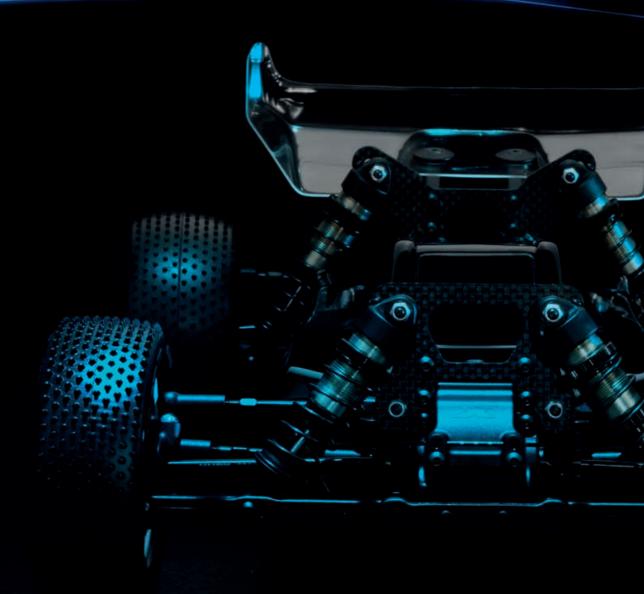
1/10 ELECTRIC OFF-ROAD BUGGY 4WD

A FRANCES A ESTA



INSTRUCTION MANUAL
FOR XB4C'25 & XB4D'25 EDITION

BEFORE YOU START

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

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

CUSTOMER SUPPORT

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

You can join thousands of XRAY fans and enthusiasts in our online community at: www.teamxray.com

Read carefully and fully understand the instructions before beginning assembly.

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

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

XRAY Europe

K Vystavisku 6992 91101 Trenčín Slovakia, EUROPE Phone: 421-32-7401100

Fax: 421-32-7401109 E-mail: info@teamxray.com

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

XRAY USA

RC America, 2030 Century Center Blvd #15 Irving, TX 75062 ΙΙςΔ Phone: (214) 744-2400

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

SAFETY PRECAUTIONS

Contains:

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

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

CAUTION: CANCER HAZARD

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

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

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

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

IMPORTANT NOTES – GENERAL

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

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IMPORTANT NOTES — ELECTRICAL

- Insulate any exposed electrical wiring (using heat shrink tubing or electrical tape) to prevent
 dangerous short circuits. Take maximum care in wiring, connecting and insulating cables.
 Make sure cables are always connected securely. Check connectors for if they become loose.
 And if so, reconnect them securely. Never use RC models with damaged wires. A damaged
 wire is extremely dangerous, and can cause short-circuits resulting in fire. Please have wires
 repaired at your local hobby shop.
- Low battery power will result in loss of control. Loss of control can occur due to a weak battery
 in either the transmitter or the receiver. Weak running battery may also result in an out of
 control car if your car's receiver power is supplied by the running battery. Stop operation
 immediately if the car starts to slow down.
- When NOT using RC model, always disconnect and remove battery.
- DO NOT disassemble battery or cut battery cables. If the running battery short-circuits, approximately 300W of electricity can be discharged, leading to fire or burns. Never disassemble battery or cut battery cables.
- Use a recommended charger for the receiver and transmitter batteries and follow the instructions correctly. Over-charging, incorrect charging, or using inferior chargers can

- cause the batteries to become dangerously hot. Recharge battery when necessary. Continual recharging may damage battery and, in the worst case, could build up heat leading to fire. If battery becomes extremely hot during recharging, please ask your local hobby shop for check and/or repair and/or replacement.
- Regularly check the charger for potential hazards such as damage to the cable, plug, casing or
 other defects. Ensure that any damage is rectified before using the charger again. Modifying
 the charger may cause short-circuit or overcharging leading to a serious accident. Therefore
 DO NOT modify the charger.
- Always unplug charger when recharging is finished.
- DO NOT recharge battery while battery is still warm. After use, battery retains heat. Wait until
 it cools down before charging.
- DO NOT allow any metal part to short circuit the receiver batteries or other electrical/ electronic device on the model.
- Immediately stop running if your RC model gets wet as may cause short circuit.
- Please dispose of batteries responsibly. Never put batteries into fire.

R/C & BUILDING TIPS

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

• Ask your local hobby shop for any advice.

Please support your local hobby shop. We at XRAY Model Racing Cars support all local hobby dealers. Therefore we ask you, if at all possible, to purchase XRAY products at your hobby dealer and give them your support like we do.

If you have difficulty finding XRAY products, please check out www.teamxray.com to get advice, or contact us via email at info@teamxray.com, or contact the XRAY distributor in your country.

WARRANTY

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

Due to the high performance level of this model car you will need to periodically maintain and replace consumable components. Any and all warranty coverage will NOT cover replacement of any part or component damaged by neglect, abuse, or improper or unreasonable use. This includes but is NOT limited to damage from crashing, chemical and/or water damage, excessive moisture, improper or no maintenance, or user modifications which compromise the

integrity of components. Warranty will NOT cover components that are considered consumable on RC vehicles. XRAY DOES NOT pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

LIMITATIONS OF LIABILITY.

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

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

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

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

All rights reserved.

QUALITY CERTIFICATE

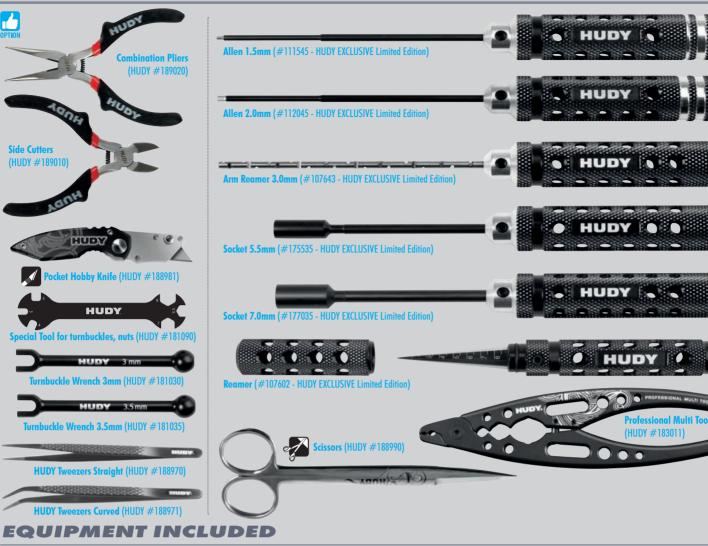
XRAY MODEL RACING CARS uses only the highest quality materials, the best compounds for molded parts and the most sophisticated manufacturing processes of TQM (Total Quality Management). We guarantee that all parts of a newly-purchased kit are manufactured with the highest regard to quality. However,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

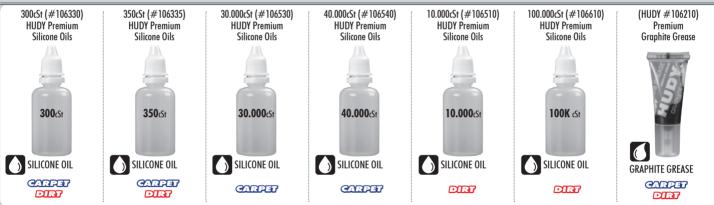
competition, we cannot guarantee any parts once you start racing the car. Products which have been worn out, abused, neglected or improperly operated will NOT be covered under warranty. We wish you enjoyment of this high-quality and high-performance RC car and wish you best success on the track!

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

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

TOOLS REQUIRED





EQUIPMENT REQUIRED



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:

361202 361115 STYLE A - indicates parts for both kit versions that are included in the bag marked for the section.

STYLE B - indicates parts that are included in the box. 364903

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

STYLE D - indicates parts that are optional. (NOT INCLUDED)

STYLE E - indicates Dirt Edition only

STYLE F - indicates Carpet Edition only

TECH TIPS



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.



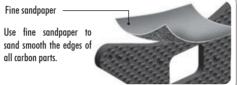
To replace the worn pins use only premium HUDY drive pins (#106053 2.5mm dia x 10mm length)

CARBON PARTS PREPARATION

Prepare all Carbon Parts:

- Front shock tower
- Rear shock tower

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







TIP

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

For pre-oiled ball-bearings, use:

#106230 HUDY Bearing Oil

For pre-greased ball-bearings with rubber covers, use one of these bearing greases:

#106220 - HUDY Bearing Grease - suggested for extremely dusty track conditions.

#106221 - HUDY Bearing Grease "Blue" - suggested for medium dusty track conditions.

#106222 - HUDY Bearing Grease "Red" - suggested for low dusty track conditions.

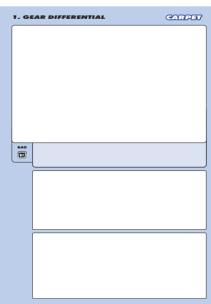
Replace any bearings that develop a "gritty" feeling to prevent inefficiency and avoid failures.

Make sure to use only original XRAY ball-bearings, which all have specific tolerances, axial and radial play, and are all individually selected. Using 3rd party ball-bearings may result in bearing failures and damage to other parts.

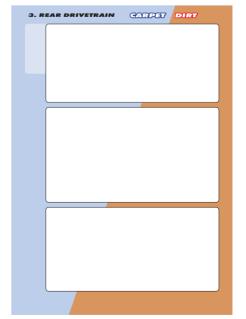
MANUAL STEPS ONLY FOR DIRT

1. BALL DIFFERENTIAL EAC DI

MANUAL STEPS ONLY FOR CARPET



MANUAL DUAL STEPS FOR CARPET AND DIRT



OPTION PARTS

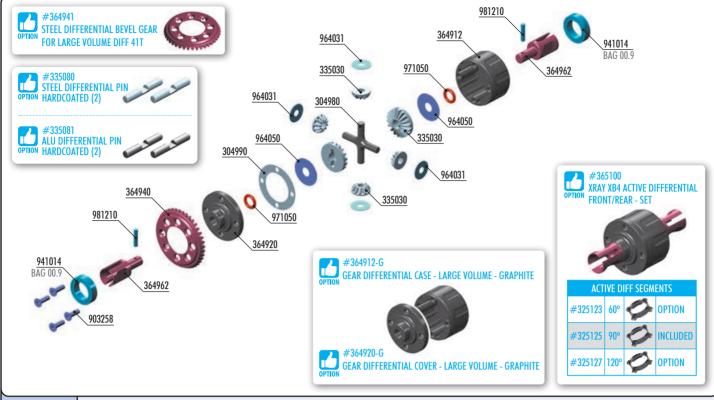




1. FRONT & REAR DIFFERENTIAL







DI DI

2x Gear Differentials

COMPOSITE GEAR DIFF CROSS PIN 304980 304990 DIFF GASKET (4) 335030 STEEL DIFF BEVEL & SATELLITE GEARS (2+4) 364903 GEAR DIFFERENTIAL - LARGE VOLUME - SET 364912 COMPOSITE GEAR DIFFERENTIAL CASE - LARGE VOLUME COMPOSITE GEAR DIFFERENTIAL COVER - LARGE VOLUME 364920 364940 STEEL DIFFERENTIAL BEVEL GEAR FOR LARGE VOLUME DIFF 40T GEAR DIFF OUTDRIVE ADAPTER FOR LARGE VOLUME DIFF (2) 364962

903258 HEX SCREW SFH M2.5x8 (10)

4 BALL-BEARING 10x15x4 RUBBER SEALED - GREASE (2)

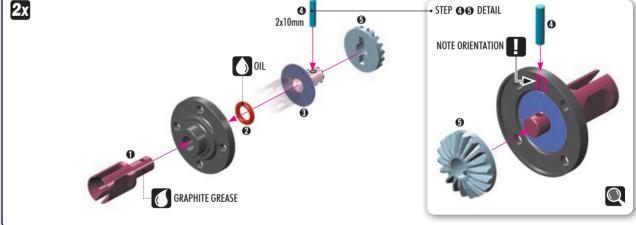
941014 BALL-BEARING 10x15x4 RUBI 964031 WASHER S 3.5x10x0.2 (10) 964050 WASHER S 5x15x0.3 (10) 971050 SILICONE 0-RING 5x1.5 (10) 981210 PIN 2x10 (10)





0 5x1.5

1x 981210 P 2x10





1x 981210 P 2x10











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



FRONT DIFERENTIAL TIP

TIPS FOR DIFFERENTIALS

REAR DIFERENTIAL TIP

DIR

7.000cSt (HUDY #106470) LOW TRACTION MEDIUM TRACTION 10.000cSt (HUDY #106510) HIGH TRACTION

15.000cSt (HUDY #106515)

CARPET

LOW TRACTION 30.000cSt (HUDY #106530) MEDIUM TRACTION 40.000cSt (HUDY #106540) HIGH TRACTION 50.000cSt (HUDY #106550)

Softer oil increases steering, harder oil increases stability.

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

LOW TRACTION

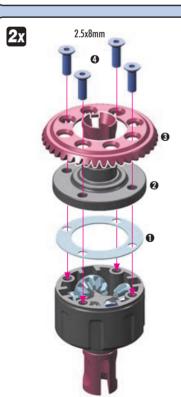
7.000cSt (HUDY #106470) 10.000cSt (HUDY #106510) MEDIUM TRACTION **HIGH TRACTION** 15.000cSt (HUDY #106515)

CARPET

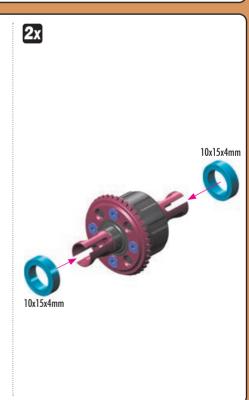
LOW TRACTION 20.000cSt (HUDY #106520) MEDIUM TRACTION 30.000cSt (HUDY #106530) **HIGH TRACTION** 40.000cSt (HUDY #106540)



2x 941014 BB 10x15x4







2. CENTER GEAR DIFFERENTIAL





02

304930 COMPOSITE GEAR DIFF BEVEL & SATELLITE GEARS (2+4)

304980 COMPOSITE GEAR DIFF CROSS PIN

304990 DIFF GASKET (4)

364904 GEAR CENTER DIFFERENTIAL - LARGE VOLUME - SET

364912 COMPOSITE GEAR DIFFERENTIAL CASE - LARGE VOLUME 364913 COMPOSITE CENTER GEAR DIFF ADAPTER - LARGE VOLUME

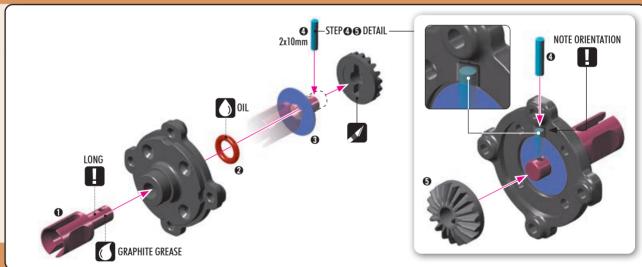
364963 CENTER GEAR DIFF OUTDRIVE ADAPTER FOR LARGE VOLUME DIFF (1+1)

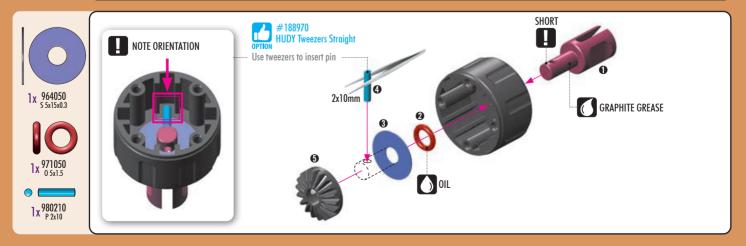
364981 COMPOSITE CENTER DIFF SPUR GEAR 81T / 48

902306 HEX SCREW SH M3x6 (10) 903258 HEX SCREW SFH M2.5x8 (10) 964031 WASHER S 3.5x10x0.2 (10) 964050 WASHER S 5x15x0.3 (10) 971050 SILICONE 0-RING 5x1.5 (10)

980210 PIN 2x10 (10)















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



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

#107866 HUDY Professional Digital Pocket Scale 3000g/0.1g FOR CENTER DIFFERENTIAL

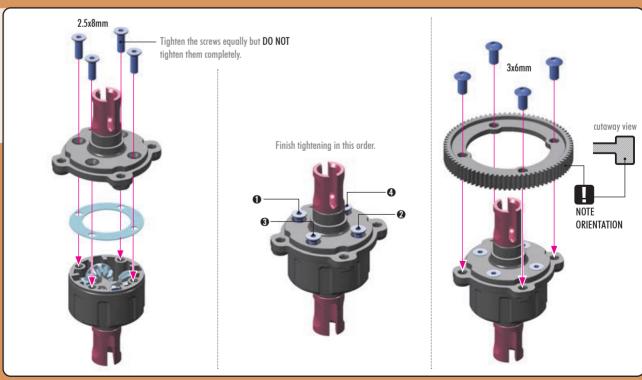
LOW TRACTION 50.000cSt (HUDY #106550)

MEDIUM TRACTION 50.000cst (HUDY #10650)
HIGH TRACTION 500.000cst (HUDY #106650)

NOTE:

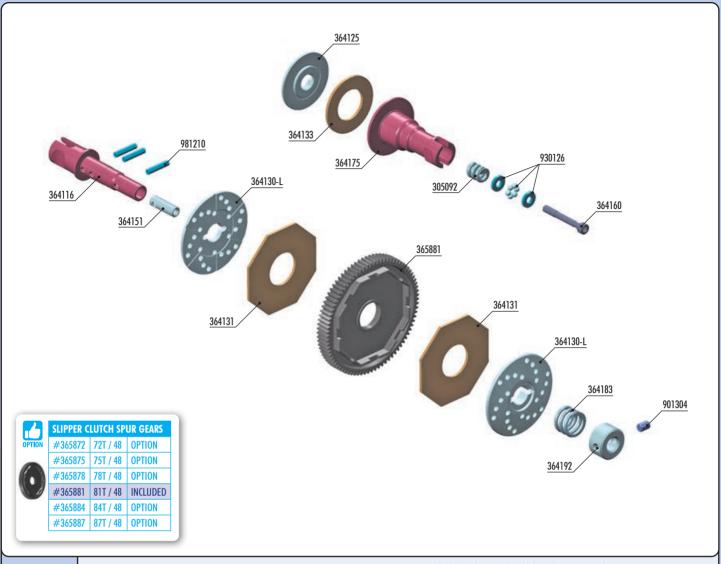
Softer oil increases steering, harder oil increases stability.





