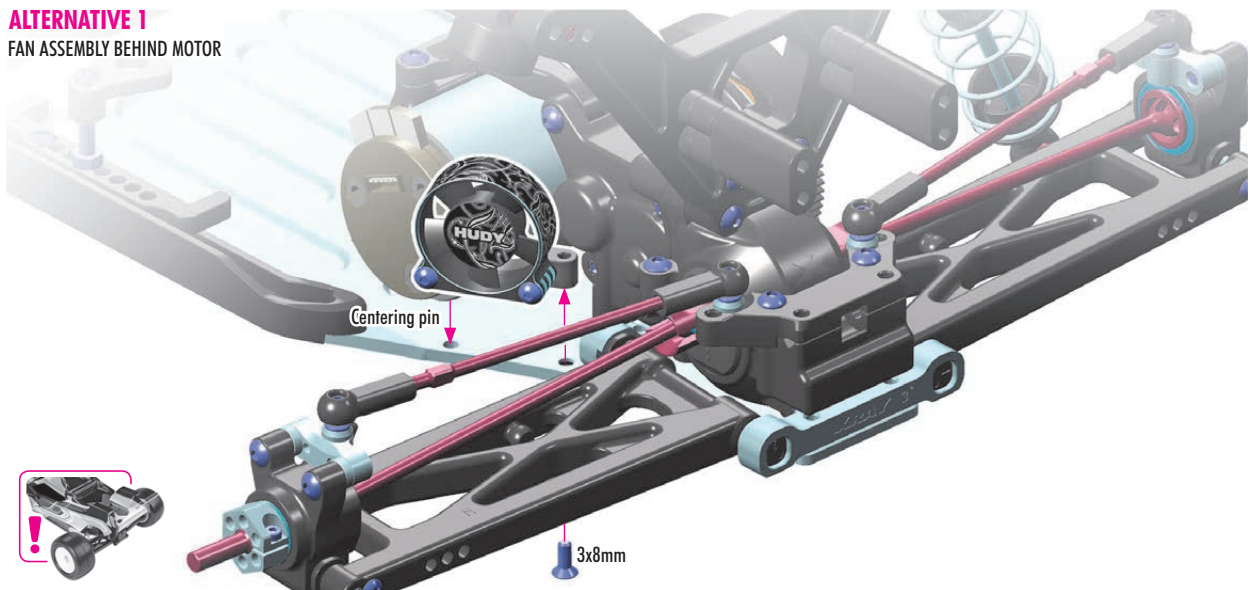
**#293112**  
OPTION HUDY BRUSHLESS RC FAN 30MM  
WITH INTERNAL SOLDERING TABS



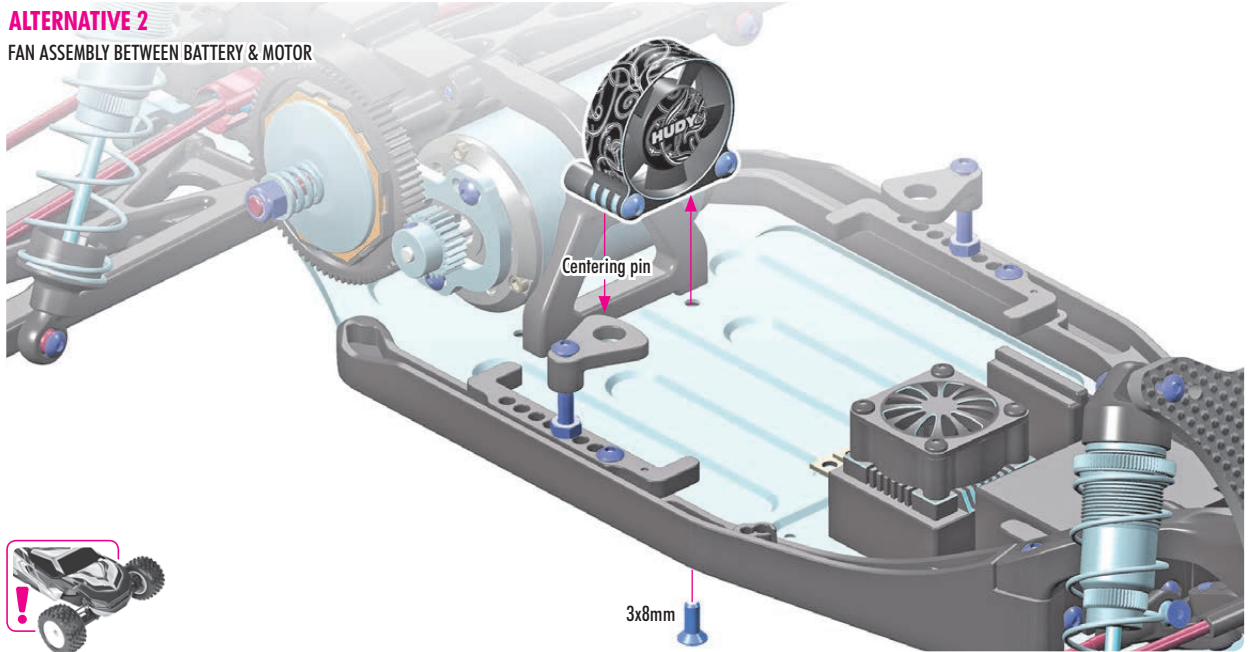
**#293110**  
OPTION HUDY BRUSHLESS RC FAN 30MM  
WITH EXTERNAL SOLDERING TABS



**ALTERNATIVE 1**  
FAN ASSEMBLY BEHIND MOTOR



**ALTERNATIVE 2**  
FAN ASSEMBLY BETWEEN BATTERY & MOTOR



## 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

108605 - BLACK

108601 - GREY

108603 - DARK GREY

108602 - SILVER GREY

108604 - TITAN

199183

104004

107701

106000 + 106036

109801

