

XRAY
1/8 LUXURY RACING TRUGGY

XT8E
2017

**INSTRUCTION
MANUAL**
INCLUDING
XT8E
**CONVERSION
INSTRUCTIONS**

**MADE IN
EUROPE**

INTRODUCTION

The XRAY XT8 is a modern, high-competition premium luxury racing 1/8 nitro truggy that is the epitome of high-performance and fine distinctive design. Your XT8 offers highest performance, responsive handling, and traditionally exceptional XRAY quality, engineering, and design. The superb craftsmanship and attention to detail are clearly evident everywhere on the XRAY XT8.

XT8 was designed around a no compromise platform; the attention to detail creates a low maintenance, extra long life nitro truggy. The ultra-low center of gravity (CG) and optimized weight balance makes set-up, driving, and maintenance easy and quick.

CUSTOMER SUPPORT

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

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

www.teamxray.com

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

SAFETY PRECAUTIONS

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

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.

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.

IMPORTANT NOTES - NITRO ENGINES

- Always test the brakes and the throttle before starting your engine to avoid losing control of the model.
- Make sure the air filter is clean and oiled.
- Never run your engine without an air filter. Your engine can be seriously damaged if dirt and debris get inside the engine.

The XRAY XT8 was created by blending highest-quality materials and excellent design. On high-speed flat tracks or bumpy tracks, whether driving for fun or racing to win, the XT8 delivers outstanding performance, speed, and precision handling.

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

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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.

- 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.

- For proper engine break-in, please refer to the manual that came with the engine.
- Do not run near open flames or smoke while running your model or while handling fuel.
- Some parts will be hot after operation. Do not touch the exhaust or the engine until they have cooled. These parts may reach 275°F during operation!

IMPORTANT NOTES - ELECTRICAL

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

IMPORTANT NOTES - NITRO FUEL

- Handle fuel only outdoors. Never handle nitro fuel indoors, or mix nitro fuel in a place where ventilation is bad.
- Only use nitro fuel for R/C models. Do not use gasoline or kerosene in R/C models as it may cause a fire or explosion, and ruin your engine.
- Nitro fuel is highly flammable, explosive, and poisonous. Never use fuel indoors or in places with open fires and sources of heat.
- Always keep the fuel container cap tightly shut.
- Always read the warning label on the fuel container for safety information.
- Nitro-powered model engines emit poisonous vapors and gasses. These vapors irritate eyes and can be highly dangerous to your health. We recommend wearing rubber or vinyl gloves to avoid direct contact with nitro fuel.
- Nitro fuel for RC model cars is made of the combination of the methyl alcohol,

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

R/C & BUILDING TIPS

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

- Ask your local hobby shop for any advice.

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

WARRANTY

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

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

maintenance, or user modifications which compromise the integrity of components. Warranty will not cover components that are considered consumable on RC vehicles. XRAY does not pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

Limitations of Liability

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

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

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

All rights reserved.

QUALITY CERTIFICATE

XRAY MODEL RACING CARS uses only the highest quality materials, the best compounds for molded parts and the most sophisticated manufacturing processes of TQM (Total Quality Management). We guarantee that all parts of a newly-purchased kit are manufactured with the highest regard to quality. However, due to the many factors inherent in model racecar competition, we cannot guarantee any parts once

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

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

In line with our policy of continuous product development, the exact specifications of the kit may vary. In the unlikely event of any problems with your new kit, you should contact the model shop where you purchased it, quoting the part number. We do reserve all rights to change any specification without prior notice. All rights reserved.

SYMBOLS USED

Part bags used 	Assemble in the specified order 	Assemble left and right sides the same way 	Assemble front and rear the same way 	Pay attention here 	Assemble as many times as specified (here twice) 	Apply instant glue 	Apply oil 	Apply grease 	Apply threadlock
Cut off shaded portion 	Use special tool 	Cut off remaining material 	Time 	Use cleaner or WD-40® 	Tighten screw gently 	Ensure smooth non-binding movement 	Use pliers 	Follow tip here 	Follow Set-up Book

TOOLS REQUIRED

Phillips 5.0mm (HUDY TOOLS) Allen 1.5 / 2.0 / 2.5 / 3.0mm (HUDY TOOLS) Ball Allen 2.5mm (HUDY TOOLS) Arm Reamer 3mm/4mm (HUDY TOOLS) Socket 5.0 / 5.5mm (HUDY TOOLS) 	17mm Wheel Nut Tool (HUDY #107570) 	Flywheel Tool (HUDY #182015) 	Special Tool for all turnbuckles, nuts (HUDY #181090) 	Cross Wrench (HUDY #107581)
Side Cutters (HUDY #189010) 	Pocket Hobby Knife (HUDY #188981) 	Needle Nose Pliers (HUDY #189020) 	Snap Ring Pliers (HUDY #189040) 	Scissors (HUDY #188990)
			Turnbuckle Wrench (HUDY #181040 4mm) (HUDY #181050 5mm)	Body Reamer (HUDY #107600) or (HUDY #107601)

TOOLS & EQUIPMENT INCLUDED

Silicone Shock Oil (HUDY #106336 350cSt 100ml) (HUDY #106341 400cSt 100ml) 	Silicone Diff Oil (HUDY #106451 5000cSt 100ml) (HUDY #106511 10000cSt 100ml) (HUDY #106516 15000cSt 100ml) 	Air Filter Oil (HUDY #106240) 	Graphite Grease (HUDY #106210)
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NOT INCLUDED

To ensure that you always have access to the most up-to-date version of the XRAY Set-up Book, XRAY will now be offering only the digital online version at our website at www.teamxray.com. 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.

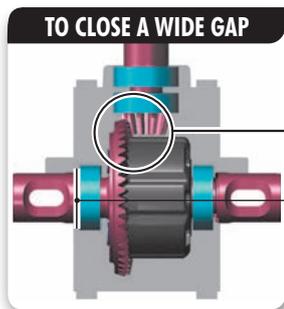
EQUIPMENT REQUIRED

Transmitter Receiver 	.21ci (3.5cc) Engine 	Manifold 	Starter Box (HUDY #104500) 	Glow Plug Igniter 	Battery Charger
Steering and Throttle Servos 		Exhaust 	Battery Pack 		
Receiver Pack 	Threadlock 	CA Glue 	Transmitter Batteries 	Fuel + Fuel Bottle (HUDY #104200) 	Lexan™ Paint

TIP FRONT & REAR DIFF GEAR MESH ADJUSTMENT

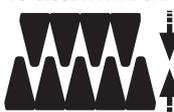
If there is too much or too little diff side play, this may create non-optimal gear mesh between the diff gear and the pinion drive gear. This is easily resolved by inserting 1 or 2 of the included thin shims behind a diff outdrive ball-bearing, depending on how much play there is.

THE LOCATION OF THE SHIM(S) DEPENDS ON WHETHER YOU ARE TRYING TO CLOSE OR OPEN THE GAP:

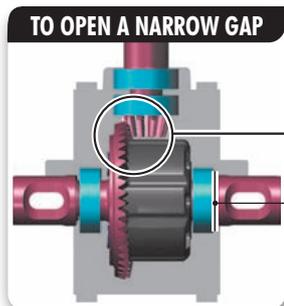


TO CLOSE A WIDE GAP

TO CLOSE A WIDE GAP



insert shim(s) here

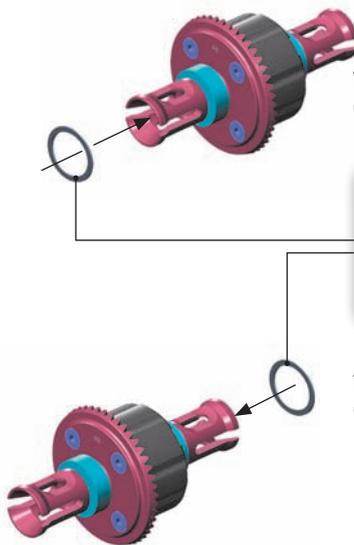


TO OPEN A NARROW GAP

TO OPEN A NARROW GAP

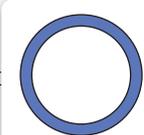


insert shim(s) here



To CLOSE a wide gap:
add 1 or 2 shims against diff spur gear

To OPEN a narrow gap:
add 1 or 2 shims on the other side of the diff, away from spur gear



WASHER

- #962131 S 13 x 16 x 0.1 mm (10)
- #962130 S 13 x 16 x 0.2 mm (10)

SUSPENSION & DRIVETRAIN MAINTENANCE

- Check suspension for free movement during building and operation, and especially after running and if you have crashed the car. If the suspension does not move freely, use the appropriate HUDY Arm Reamer to clean and resize the holes of the suspension arms.
- Regularly check the drive shaft pins (both side and center) and if they show any wear must be immediately replaced by new pins. If the car is run with worn pins, excessive wear on the diff outdrives will result. The 106000 HUDY Drive Pin Replacement Tool (for 3mm Pins) is a compact, rugged multi-use tool set for replacing 3mm drive pins in drive shafts. Use the HUDY replacement drive shaft pins 3x14 (#106050).
- Regularly inspect and replace the connecting pins which connect the center drive shafts with the pinion gear, and also the pins that connect the wheel drive shafts with wheel axles. Use HUDY Graphite Grease to lubricate the drive shaft connecting joints and the diff gears.
- Pivot balls and ball-joints will naturally wear for some time and will generate play. If there is too much play the pivot balls and ball joints need to be replaced.
- If the car is run in wet conditions, apply WD-40® on all drivetrain parts before the run. After the run, clean and dry the parts again.

HUDY SPRING STEEL™

The HUDY Spring Steel™ used in the car is the strongest and most durable steel material on the RC market. While items made from HUDY Spring Steel™ are still subject to wear, the lifespan is considerably longer than any other material. As parts made from HUDY Spring Steel™ wear, the brown color will after some time "go down" but it will not affect the strength of the material. The brown color is only a surface treatment and if the brown color will wear the durability of the part will be still strong.

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.



1 Do not use drive shafts when the pins are worn.

2 Press out the worn pins.

3 Press in new pins and regularly inspect for wear.



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



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

TIP INSTALLING PIVOT BALLS INTO COMPOSITE BALL-JOINTS



1 Place the pivot ball on the ball joint and use a screw to tighten it to an engine mount or some other part.



2 Tighten screw until pivot ball is tight against block.



3 Lift ball joint until it snaps into place over pivot ball. Ball joint should move freely.



4 The finished joint.



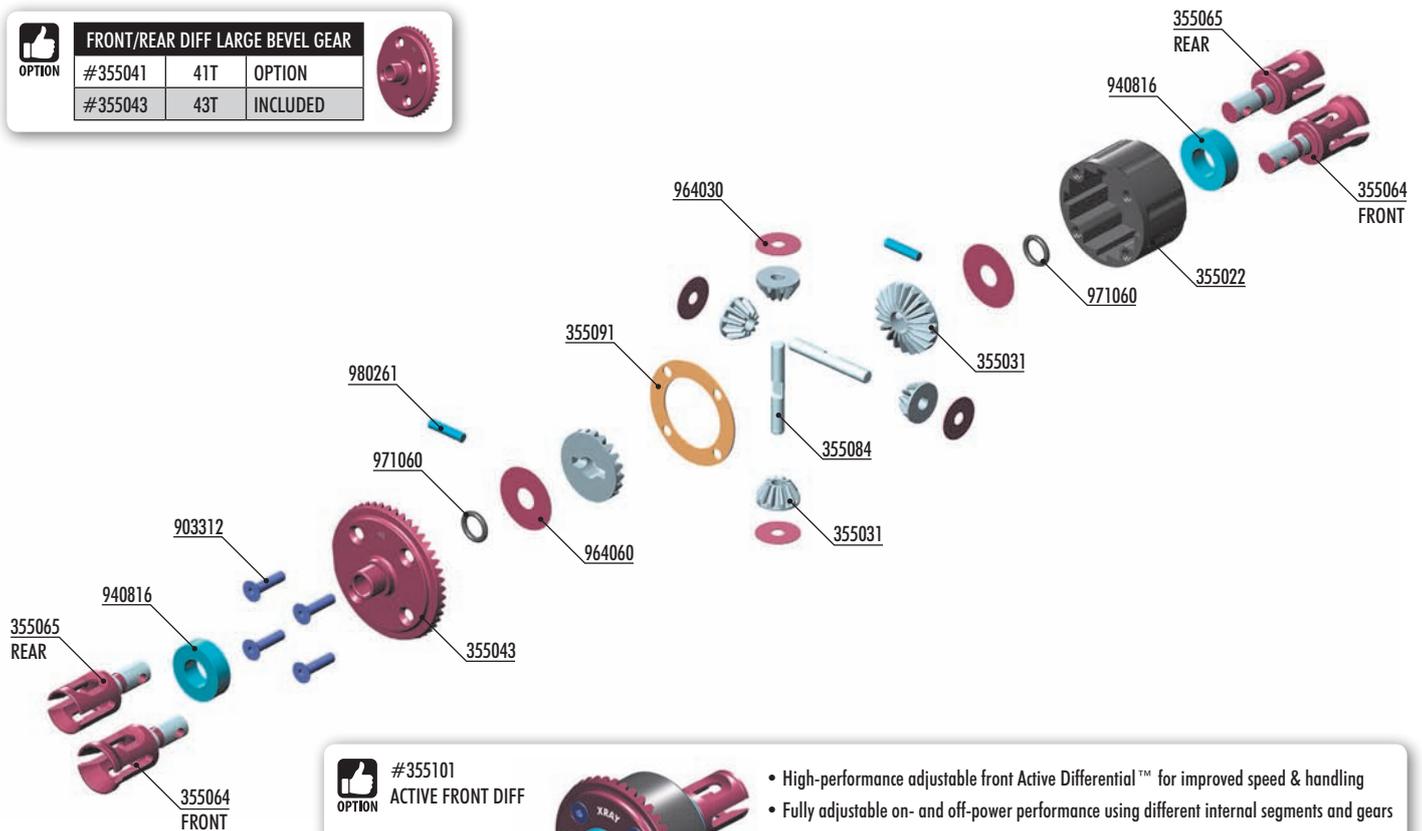
5 Loosen and remove screw.

1. FRONT & REAR DIFFERENTIALS



FRONT/REAR DIFF LARGE BEVEL GEAR

#355041	41T	OPTION
#355043	43T	INCLUDED



#355101 ACTIVE FRONT DIFF



- High-performance adjustable front Active Differential™ for improved speed & handling
- Fully adjustable on- and off-power performance using different internal segments and gears
- Improved diff action and traction
- Easy and consistent steering

BAG



- 355022 DIFFERENTIAL CASE - V2
- 355031 STEEL DIFF BEVEL & SATELLITE GEARS - V2 (2+4)
- 355043 FRONT/REAR DIFF LARGE BEVEL GEAR 43T - HUDY STEEL
- 355064 FRONT DIFF OUTDRIVE ADAPTER LONG - V2 - HUDY SPRING STEEL™ (2)
- 355065 REAR DIFF OUTDRIVE ADAPTER - V2 - HUDY SPRING STEEL™ (2)
- 355084 F/R DIFF PIN (2)
- 355091 F/R DIFF GASKET (4)

- 903312 HEX SCREW SFH M3x12 (10)
- 940816 HIGH-SPEED BALL-BEARING 8x16x5 BLUE COVERED (2)
- 964030 WASHER S 3.5x12x0.2 (10)
- 964060 WASHER S 6x18x0.2 (10)
- 971060 SILICONE O-RING 6x1.5 (10)
- 980261 PIN 2.5x11.5 (10)



940816
BB 8x16x5



964060
S 6x18x0.2

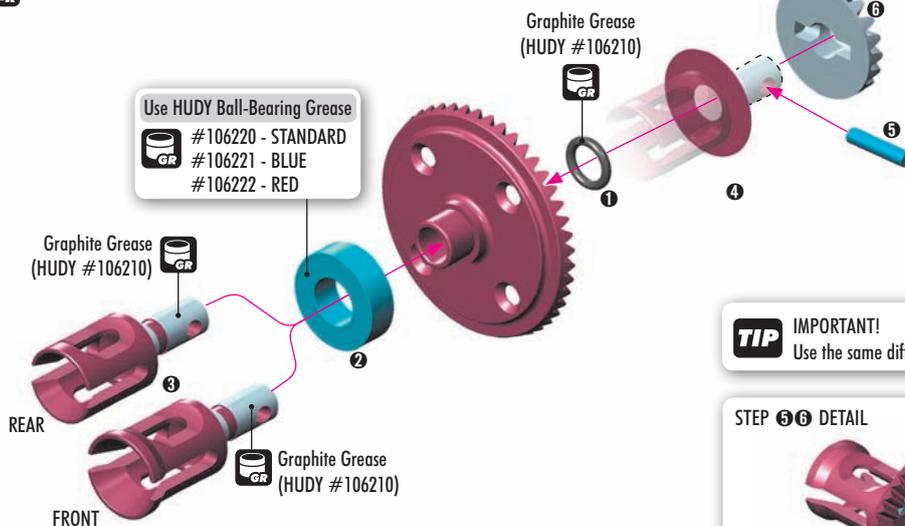


971060
O 6x1.5



980261
P 2.5x11.5

2x F=R



Use HUDY Ball-Bearing Grease

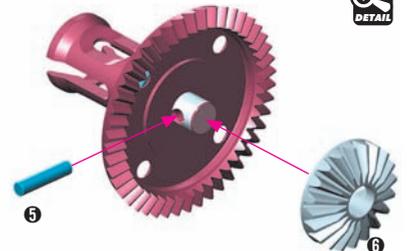
- #106220 - STANDARD
- #106221 - BLUE
- #106222 - RED

Graphite Grease
(HUDY #106210)

Graphite Grease
(HUDY #106210)

TIP IMPORTANT!
Use the same diff outdrives on both ends of a diff.

STEP 5 6 DETAIL



FRONT/REAR DIFF LARGE BEVEL GEAR

#355041	41T	OPTION
#355043	43T	INCLUDED



SET-UP BOOK

DIFFERENTIAL GEARS

1. FRONT & REAR DIFFERENTIALS



940816
BB 8x16x5



964060
S 6x18x0.2



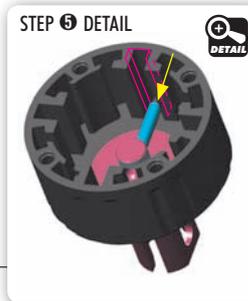
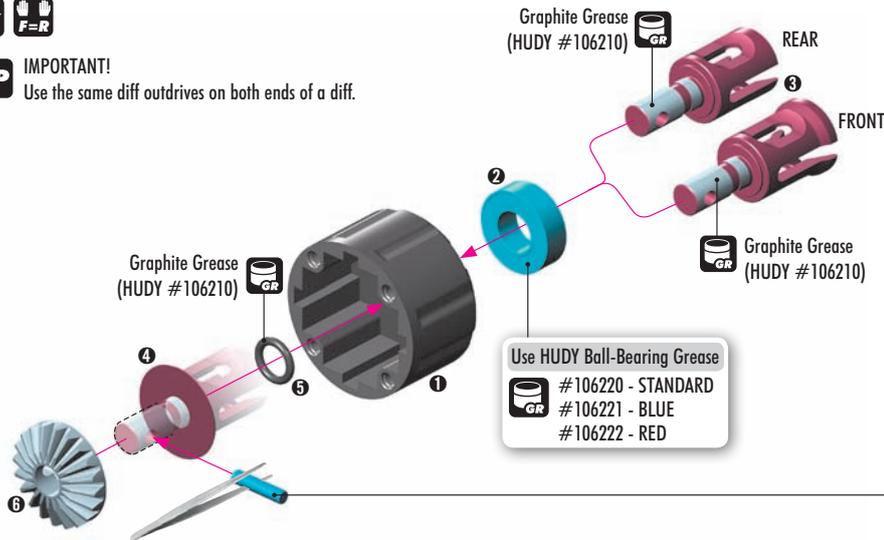
971060
O 6x1.5



980261
P 2.5x11.5

2x F=R

TIP IMPORTANT!
Use the same diff outriders on both ends of a diff.



903312
SFH M3x12



964030
S 3.5x12x0.2

VERY IMPORTANT!

Use the following silicone oils included in the kit for initial settings:
FRONT diff: 10 000cSt / REAR diff: 5 000cSt



To ensure you have the same amount of oil from rebuild to rebuild, do the following:

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

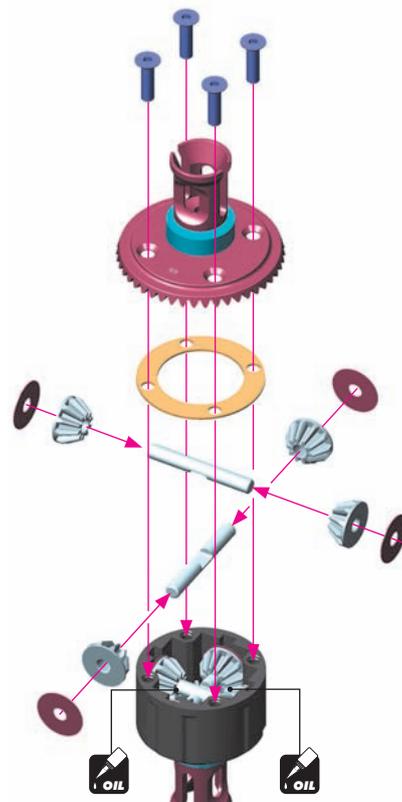


1. Put the diff (without oil) on the scale and check the weight:

- REAR DIFF approx. 39.30g
- FRONT DIFF approx. 40.10g

2. Slowly pour oil into the diff and watch the weight. Add 2.70g of oil into the diff. The approximate weight of the diff+oil is REAR DIFF approx. 42.00g and FRONT DIFF approx. 42.80g

REAR DIFF	39.30g + 2.70g	= 42.00g
FRONT DIFF	40.10g + 2.70g	= 42.80g



Front diff:

Silicone oil 10 000cSt
Fill just above the satellite gears.

Rear diff:

Silicone oil 5 000cSt
Fill just above the satellite gears.

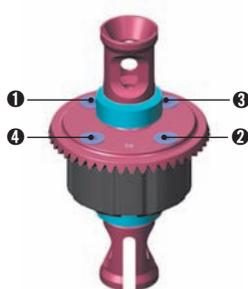
SET-UP BOOK

DIFFERENTIAL OIL

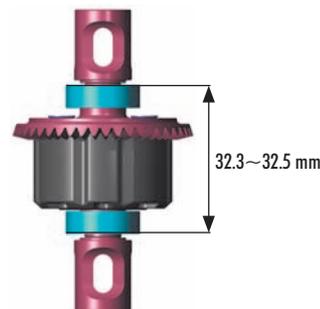
Tighten the screws equally



Finish tightening in this order



After assembly the differentials should have a length of 32.3~32.5 mm measured from the ends of the installed ball-bearings. If differentials are longer, retighten the 4 screws holding the crown gears.