2. SLIPPER CLUTCH





94 02 305092 BALL DIFFERENTIAL SPRING

364116 ONE-WAY SLIPPER CLUTCH SHAFT - HUDY SPRING STEEL $^{\scriptscriptstyle{\mathsf{TM}}}$

364130-L $\,$ alu one-way slipper clutch plates - ventilated - Set $\,$

364125 ALU PLATE FOR ONE-WAY SLIPPER CLUTCH FOR OUTDRIVE - SWISS 7075 T6

364131 SLIPPER CLUTCH PAD SLS - SOFT (3)

364133 SLIPPER CLUTCH ONE-WAY OUTDRIVE PAD SLS - SOFT (2)

364151 STEEL BUSHING FOR ONE-WAY SLIPPER CLUTCH

364160 SCREW FOR ONE-WAY SLIPPER CLUTCH ADJUSTMENT - HUDY SPRING STEEL™

364175 OUTDRIVE ADAPTER WITH PRESSED ONE-WAY BEARING - HUDY SPRING STEEL™

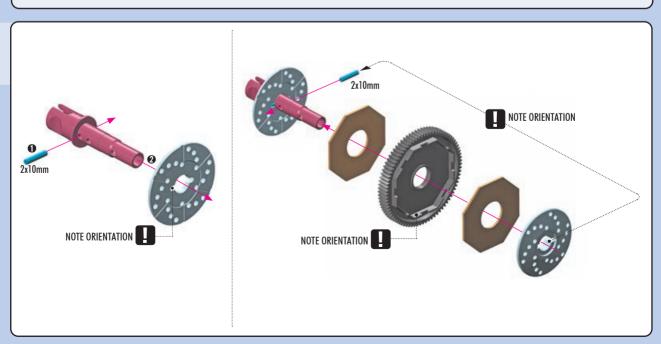
364183 SLIPPER CLUTCH SPRING C=50 - BLACK
364192 ALU NUT FOR ONE-WAY SLIPPER CLUTCH
365881 COMPOSITE SLIPPER CLUTCH SPUR GEAR 81T / 48

901304 HEX SCREW SB M3x4 (10)

930126 CARBIDE BALL-BEARING AXIAL 2.6x6x1

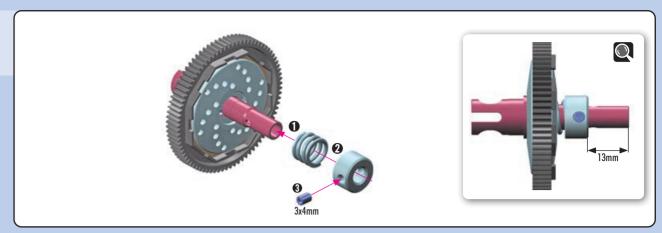
981210 PIN 2x10 (10)



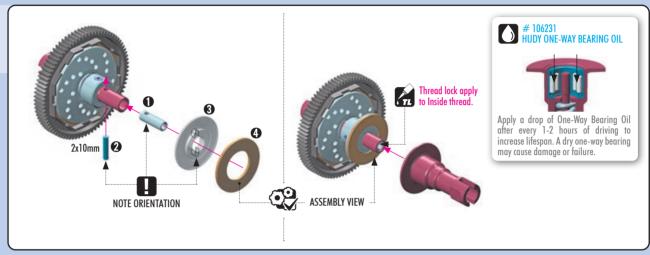




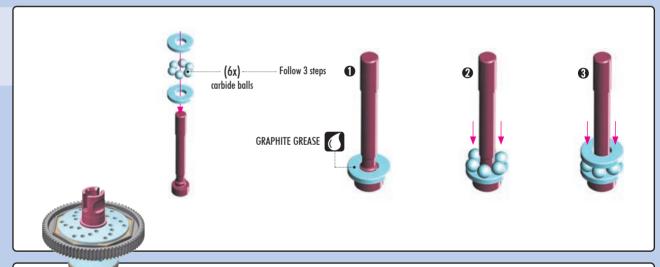


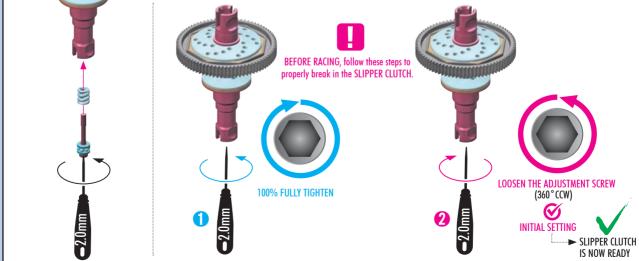






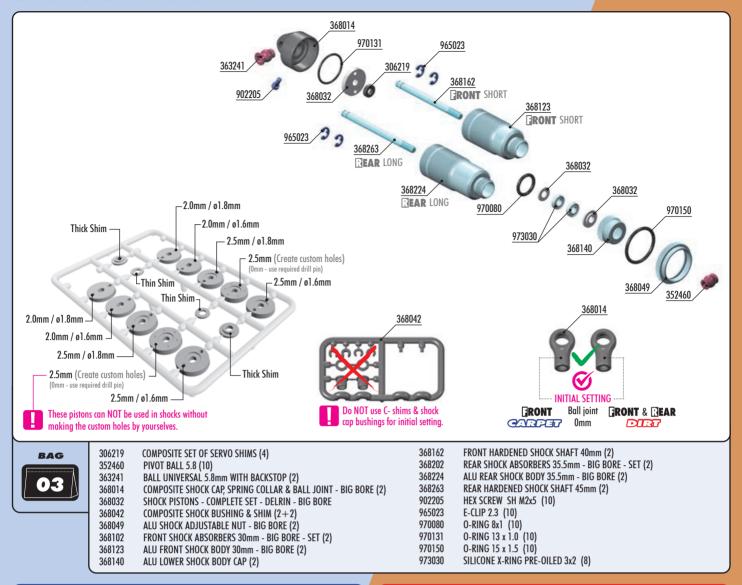


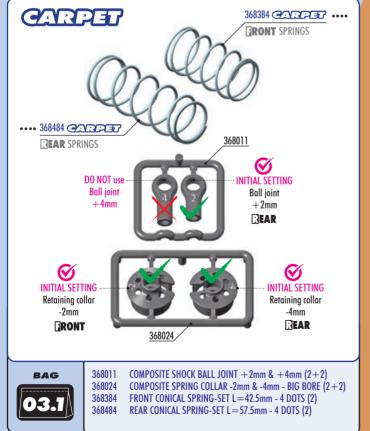


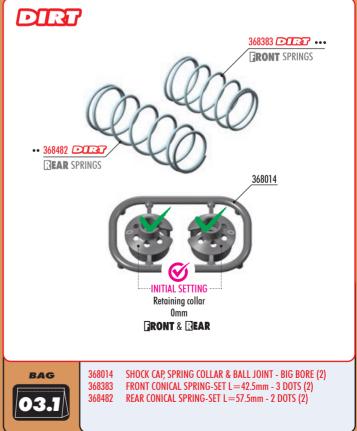








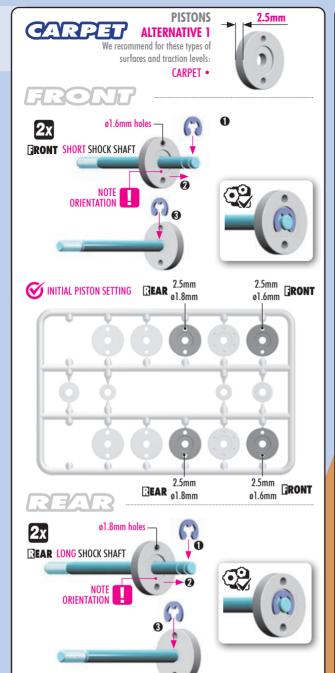


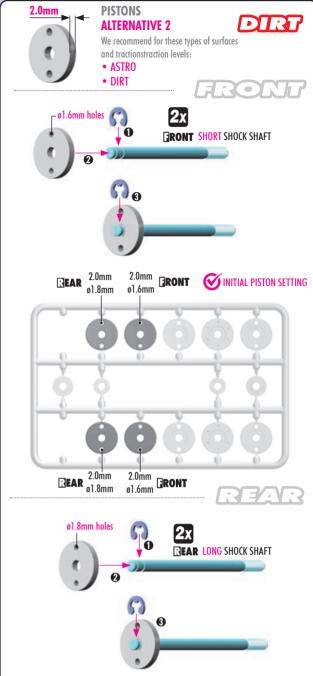






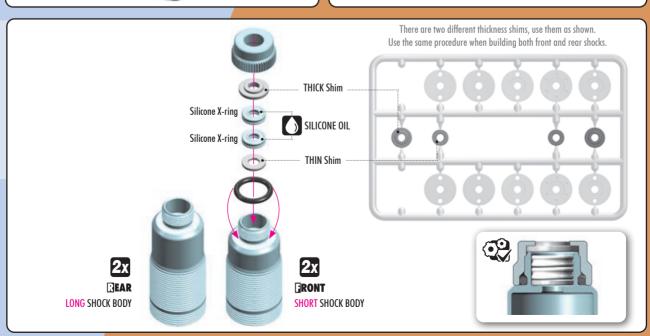
8x 965023





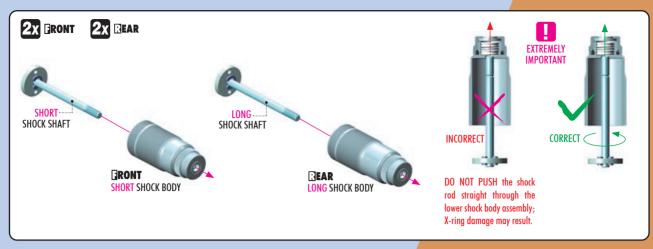






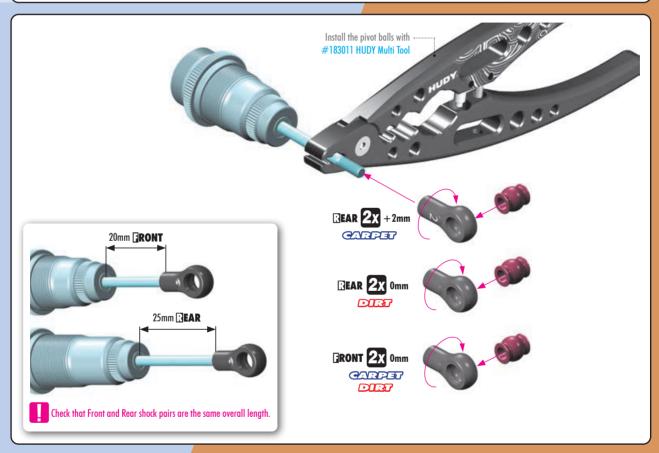


















Alu upper shock cap ensure increased durability and extended life time. Machined from premium Swiss 7075 T6 aluminum and additionally black coated. The shock caps feature vent hole.







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



CARPET ASTRO

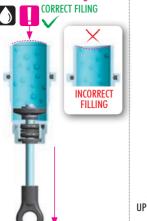
Front (short) 0il 350cSt Rear (long) Oil 300cSt



• DIRT ASTRO WET

Front (short) Oil 350cSt Rear (long) Oil 300cSt





Extend the shock shaft completely. Fill the shock body with the shock oil. For the FRONT shocks (short) use 350cSt oil. For the REAR shocks (long) use 300cSt oil.



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



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



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



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





shock body and insert the screw into the shock cap. Tighten gently.



6x push the shaft up and down.



Untighten the screw.

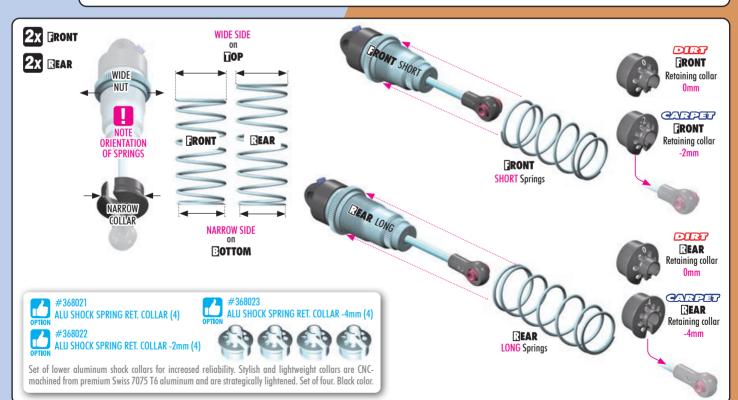


Gently push the shock shaft completely into the shock body. Excess oil will flow through the hole in the shock cap.

0



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



4. REAR CENTRAL TRANSMISSION

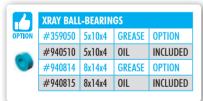








362006



	BALL-BEA			
OPTION	#324172	1 DOT	OPTION	
	#324172	2 DOTS	OPTION	
	#324172	3 DOTS	INCLUDED	
	INLINE H	JBS - REA	R	
OPTION	#362370	1 DOT	OPTION	
	#362370	2 DOTS	OPTION	(0)
	#362370	3 DOTS	INCLUDED	



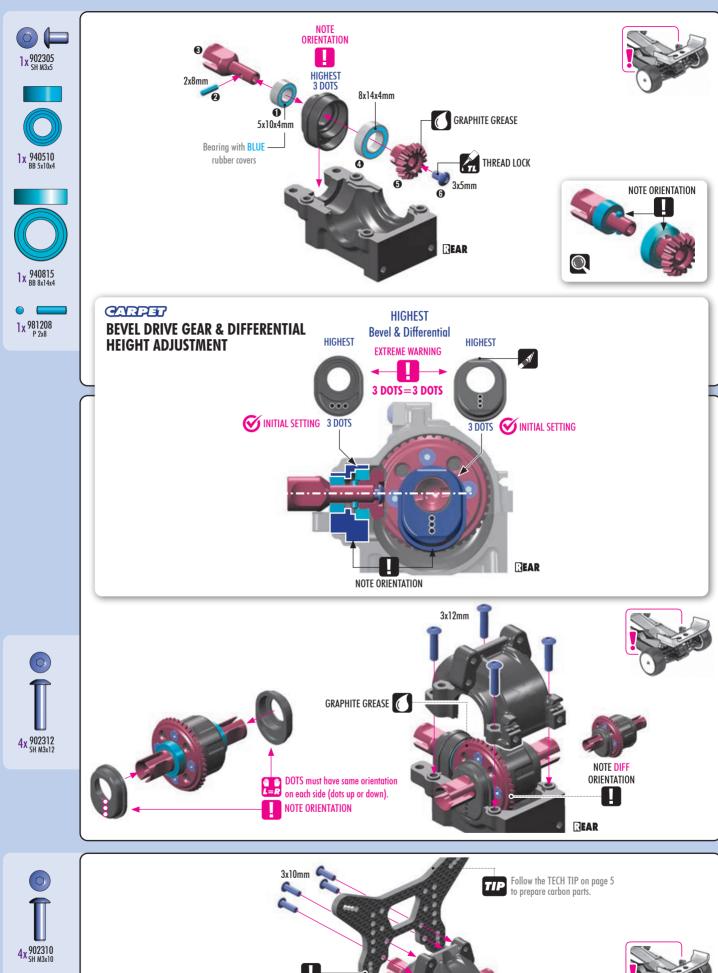


324172 COMPOSITE ADJUSTMENT BALL-BEARING HUB (2)
362006 DIFF BULKHEAD - HORIZONTAL SPLIT DESIGN (HS) - FRONT/REAR - SET
362370 INLINE HUB FOR BEVEL DRIVE GEAR - REAR HS BULKHEAD - 1+2+3 DOTS
363088 CARBON SHOCK TOWER FOR HS BULKHEAD - 3-DOTS - REAR
365127 STEEL BEVEL DRIVE GEAR - FOR HS BULKHEAD - CNC-MACHINED - 16T
365444 CENTRAL DOGBONE SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™