181090

107740

293100

293101

293110

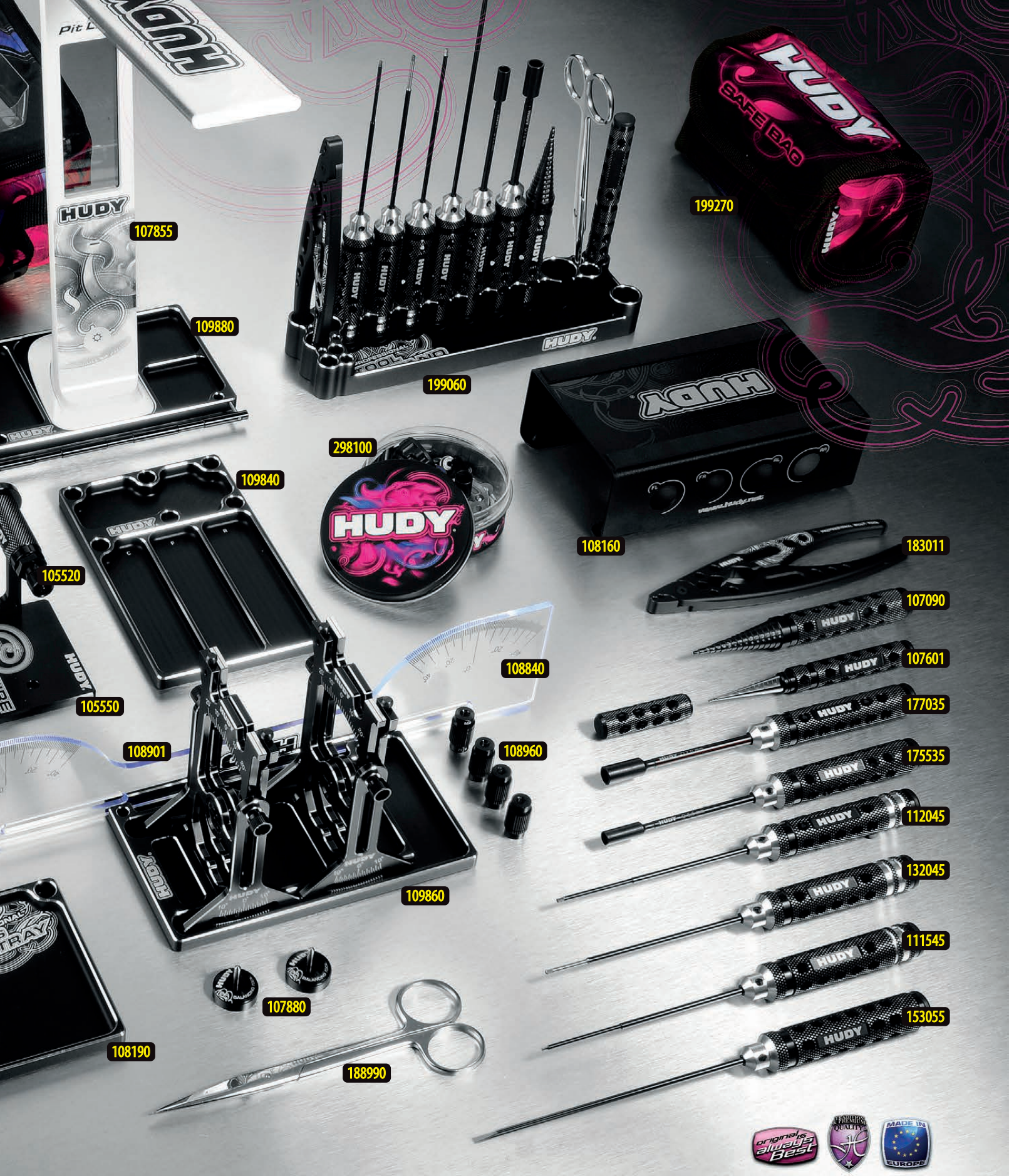
293112

107742

181030

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 Ø-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  
108601 FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - GREY  
108602 FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - SILVER GREY  
108603 FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - DARK GREY  
108604 FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - TITAN  
108605 FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - BLACK  
108901 HUDY SET-UP STATION FOR 1/10 OFF-ROAD CARS (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 3MM
- 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
- 293100 HUDY ALU RC FAN 30MM - BOTTOM MOUNT 2 HOLE
- 293101 HUDY ALU RC FAN 30MM - SIDE MOUNT 2 HOLE
- 293110 HUDY BRUSHLESS RC FAN 30MM - WITH EXTERNAL SOLDERING TABS
- 293112 HUDY BRUSHLESS RC FAN 30MM - WITH INTERNAL SOLDERING TABS
- 298100 HUDY TIN ROUND BOX 80X30MM

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

[www.hudy.net](http://www.hudy.net)