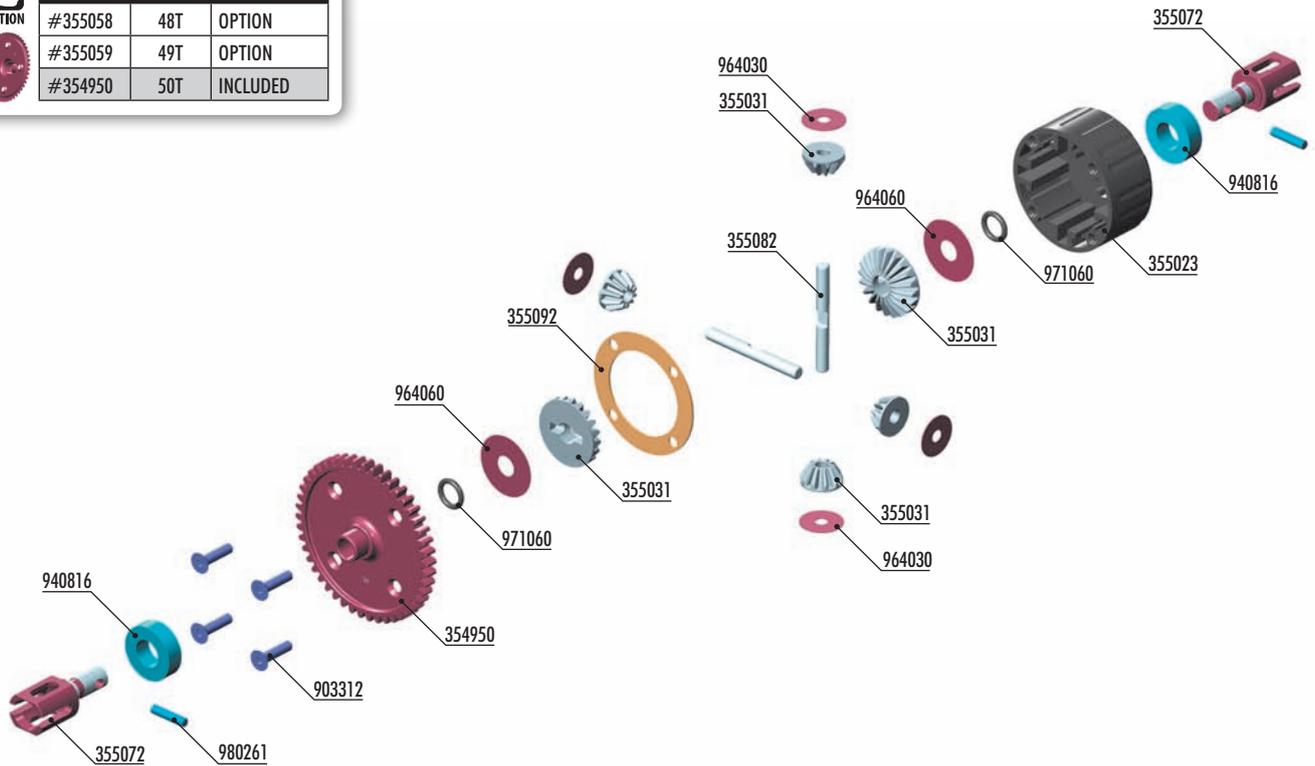
1. CENTER DIFFERENTIAL



CENTER DIFF SPUR GEAR - LARGE

OPTION

#355058	48T	OPTION
#355059	49T	OPTION
#354950	50T	INCLUDED



BAG

01.3

354950	CENTER DIFF SPUR GEAR 50T - LARGE
355023	CENTER DIFFERENTIAL CASE - V2
355031	STEEL DIFF BEVEL & SATELLITE GEARS - V2 (2+4)
355072	LARGE CENTER DIFF OUTDRIVE ADAPTER - HUDY STEEL (2)
355082	CENTER DIFF PIN (2)
355092	CENTER DIFF GASKET (2)

903312	HEX SCREW SFH M3x12 (10)
940816	HIGH-SPEED BALL-BEARING 8x16x5 BLUE COVERED (2)
964030	WASHER S 3.5x12x0.2 (10)
964060	WASHER S 6x18x0.2 (10)
971060	SILICONE O-RING 6x1.5 (10)
980261	PIN 2.5x11.5 (10)



940816
BB 8x16x5



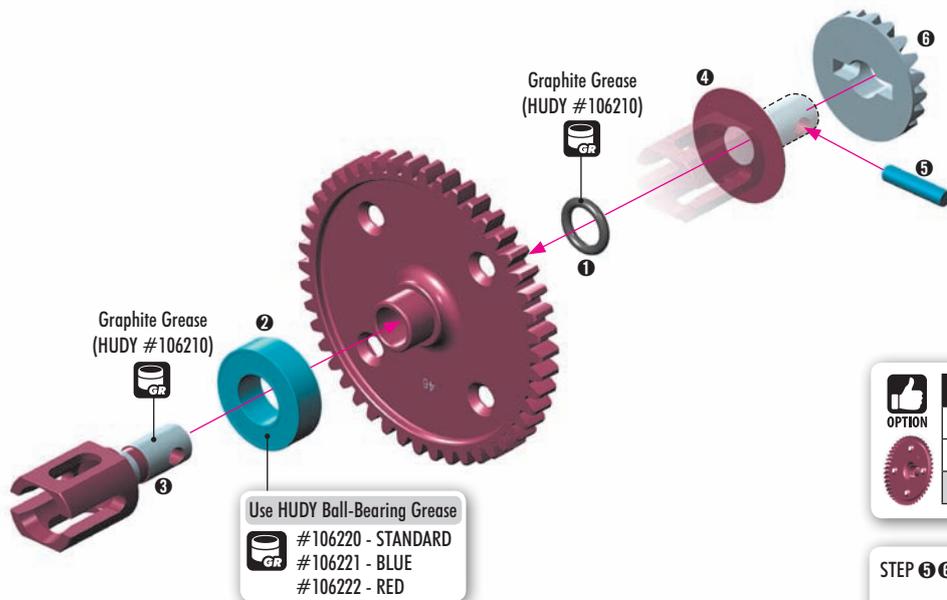
964060
S 6x18x0.2



971060
O 6x1.5



980261
P 2.5x11.5



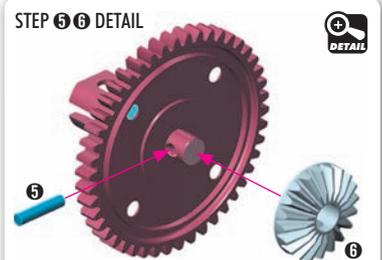
CENTER DIFF SPUR GEAR - LARGE

OPTION

#355058	48T	OPTION
#355059	49T	OPTION
#354950	50T	INCLUDED



STEP 5 & 6 DETAIL



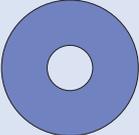
SET-UP BOOK

DIFFERENTIAL GEARS

1. CENTER DIFFERENTIAL



940816
BB 8x16x5



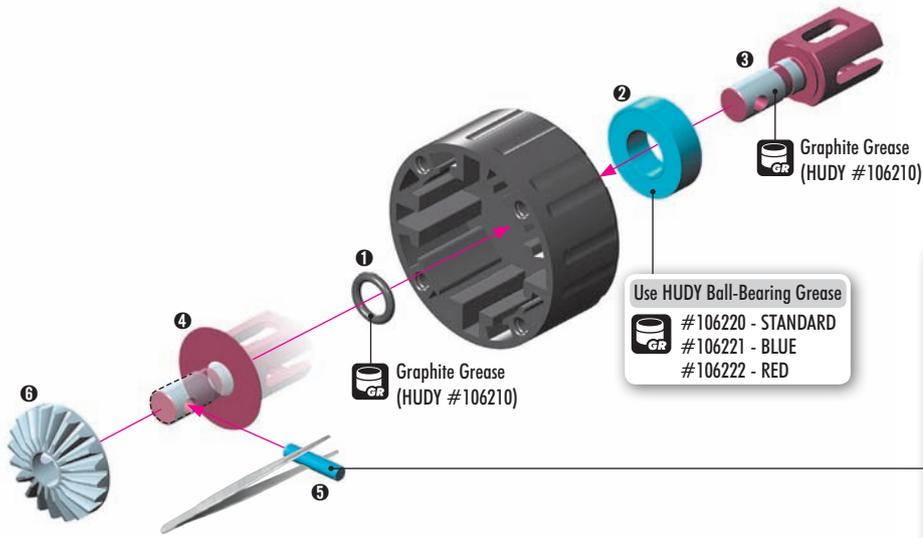
964060
S 6x18x0.2



971060
O 6x1.5



980261
P 2.5x11.5



Use HUDY Ball-Bearing Grease
#106220 - STANDARD
#106221 - BLUE
#106222 - RED



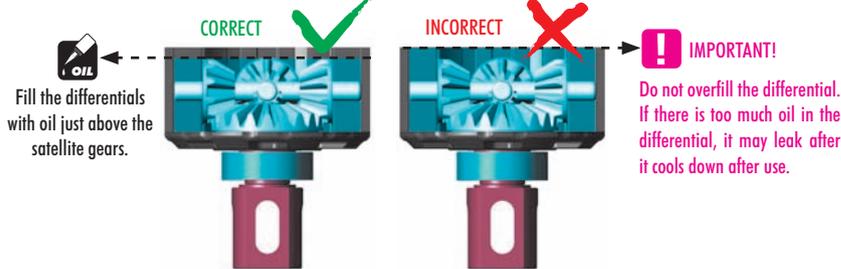
903312
SFH M3x12



964030
S 3.5x12x0.2

VERY IMPORTANT!

Use the following silicone oil included in the kit for initial setting:
Center diff: 15 000cSt



To ensure you have the same amount of oil from rebuild to rebuild, do the following:

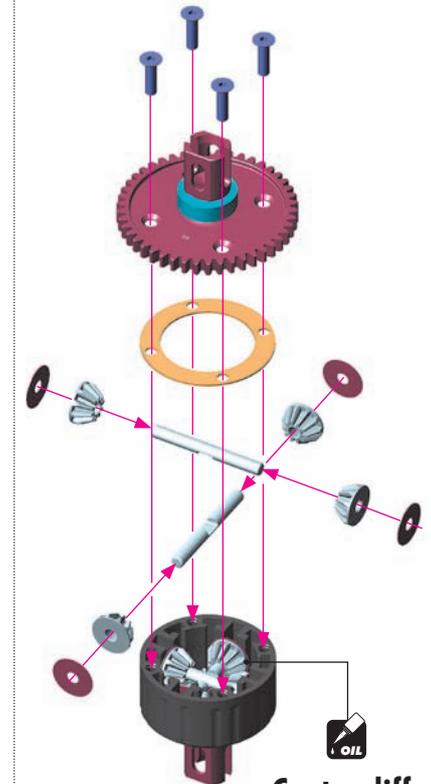
#107865 HUDY Ultimate Digital Pocket Scale 300g ± 0.01g



1. Put the diff (without oil) on the scale and check the weight (approximately 42.97g).

2. Slowly pour oil into the diff and watch the weight. Add 5.33g of oil into the diff. The approximate weight of the diff + oil is 48.30g.

$$\text{CENTER DIFF } 42.97\text{g} + 5.33\text{g} = 48.30\text{g}$$



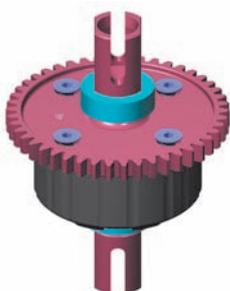
Center diff:

Silicone oil 15 000cSt
Fill to just above the satellite gears.

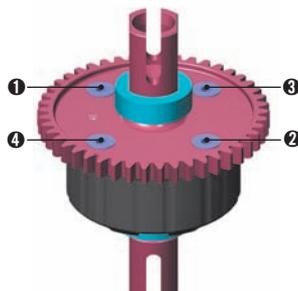
SET-UP BOOK

DIFFERENTIAL OIL

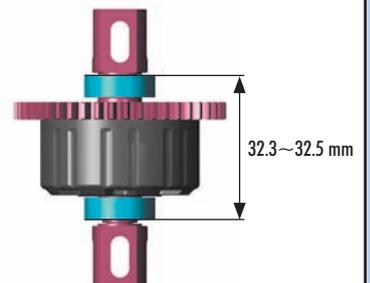
Tighten the screws equally



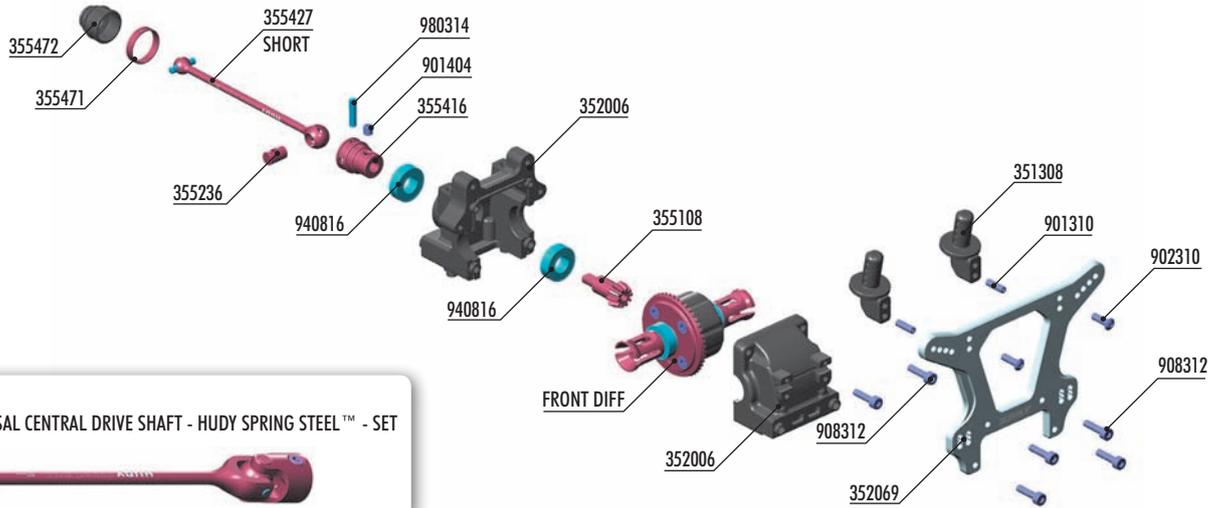
Finish tightening in this order



After assembly the differential should have a length of 32.3~32.5 mm measured from the ends of the installed ball-bearings. If differential is longer, retighten the 4 screws holding the spur gear.



2. FRONT TRANSMISSION



#355426
OPTION
FRONT UNIVERSAL CENTRAL DRIVE SHAFT - HUDY SPRING STEEL™ - SET

BAG

02

- 351308 BODY POSTS - V2
- 352006 DIFF BULKHEAD BLOCK SET FRONT/REAR
- 352069 XT8 ALU FRONT SHOCK TOWER - CNC MACHINED 7075 T6 (4MM)
- 355108 BEVEL DRIVE GEAR 10T
- 355236 CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™
- 355416 CENTRAL CVD SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™
- 355427 FRONT CENTRAL CVD DRIVE SHAFT - HUDY SPRING STEEL™
- 355471 DRIVE SHAFT LOCKING RING (2)

- 355472 DRIVE SHAFT BOOT (2)
- 901310 HEX SCREW SB M3x10 (10)
- 901404 HEX SCREW SB M4x4 (10)
- 902310 HEX SCREW SH M3x10 (10)
- 908312 HEX SCREW SOCKET HEAD CAP M3x12 (10)
- 940816 HIGH-SPEED BALL-BEARING 8x16x5 RUBBER SEALED (2)
- 980314 PIN 3x14 (10)

- 901404 SB M4x4
- 901310 SB M3x10
- 902310 SH M3x10
- 908312 SCH M3x12
- 940816 BB 8x16x5
- 980314 P 3x14

step 1

SHORT CVD DRIVE SHAFT

Apply oil from inside to prevent breakage of the rubber boot.

Graphite Grease (HUDY #106210)

NOTE ORIENTATION

STEP 4 DETAIL

BEFORE inserting the clip on the central CVD shaft joint, apply a small amount of threadlock on the area where the clip goes.

AFTER inserting the clip on the central CVD shaft joint, turn the clip so that the slot is 90° from the pin. This will prevent the pin from opening the clip.

step 2

Push joint against gear to remove gap. Tighten setscrew onto gear flat spot.

STEP 5 DETAIL

Use HUDY Ball-Bearing Grease

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

step 3

Cut on both front and rear bulkhead blocks

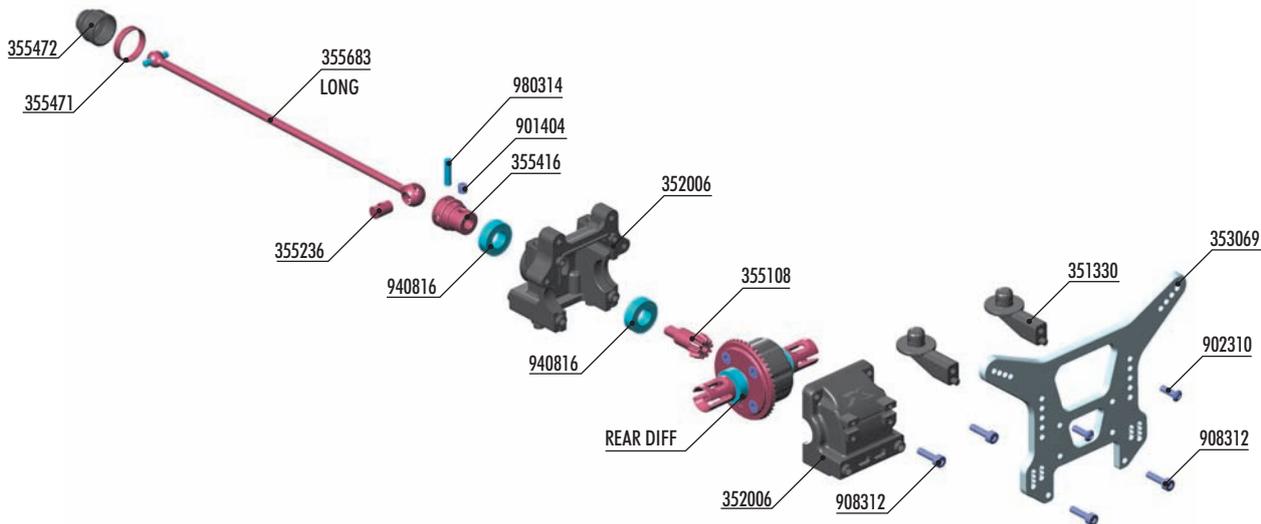
FRONT DIFF 10 000 c/s

Graphite Grease (HUDY #106210)

step 4

NOTE ORIENTATION

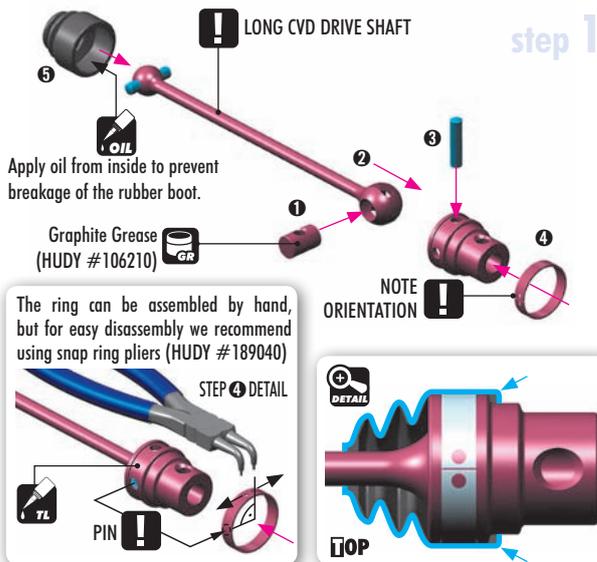
2. REAR TRANSMISSION



BAG

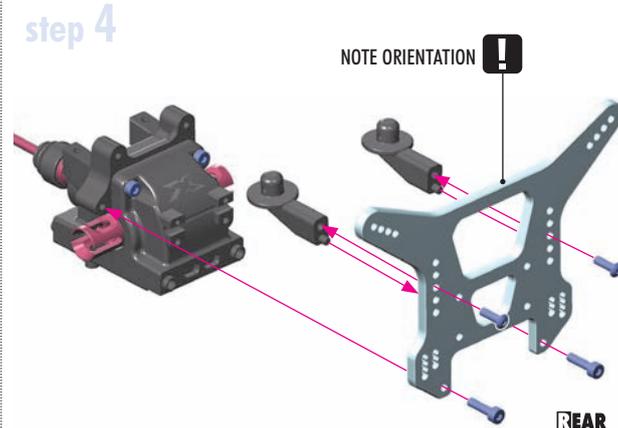
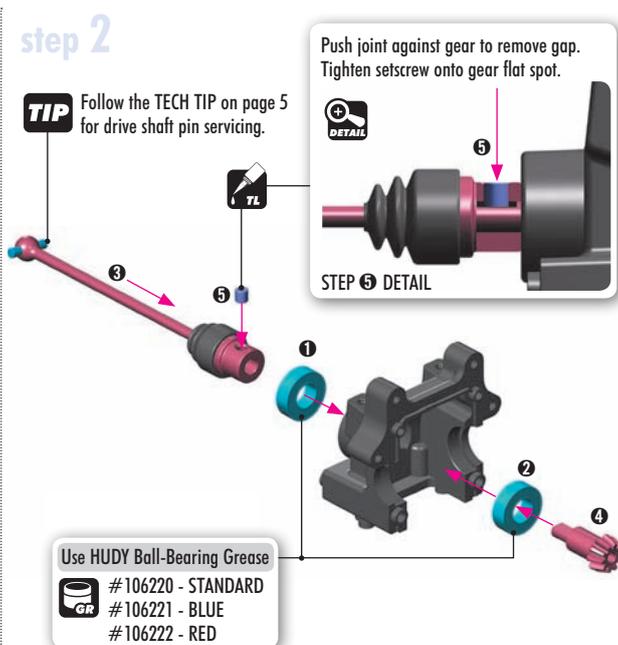
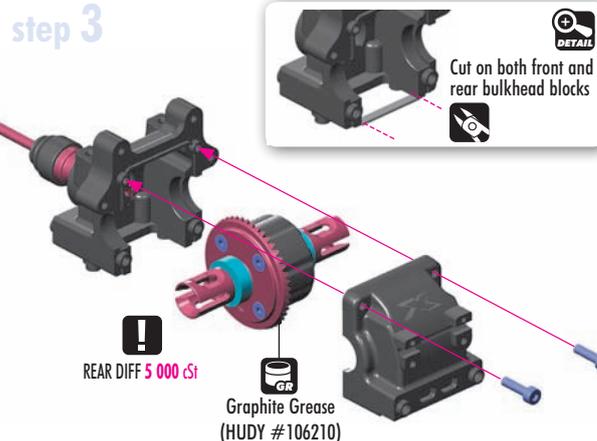
02

351330	COMPOSITE REAR BODY POST - LONG	355472	DRIVE SHAFT BOOT (2)
352006	DIFF BULKHEAD BLOCK SET FRONT/REAR	901404	HEX SCREW SB M4x4 (10)
353069	XT8 ALU REAR SHOCK TOWER - CNC MACHINED 7075 T6 (4MM)	902310	HEX SCREW SH M3x10 (10)
355108	BEVEL DRIVE GEAR 10T	908312	HEX SCREW SOCKET HEAD CAP M3x12 (10)
355236	CVD DRIVE SHAFT COUPLING - HUDY SPRING STEEL™	940816	HIGH-SPEED BALL-BEARING 8x16x5 RUBBER SEALED (2)
355416	CENTRAL CVD SHAFT UNIVERSAL JOINT - HUDY SPRING STEEL™	980314	PIN 3x14 (10)
355683	XT8 CVD CENTRAL DRIVE SHAFT REAR - HUDY SPRING STEEL™		
355471	DRIVE SHAFT LOCKING RING (2)		

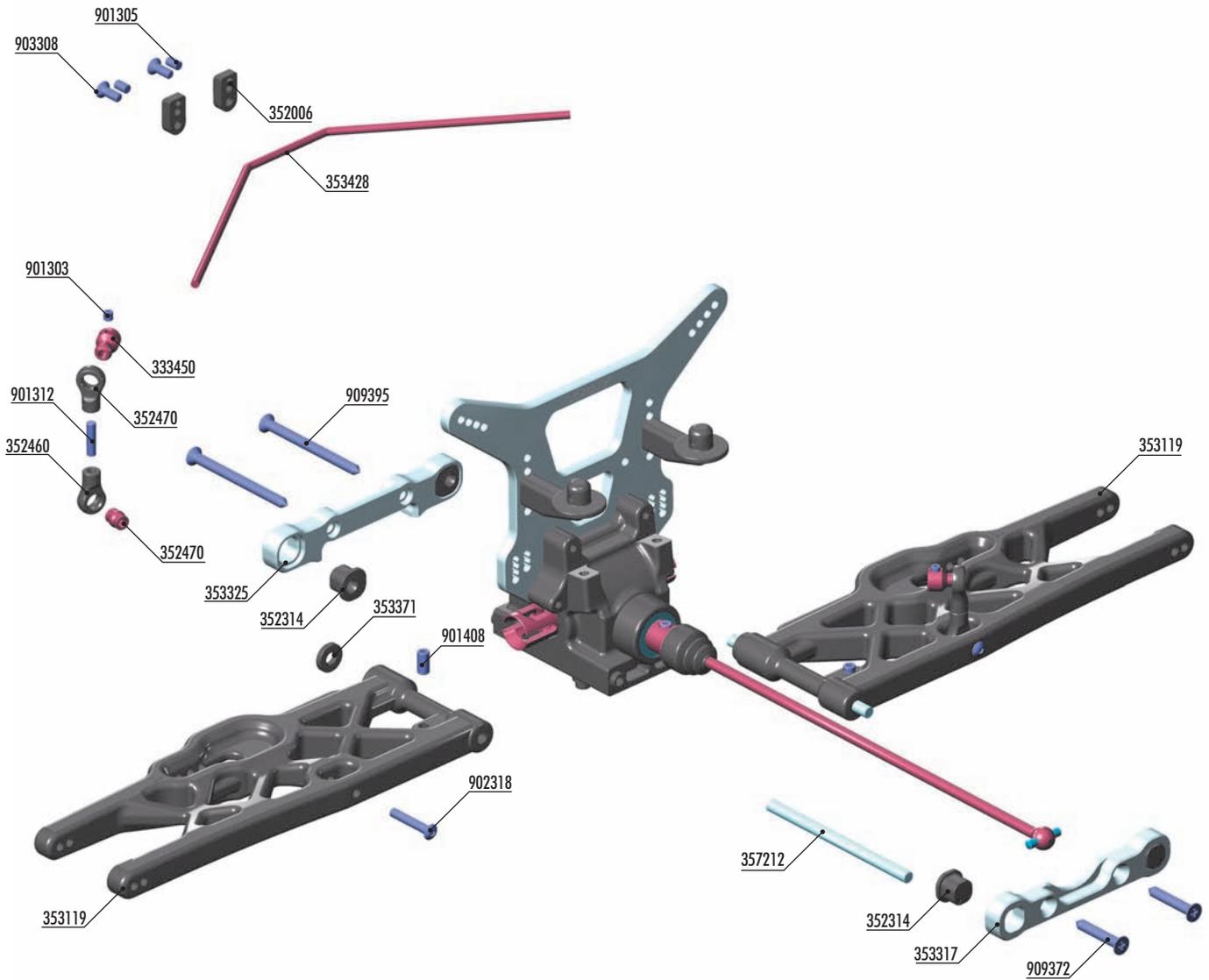


BEFORE inserting the clip on the central CVD shaft joint, apply a small amount of threadlock on the area where the clip goes.