902305 HEX SCREW SH M3x5 (10) HEX SCREW SH M3x10 (10) 902310 902312 HEX SCREW SH M3x12 (10) 940510 BALL-BEARING 5x10x4 RUBBER SEALED - OIL (2) 940815 BALL-BEARING 8x14x4 RUBBER SEALED - OIL (2) 981208 PIN 2x8 (10) GEAR DIFFERENTIAL - LARGE VOLUME - SET 364903 364940 STEEL DIFFERENTIAL BEVEL GEAR FOR LARGE VOLUME DIFF 40T

X 8 4 5 2 5

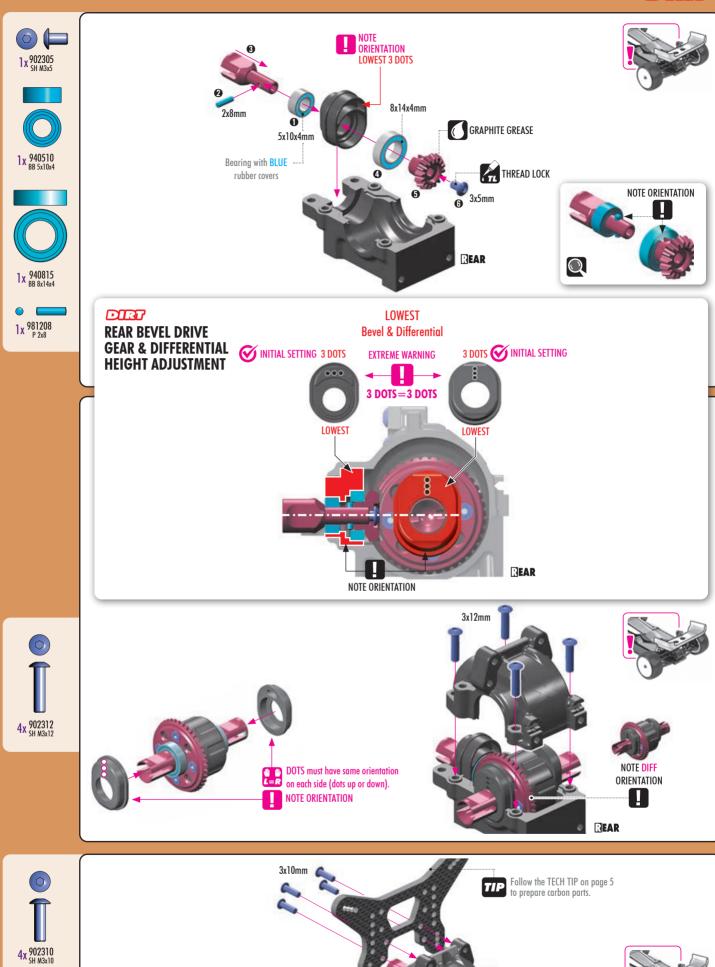


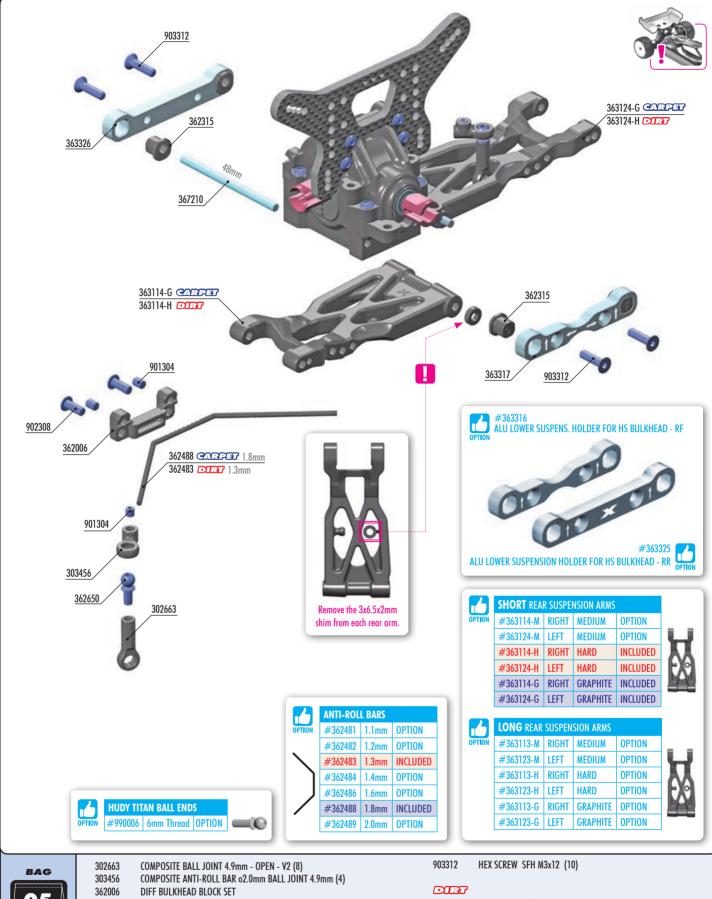


NOTE SHOCK TOWER ORIENTATION

4. REAR CENTRAL TRANSMISSION









ECCENTRIC BUSHING SET (2) 362315 362650 BALL END 4.9MM WITH THREAD 6mm (2) ALU SUSPENSION HOLDER WIDE FOR HS BULKHEAD - REAR-FRONT 363317 ALU SUSPENSION HOLDER WIDE FOR HS BULKHEAD - REAR-REAR 363326 367210 SUSPENSION PIVOT PIN (2) HEX SCREW SB M3x4 (10) 901304 HEX SCREW SH M3x8 (10) 902308

362483 363114-H 363124-H

ANTI-ROLL BAR 1.3mm

COMPOSITE SUSP. ARM REAR LOWER RIGHT - 3-HOLE - HARD COMPOSITE SUSP. ARM REAR LOWER LEFT - 3-HOLE - HARD

CARPET

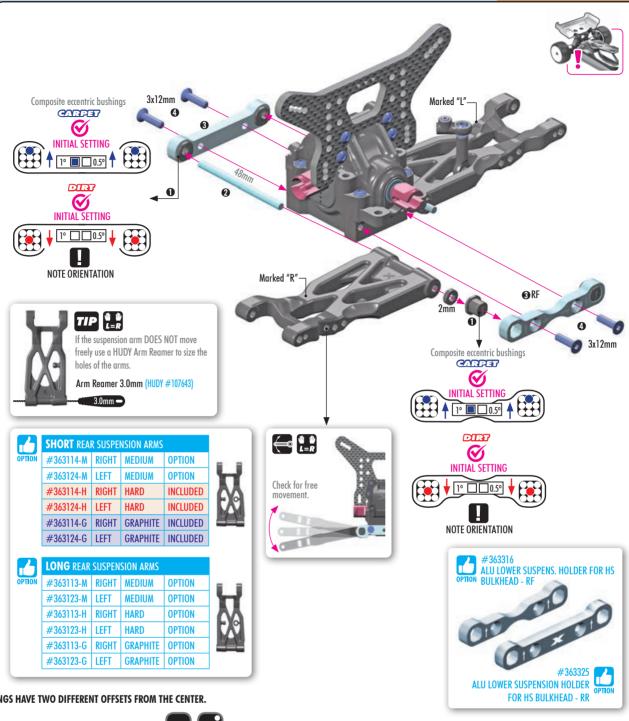
362488 ANTI-ROLL BAR 1.8mm

363114-G COMPOSITE SUSP. ARM REAR LOWER RIGHT - 3-HOLE - GRAPHITE COMPOSITE SUSP. ARM REAR LOWER LEFT - 3-HOLE - GRAPHITE 363124-G









ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.





Middle position $= 0.5^{\circ}$ or 0.375mm from center.





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

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).

(201.00).	
ANT	I-SQUAT
RR	RF (°)
010-x-010	⊙ı∩∩ı⊙ =2°
010-*-010	○
010-x-010	○
010-x-010	⊙ı∩∩ı⊙ =3°
010-x-010	○
010-x-010	○ ••••••••••••••••••••••••••••••••••••
010-*-010	⊙ı∩∩ı⊙ =1°
010-*-010	=2°
010-*-010	O₁∩∩₁O =0°

, ko	LL CENTER	
RR	RF	(mm)
010-x-010	010010	=+0.75 _{mm}
010-x-010	010010	=0 _{mm}
010-x-010	010010	=-0.75 _{mm}

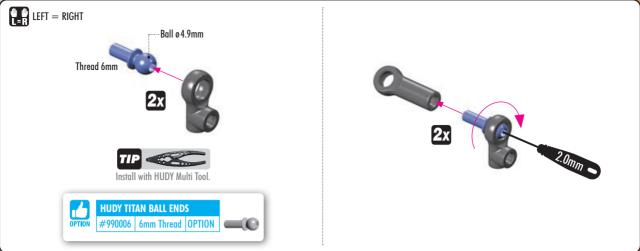
IKACK-WIDIN			
RR	RF	(mm)	
010-*-010	0inni0	=+1.5mm	
010-x-010	010010	$=0_{mm}$	
010-*-010	010010	=-1.5 _{mm}	

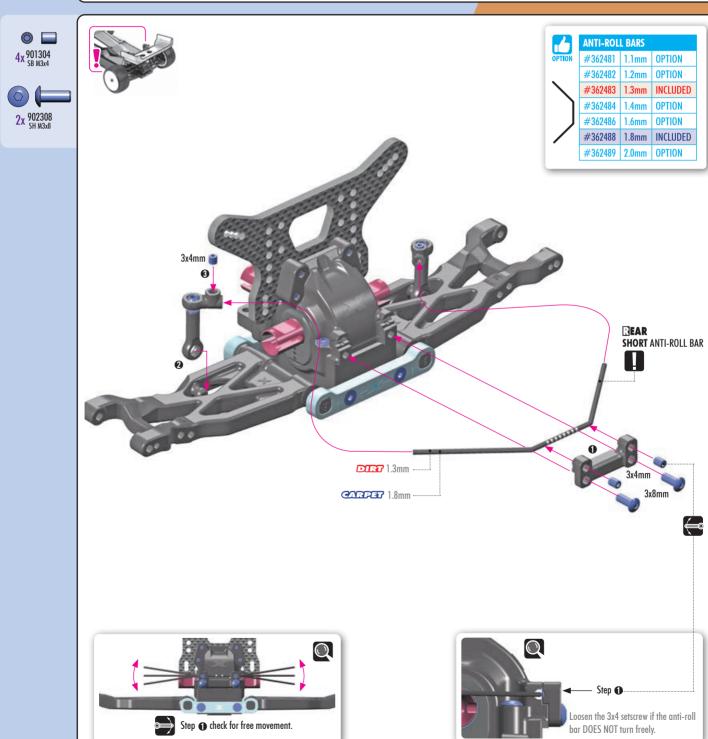
The track-width is directly influenced by the size of the wheels and tires used.

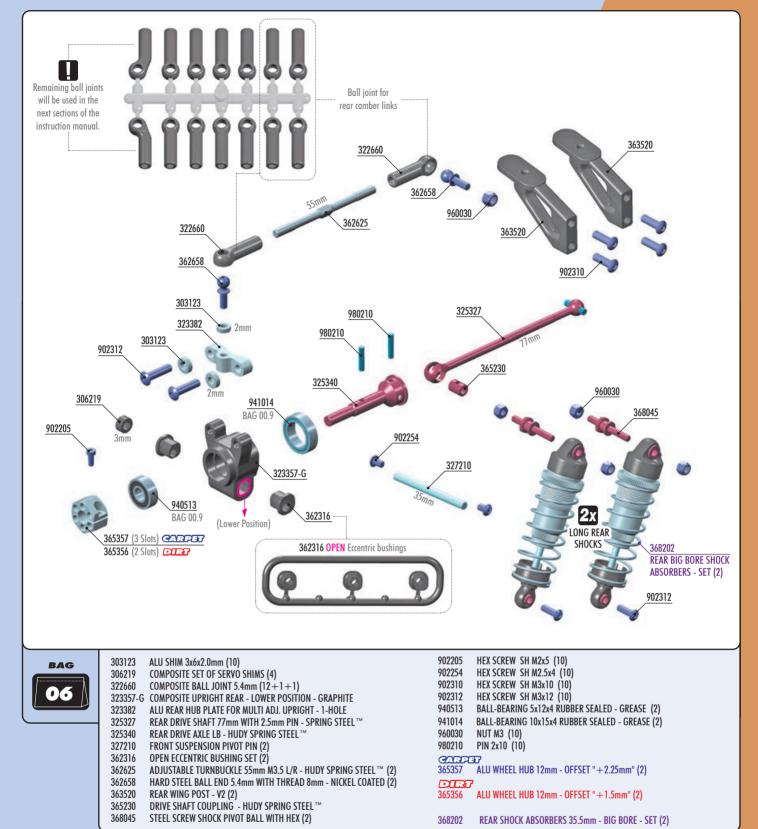
The tables describe the amounts of adjustment using the center and outside positions of the eccentric bushings. The middle position eccentric bushings allow for finer adjustment increments.

RR	RF	(°)
010-*-010	0inni0	=2°
010-x-010	0inni0	=3°
010-x-010	0inni0	=1°
010-x-010	0inni0	=1°
010-x-010	010010	=2°
010-x-010	0inni0	=0°
010-x-010	0inni0	=3°
010-x-010	010010	=4°
010-*-010	010010	=2°