RACE

TRACK

NAME  DATE

LAPS  BEST LAP TIME  sec

QUALIFYING POSITION  FINAL POSITION

**TRACK**

SIZE  OPEN  MEDIUM  TIGHT

TRACTION  VERY-LOW  MEDIUM  VERY-HIGH

SURFACE  SMOOTH  MEDIUM  BUMPY

TYPE  CLAY  CARPET  ASTRO

CONDITION  BLUE GROOVE  HARD PACKED  DRY  
 DUSTY  LOAMY  WET

**TRANSMISSION**

BALL DIFF  GEAR DIFF  ACTIVE DIFF

DIFFERENTIAL OIL  cst 60° 90° 120°

SATELITE GEARS COMPOSITE  STEEL  GEARS 2  4

SLIPPER 2 PAD  3 PAD   mm

SLIPPER CLUTCH PLATES KIT  VENTILATED  SOLID AXLE

**GEAR BOX HARDNES**

KIT  GRAPHITE

**GEARING**

PINION  SPUR GEAR

**FRONT SHOCKS REAR**

SPRINGS OIL

2 HOLES   ø1.6mm  2 HOLES   
 ø1.8mm

Thickness 2.0mm  2.5mm  KIT  ALU  Precision

DOWNSTOP SHIM INSERT UNDER PISTON LENGTH  mm

UPSTOP SHIM INSERT ABOVE COLLAR COLLAR  0mm  -2mm  -4mm