AFTER inserting the clip on the central CVD shaft joint, turn the clip so that the slot is 90° from the pin. This will prevent the pin from opening the clip.



3. REAR SUSPENSION



#902407
 HEX SCREW SH M4x7 WITH HEX FROM BOTTOM (4)
 OPTION

#333451
 ALU ANTI-ROLL BAR PIVOT BALL 5.8 MM
 - SWISS 7075 T6 - HARDCOATED (2)
 OPTION

REAR ANTI-ROLL BARS			
OPTION	#353418	ø1.8mm	OPTION
}	#353420	ø2.0mm	OPTION
	#353422	ø2.2mm	OPTION
	#353424	ø2.4mm	OPTION
	#353425	ø2.5mm	OPTION
	#353426	ø2.6mm	OPTION
	#353428	ø2.8mm	INCLUDED
	#353430	ø3.0mm	OPTION



333450	ANTI-ROLL BAR BALL JOINT 5.8 MM (2)	901303	HEX SCREW SB M3x3 (10)
352006	DIFF BULKHEAD BLOCK SET FRONT/REAR	901305	HEX SCREW SB M3x5 (10)
352314	COMPOSITE ECCENTRIC BUSHINGS - V2 (2)	901312	HEX SCREW SB M3x12 (10)
352460	PIVOT BALL 5.8 (10)	901408	HEX SCREW SB M4x8 (10)
352470	BALL JOINT 5.8 (8)	902318	HEX SCREW SH M3x18 (10)
353119	COMPOSITE REAR LOWER SUSPENSION ARM	903308	HEX SCREW SFH M3x8 (10)
353317	ALU REAR LOWER SUSP. HOLDER - FRONT - SQUARE ADJ. ROLL CENTER	909372	SCREW PHILLIPS SS 3.5x22 (10)
353325	ALU REAR LOWER SUSP. HOLDER - REAR - SQUARE ADJ. ROLL CENTER	909395	SCREW PHILLIPS SS 3.5x45 (10)
353371	SET OF COMPOSITE LOWER ARM SHIMS		
353428	REAR ANTI-ROLL BAR 2.8MM		
357212	LOWER INNER PIVOT PIN F+R (2)		

3. REAR SUSPENSION



353371
SHIM 4x10x2



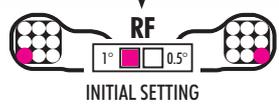
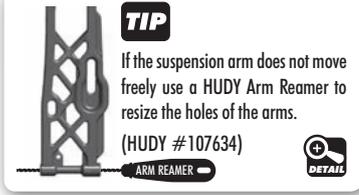
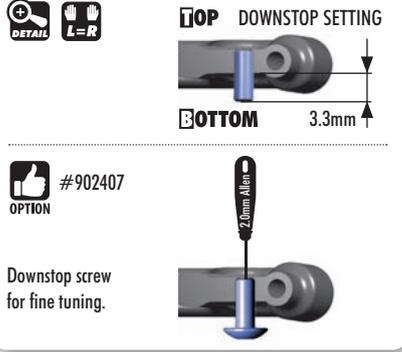
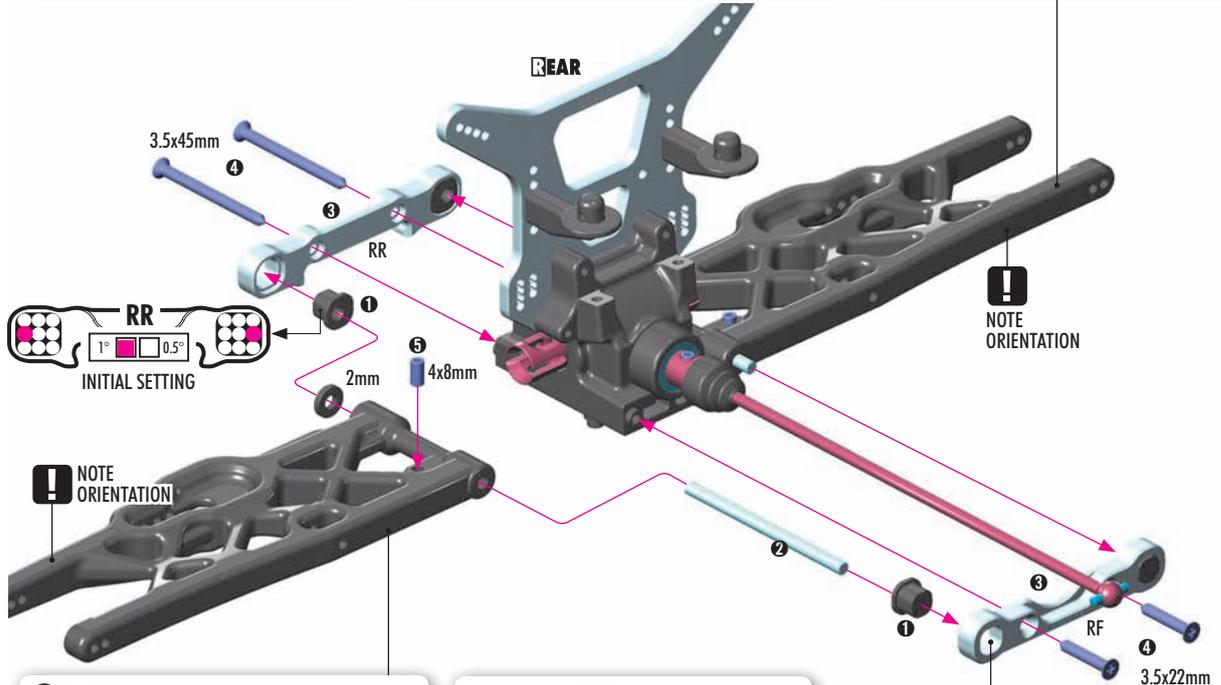
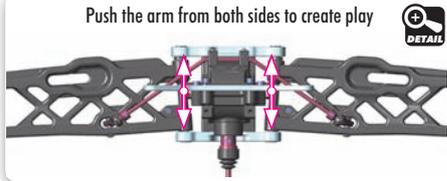
901408
SB M4x8



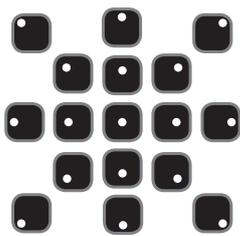
909372
SS 3.5x22



909395
SS 3.5x45



All possible mounting alternatives of eccentric bushings



ECCENTRIC BUSHINGS HAVE TWO DIFFERENT OFFSETS FROM THE CENTER.

Middle position = 0.5 mm or 0.5° from center Outer position = 1 mm or 1° from center

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

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

ANTI-SQUAT		
RR	RF	(°)
0	0	=3°
0	0.5	=4°
0	1	=2°
0.5	0	=4°
0.5	0.5	=3°
0.5	1	=5°
1	0	=2°
1	0.5	=3°
1	1	=1°

ROLL CENTER		
RR	RF	(mm)
0	0	=0mm
0	0.5	=1mm
0	1	=-1mm

TRACK-WIDTH		
RR	RF	(mm)
0	0	=308
0	0.5	=306
0	1	=310

TOE-IN		
RR	RF	(°)
0	0	=3°
0	0.5	=4°
0	1	=2°
0.5	0	=2°
0.5	0.5	=3°
0.5	1	=1°
1	0	=4°
1	0.5	=5°
1	1	=3°

The tables describe the amounts of rear anti-squat, rear toe-in, rear track-width change depending on the combinations of eccentric bushings used with 0 and 1mm, 1°, 0.5mm, 0.5° represents the half change.

Anti-Squat Example:

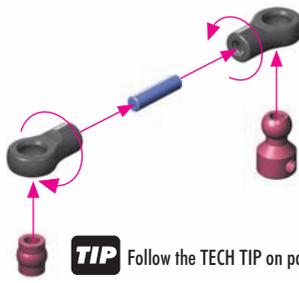
0(RR) - 0 (RF) = 3°		= 3°
0(RR) - 0.5 (RF) = 3.5°		= 3.5°
0(RR) - 1 (RF) = 4°		= 4°

3. REAR SUSPENSION

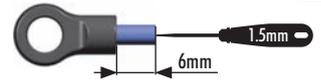


901312
SB M3x12

2x L-R



TIP Follow the TECH TIP on page 5 to install the pivot balls



DETAIL



901303
SB M3x3



901305
SB M3x5

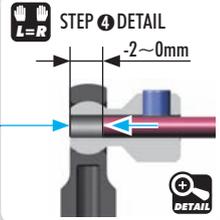
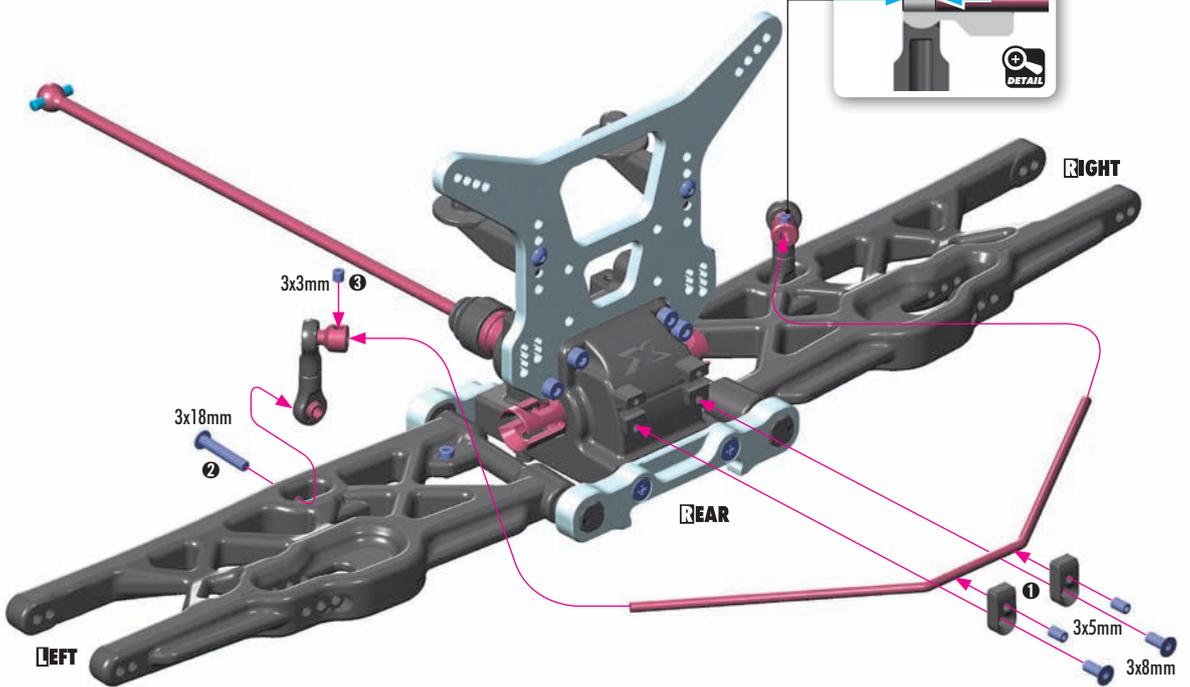


902318
SH M3x18



903308
SFH M3x8

L=R



STEP 4 DETAIL

L=R

-2~0mm

DETAIL

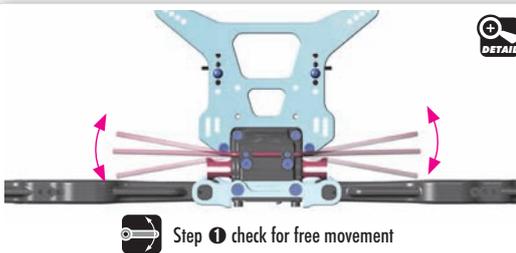
SET-UP BOOK
ANTI-ROLL BAR



OPTION

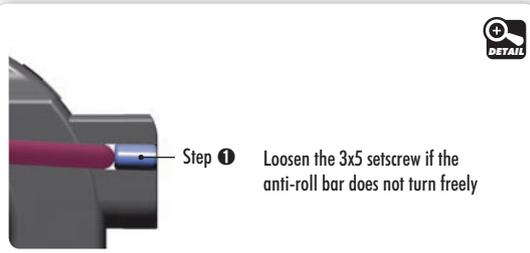
REAR ANTI-ROLL BARS

#353418	ø1.8mm	OPTION
#353420	ø2.0mm	OPTION
#353422	ø2.2mm	OPTION
#353424	ø2.4mm	OPTION
#353425	ø2.5mm	OPTION
#353426	ø2.6mm	OPTION
#353428	ø2.8mm	INCLUDED
#353430	ø3.0mm	OPTION



Step 1 check for free movement

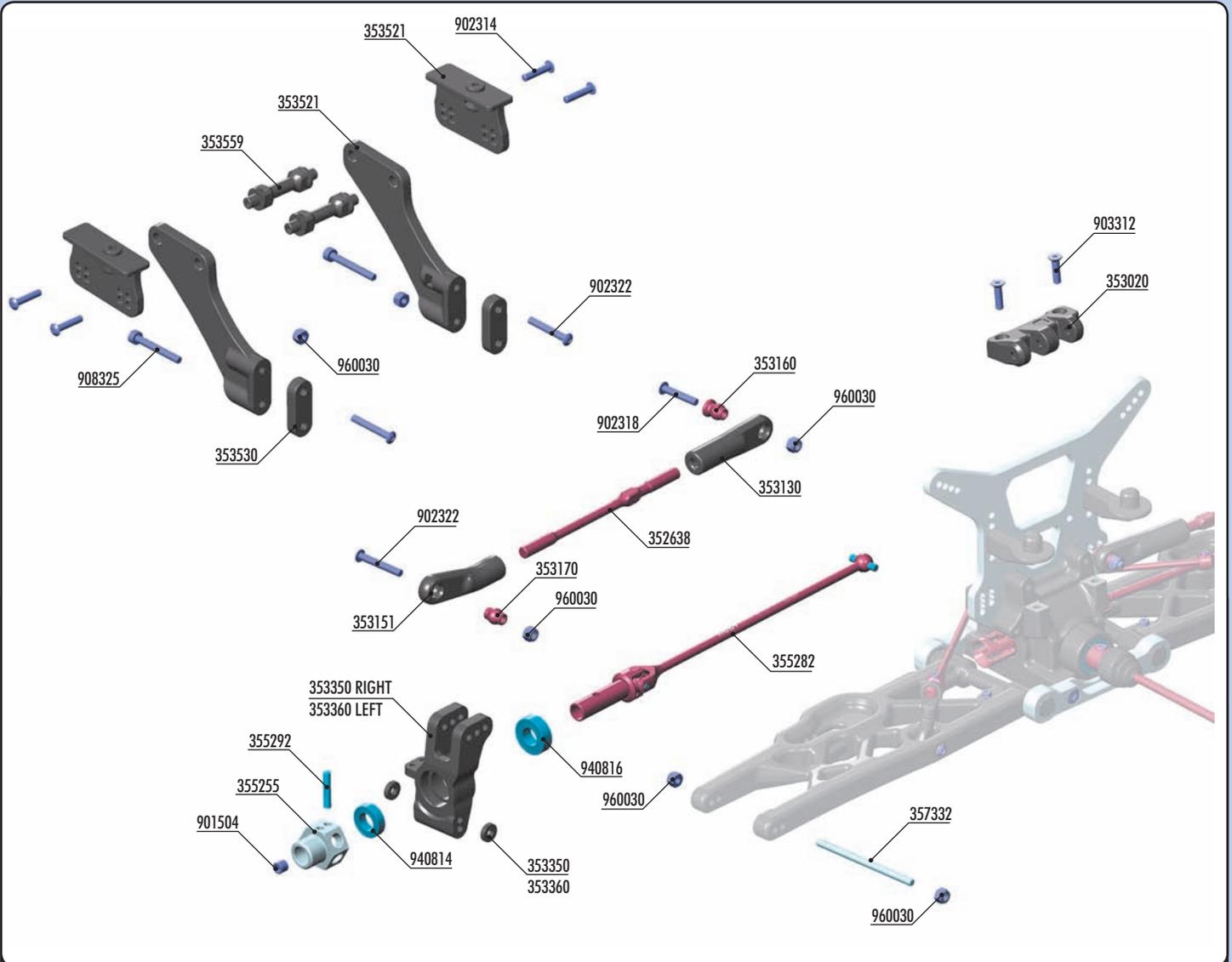
DETAIL



Step 1 Loosen the 3x5 setscrew if the anti-roll bar does not turn freely

DETAIL

4. REAR SUSPENSION



BAG

04

- 352638 ADJ. TURNBUCKLE M5 L/R 91 MM - HUDY SPRING STEEL™ (2)
- 353020 COMPOSITE REAR BRACE HOLDER
- 353130 REAR UPPER INNER CAMBER LINK BALL JOINT (2)
- 353151 RELIEF REAR UPPER OUTER CAMBER LINK BALL JOINT (2)
- 353160 MOUNTING BALL 6.8 (4)
- 353170 PIVOT BALL 6.8 (4)
- 353350 COMPOSITE REAR UPRIGHT - RIGHT
- 353360 COMPOSITE REAR UPRIGHT - LEFT
- 353521 REAR WING POSTS
- 353530 COMPOSITE ADJ. SHIM FOR REAR WING PLATE (2)
- 353559 COMPOSITE REAR WING MOUNT BRACE (2)
- 355282 XT8 UNIVERSAL DRIVE SHAFT - HUDY SPRING STEEL™
- 355255 ALU WHEEL AXLE OFFSET "+5MM" - HARDCOATED (2)

- 355292 PIN WITH FLAT SPOT 3x16.8 (2)
- 357332 REAR LOWER OUTER PIVOT PIN (2)
- 901504 HEX SCREW SB M5x4 (10)
- 902314 HEX SCREW SH M3x14 (10)
- 902318 HEX SCREW SH M3x18 (10)
- 902322 HEX SCREW SH M3x22 (10)
- 903312 HEX SCREW SH M3x12 (10)
- 908325 HEX SCREW SOCKET HEAD CAP M3x25 (10)
- 940814 HIGH-SPEED BALL-BEARING 8x14x4 BLUE COVERED (2)
- 940816 HIGH-SPEED BALL-BEARING 8x16x5 BLUE COVERED (2)
- 960030 NUT M3 (10)

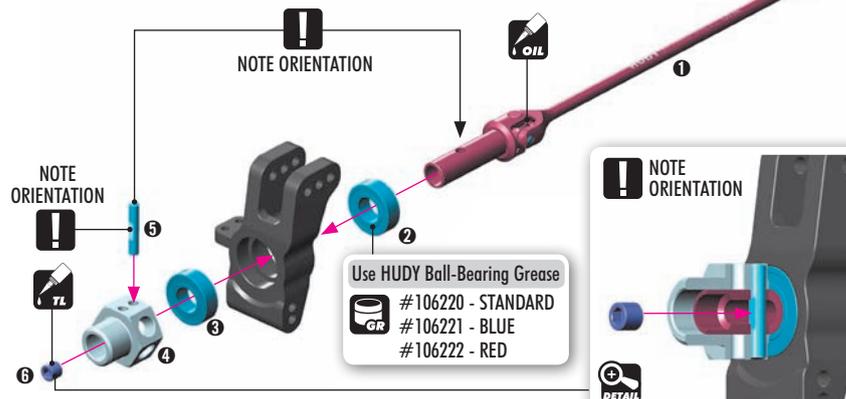


940816
BB 8x16x5



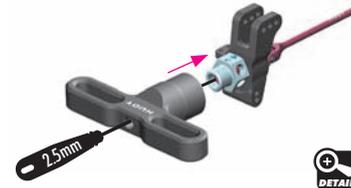
901504 SB M5x4
355292 P 3x17

2x **L=R**



OFFSET WHEEL AXLES			
OPTION	#355251	0mm	OPTION
	#355251	+1mm	OPTION
	#355252	+2mm	OPTION
	#355255	+5mm	INCLUDED

TIP To tighten the setscrew you can also use the HUDY 17mm Wheel Nut Tool #107570



4. REAR SUSPENSION

IO
353350
353360
SHIM 3x8x2

960030
N M3

2x **TIP** Ensure that the rear upright moves freely. If it does not move freely, use sandpaper to thin both wheelbase adjustment shims.

Shims for wheelbase adjustment

2mm
2mm

Do not overtighten the self-locking nut. Overtightening may result in suspension binding.