TOE-IN



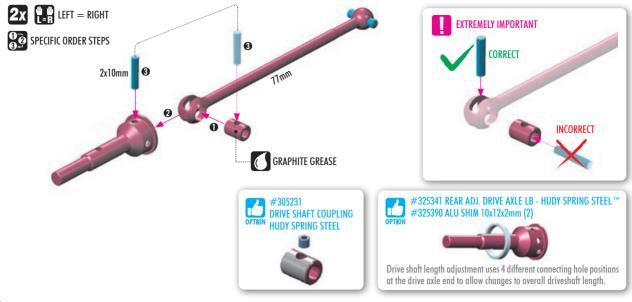












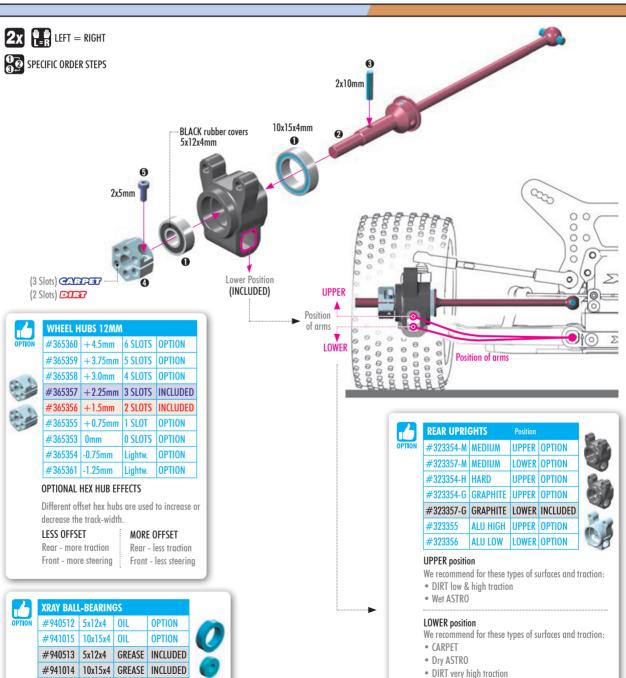






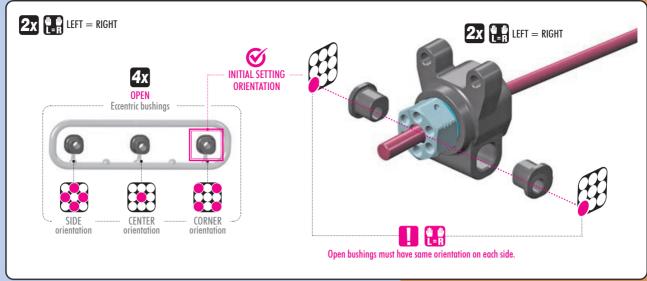




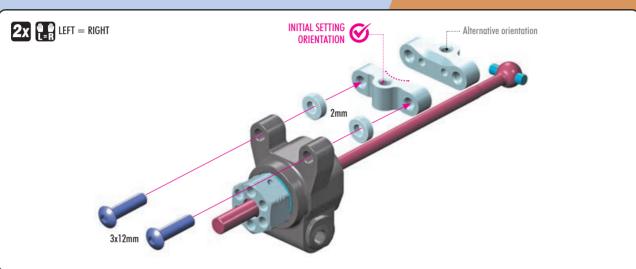






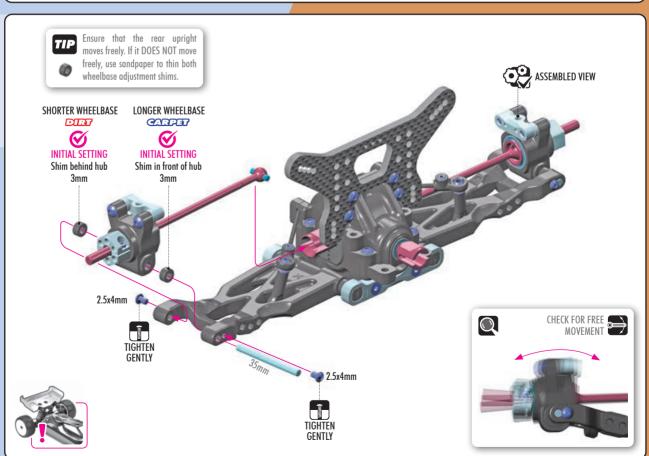






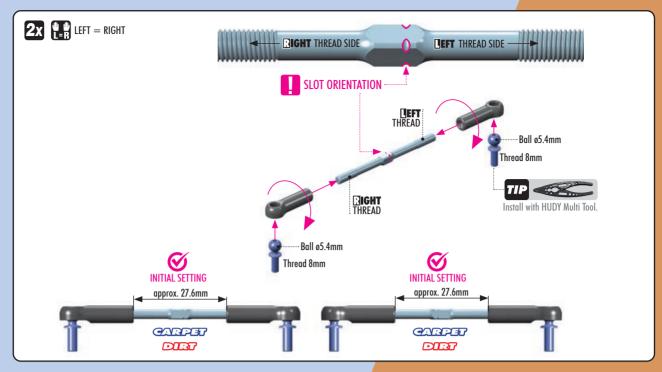


10

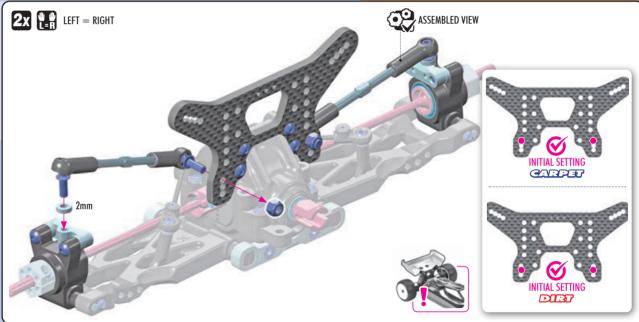




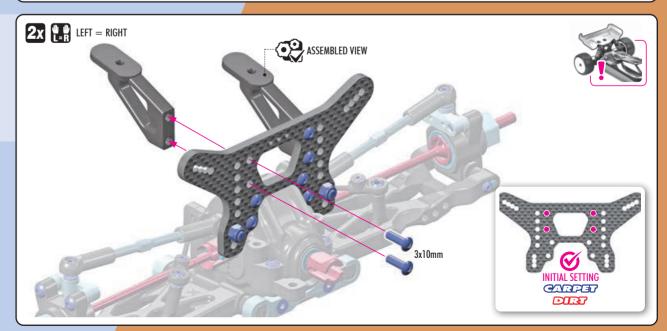








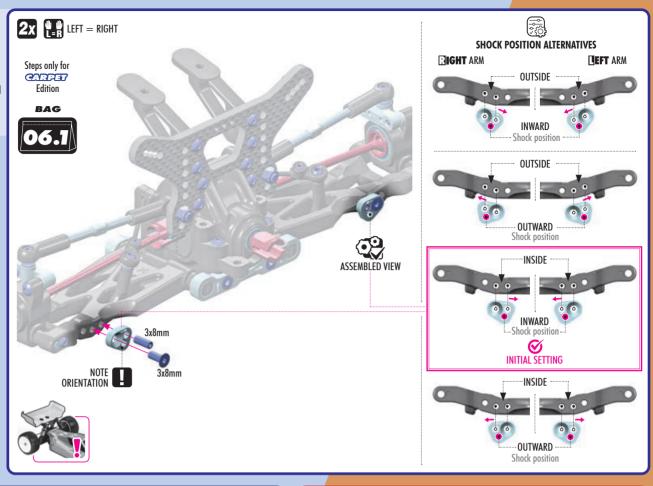


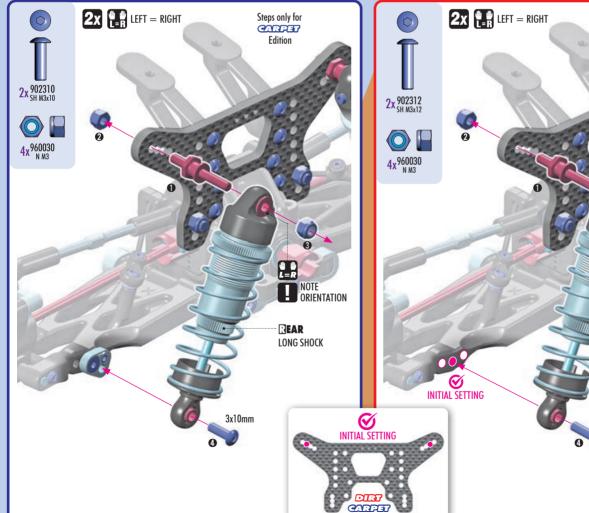


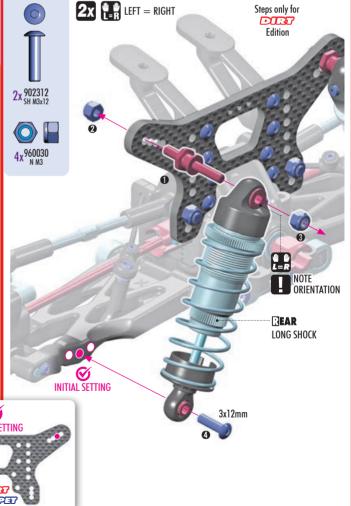








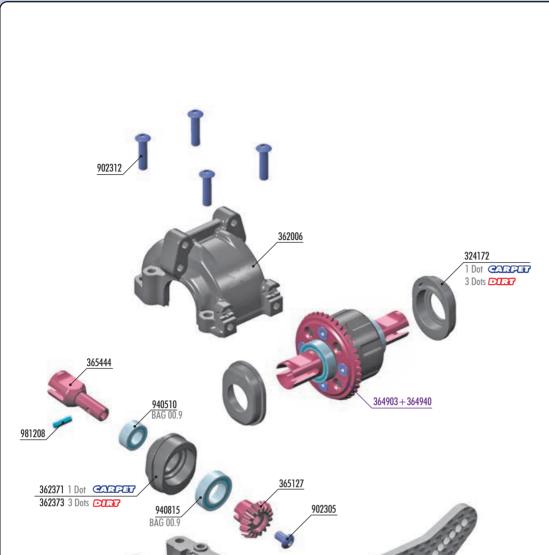




7. FRONT CENTRAL TRANSMISSION



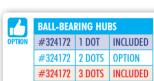




362089

902310







7	ANGLE HUBS - FRONT				
OPTION	#362371	1 DOT	INCLUDED		
	#362372	2 DOTS	OPTION		
	#362373	3 DOTS	INCLUDED		



	XRAY BALL-BEARINGS					
OPTION	#359050	5x10x4	GREASE	OPTION		
	#940510	5x10x4	OIL	INCLUDED		
	#940814	8x14x4	GREASE	OPTION		
	#940815	8x14x4	OIL	INCLUDED		



362006 DIFF BULKHEAD BLOCK SET
362089 CARBON SHOCK TOWER FOR HS BULKHEAD - 2-DOTS - FRONT

365127 STEEL BEVEL DRIVE GEAR - FOR HS BULKHEAD - CNC-MACHINED - 16T 365444 CENTRAL DOGBONE SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™

902305 HEX SCREW SH M3x5 (10) 902310 HEX SCREW SH M3x10 (10) 902312 HEX SCREW SH M3x12 (10)

940510 BALL-BEARING 5x10x4 RUBBER SEALED - OIL (2) 940815 BALL-BEARING 8x14x4 RUBBER SEALED - OIL (2)

981208 PIN 2x8 (10)

362006

364903 GEAR DIFFERENTIAL - LARGE VOLUME - SET

364940 STEEL DIFFERENTIAL BEVEL GEAR FOR LARGE VOLUME DIFF 40T

362371 ANGLED HUB FOR BEVEL DRIVE GEAR - FRONT HS BULKHEAD - 1 DOT 324172 COMPOSITE ADJUSTMENT BALL-BEARING HUB - 1 DOT (2)

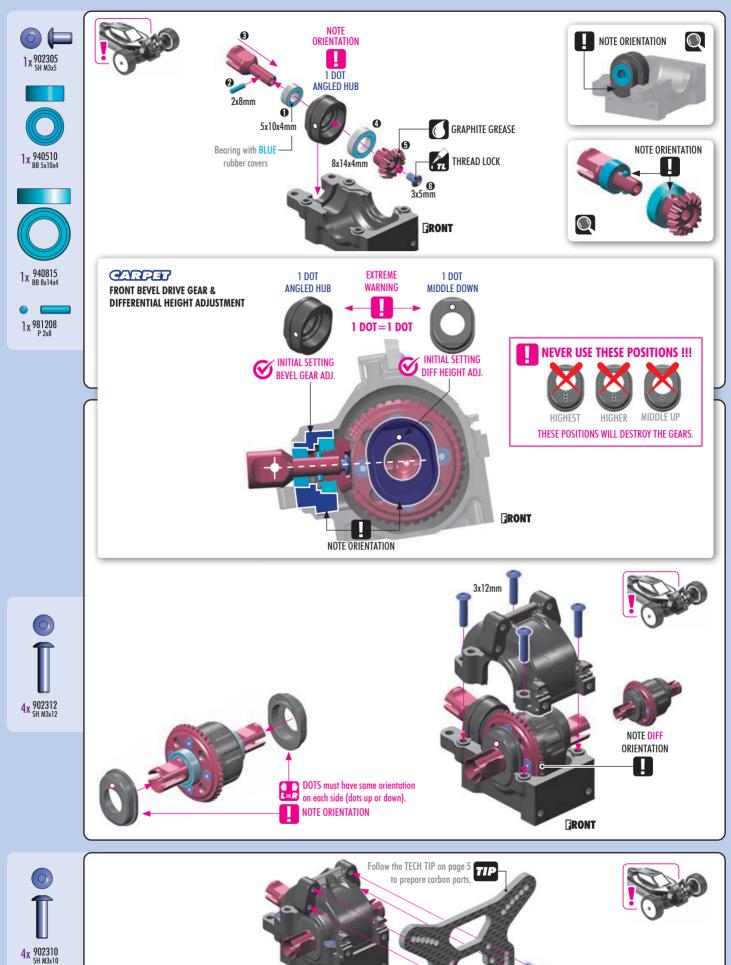
362373

324172

ANGLED HUB FOR BEVEL DRIVE GEAR - FRONT HS BULKHEAD - 3 DOTS COMPOSITE ADJUSTMENT BALL-BEARING HUB - 3 DOTS (2)

7. FRONT CENTRAL TRANSMISSION



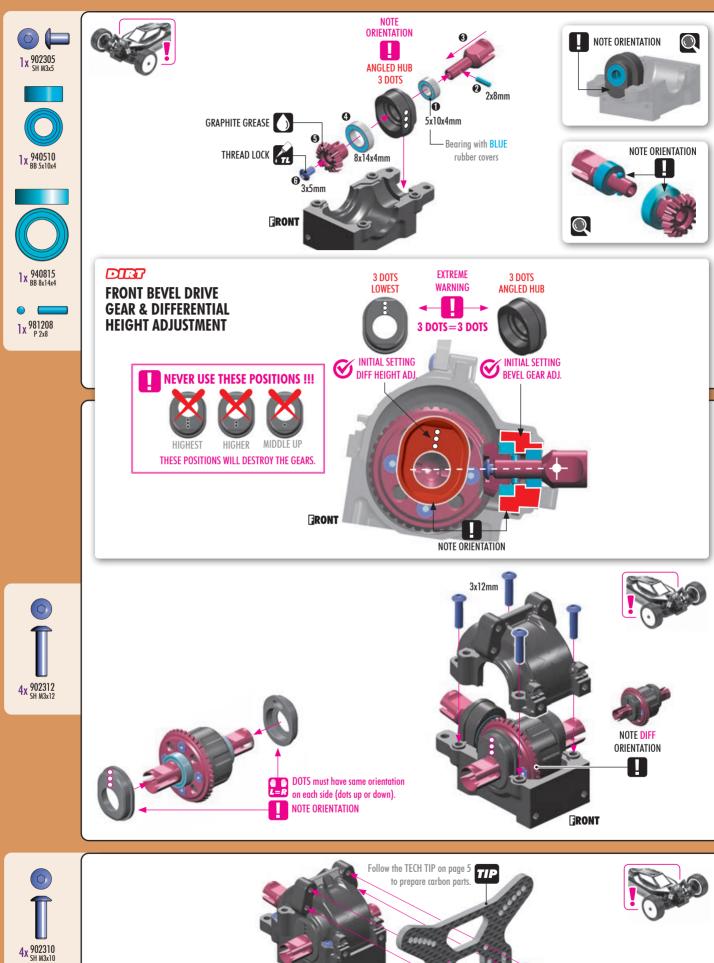


RONT

3x10mm

7. FRONT CENTRAL TRANSMISSION





RONT

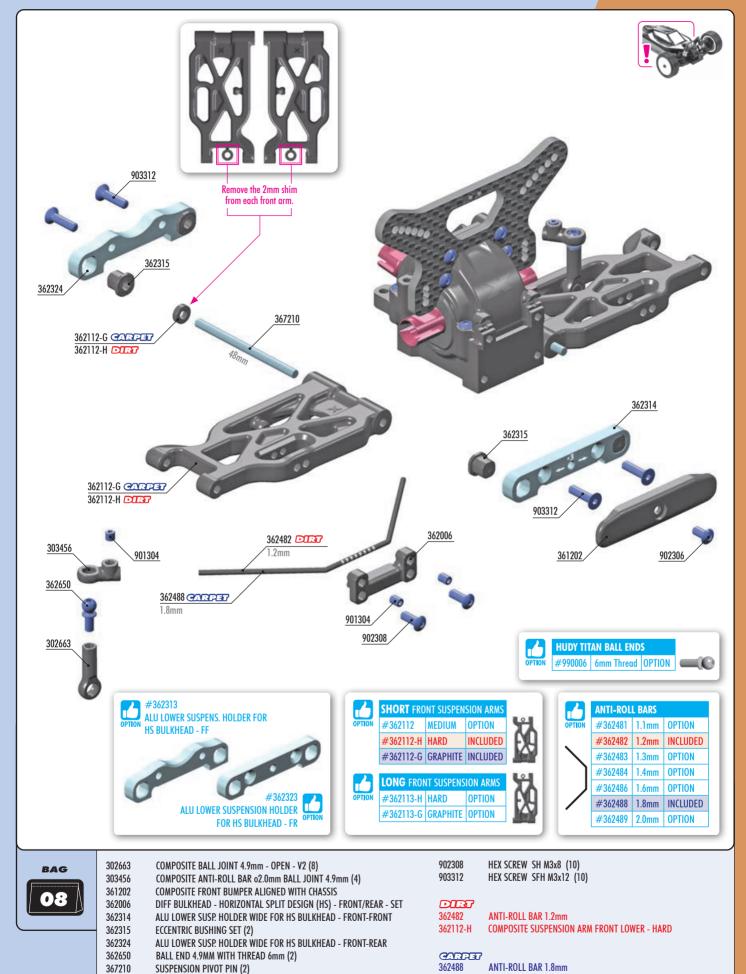
3x10mm



8. FRONT SUSPENSION







362112-G

COMPOSITE SUSPENSION ARM FRONT LOWER - GRAPHITE

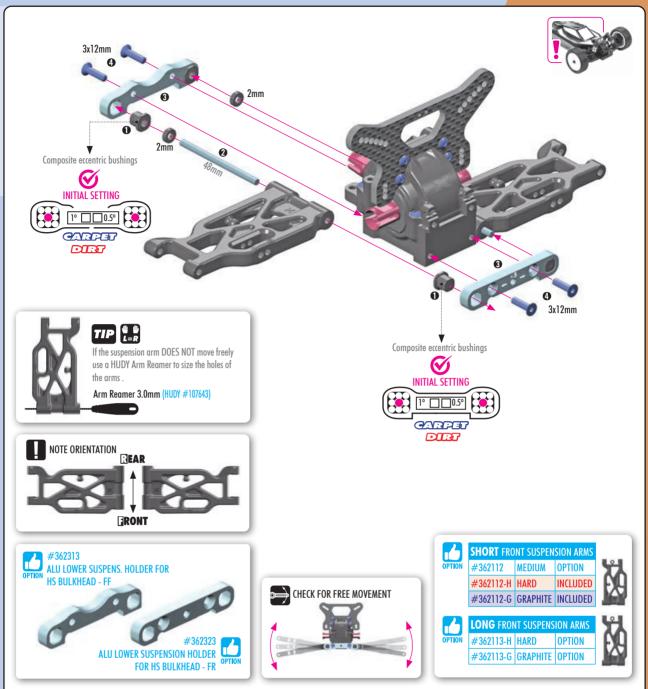
1 5 4 5 5 4 5

901304 902306 HEX SCREW SB M3x4 (10)

HEX SCREW SH M3x6 (10)



4x 903312 SFH M3x12



ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.