BALL JOINT  KIT  +2mm  +4mm

**FRONT ANTI ROLL BAR REAR**

THICKNESS  mm

**FRONT TIRES REAR**

BRAND

COMPOUND

INSERTS

WHEELS

**ELECTRONICS**

MOTOR  SPEEDO

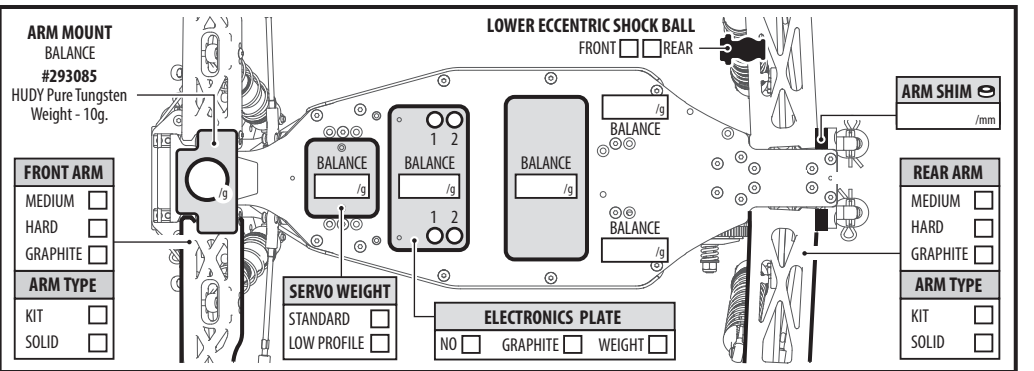
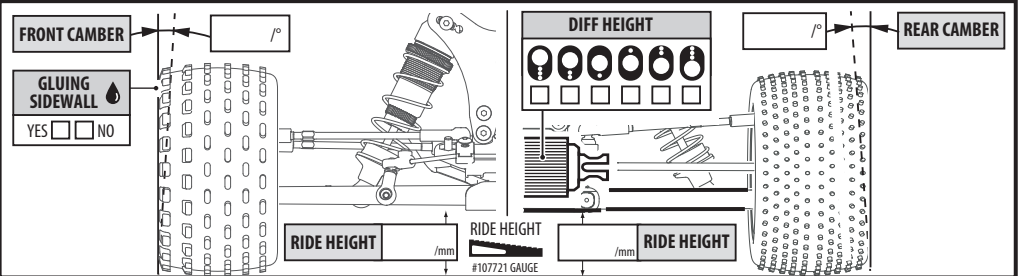
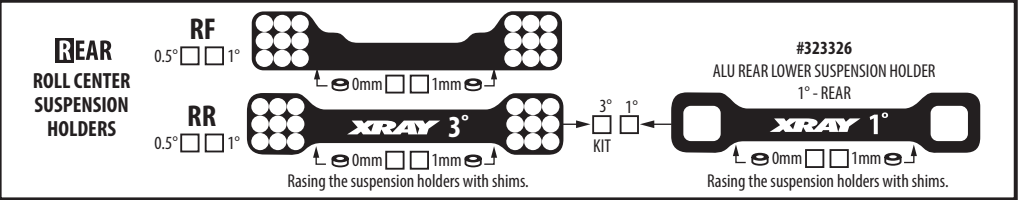
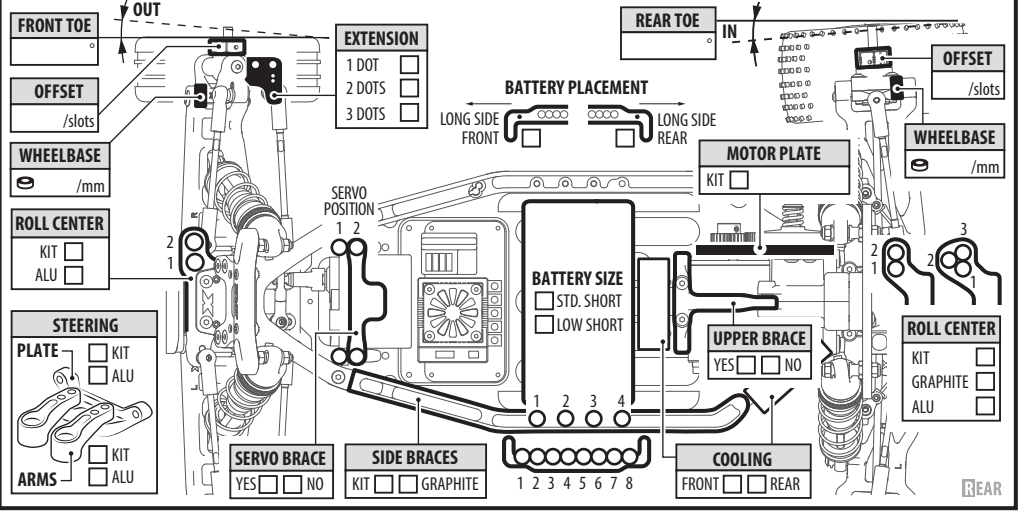
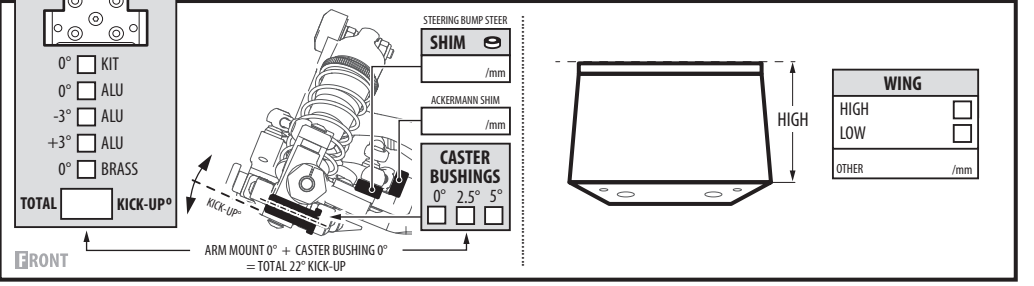
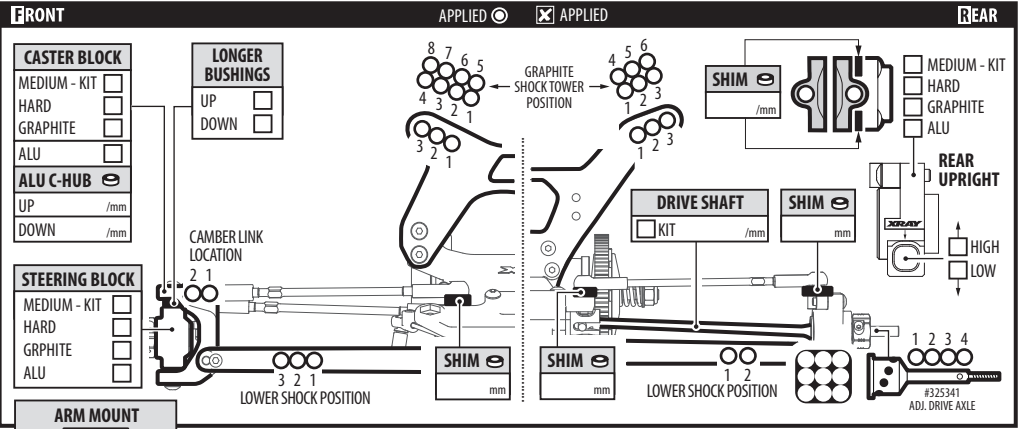
MOTOR TIMING  BATTERY

**BODY TOTAL WEIGHT**

LIGHT

/g

**COMMENT**



## **NOTE**

[www.teamxray.com](http://www.teamxray.com)

**XRAY EUROPE**

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PHONE: +421-32-740 11 00, FAX: +421-32-740 11 09, [info@teamxray.com](mailto:info@teamxray.com)

**XRAY USA**

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