TIP If the rear upright does not move freely, use a HUDY Arm Reamer to resize the hole. (HUDY #107633)

ARM REAMER



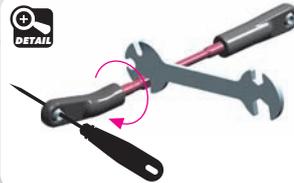
2x **L=R**

TIP Follow the TECH TIP on page 5 to install the pivot balls

RIGHT

LEFT THREAD

RIGHT THREAD



TIP Follow the TECH TIP on page 5 to install the pivot balls

LEFT

RIGHT THREAD

LEFT THREAD

Use tools to tighten as shown

Special Tool for all turnbuckles, nuts (HUDY #108090)

Right thread

RIGHT

Left thread

Left thread

LEFT

Right thread

57.8mm

57.8mm

SET-UP BOOK

CAMBER

902318
SH M3x18

902322
SH M3x22

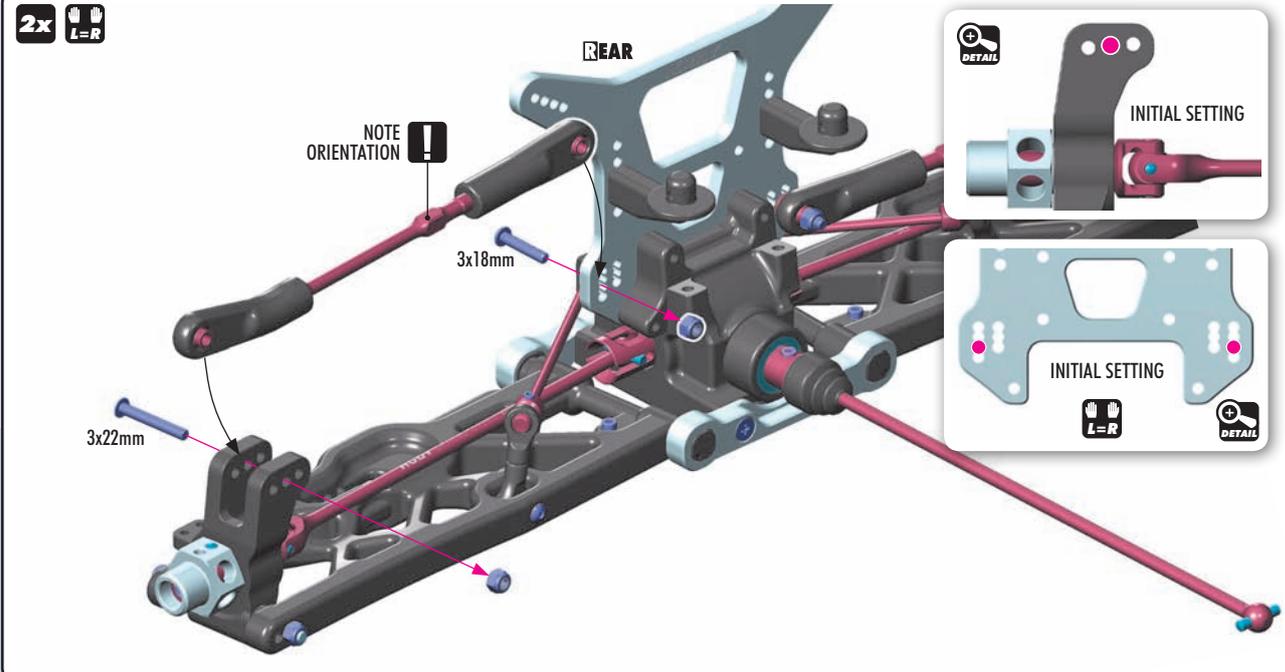
960030
N M3

2x **L=R**

NOTE ORIENTATION

3x18mm

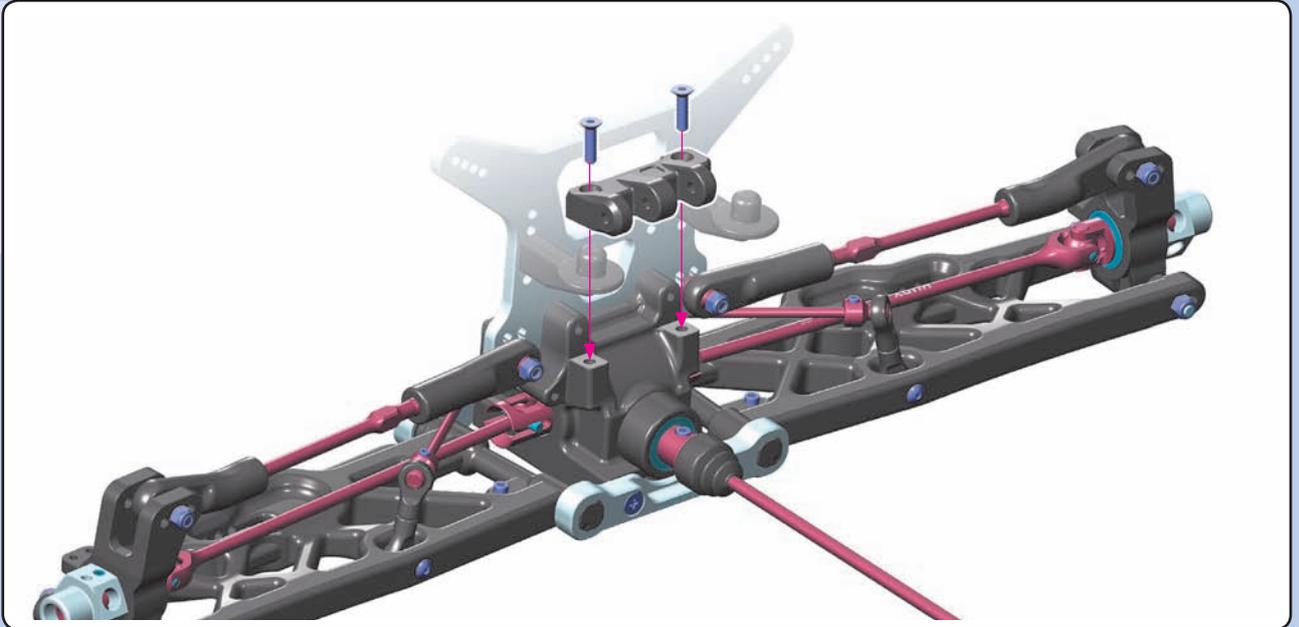
3x22mm



4. REAR SUSPENSION



903312
SFH M3x12



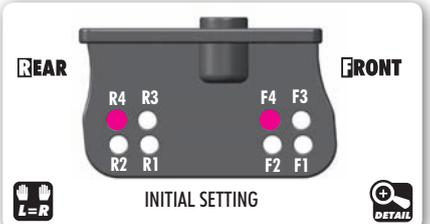
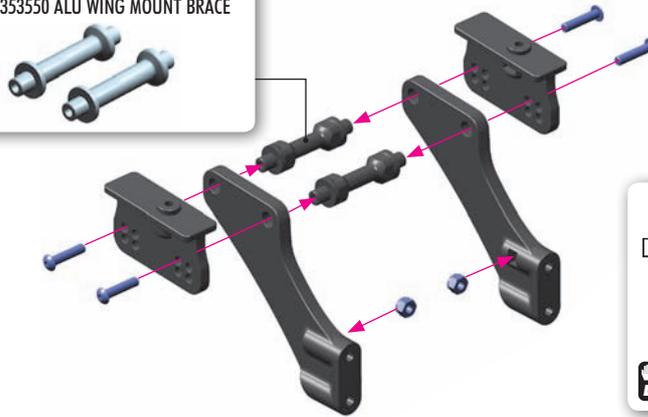
902314
SH M3x14



960030
N M3

2x

For stiffer wing mounting use
#353550 ALU WING MOUNT BRACE
OPTION



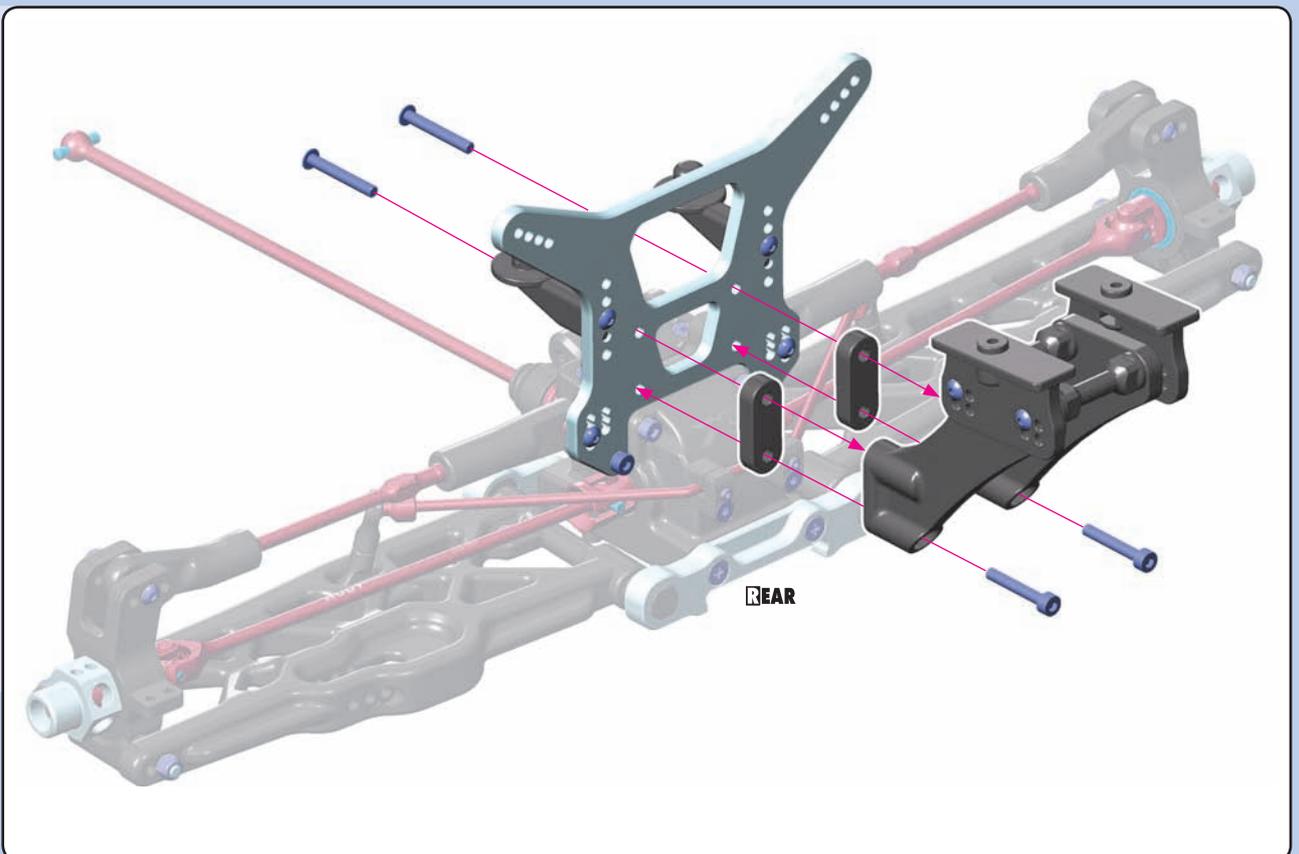
SET-UP BOOK
REAR WING



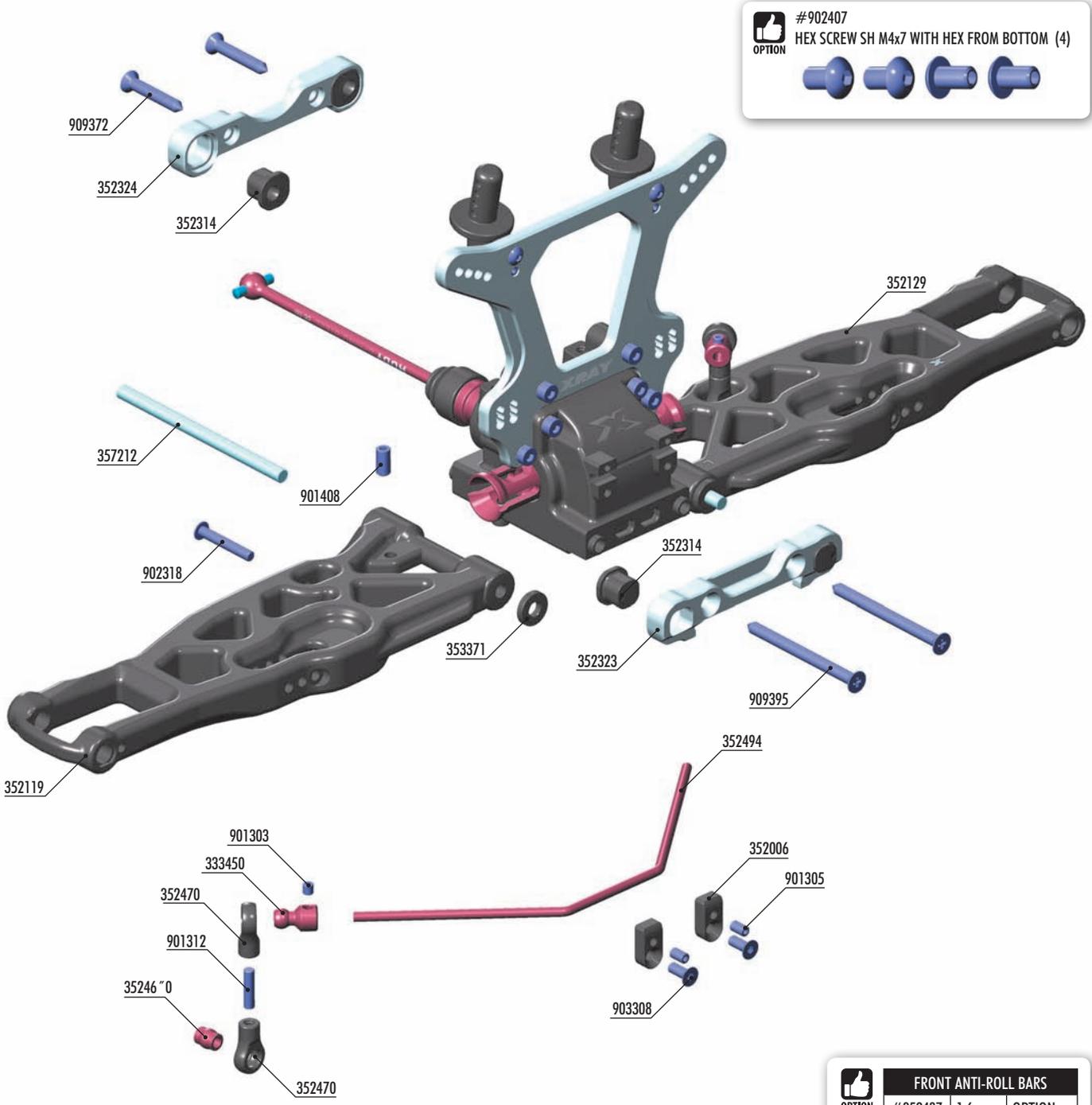
902322
SH M3x22



908325
SCH M3x25



5. FRONT SUSPENSION



#902407
OPTION **HEX SCREW SH M4x7 WITH HEX FROM BOTTOM (4)**

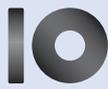
#333451
OPTION **ALU ANTI-ROLL BAR PIVOT BALL 5.8 MM - SWISS 7075 T6 - HARDCOATED (2)**

FRONT ANTI-ROLL BARS		
#352487	1.6mm	OPTION
#352489	1.8mm	OPTION
#352490	2.0mm	OPTION
#352492	2.2mm	OPTION
#352493	2.3mm	OPTION
#352494	2.4mm	INCLUDED
#352495	2.5mm	OPTION
#352496	2.6mm	OPTION



333450	ANTI-ROLL BAR BALL JOINT 5.8 MM (2)	357212	LOWER INNER PIVOT PIN F+R (2)
352006	DIFF BULKHEAD BLOCK SET FRONT/REAR	901303	HEX SCREW SB M3x3 (10)
352119	XT8 COMPOSITE FRONT LOWER SUSPENSION ARM RIGHT	901305	HEX SCREW SB M3x5 (10)
352129	XT8 COMPOSITE FRONT LOWER SUSPENSION ARM LEFT	901312	HEX SCREW SB M3x12 (10)
352323	ALU FRONT LOWER SUSP. HOLDER - FRONT - SQUARE ADJ. ROLL CENTER - V2	901408	HEX SCREW SB M4x8 (10)
352324	ALU FRONT LOWER SUSP. HOLDER - REAR - SQUARE ADJ. ROLL CENTER - V2	902318	HEX SCREW SH M3x18 (10)
352314	COMPOSITE SQUARE ADJ. ROLL CENTER BUSHINGS - V2 (2)	903308	HEX SCREW SFH M3x8 (10))
352460	PIVOT BALL 5.8 (10)	909372	SCREW PHILLIPS SS 3.5x22 (10)
352470	BALL JOINT 5.8 (8)	909395	SCREW PHILLIPS SS 3.5x45 (10)
352494	FRONT ANTI-ROLL BAR 2.4MM		
353371	SET OF COMPOSITE LOWER ARM SHIMS		

5. FRONT SUSPENSION



353371
SHIM 4x10x2



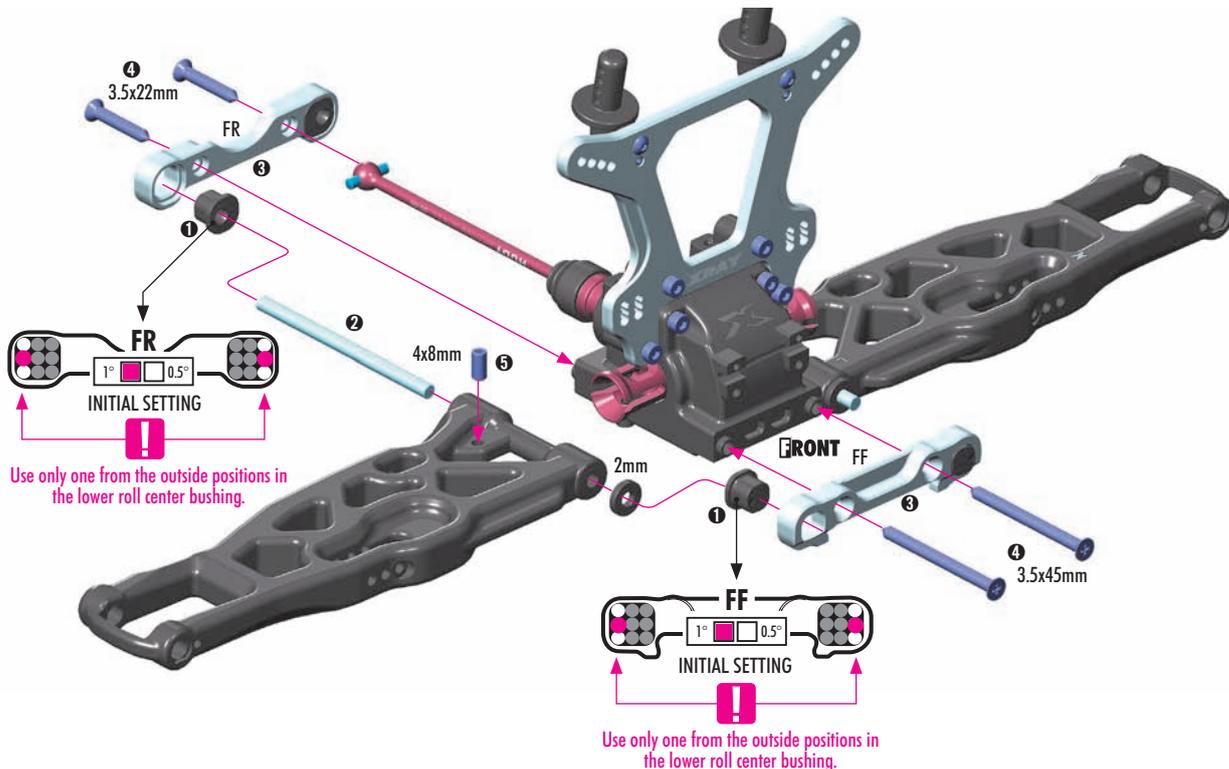
901408
SB M4x8



909372
SS 3.5x22



909395
SS 3.5x45



TOP DOWNSTOP SETTING

BOTTOM 1.3mm

#902407
OPTION

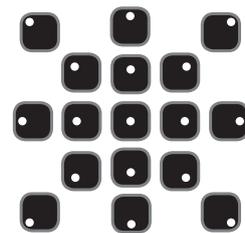
Downstop screw for fine tuning.

TIP L=R

If the suspension arms do not move freely, use a HUDY Arm Reamer to resize the holes. (HUDY #107634)

ARM REAMER

All possible mounting alternatives of eccentric bushings



FRONT ARM

REAR

FRONT

Push the arm from both sides to create play

Check for free movement

SET-UP BOOK
KICK UP
ROLL CENTER DOWNSTOP
WHEELBASE
TRACK-WIDTH

The new XRAY alu front lower suspension holders provide even greater range of adjustment for the front suspension. Using different combinations of eccentric bushings, you can obtain fine adjustment of front kick-up and roll center. For more information about the influence of kick-up and roll centers on car handling, please refer to HUDY Off-Road Set-up Book (#209099).

KICK-UP		
FF	FR	(°)
		=6°
		=5°
		=7°
		=5°
		=4°
		=6°
		=7°
		=6°
		=8°

ROLL-CENTER		
FF	FR	(mm)
		=1
		=0
		=-1

The tables below describe the amounts of kick-up, change depending on the combinations of eccentric bushings used with 0 and 1mm, 1° off set. The 0.5mm, 0.5° represent the half change.

Example:

0(FF) - 0(FR) = 6°		= 6°
0.5(FF) - 0(FR) = 6.5°		= 6.5°
1(FF) - 0(FR) = 7°		= 7°

TOTAL CASTER = C-HUB CASTER + CASTER ECCENTRIC BUSHING + KICK-UP					
C-Hub Caster	KICK-UP				
	4°	5°	6°	7°	8°
16°	20°	21°	22°	23°	24°
15°	19°	20°	21°	22°	23°
14°	18°	19°	20°	21°	22°

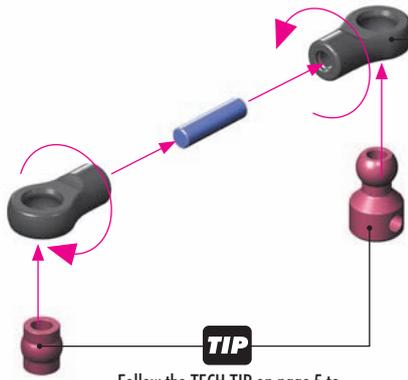
Total caster is the angle that the C-hub is to the flat chassis bottom. Caster is affected not only by front kick up but also by the C-hub caster and caster eccentric bushing. The combination of all three represents the total caster angle. The XT8 includes a 15°caster block with the centric bushing. 1 and 2mm eccentric bushings can be purchased as options.