Middle position $= 0.5^{\circ}$ or 0.375mm from center.





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

The XRAY alu front lower suspension holders provide great range of adjustment for the front suspension. Using different combinations of eccentric bushings, fine adjustment of front kick-up, roll-center, and front track-width can be obtained. For more information about the influence of kick-up, front track-width, and roll centers on car handling, please refer to HUDY Set-up Book (#209100).

KICK-UP				
FF	FR (°)			
00-8-00	⊙ · · · ○ =7°			
00-8-00	○ • - 6°			
00-8-00	⊙ • - 8°			
00-4-00	⊙ • - 6°			
00-8-00	○ • =5°			
00-1-00	○ ^ ○ =7°			
00-8-00	⊙ • =8°			
00-8-00	○ ^ - · · · ○ =7°			
00-8-00	○ =9°			

ROLL CENTER				
FF	FR	(mm)		
00-8-00		+0.75mm		
00-8-00	<u> </u>	0mm		
00-8-00	<u> </u>	-0.75mm		

IKACK-WIDIH				
FF	FR	(mm)		
00-8-00	0	=+1.5mm		
00-8-00	· · · · · · ·	= 0mm		
00-8-00	0,0	=-1.5mm		

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

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

TOTAL CASTER=C-HUB CASTER+KICK UP					
	KICK-UP				
C-HUB CASTER	6°	7°	8°	9°	10°

16° | 17°

13° | 14° | 15° | 16°

Caster is the angle between the steering pivot axis and the vertical plane. Caster is affected not only by the C-Hub caster, but also by the front kick-up angle relative to the flat chassis bottom. The table indicates how kick up angle effects total caster.

15°

9°

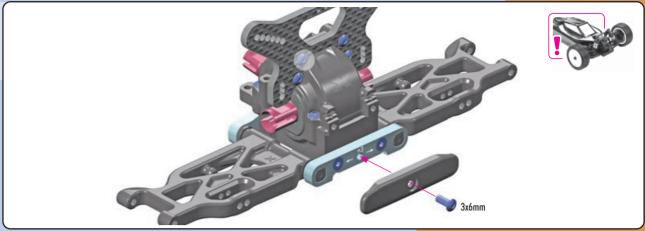
The XB4's stock caster blocks are 9° , but 6° blocks are available as an option.



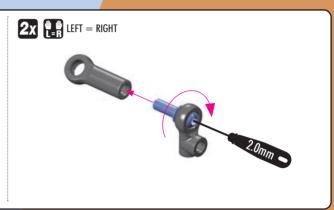




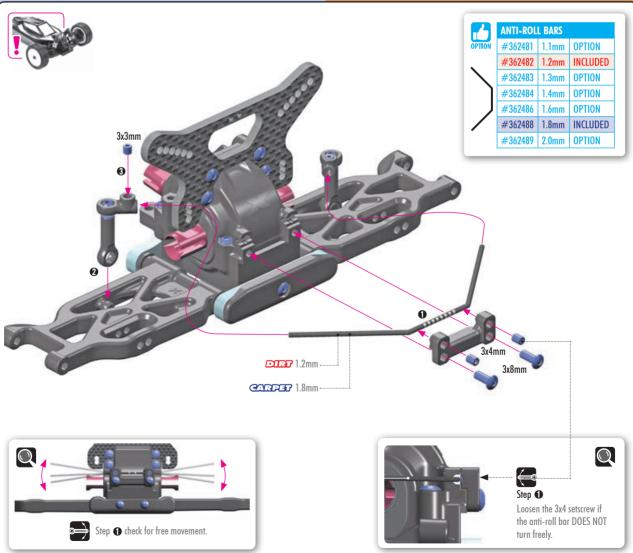


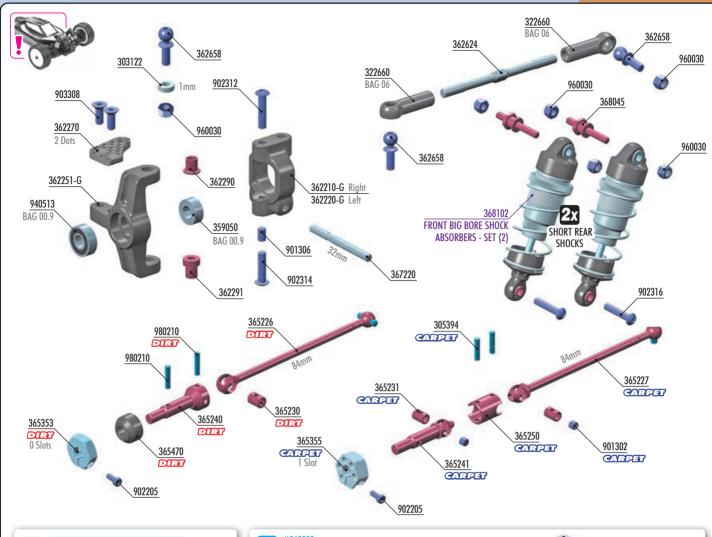


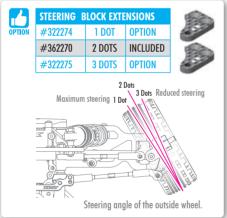












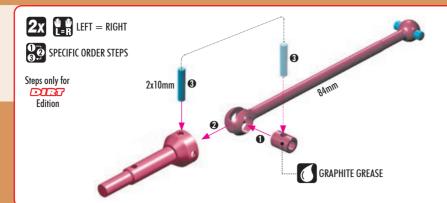


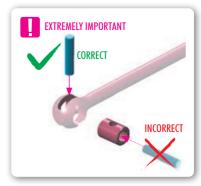


303122	ALU SHIM 3x6x1.0MM (10)	940513	BALL-BEARING 5x12x4 RUBBER SEALED - GREASE (2)
322660	COMPOSITE BALL JOINT 5.4mm (12+1+1)	960030	NUT M3 (10)
362210-G	COMPOSITE C-HUB 9° DEG. RIGHT - GRAPHITE	980210	PIN 2x10 (10)
362220-G	COMPOSITE C-HUB 9° DEG. LEFT - GRAPHITE	CARPE	7
362251-G	COMPOSITE STEERING BLOCK - GRAPHITE	365227	ECS DRIVE SHAFT 84mm WITH 2.5mm PIN - HUDY SPRING STEEL™
362270	CARBON EXTENSION FOR ALU STEERING BLOCK (1+1) - 2 DOTS	365231	ECS DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
362290	STEEL STEERING BUSHING - SHORT (2)	365241	FRONT ECS DRIVE AXLE - HUDY SPRING STEEL™
362291	STEEL STEERING BUSHING - LONG (2)	365250	ECS DRIVE SHAFT CASE - HUDY SPRING STEEL™
362624	ADJUSTABLE TURNBUCKLE 50mm M3.5 L/R - HUDY SPRING STEEL™ (2)	365355	ALU WHEEL HUB 12mm - OFFSET "+0.75mm" (2)
362658	HARD STEEL BALL END 5.4mm WITH THREAD 8mm - NICKEL COATED (2)	305394	ECS DRIVE SHAFT PIN 2 x 9 WITH FLAT SPOT (2)
367220	FRONT ARM PIVOT PIN (2)	901302	HEX SCREW SB M3x2.5 (10)
368045	STEEL SCREW SHOCK PIVOT BALL WITH HEX (2)		
		365226	FRONT DRIVE SHAFT 84mm WITH 2.5mm PIN - HUDY SPRING STEEL™
359050	BALL-BEARING 5x10x4 STEEL SEALED - GREASE (2)	365230	DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
901306	HEX SCREW SB M3x6 (10)	365240	FRONT DRIVE AXLE - HUDY SPRING STEEL™
902205	HEX SCREW SH M2x5 (10)	365353	ALU WHEEL HUB 12MM - Omm (2)
902312	HEX SCREW SH M3x12 (10)	365470	COMPOSITE DRIVE SHAFT SAFETY COLLAR (3)
902314	HEX SCREW SH M3x14 (10)		
902316	HEX SCREW SH M3x16 (10)	368102	FRONT SHOCK ABSORBERS 30mm - BIG BORE - SET (2)
903308	HEX SCREW SFH M3x8 (10)		