5. FRONT SUSPENSION



901312
SB M3x12

2x L=R



TIP

Follow the TECH TIP on page 5 to install the pivot balls



901303
SB M3x3



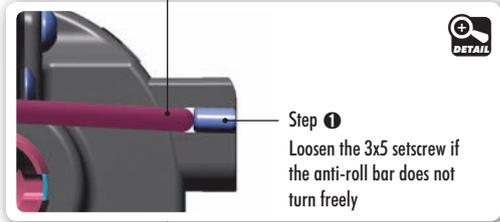
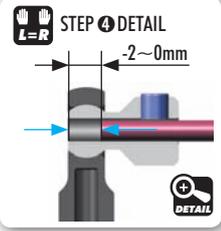
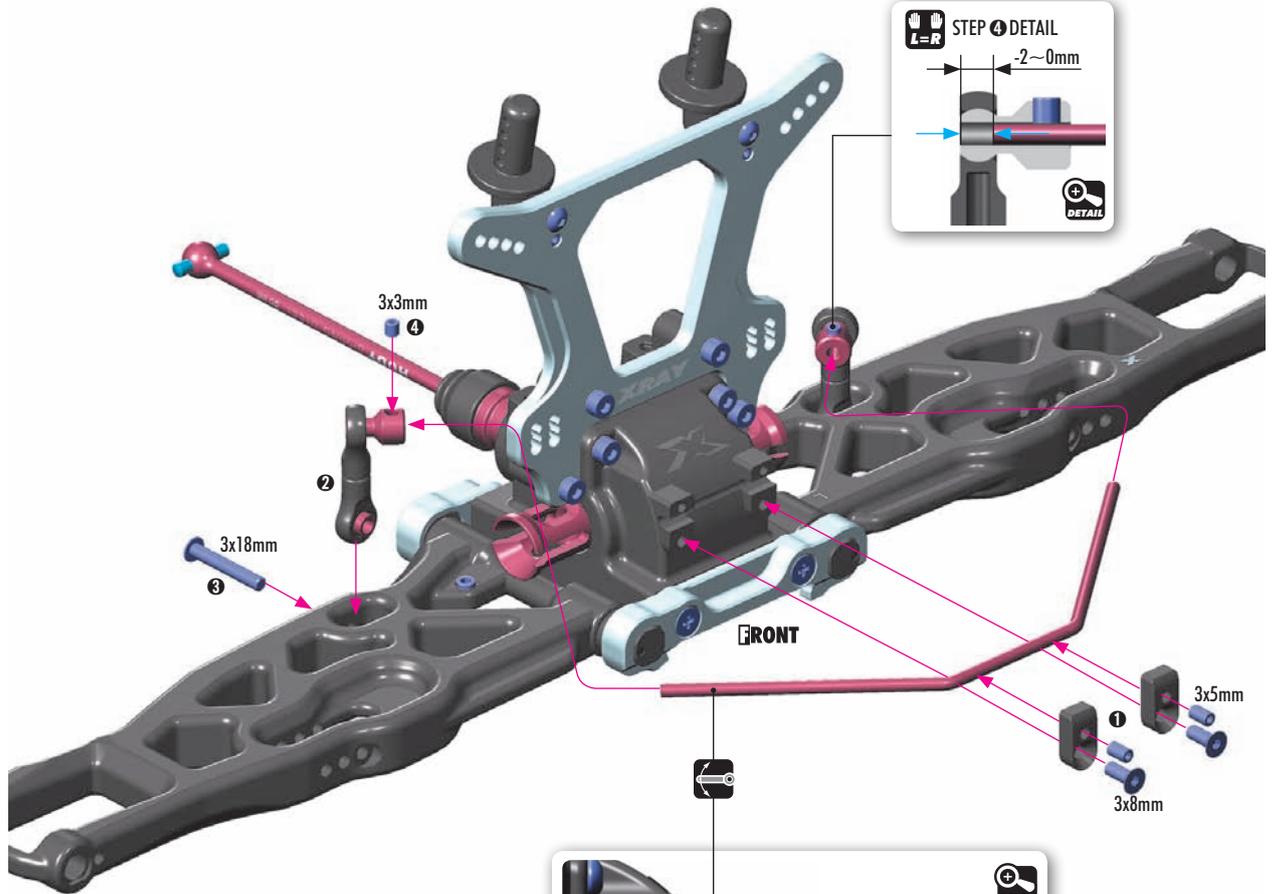
901305
SB M3x5



902318
SH M3x18



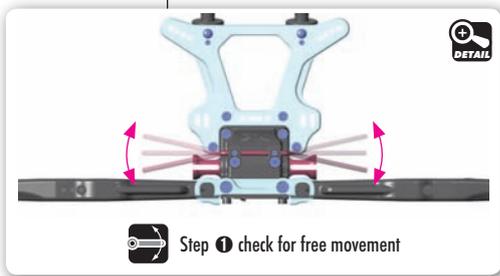
903308
SFH M3x8



Step 1
Loosen the 3x5 setscrew if the anti-roll bar does not turn freely



FRONT ANTI-ROLL BARS		
#352487	1.6mm	OPTION
#352489	1.8mm	OPTION
#352490	2.0mm	OPTION
#352492	2.2mm	OPTION
#352493	2.3mm	OPTION
#352494	2.4mm	INCLUDED
#352495	2.5mm	OPTION
#352496	2.6mm	OPTION

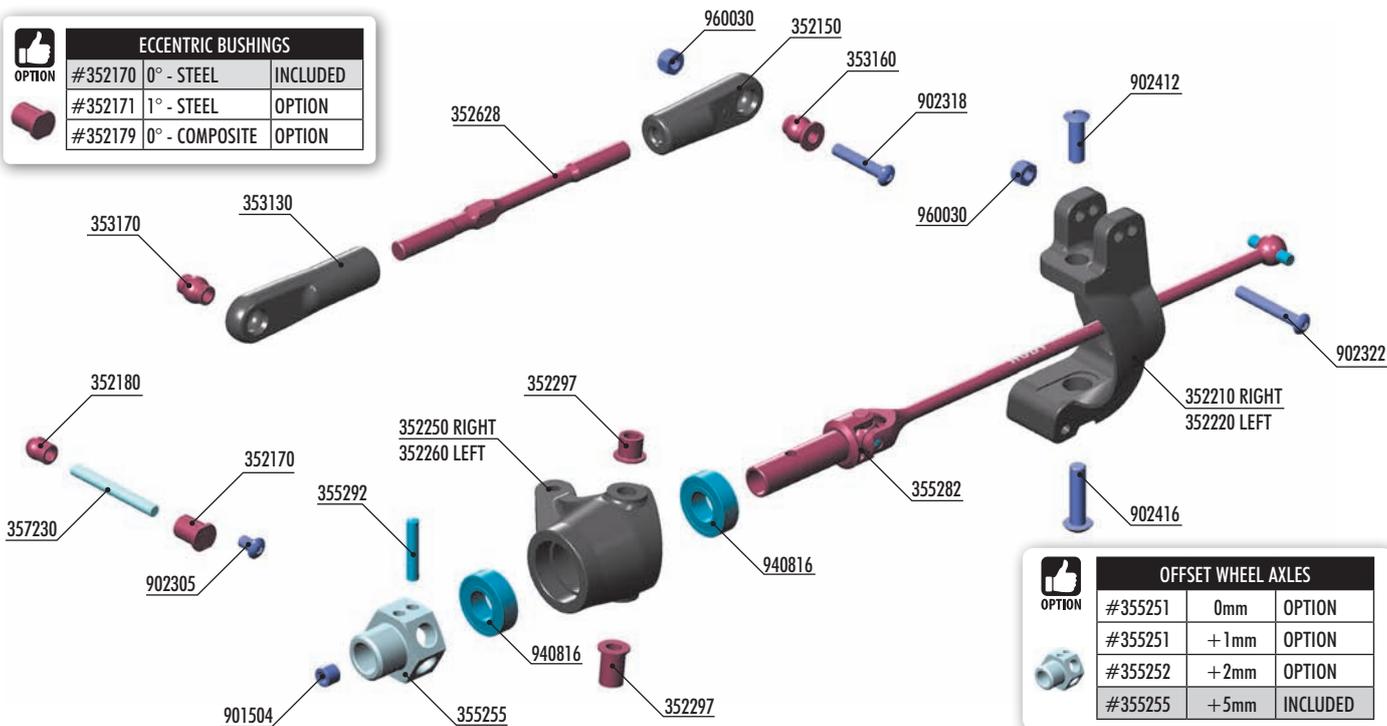


Step 1 check for free movement

SET-UP BOOK
ANTI-ROLL BAR

6. FRONT SUSPENSION

ECCENTRIC BUSHINGS		
 OPTION	#352170	0° - STEEL INCLUDED
	#352171	1° - STEEL OPTION
	#352179	0° - COMPOSITE OPTION



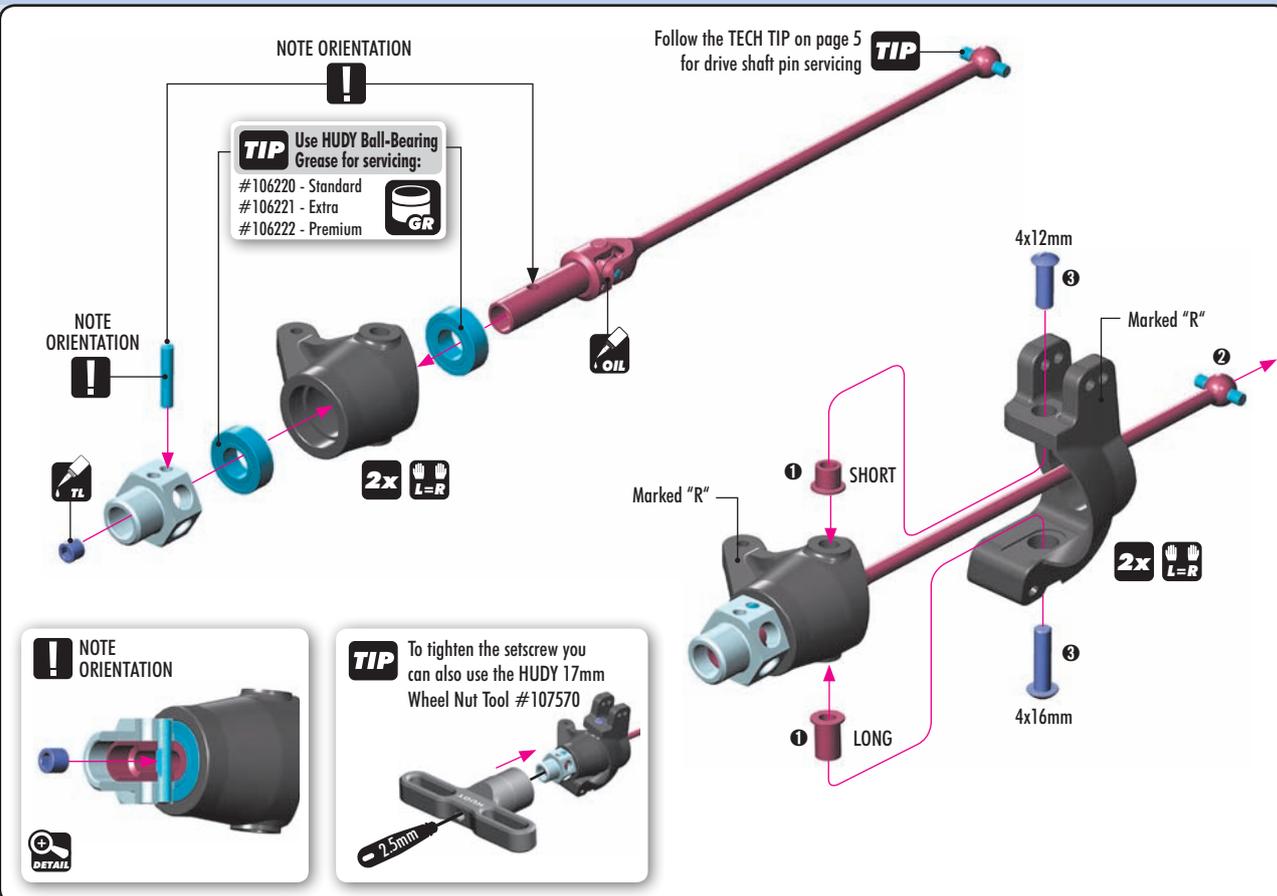
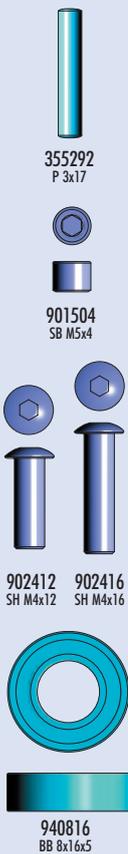
OFFSET WHEEL AXLES		
 OPTION	#355251	0mm OPTION
	#355251	+1mm OPTION
	#355252	+2mm OPTION
	#355255	+5mm INCLUDED

BAG



- 352150 FRONT UPPER ARM BALL JOINT (2)
- 352170 STEEL ECCENTRIC BUSHING 0° (2)
- 352180 BALL MOUNT (2)
- 352210 COMPOSITE C-HUB RIGHT
- 352220 COMPOSITE C-HUB LEFT
- 352250 STEERING BLOCK RIGHT - V2 (HAND MODIFIED)
- 352260 STEERING BLOCK LEFT - V2 (HAND MODIFIED)
- 352297 STEEL STEERING BUSHING - LONG (2+2)
- 352628 XT8 ADJ. TURNBUCKLE M5 L/R 75 MM - SPRING STEEL (2)
- 353130 REAR UPPER INNER CAMBER LINK BALL JOINT (2)
- 353160 MOUNTING BALL 6.8 (4)
- 353170 PIVOT BALL 6.8 (4)
- 355255 ALU WHEEL AXLE OFFSET "+5MM" - HARDCOATED (2) - LIGHTWEIGHT

- 355282 XT8 UNIVERSAL DRIVE SHAFT - HUDY SPRING STEEL™
- 355292 PIN WITH FLAT SPOT 3x16.8 (2)
- 357230 FRONT LOWER OUTER PIVOT PIN (2)
- 901504 HEX SCREW SB M5x4 (10)
- 902305 HEX SCREW SH M3x5 (10)
- 902318 HEX SCREW SH M3x18 (10)
- 902322 HEX SCREW SH M3x22 (10)
- 902412 HEX SCREW SH M4x12 (10)
- 902416 HEX SCREW SH M4x16 (10)
- 940816 HIGH-SPEED BALL-BEARING 8x16x5 BLUE COVERED (2)
- 960030 NUT M3 (10)



6. FRONT SUSPENSION



2x L=R



TIP Press pivot ball into arm until it snaps into place

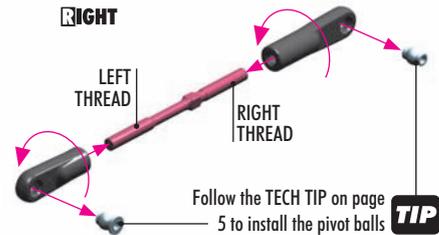
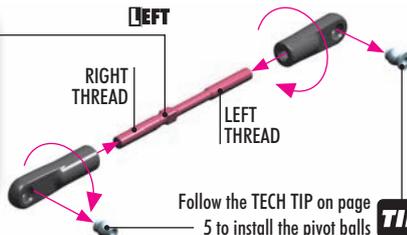


ECCENTRIC BUSHINGS			
OPTION	#352170	0° - STEEL	INCLUDED
	#352171	1° - STEEL	OPTION
	#352179	0° - COMPOSITE	OPTION

The caster bushing influences the total caster of the car. Please see page 19. **!**

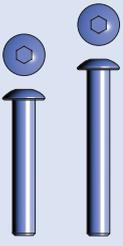


Use tools to tighten as shown



SET-UP BOOK

CAMBER

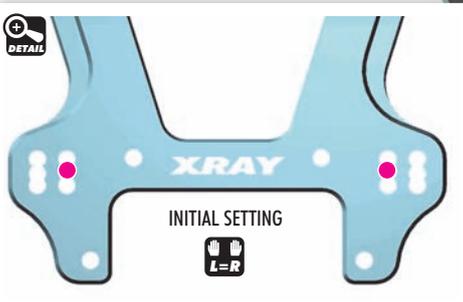
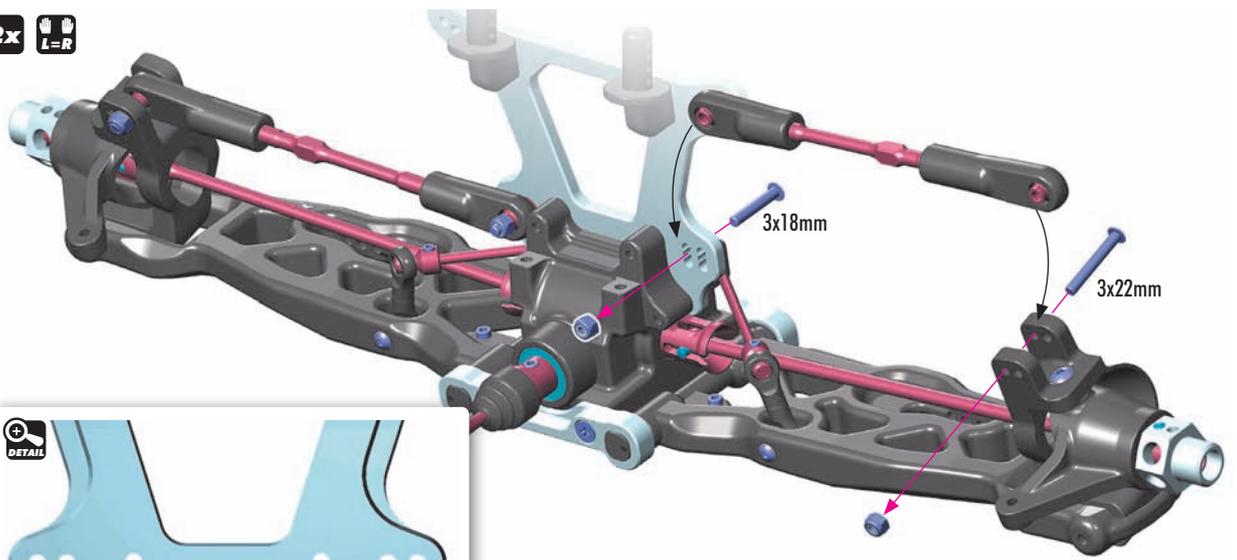


902318 SH M3x18 902322 SH M3x22



960030 N M3

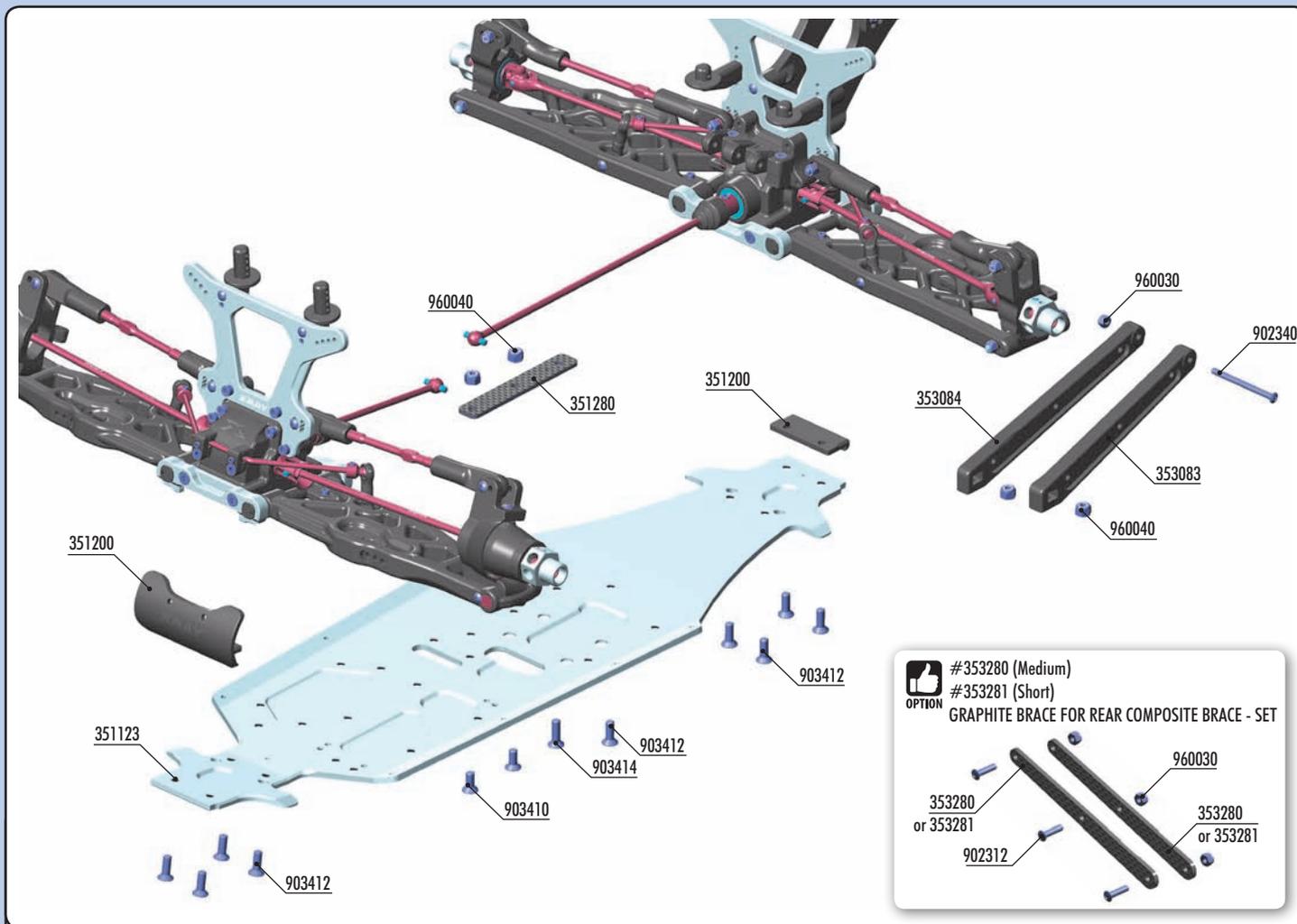
2x L=R



SET-UP BOOK

ROLL CENTER

6. FRONT & REAR ASSEMBLY



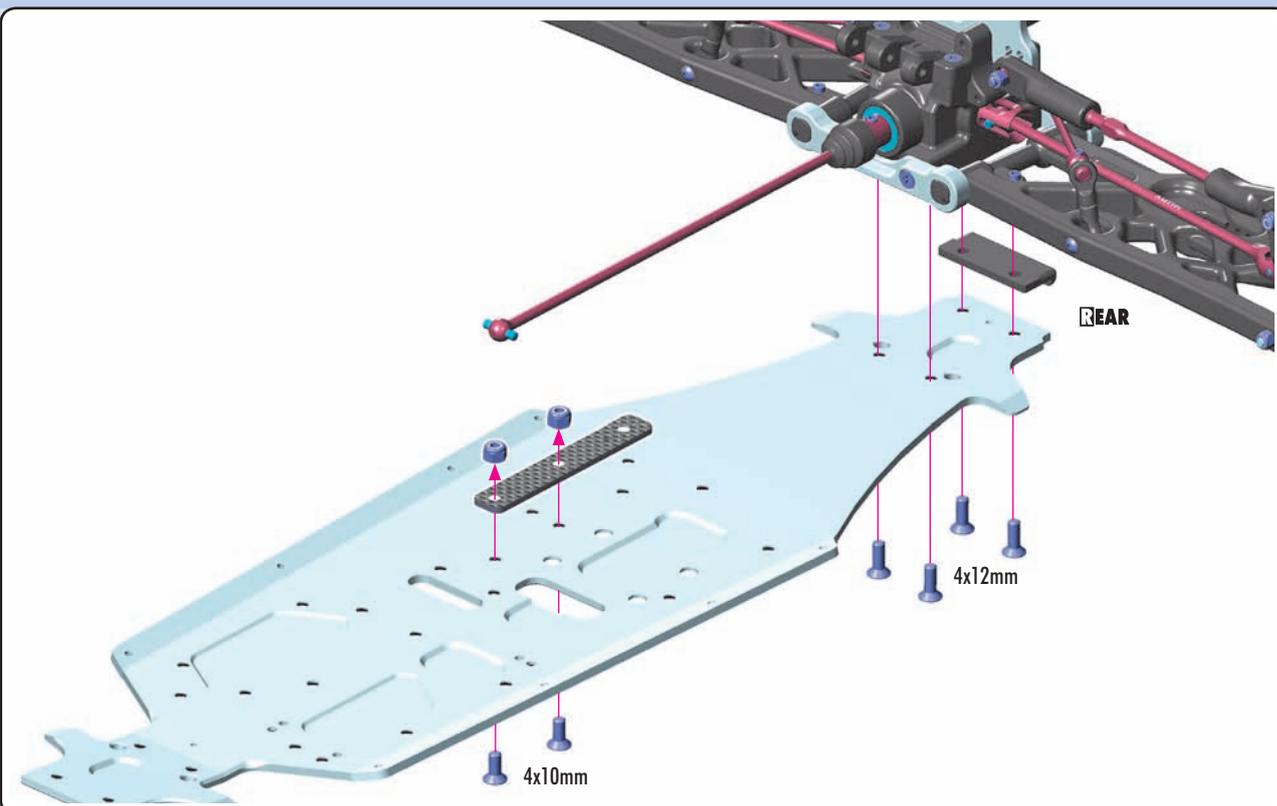
- 351123 XT8 ALU CHASSIS - HARDCOATED SWISS 7075 T6 (3MM)
- 351200 FRONT & REAR BUMPER - V2
- 351280 XT8 GRAPHITE CHASSIS STIFFENER
- 353083 COMPOSITE REAR BRACE - SHORT
- 353084 COMPOSITE REAR BRACE - MEDIUM