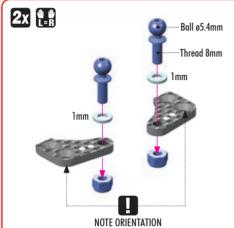


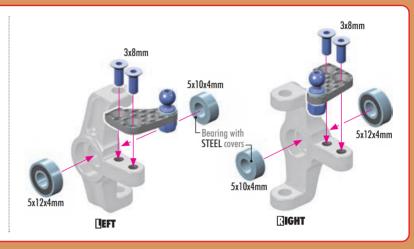




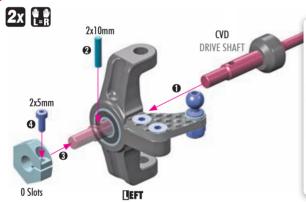














OPTIONAL HEX HUB EFFECTS

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

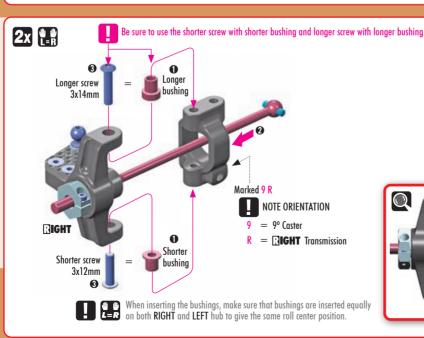
LESS OFF-SET

Rear - more traction Front - more steering

MORE OFF-SET

Rear - less traction Front - less steering







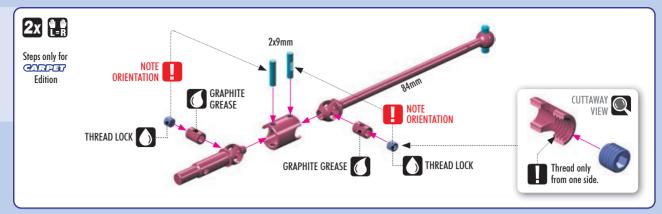


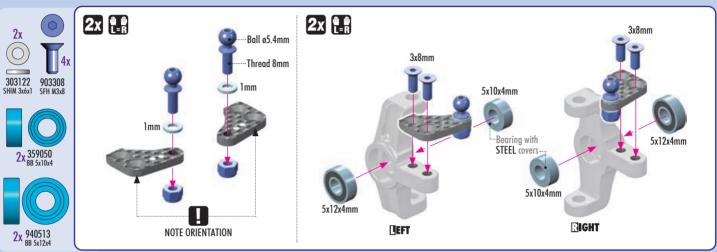
9. FRONT TRANSMISSION



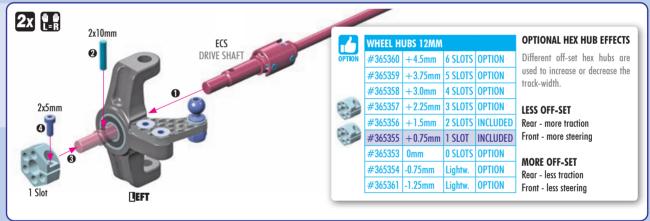


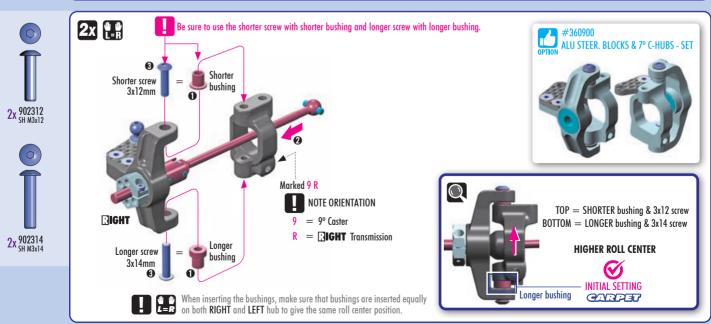








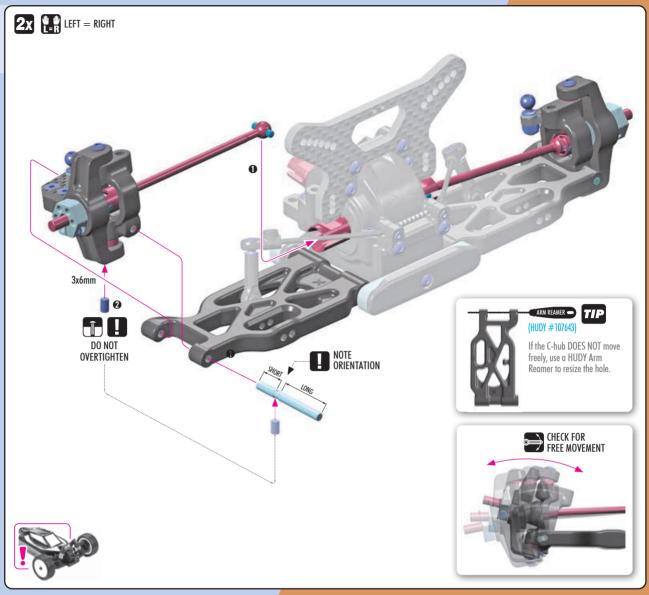


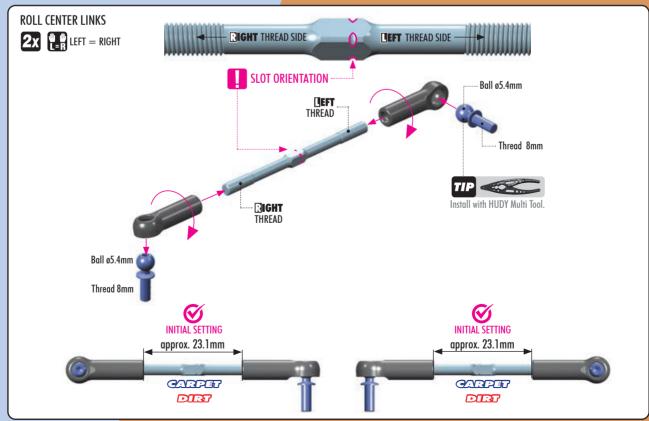






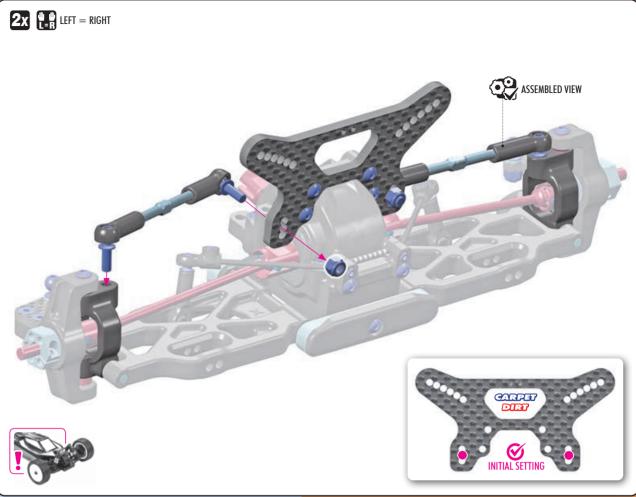






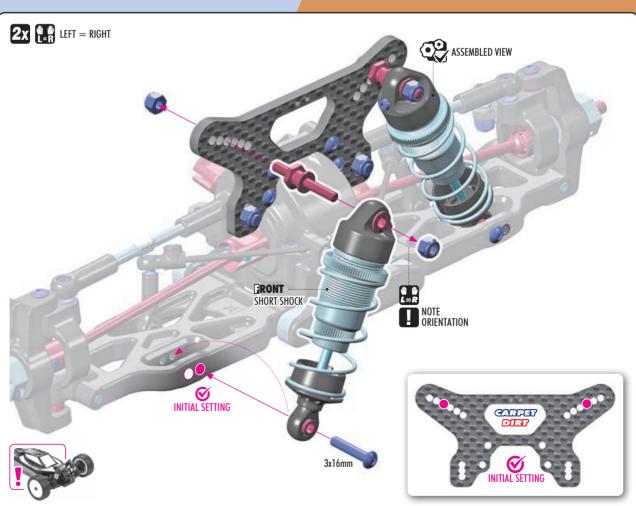
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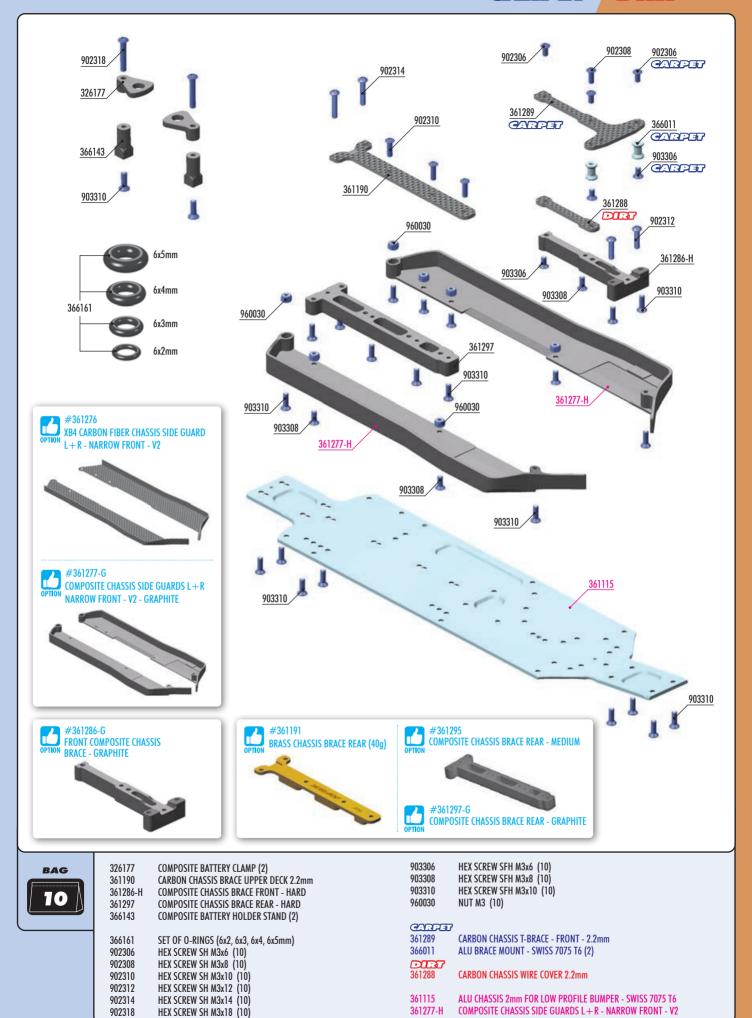






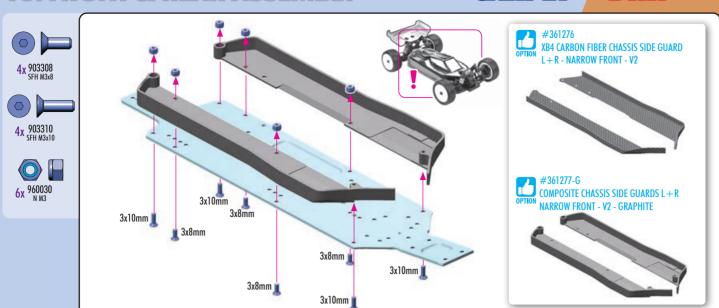




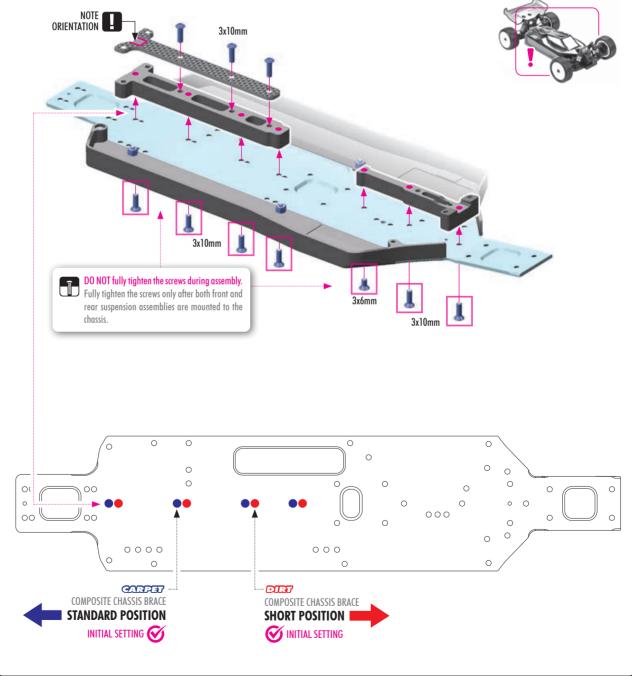


XB4'25





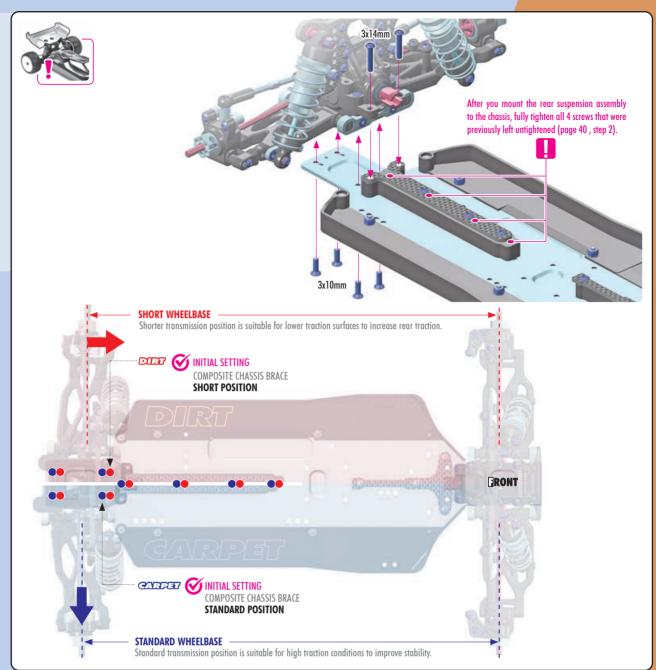








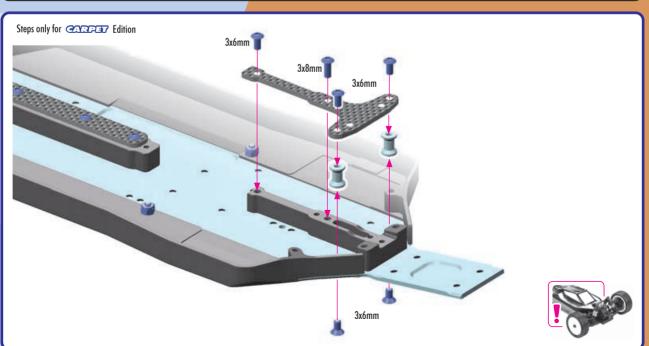






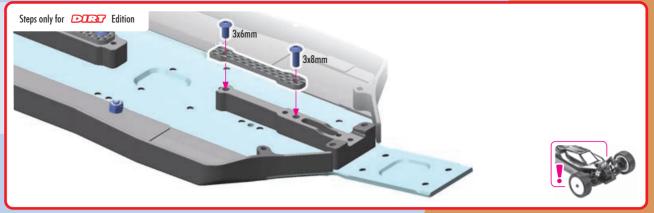




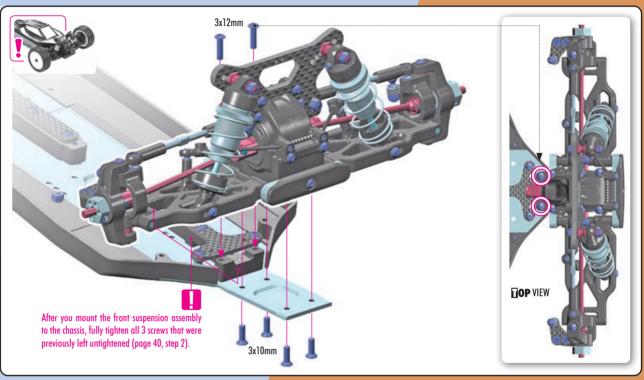




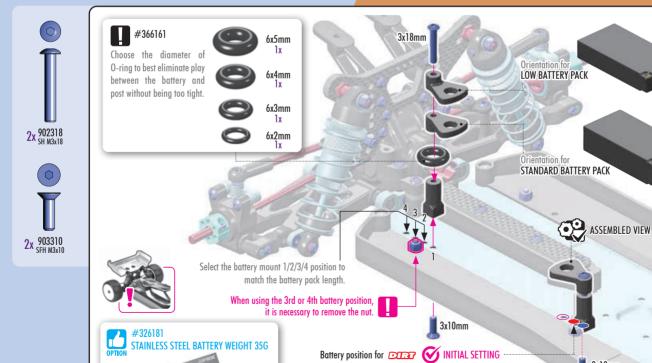








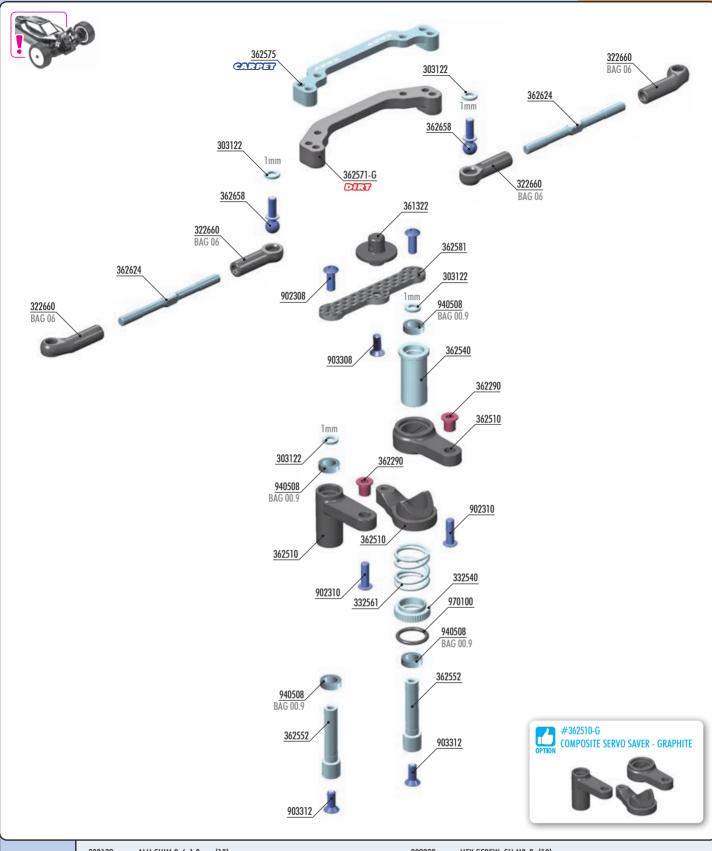
Battery position for ARPET (VINITIAL SETTING ---



3x10mm

Battery (NOT INCLUDED)







303122	ALU SHIM 3x6x1.0mm (10)
322660	COMPOSITE BALL JOINT 5.4mm (12+1+1)
332540	ALU SERVO SAVER ADJUSTABLE NUT
332561	SERVO SAVER SPRING C=14
361322	BODY MOUNT - EXTRA-SHORT
362290	STEEL STEERING BUSHING - SHORT (2)
362510	COMPOSITE SERVO SAVER
362540	ALU SERVO SAVER MAIN SHAFT
362552	SERVO SAVER PIVOT SHAFT +5mm (2)
362581	STEERING BRACE CARBON
362624	ADJ. TURNBUCKLE 50mm M3.5 L/R - HUDY SPRING STEEL™ (2)
362658	HARD STEEL BALL END 5.4mm WITH THREAD 8mm - NICKEL COATED (2)

902308 902310 903308 903312 940508 970100	HEX SCREW SH M3x8 (10) HEX SCREW SH M3x10 (10) HEX SCREW SFH M3x8 (10) HEX SCREW SFH M3x12 (10) BALL-BEARING 5x8x2.5 RUBBER SEALED - OIL (2) O-RING 10 x 1.5 (10)
970100	0-RING 10 x 1.5 (10)

362575 ALU STEERING PLATE 2-H. - 6mm PROFILED SHAPE - SWISS 7075 T6

COMPOSITE STEERING PLATE - GRAPHITE



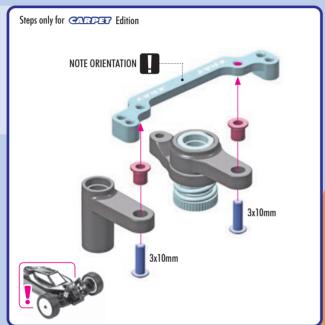






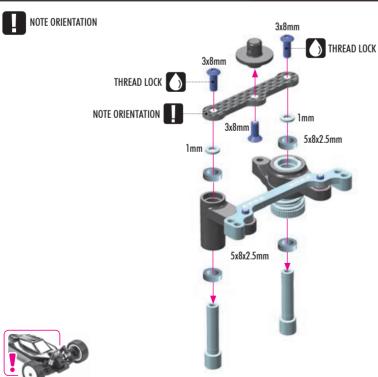










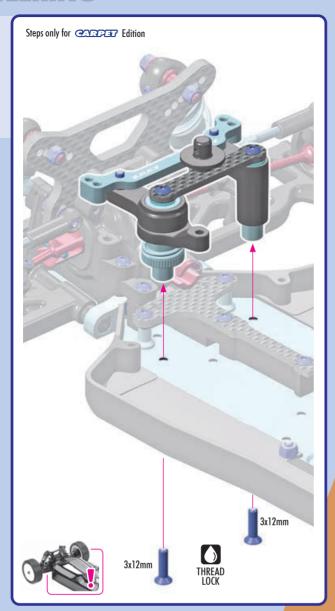


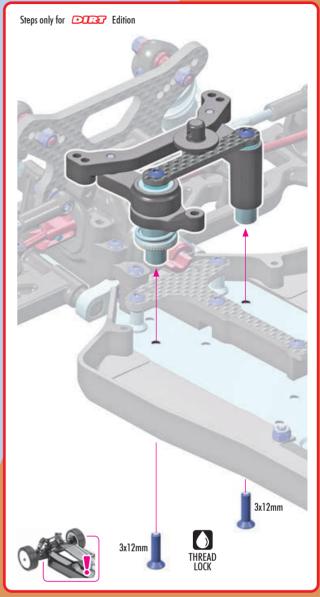


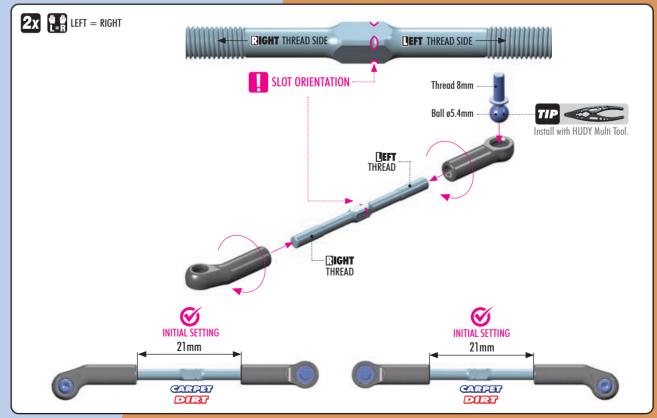




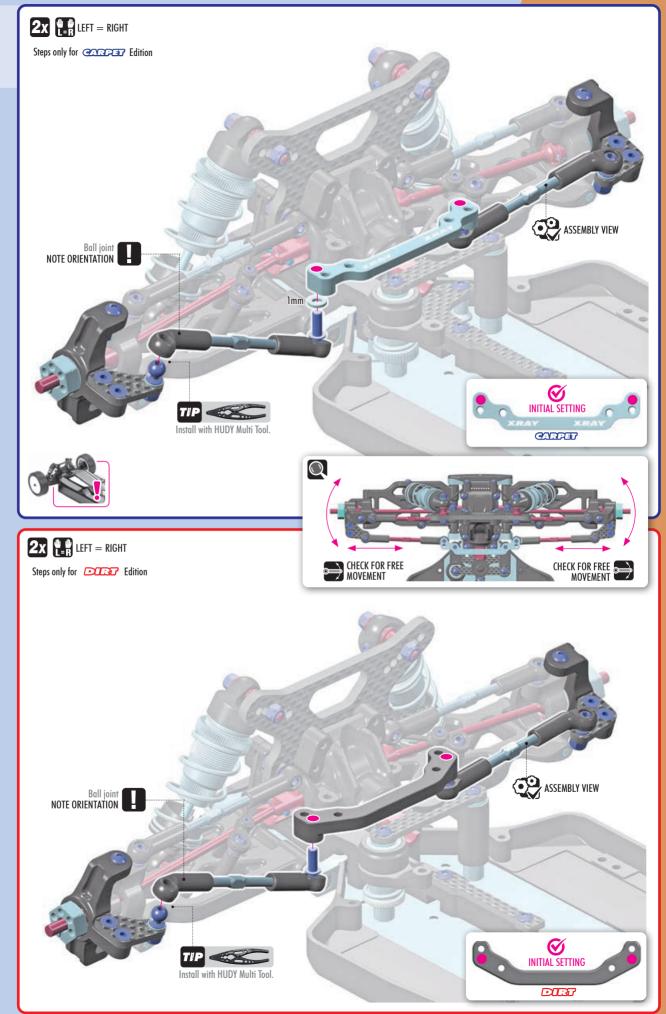








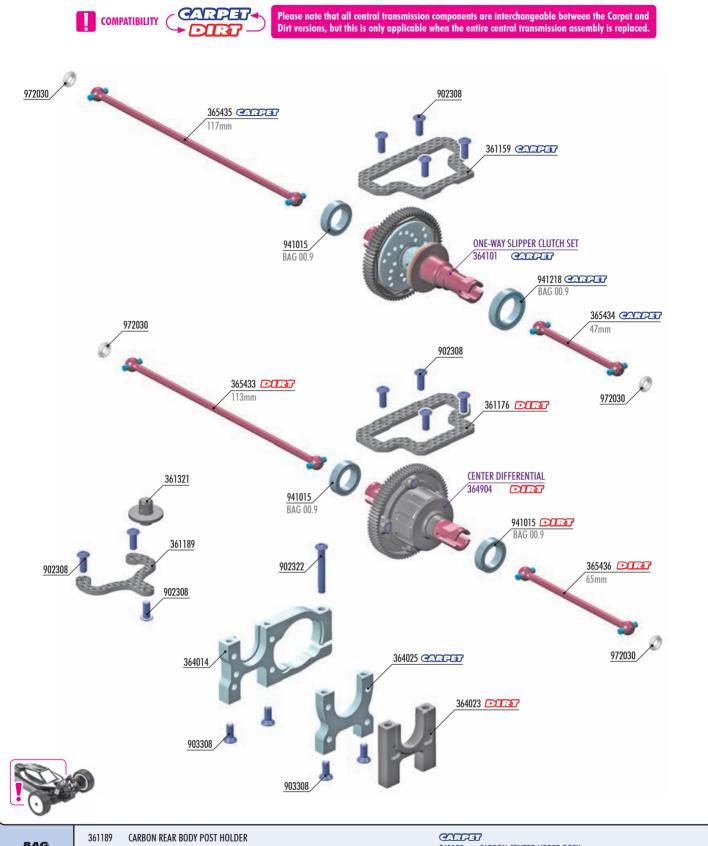




12. CENTRAL TRANSMISSION









361189 CARBON REAR BODY POST HOLDER 361321 BODY MOUNT - SHORT + SHIMS - SET 364014 ALU MOTOR BULKHEAD - NARROW

902308 HEX SCREW SH M3x8 (10) 902322 HEX SCREW SH M3x22 (10) 903308 HEX SCREW SFH M3x8 (10)

941015 BALL-BEARING 10x15x4 RUBBER SEALED - OIL (2)

972030 SILICONE O-RING 3x2 (10)

361159 CARBON CENTER UPPER DECK
364025 ALU CENTRAL BULKHEAD - SWISS 7075 T6

365434 CENTRAL DOGBONE DRIVE SHAFT 47MM - HUDY SPRING STEEL™

365435 CENTRAL DOGBONE DRIVE SHAFT 117MM - HUDY SPRING STEEL™

364101 ONE-WAY SLIPPER CLUTCH SET

361176 CARBON CENTER UPPER DECK

364023 COMPOSITE CENTRAL BULKHEAD - LOWER

365433 CENTRAL DOGBONE DRIVE SHAFT 113MM - HUDY SPRING STEEL™

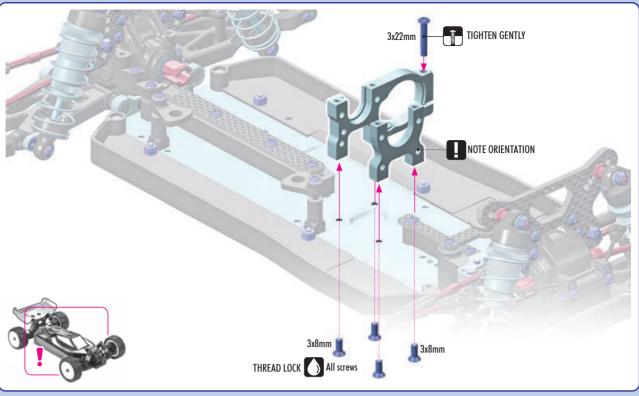
365436 CENTRAL DOGBONE DRIVE SHAFT 65MM - HUDY SPRING STEEL™

941218 BALL-BEARING 12x18x4 RUBBER SEALED - OIL (2)
364904 GEAR CENTER DIFFERENTIAL - LARGE VOLUME - SET

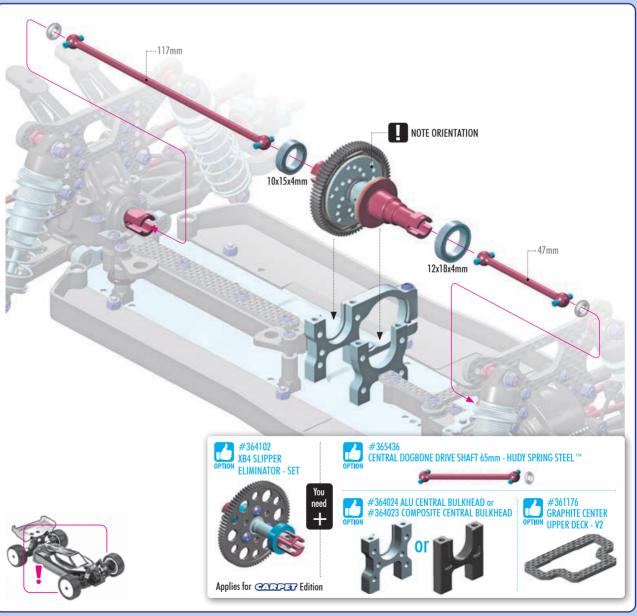
XB4-25



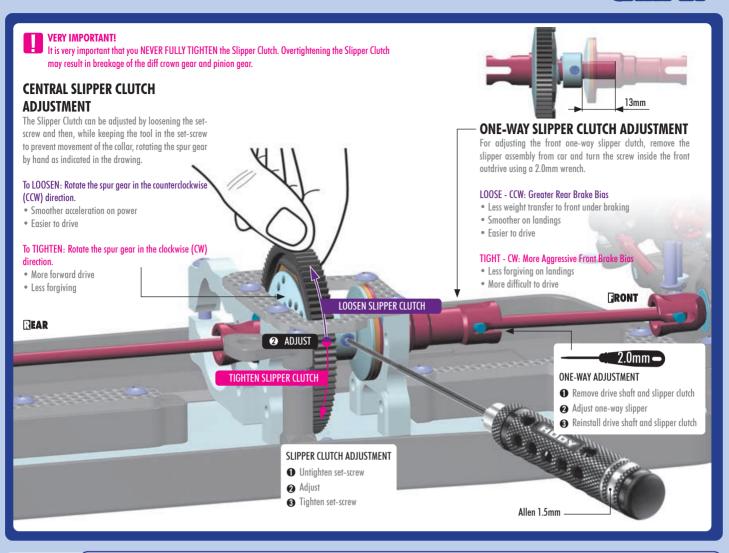




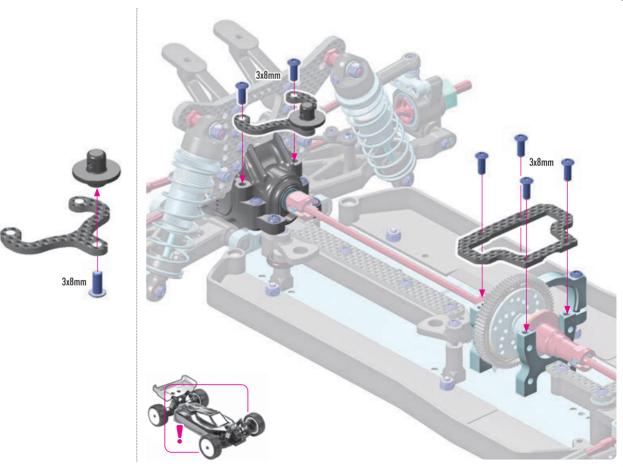












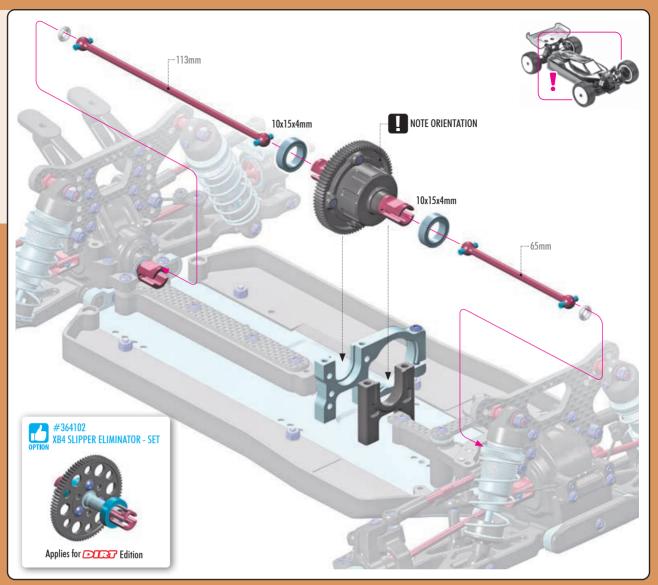




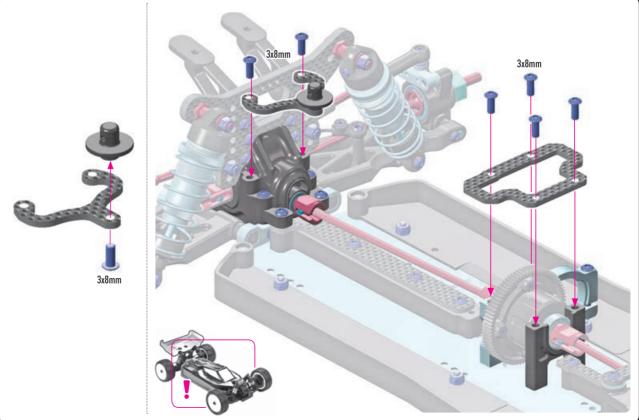


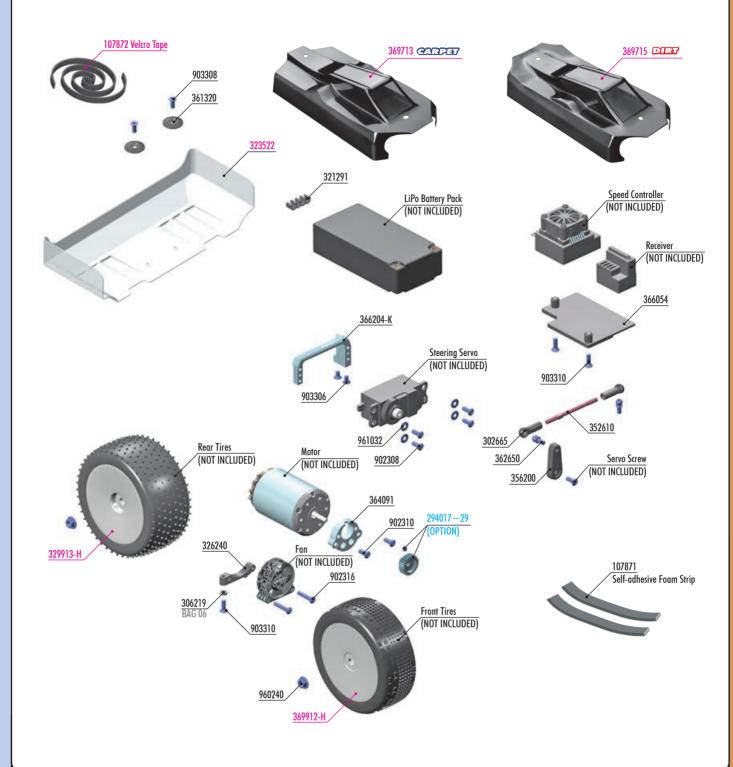










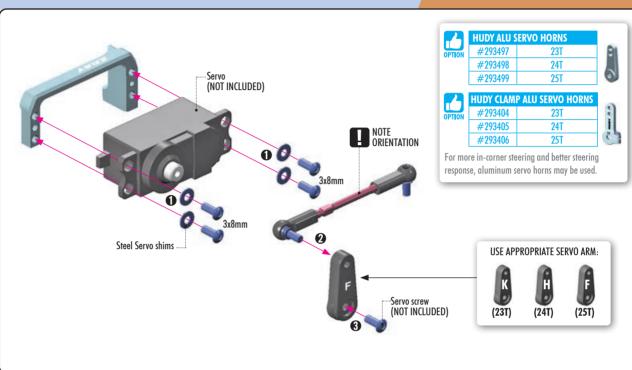




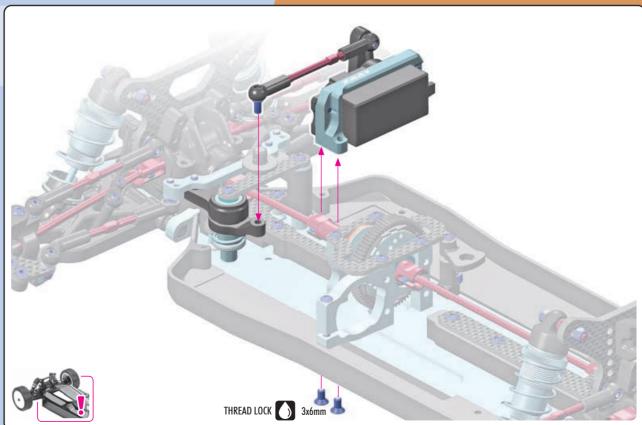
903306 HEX SCREW SFH M3x6 (10) 107871 **HUDY SELF-ADHESIVE FOAM STRIP (2)** HEX SCREW SFH M3x8 (10) 302665 COMPOSITE BALL JOINT 4.9MM - CLOSED WITH HOLE (4) 903308 HEX SCREW SFH M3x10 (10) 903310 COMPOSITE SET OF SERVO SHIMS (4) 306219 COMPOSITE 5-WIRES HOLDER - SET 961032 WASHER S 3.2 (10) 321291 NUT M4 WITH SERRATED FLANGE (10) COMPOSITE FAN HOLDER 960240 326240 352610 ADJ. TURNBUCKLE M3 L/R 45 MM - SPRING STEEL™ (2) 369713 BODY FOR 1/10 4WD OFF-ROAD BUGGY - DELTA 4C - LIGHT BRAKE/THROTTLE ARMS & STEERING SERVO ARMS - SET 356200 BODY MOUNT, BATTERY MOUNT - V2 & WING SHIM (2) 361320 BALL END 4.9MM WITH THREAD 6MM (2) 362650 369715 BODY FOR 1/10 4WD OFF-ROAD BUGGY - DELTA 4D - LIGHT 364091 ALU ECCENTRIC INSERT FOR NARROW MOTOR BULKHEAD 366054 COMPOSITE RADIO PLATE - SHORT 366204-K ALU MONOBLOCK SERVO HOLDER - SWISS 7075 T6 **VELCRO TAPE WITH DOUBLE SIDED TAPE 8x500MM LEXAN REAR WING - LUSH** 902308 HEX SCREW SH M3x8 (10) 323522 HEX SCREW SH M3x10 (10) 329913-H REAR WHEEL AERODISK WITH 12MM HEX IFMAR - WHITE - HARD (2) 902310 369912-H FRONT WHEEL AERODISK WITH 12MM HEX IFMAR - WHITE - HARD (2) 902316 HEX SCREW SH M3x16 (10)