- 902340 HEX SCREW SH M3x40 (10)
- 903410 HEX SCREW SFH M4x10 (10)
- 903412 HEX SCREW SFH M4x12 (10)
- 903414 HEX SCREW SFH M4x14 (10)
- 960030 NUT M3 (10)
- 960040 NUT M4 (10)

OPTION

#353280 (Medium)
#353281 (Short)
GRAPHITE BRACE FOR REAR COMPOSITE BRACE - SET

- 903410 SFH M4x10
- 903412 SFH M4x12
- 960040 N M4



6. FRONT & REAR ASSEMBLY



902340
SH M3x40



903412
SFH M4x12



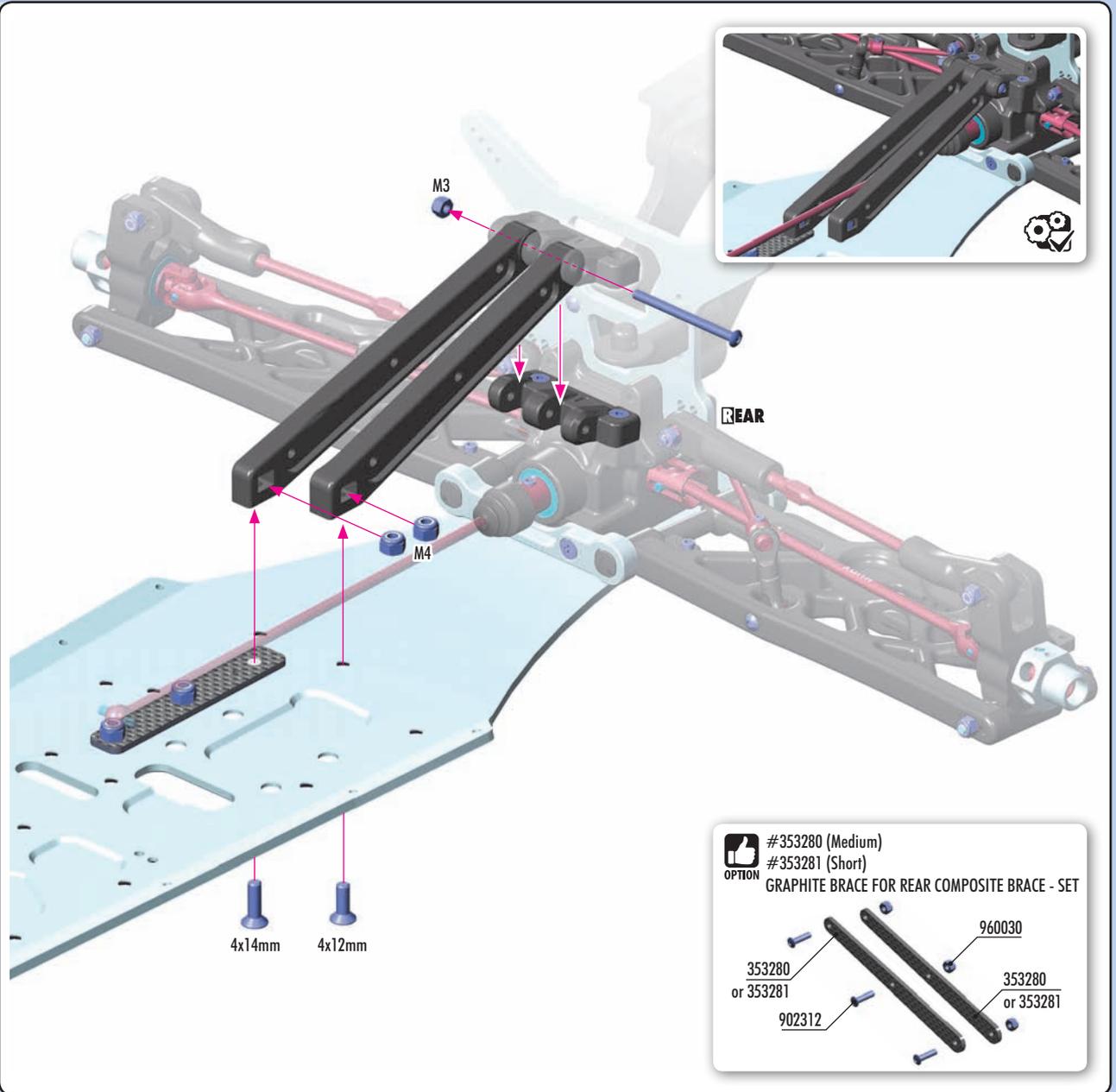
903414
SFH M4x14



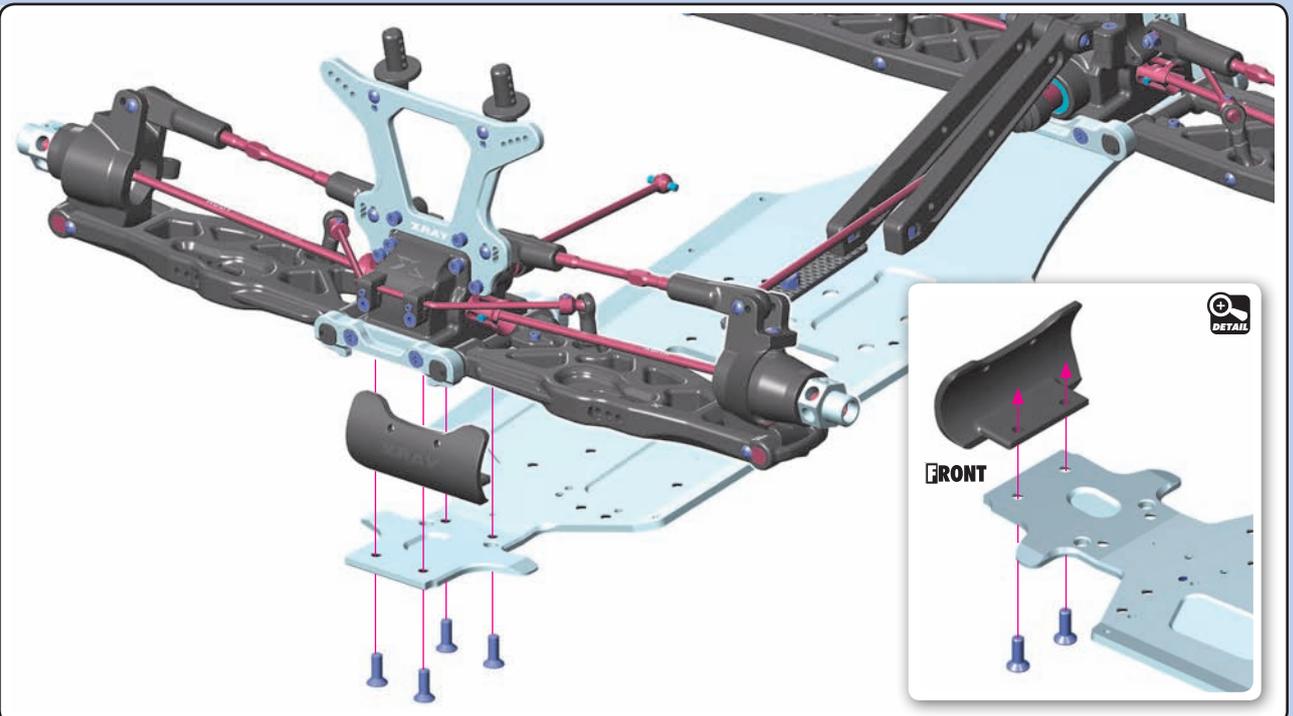
960030
N M3

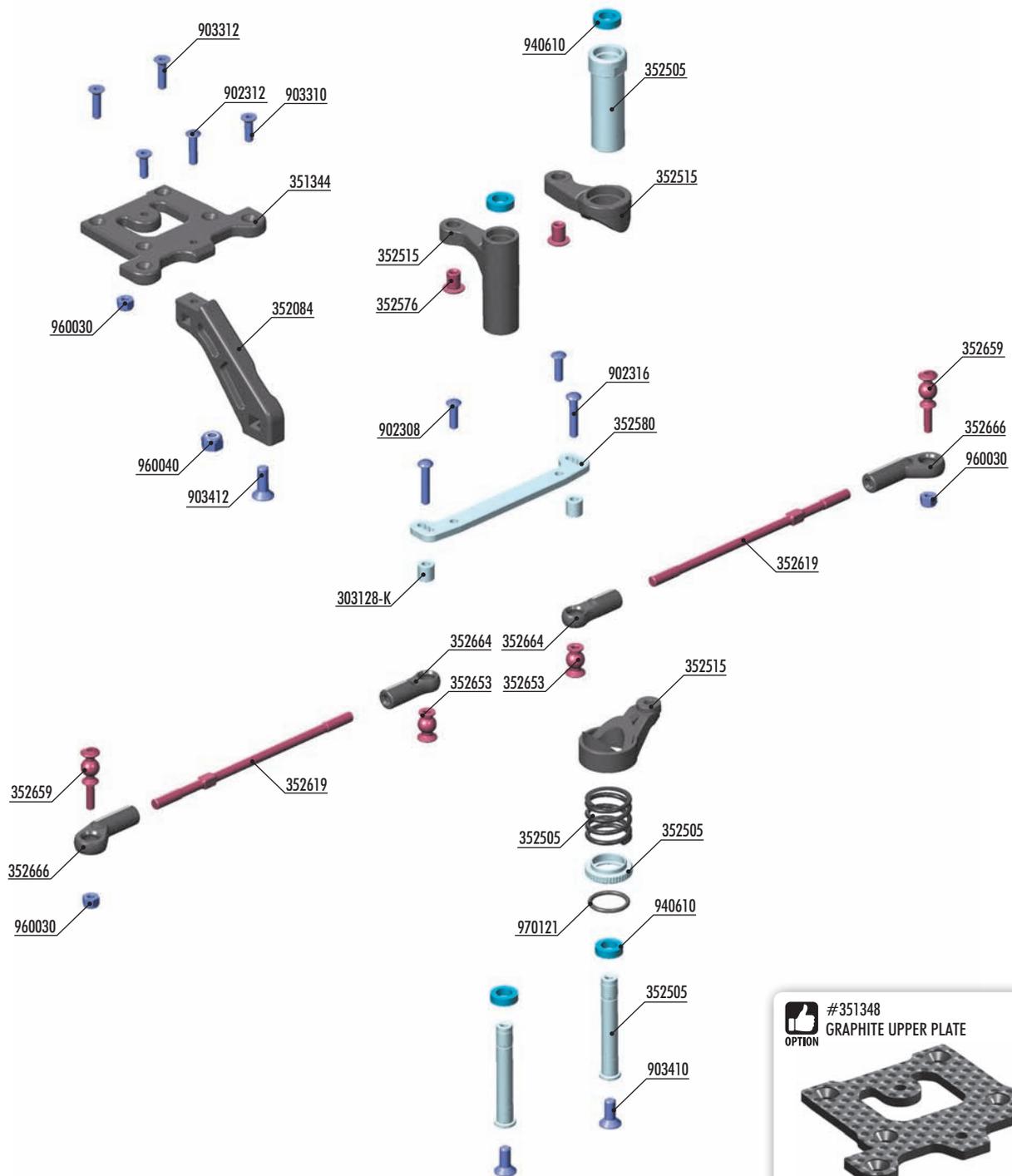


960040
N M4



903412
SFH M4x12





#351348
GRAPHITE UPPER PLATE
 OPTION

NOTE
 Must be used also 2pcs of #303136 shim 3x7x1mm.

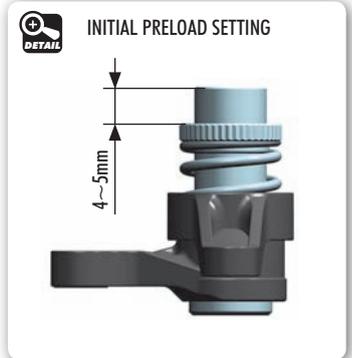
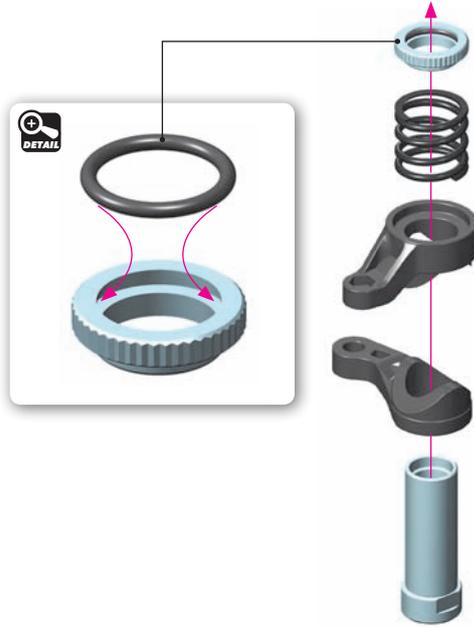
BAG
07

303128-K	ALU SHIM 3x6x6.0MM - BLACK (10)	902308	HEX SCREW SH M3x8 (10)
351344	COMPOSITE UPPER PLATE	902312	HEX SCREW SH M3x12 (10)
352084	COMPOSITE FRONT BRACE	902316	HEX SCREW SH M3x16 (10)
352505	SERVO SAVER COMPLETE SET - GRAPHITE	903310	HEX SCREW SFH M3x10 (10)
352515	XT8 COMPOSITE SERVO SAVER - GRAPHITE	903312	HEX SCREW SFH M3x12 (10)
352576	STEERING PLATE BUSHING (2)	903410	HEX SCREW SFH M4x10 (10)
352580	XT8 ALU STEERING PLATE - SWISS 7075 T6	903412	HEX SCREW SFH M4x12 (10)
352619	ADJ. TURNBUCKLE M4 L/R 91 MM - HUDY SPRING STEEL™ (2)	940610	HIGH-SPEED BALL-BEARING 6x10x3 BLUE COVERED (2)
352653	BALL STUD 6.8MM WITH BACKSTOP - M3 (2)	960030	NUT M3 (10)
352659	BALL STUD 6.8MM WITH BACKSTOP L=6MM - M3x11 (2)	960040	NUT M4 (10)
352664	COMPOSITE STEERING BALL JOINT 6.8MM - V3 (2)	970121	O-RING 12.1 x 1.6 (10)
352666	COMPOSITE RELIEF STEERING BALL JOINT 6.8MM (2)		

7. STEERING



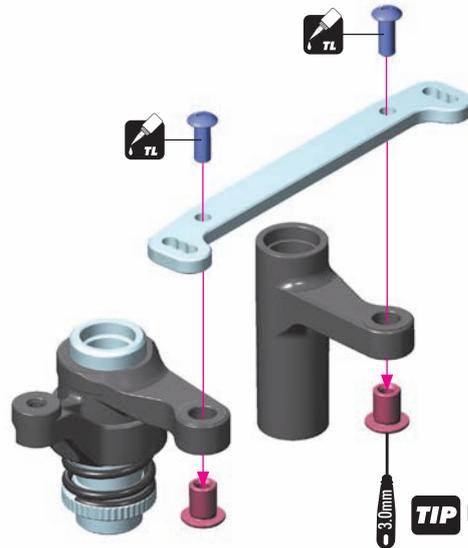
970121
O 12.1x1.6



SET-UP BOOK
SERVO SAVER



902308
SH M3x8

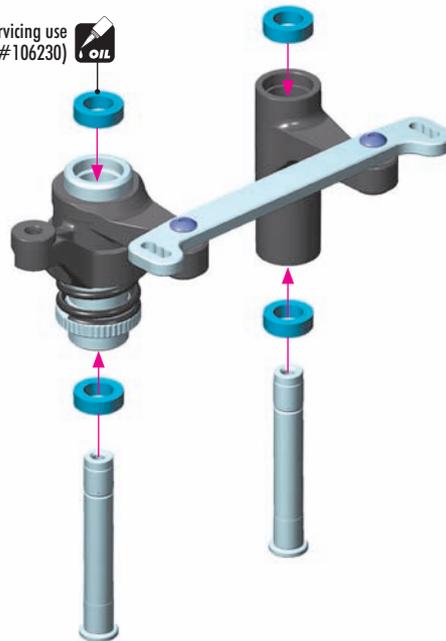


TIP HUDY Tool Allen 3.0mm



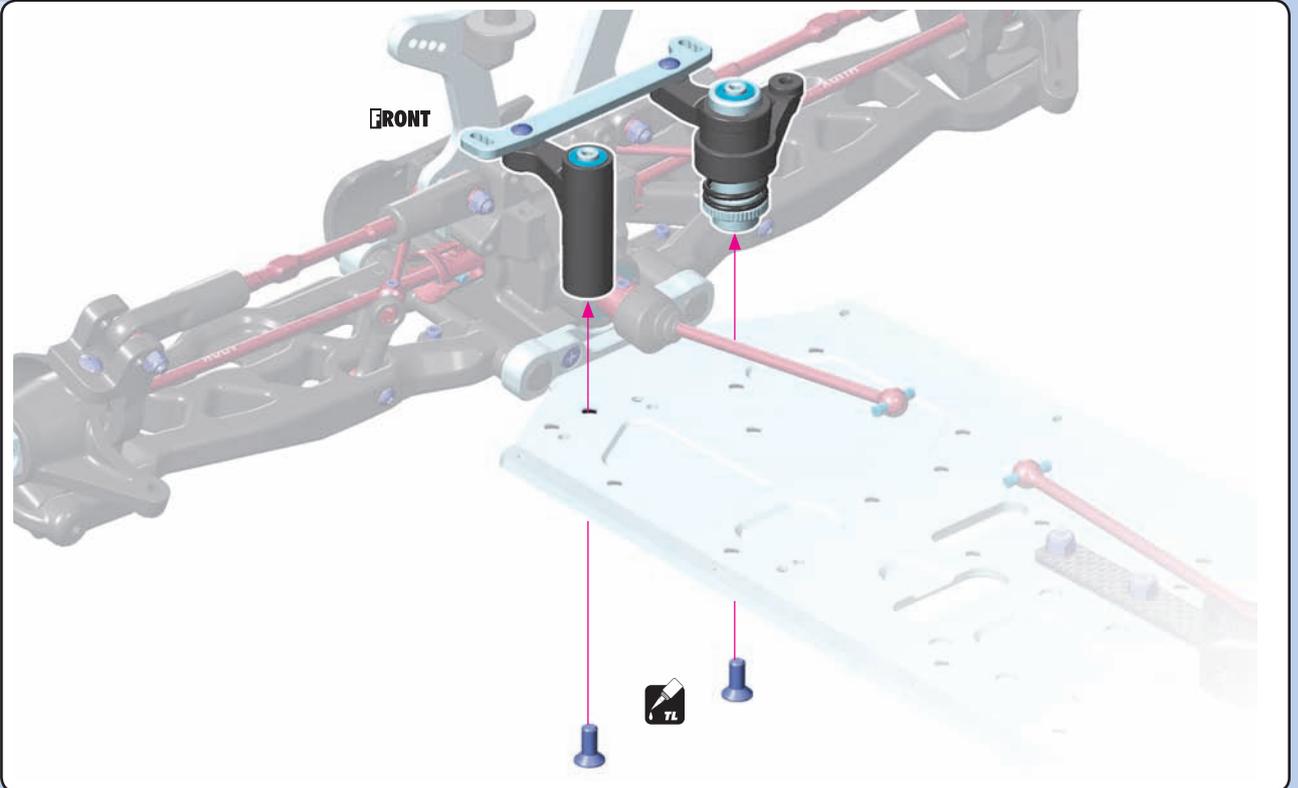
940610
BB 6x10x3

For servicing use
Bearing Oil (HUDY #106230)