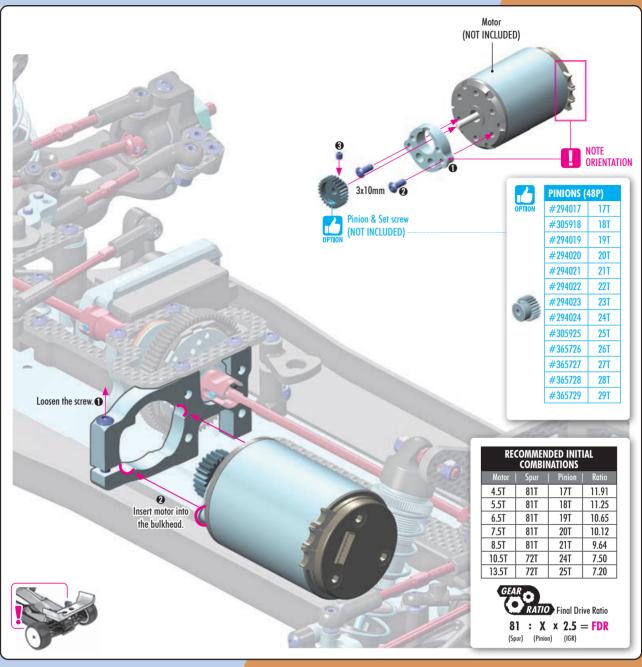


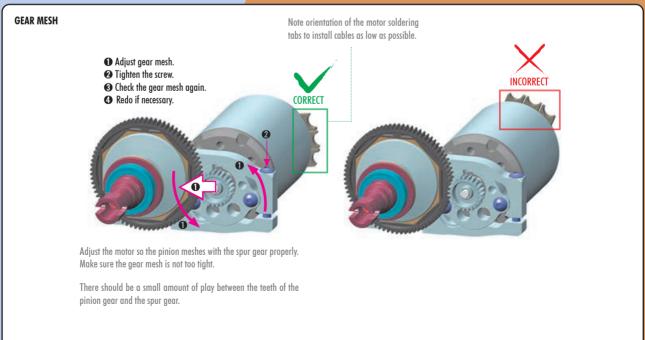


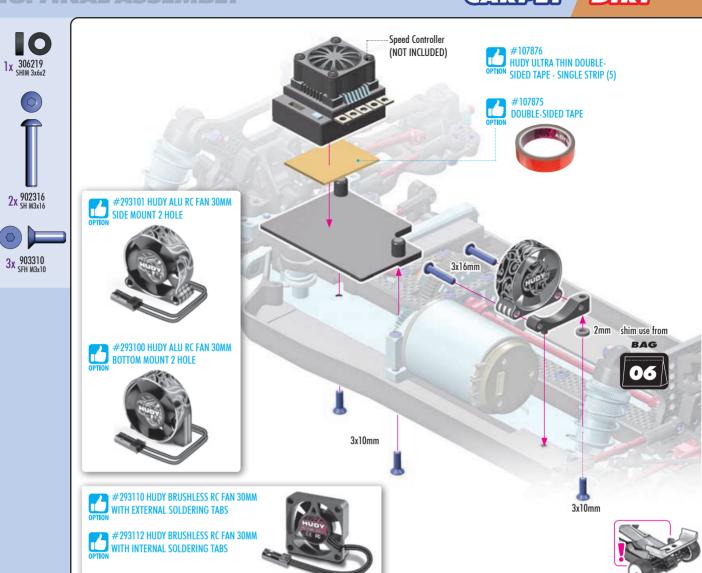


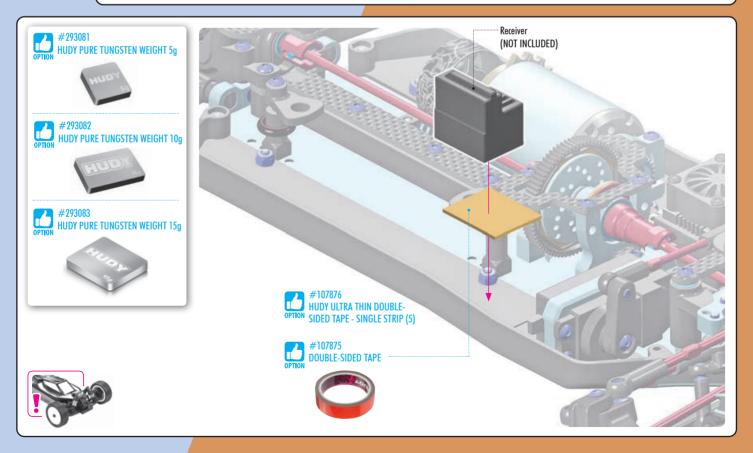






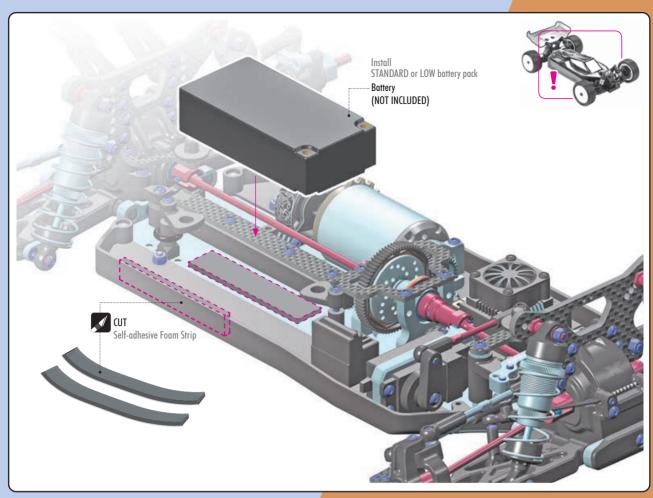




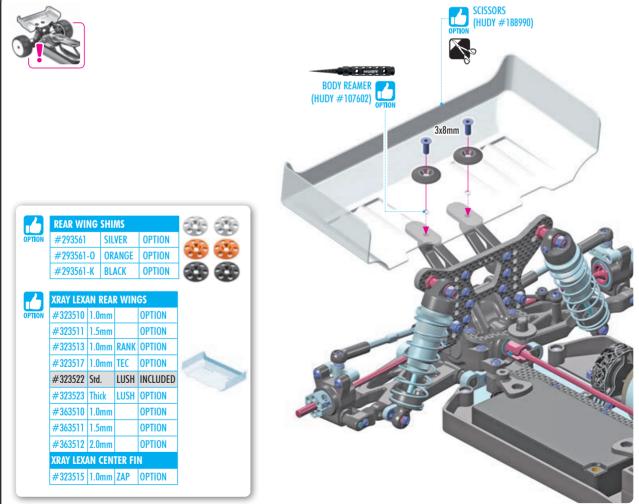










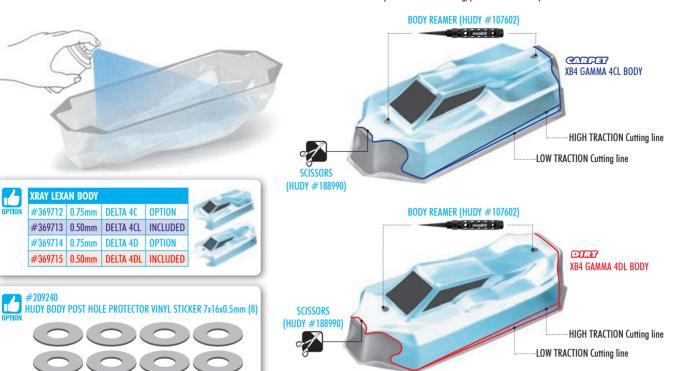


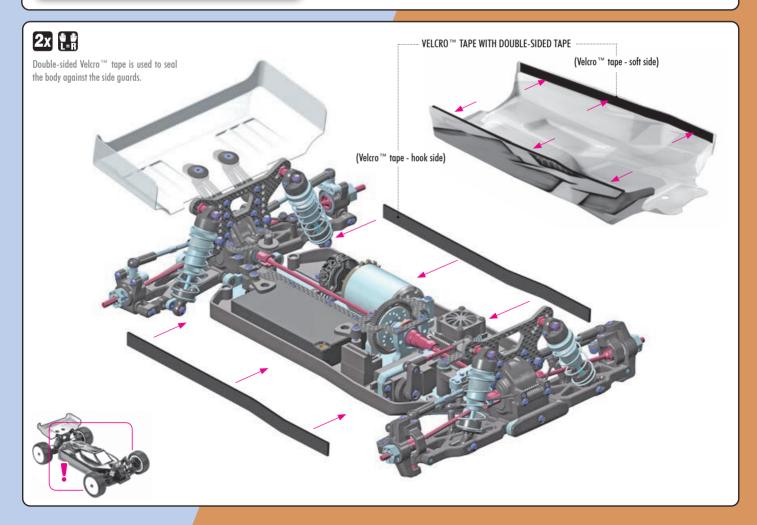




- Before cutting and making holes on the BODY, put the unpainted body on the chassis to confirm the mounting position and location for holes and cutouts. Before cutting and making holes on the WING, put the unpainted wing on the wing holders to confirm the mounting position and location for holes and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

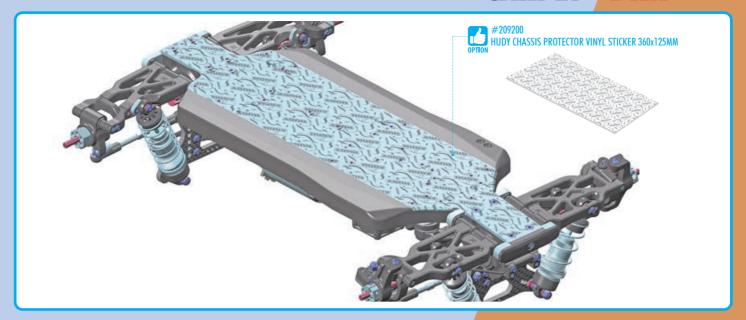
- Apply paint masks as appropriate.
- Paint the body using paints formulated for polycarbonate bodies.
- **6** When the paint is dry, remove the masking.
- Carefully cut out the body using appropriate scissors or cutting tools.
- When you have finished cutting, peel off the external protective films.



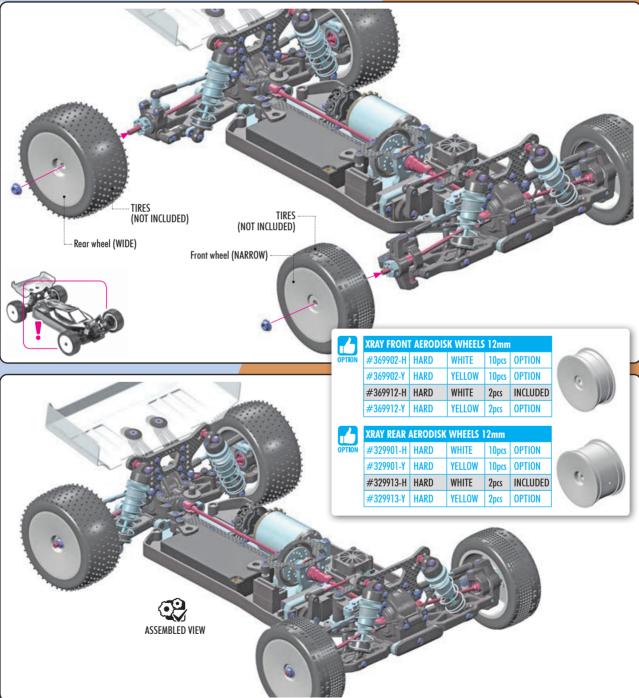


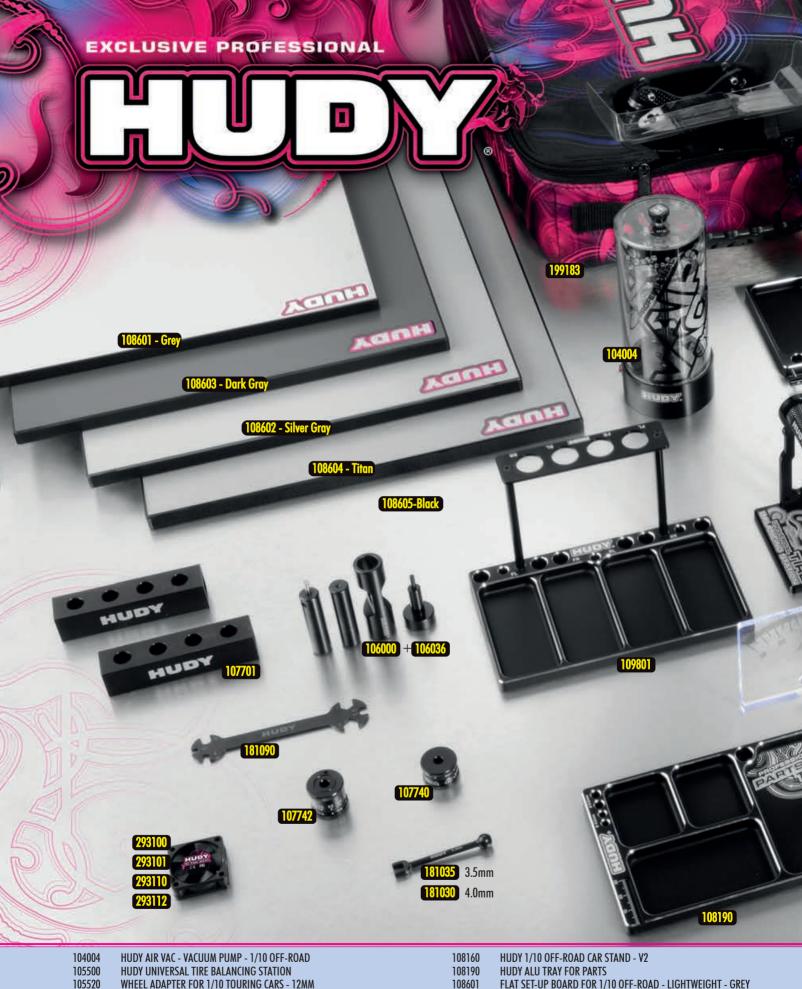












	104004	HUDY AIK VAC - VACUUM PUMP - 1/10 OFF-KOAD	108160	HUDY I/IU OFF-KUAD CAK SIAND - VZ
	105500	HUDY UNIVERSAL TIRE BALANCING STATION	108190	HUDY ALU TRAY FOR PARTS
	105520	WHEEL ADAPTER FOR 1/10 TOURING CARS - 12MM	108601	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - GREY
	106000	HUDY DRIVE PIN REPLACEMENT TOOL (FOR 3MM PINS)	108602	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - SILVER GREY
	106036	EJECTOR PIVOT PIN & ALTERNATING PIVOT 2.5MM FOR #106000	108603	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - DARK GREY
	107090	HUDY BEARING CHECKING TOOL	108604	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - TITAN
	107601	LIMITED EDITION - REAMER FOR BODY 0-9MM + COVER - SMALL	108605	FLAT SET-UP BOARD FOR 1/10 OFF-ROAD - LIGHTWEIGHT - BLACK
	107701	CHASSIS DROOP GAUGE SUPPORT BLOCKS 20MM FOR 1/8 - LW(2)	108901	HUDY SET-UP STATION FOR 1/10 OFF-ROAD CARS
	107740	HUDY ADJUSTABLE RIDE HEIGHT GAUGE 14-20MM	108960	ALU NUT FOR 1/10 OFF-ROAD SET-UP SYSTEM (4)
	107742	HUDY ADJUSTABLE RIDE HEIGHT GAUGE 20-30MM	109801	HUDY ALU TRAY FOR 1/10 OFF-ROAD DIFF & SHOCKS
58	107855	HUDY PIT LED	109840	HUDY ALU TRAY FOR 1/10 OFF-ROAD DIFF ASSEMBLY
	107880	CHASSIS BALANCING TOOL (2)	109860	HUDY ALU TRAY FOR SET-UP SYSTEM



109880 **HUDY ALU TRAY FOR ACCESSORIES & PIT LED** 188990 **HUDY PROFESSIONAL BODY SCISSORS** 111545 LIMITED EDITION - ALLEN WRENCH # 1.5MM 199060 **HUDY ALU TOOL STAND** 112045 LIMITED EDITION - ALLEN WRENCH # 2.0MM 199183 HUDY CAR BAG - 1/10 OFF-ROAD LIMITED EDITION - ALLEN WRENCH + BALL REPL. TIP # 2.0MM 132045 199270 **HUDY LIPO SAFETY BAG** LIMITED EDITION - SLOTTED SCREWDRIVER # 3.0MM - LONG **HUDY TIN ROUND BOX 80X30MM** 153055 298100 LIMITED EDITION - SOCKET DRIVER # 5.5MM 175535 293100 HUDY ALU RC FAN 30MM - BOTTOM MOUNT 2 HOLE 177035 LIMITED EDITION - SOCKET DRIVER # 7.0MM HUDY ALU RC FAN 30MM - SIDE MOUNT 2 HOLE 293101 181030 **HUDY SPRING STEEL TURNBUCKLE WRENCH 3 MM** HUDY BRUSHLESS RC FAN 30MM - WITH EXTERNAL SOLDERING TABS 293110 181090 **HUDY SPECIAL TOOL FOR TURNBUCKLES & NUTS** 293112 HUDY BRUSHLESS RC FAN 30MM - WITH INTERNAL SOLDERING TABS 183011 **HUDY PROFESSIONAL MULTI TOOL**



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