903410
SFH M4x10



902312
SH M3x12



903310
SFH M3x10



903312
SFH M3x12



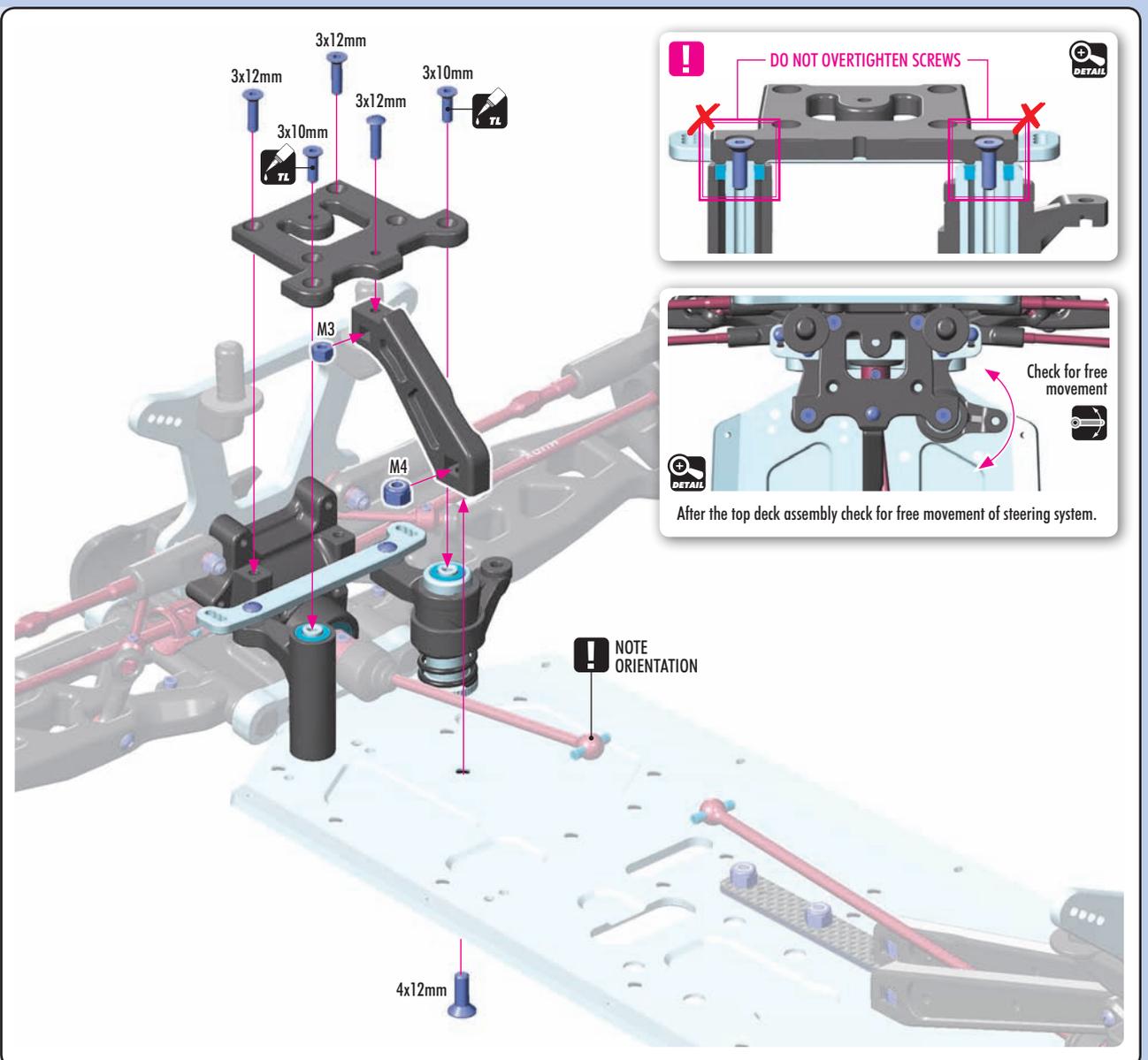
903412
SFH M4x12



960030
N M3

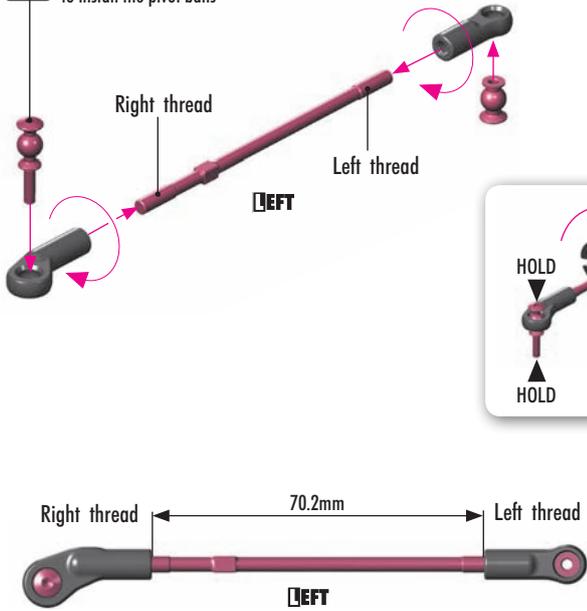


960040
N M4

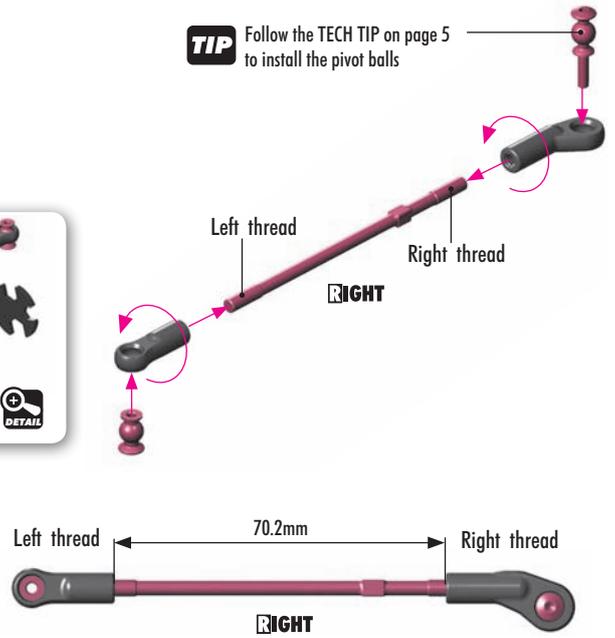


7. STEERING

TIP Follow the TECH TIP on page 5 to install the pivot balls

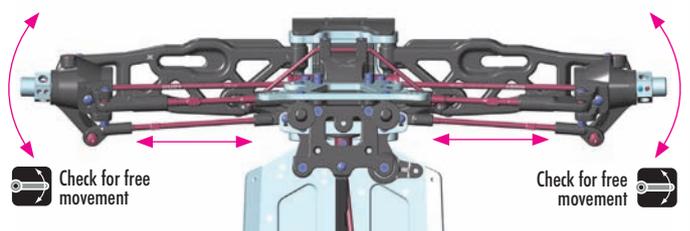
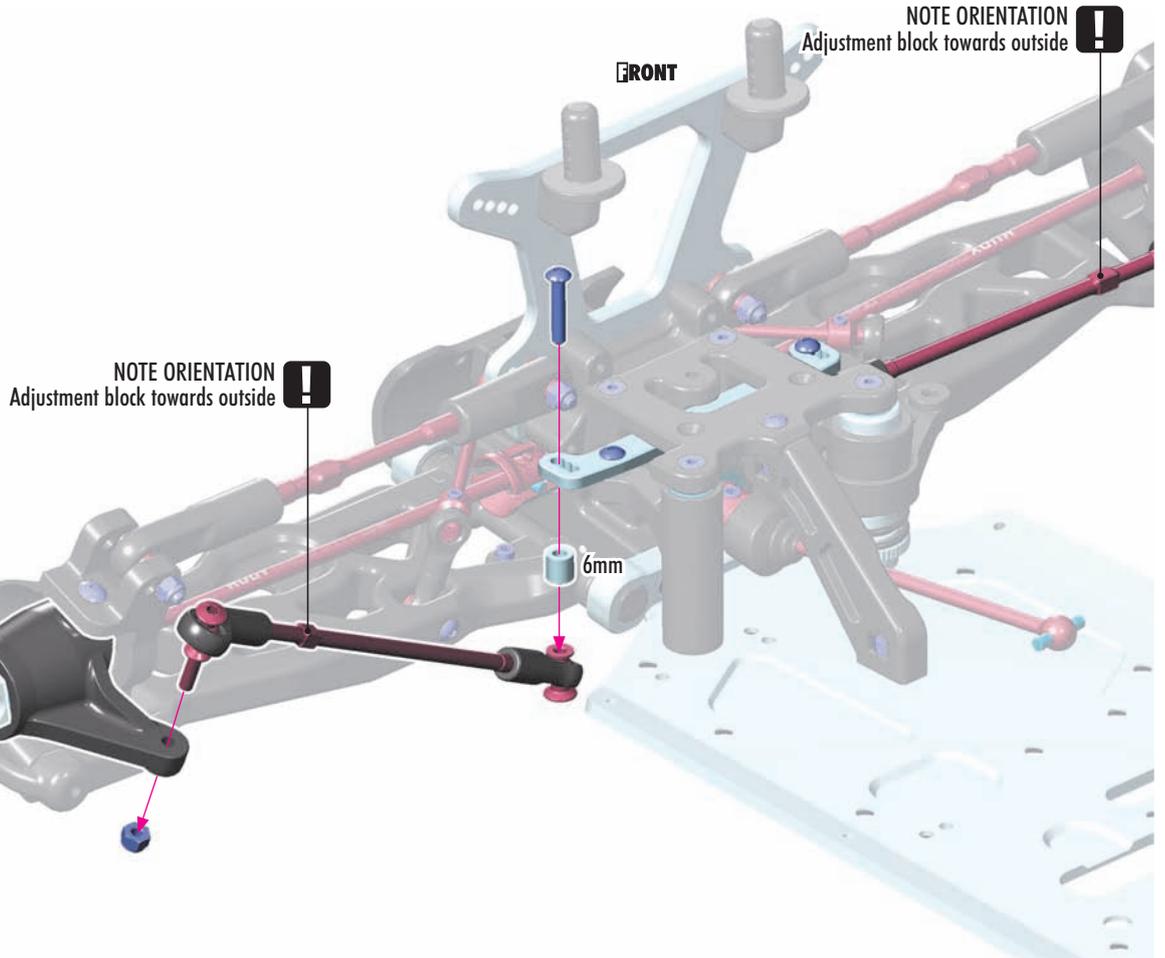


TIP Follow the TECH TIP on page 5 to install the pivot balls



2x

L=R



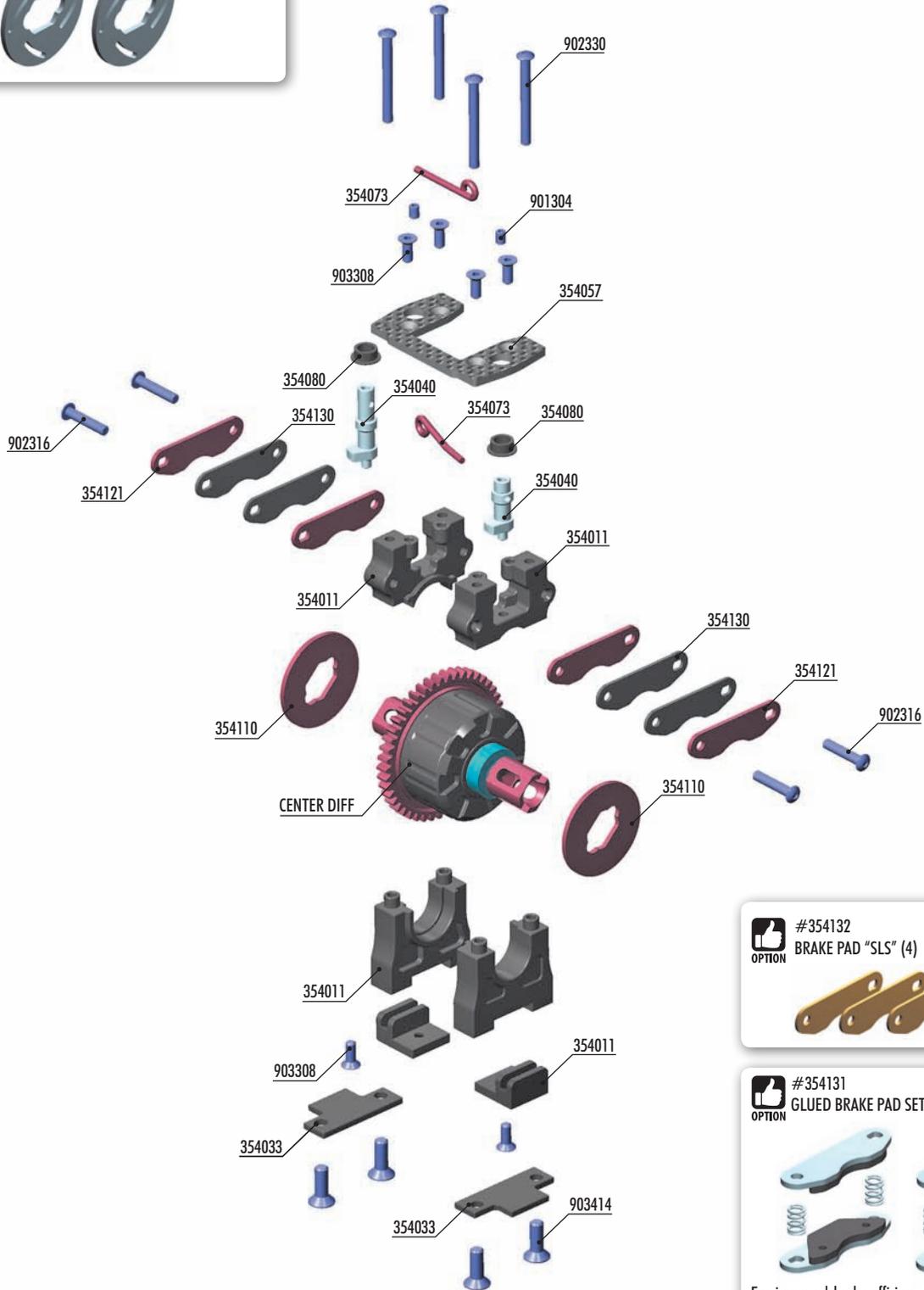
SET-UP BOOK

ACKERMANN
BUMP STEER
TOE-IN

8. CENTER DIFF & BRAKE



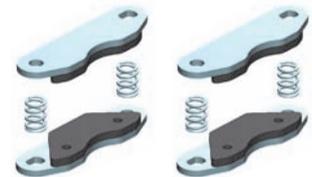
#354112
LIGHTWEIGHT VENTILATED BRAKE DISK - LASER
CUT - PRECISION-GROUND (2)



#354132
BRAKE PAD "SLS" (4)



#354131
GLUED BRAKE PAD SET-ULTRA EFFICIENT (4)



For improved brake efficiency and increased lifespan use the OPTIONAL brake pads with springs.

BAG

08

354011	CENTER DIFF MOUNTING PLATE - HIGHER - SET	354130	BRAKE PAD FIBER (4)
354033	COMPOSITE 2-SPEED HOLDER PLATE (2)	901304	HEX SCREW SB M3x4 (10)
354040	BRAKE CAM POST & ROD (2+2)	902316	HEX SCREW SH M3x16 (10)
354057	XT8 GRAPHITE CENTER DIFF MOUNTING PLATE	902330	HEX SCREW SH M3x30 (10)
354073	BRAKE CAME ROD (1+1)	903308	HEX SCREW SFH M3x8 (10)
354080	COMPOSITE BUSHING FOR DIFF MOUNTING PLATE (2)	903414	HEX SCREW SFH M4x14 (10)
354110	VENTILATED BRAKE DISK - LASER CUT - PRECISION-GROUND		
354121	STEEL BRAKE PAD - LASER CUT (4)		

8. CENTER DIFF & BRAKE

STEEL **2x** FIBRE FIBRE **2x** STEEL

TIP
Roughen steel plates with sandpaper before gluing fibre pads

NOTE ORIENTATION
TOP OVAL HOLE
BOTTOM ROUND HOLE

902316 SH M3x16

2x **F=R**

NOTE ORIENTATION
OVAL HOLE
ROUND HOLE

Fibre pads together

DETAIL
Temporarily insert brake disk between pads to set correct gap
0.5 mm

OPTION #354132 BRAKE PAD "SLS" (4)

OPTION #354131 GLUED BRAKE PAD SET-ULTRA EFFICIENT (4)

For improved brake efficiency and increased lifespan use the OPTIONAL brake pads with springs.

901304 SB M3x4

903308 SFH M3x8

STRAIGHT **BENT**

DETAIL
1mm
STRAIGHT
BENT
1mm

8. CENTER DIFF & BRAKE

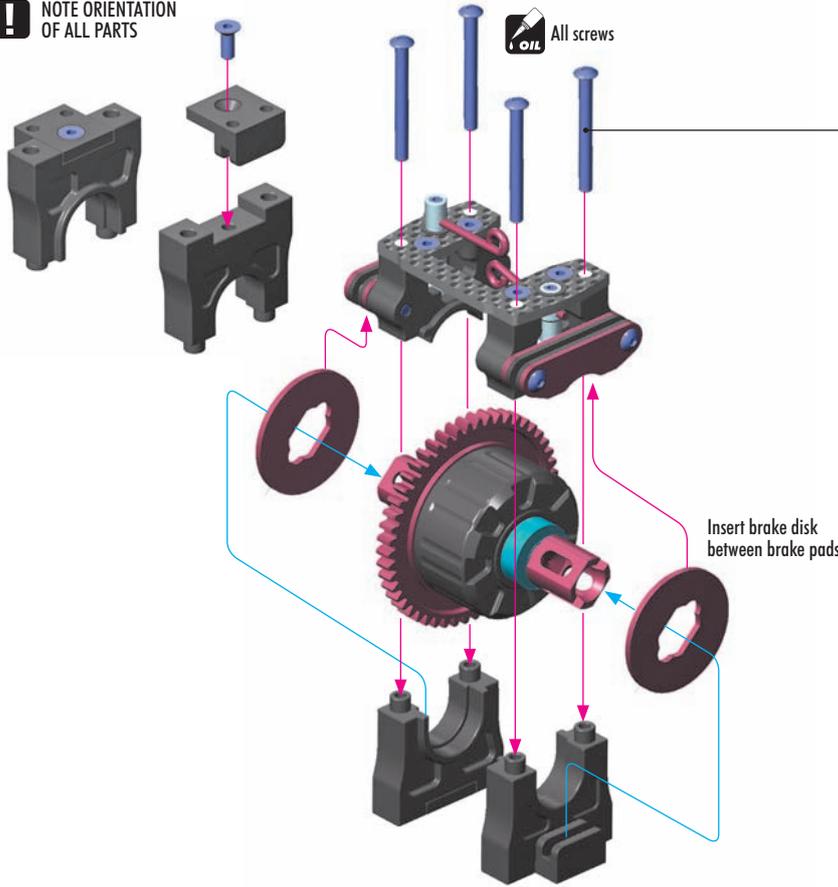


903308
SFH M3x8



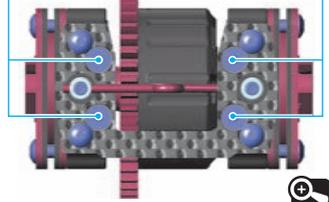
902330
SH M3x30

! NOTE ORIENTATION
OF ALL PARTS



! OIL All screws

Before inserting 3x30 long screws, loosen the four flat-head screws in the upper plate by 1/2 turn (CCW). Tighten all screws after assembly.



+ DETAIL

Insert brake disk between brake pads

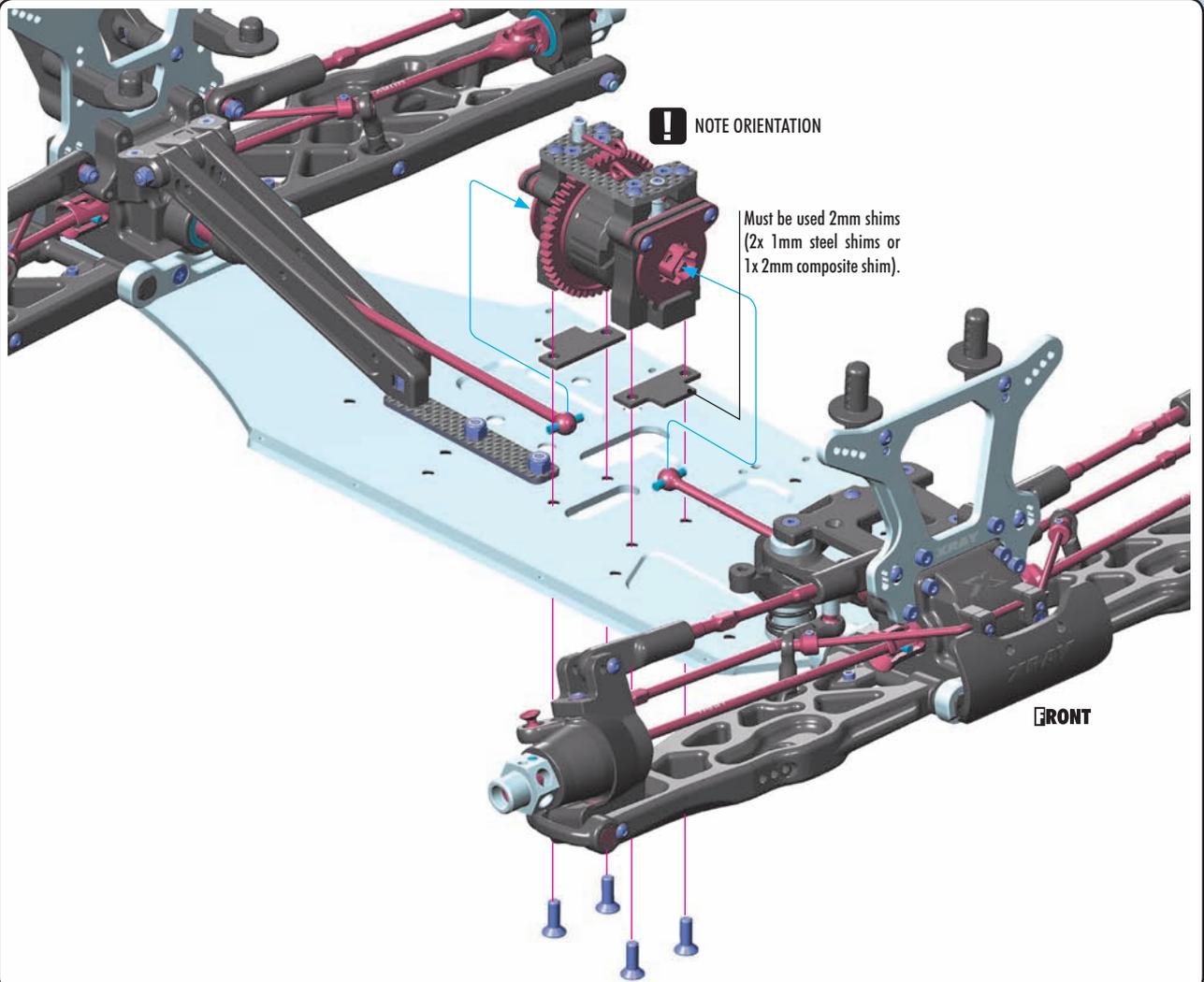


#354112
OPTION LIGHTWEIGHT VENTILATED BRAKE DISK
- LASER CUT - PRECISION-GROUND (2)



903414
SFH M4x14

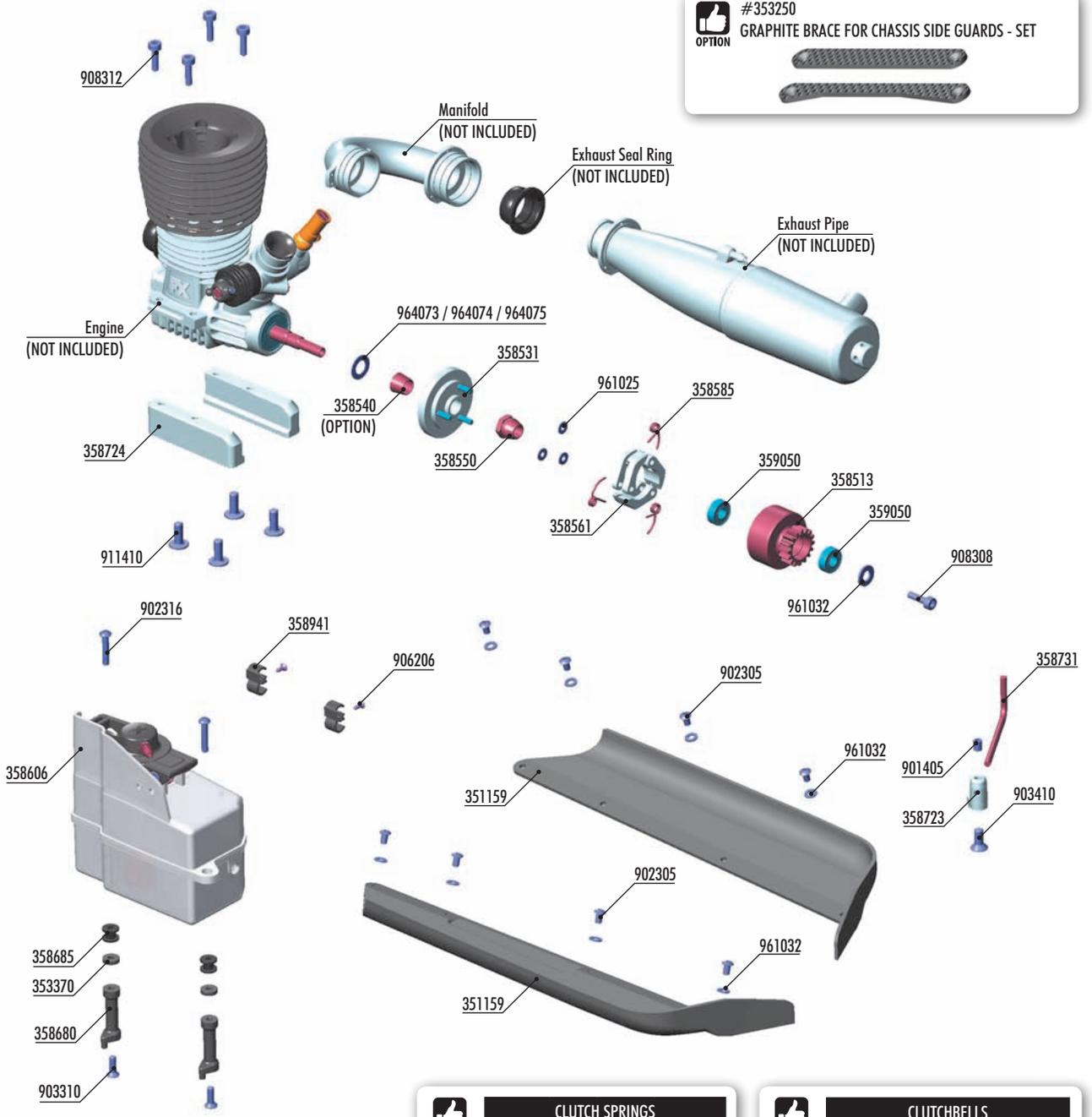
! NOTE ORIENTATION



Must be used 2mm shims
(2x 1mm steel shims or
1x 2mm composite shim).

FRONT

9. FUEL TANK & ENGINE



#353250
GRAPHITE BRACE FOR CHASSIS SIDE GUARDS - SET
 OPTION

OPTION	CLUTCH SHOE		
#358561	ALU - LIGHT (3)	INCLUDED	
#358562	ALU - H-TORQUE (3)	OPTION	
#358563	GRAPHITE (2)	OPTION	
#358564	ALU - HARD (3)	OPTION	

OPTION	CLUTCH SPRINGS			
#358584	GRAY	MEDIUM	OPTION	
#358585	SILVER	HARD	INCLUDED	
HIGH TORQUE CLUTCH SPRINGS				
#358587	GOLD	SOFT	OPTION	
#358588	GRAY	MEDIUM	OPTION	
#358589	SILVER	HARD	OPTION	

OPTION	CLUTCHBELLS		
#358512	12T	OPTION	
#358513	13T	INCLUDED	
#358514	14T	OPTION	
#358525	15T	OPTION	
#358517	13T Lightweight	OPTION	
#358518	14T Lightweight	OPTION	



- 351159 CHASSIS SIDE GUARDS L+R
- 353370 SET OF COMPOSITE REAR HUB CARRIER SHIMS
- 358513 CLUTCH BELL 13T
- 358531 FLYWHEEL
- 358540 FLYWHEEL COLLAR (OPTION)
- 358550 FLYWHEEL NUT - HUDY SPRING STEEL™
- 358561 ALU CLUTCH SHOE - LIGHT 1.71g (3)
- 358585 CLUTCH SPRINGS - HARD (3)
- 358606 XT8 FUEL TANK 150CC WITH FLOATING FILTER
- 358680 FUEL TANK MOUNTING POST (2)
- 358685 FUEL TANK MOUNTING GROMMET (4)
- 358723 EXHAUST WIRE MOUNT SET
- 358724 ALU ENGINE MOUNT - CNC MACHINED (L+R)
- 358731 EXHAUST MOUNTING WIRE - LONG
- 358941 COMPOSITE TUBING HOLDER FOR FUEL TANK (2)

- 359050 CLUTCH BELL BALL-BEARING 5x10x4 (2)
- 901405 HEX SCREW SB M4x5 (10)
- 902305 HEX SCREW SH M3x5 (10)
- 902316 HEX SCREW SH M3x16 (10)
- 903310 HEX SCREW SFH M3x10 (10)
- 903410 HEX SCREW SFH M4x10 (10)
- 906206 SCREW PHILLIPS FH 2.2x6 (10)
- 908308 HEX SCREW (CAP HEAD) 3x8 (10)
- 908312 HEX SCREW (CAP HEAD) 3x12 (10)
- 911410 HEX SCREW FLANGED SH M4x10 (10)
- 961025 WASHER S 2.5 (10)
- 961032 WASHER S 3.2 (10)
- 964073 WASHER S 7x10x0.2 (10)
- 964074 WASHER S 7x10x0.3 (10)
- 964075 WASHER S 7x10x0.5 (10)

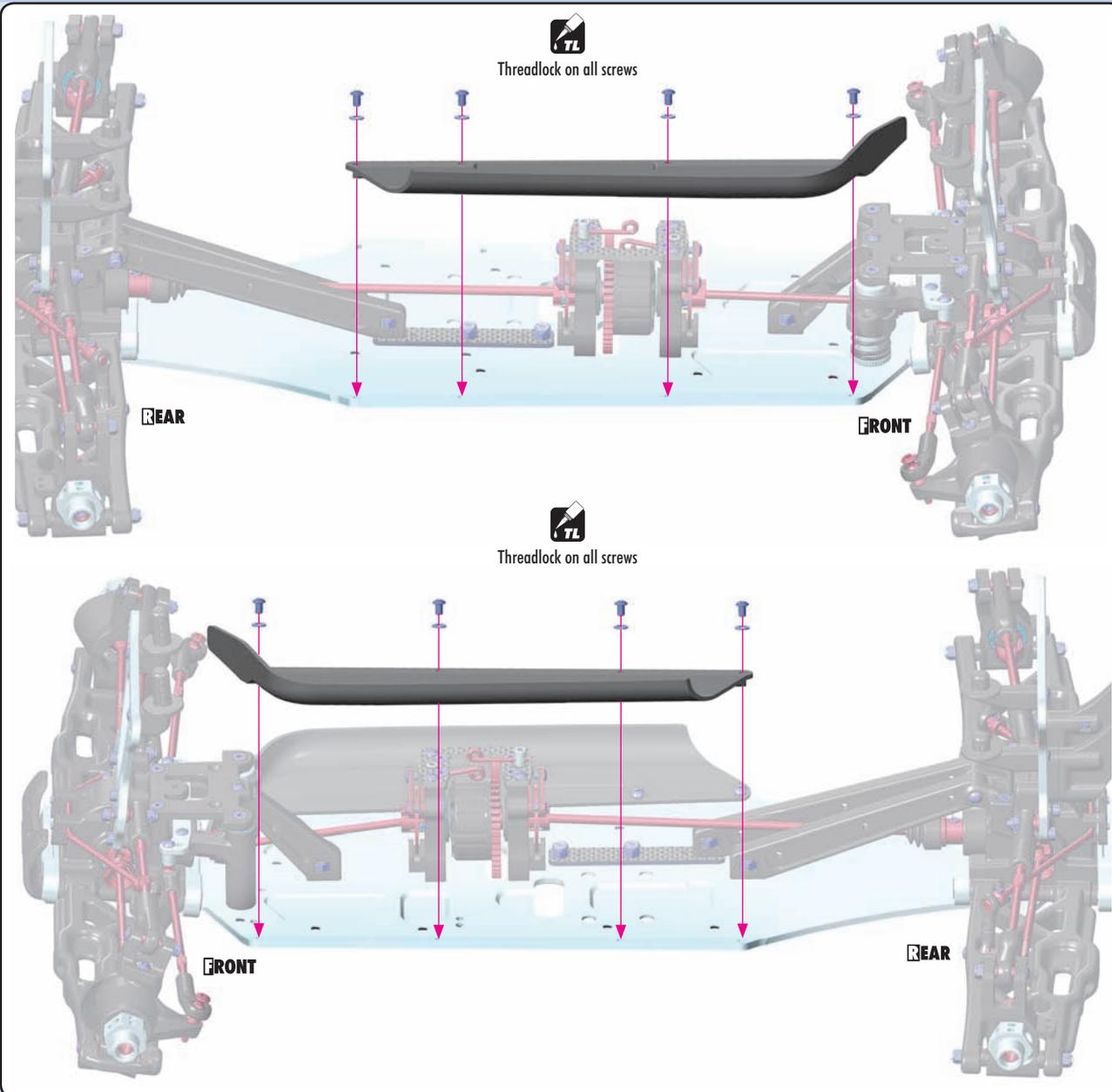
9. FUEL TANK & ENGINE



902305
SH M3x5



961032
S 3.2



908312
SCH M3x12



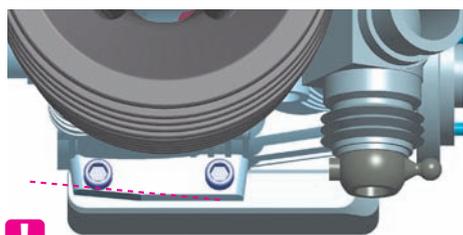
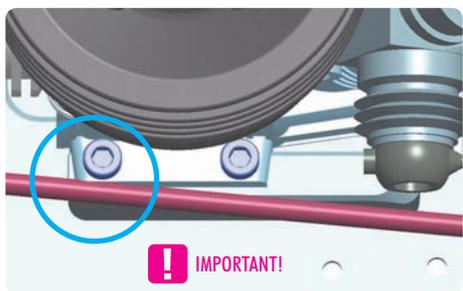
964073
S 7x10x0.2



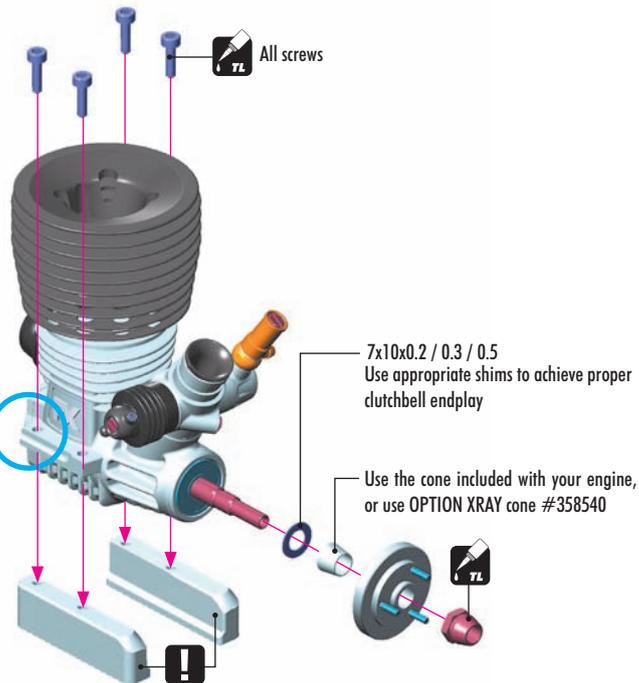
964074
S 7x10x0.3



964075
S 7x10x0.5



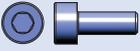
When installing the engine, first check that the drive shaft does not touch the engine. If it does, remove some material from the engine mount as shown to make some room between engine and shaft.



9. FUEL TANK & ENGINE



359050
BB 5x10x4



908308
SCH M3x8



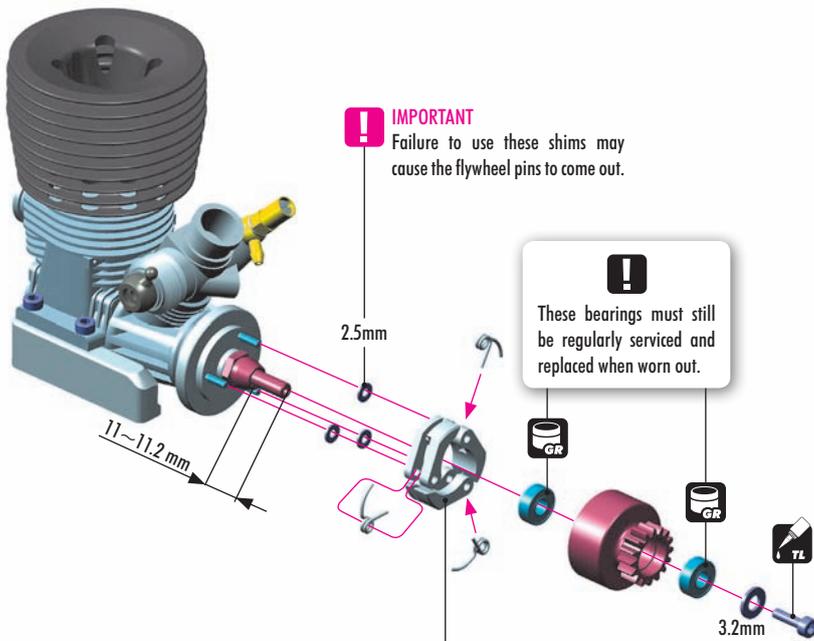
961025
S 2.5



961032
S 3.2

SET-UP BOOK

CLUTCH SPRINGS
CLUTCH SHOE



IMPORTANT
Failure to use these shims may cause the flywheel pins to come out.

! These bearings must still be regularly serviced and replaced when worn out.

! Note the orientation of the clutch shoes. The short side of spring must be in the groove of the flywheel nut.

TIP Hold the flywheel using HUDY Flywheel Tool #182015

TIP Tighten the clutch nut using HUDY tool #107581

OPTION	CLUTCH SHOE		
	#358561	ALU - LIGHT (3)	INCLUDED
	#358562	ALU - H-TORQUE (3)	OPTION
	#358563	GRAPHITE (2)	OPTION
	#358564	ALU - HARD (3)	OPTION

OPTION	CLUTCHBELLS		
	#358512	12T	OPTION
	#358513	13T	INCLUDED
	#358514	14T	OPTION
	#358525	15T	OPTION
	#358517	13T Lightweight	OPTION
	#358518	14T Lightweight	OPTION

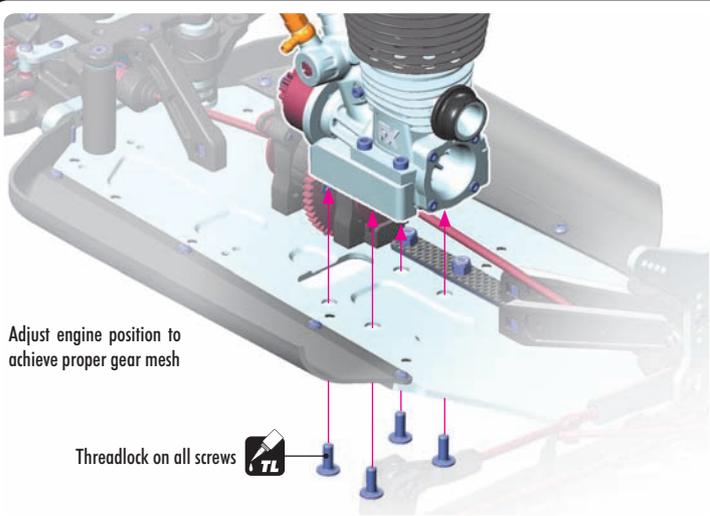
OPTION	CLUTCH SPRINGS			
	#358584	GRAY	MEDIUM	OPTION
	#358585	SILVER	HARD	INCLUDED
	HIGH TORQUE CLUTCH SPRINGS			
	#358587	GOLD	SOFT	OPTION
	#358588	GRAY	MEDIUM	OPTION
	#358589	SILVER	HARD	OPTION



911410
SHF M4x10

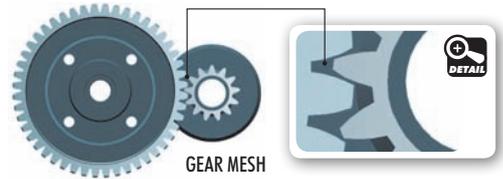
SET-UP BOOK

GEARING
GEAR MESH ADJ.



Adjust engine position to achieve proper gear mesh

Threadlock on all screws



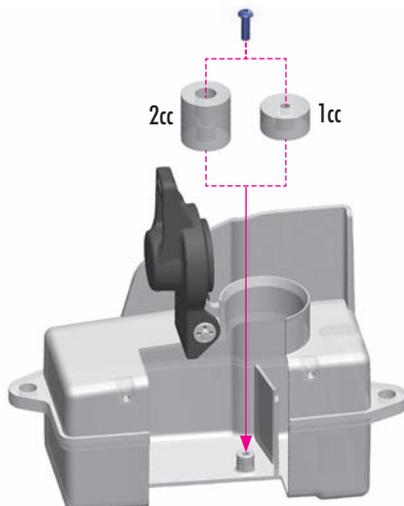
GEAR MESH

EXTREMELY IMPORTANT

It is very important that your XT8 has properly-adjusted gear mesh. Adjust the gear mesh so there is adequate (or slightly larger) space between the spur gear and clutchbell teeth. Adjust the gear mesh by sliding the engine mounts in the slots of the chassis. You should be able to rock one gear back and forth slightly while holding the other one firmly. Be sure to check the gear mesh all the way around the spur gear. Tighten the screws once the engine alignment and gear mesh are correct, and then re-check the gear mesh to ensure the engine mounts did not move.



907258
SP 2.5x8



2cc 1cc

The fuel tank has the larger fuel volume and includes OPTIONAL tank inserts for decreasing the volume of the tank. Using the inserts allows you to adjust the volume of fuel inside the tank; this works in conjunction with variables such as fuel filter capacity and/or length of fuel line to ensure you have the legal fuel volume limit for racing.

Tube holders are easily connected to the fuel tank by screws. Using screws is much more secure than using glue to attach the holders to the fuel tank.

2CC FUEL TANK INSERT

The larger insert decreases the fuel tank volume by 2cc, and is recommended for use when the fuel filter is used.

1CC FUEL TANK INSERT

The smaller insert decreases the fuel tank volume by 1cc.

NOTE ORIENTATION

NOTE ORIENTATION

NOTE: The fuel tank insert can be easily mounted to the bottom of the fuel tank using the provided screw, when the fuel tank cap is opened fully.

9. FUEL TANK & ENGINE



353370
SHIM 3x9x2



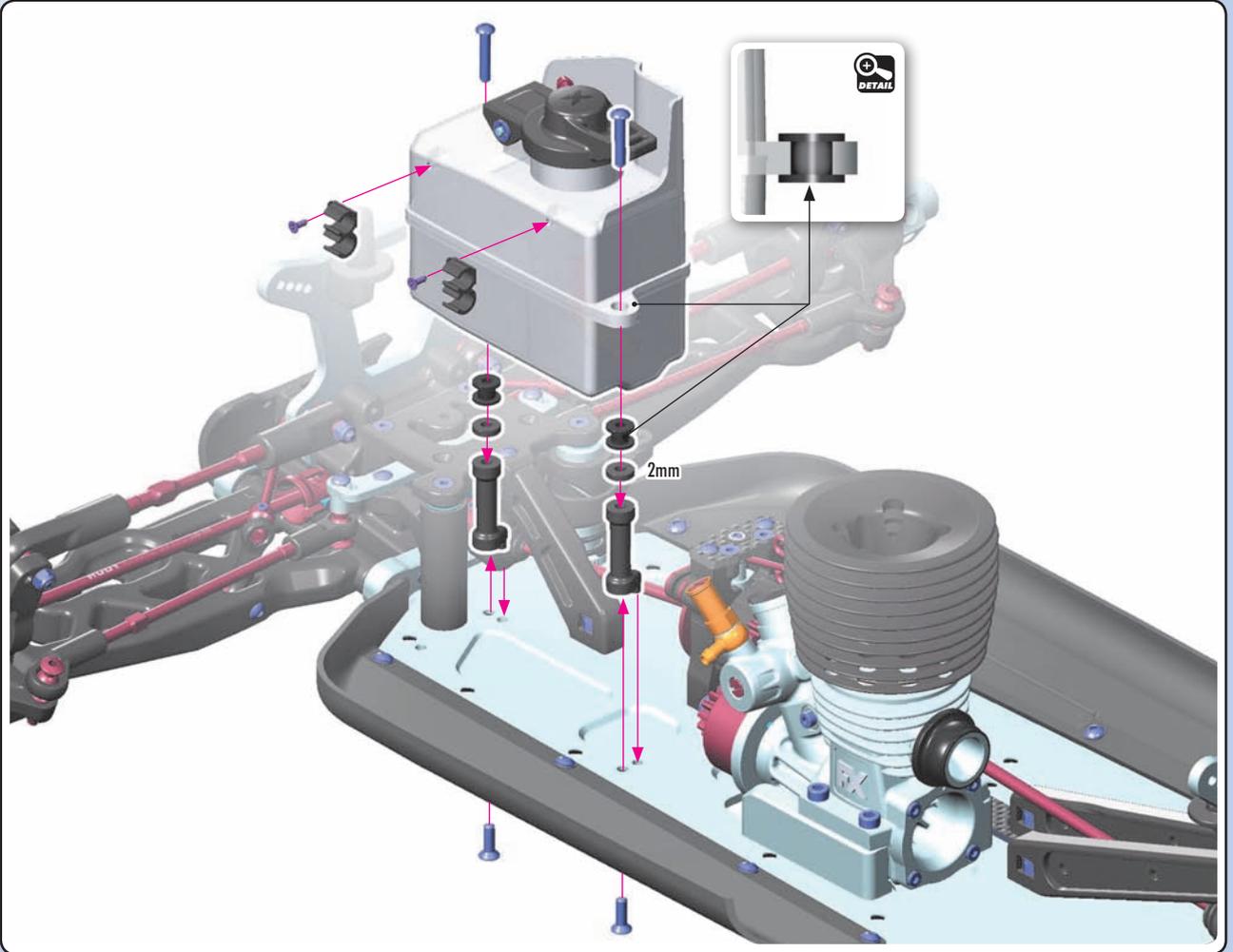
902316
SH M3x16



903310
SFH M3x10



906206
SFP 2.2x6

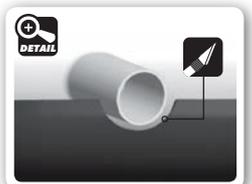
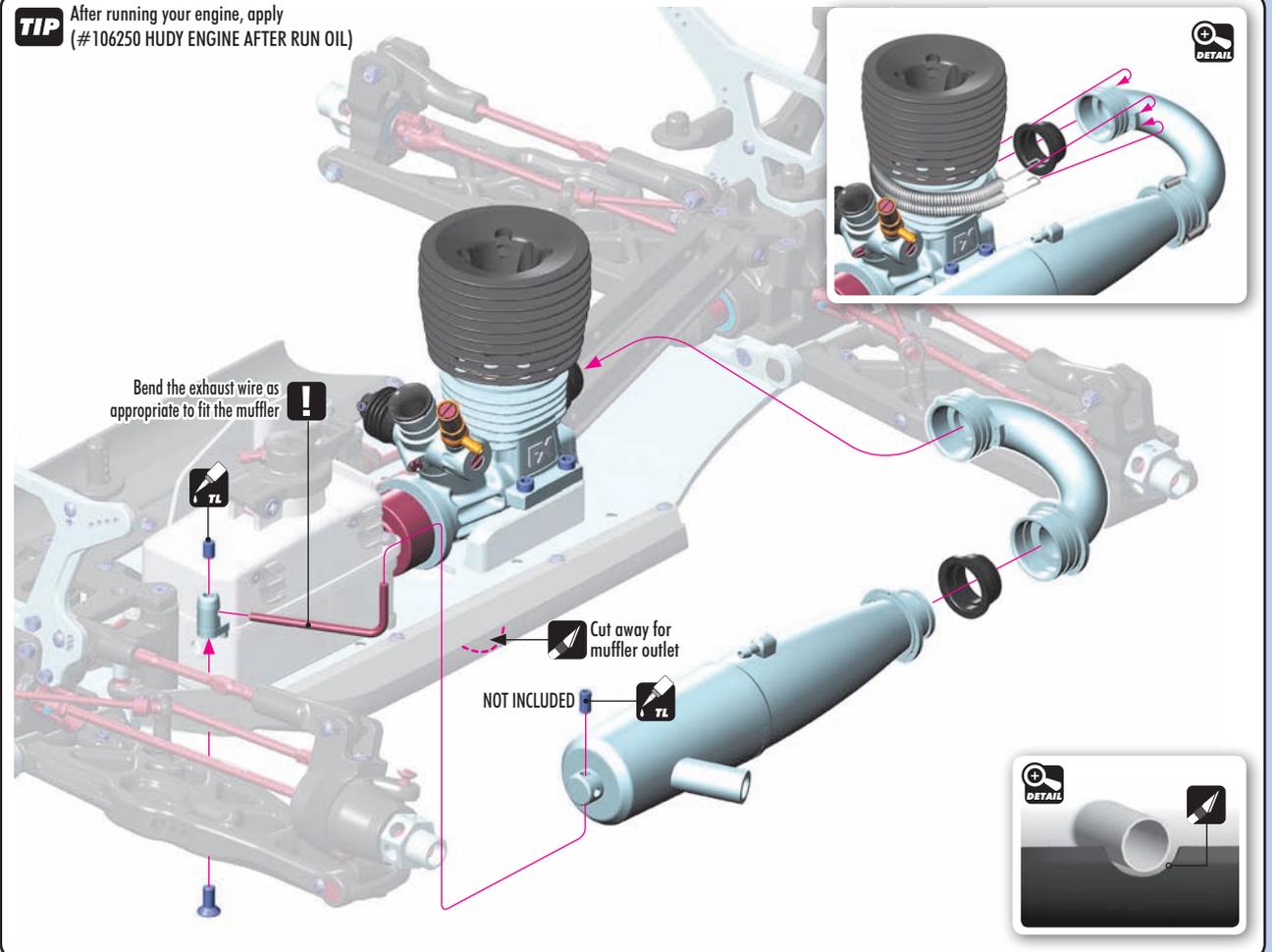


901405
SB M4x5

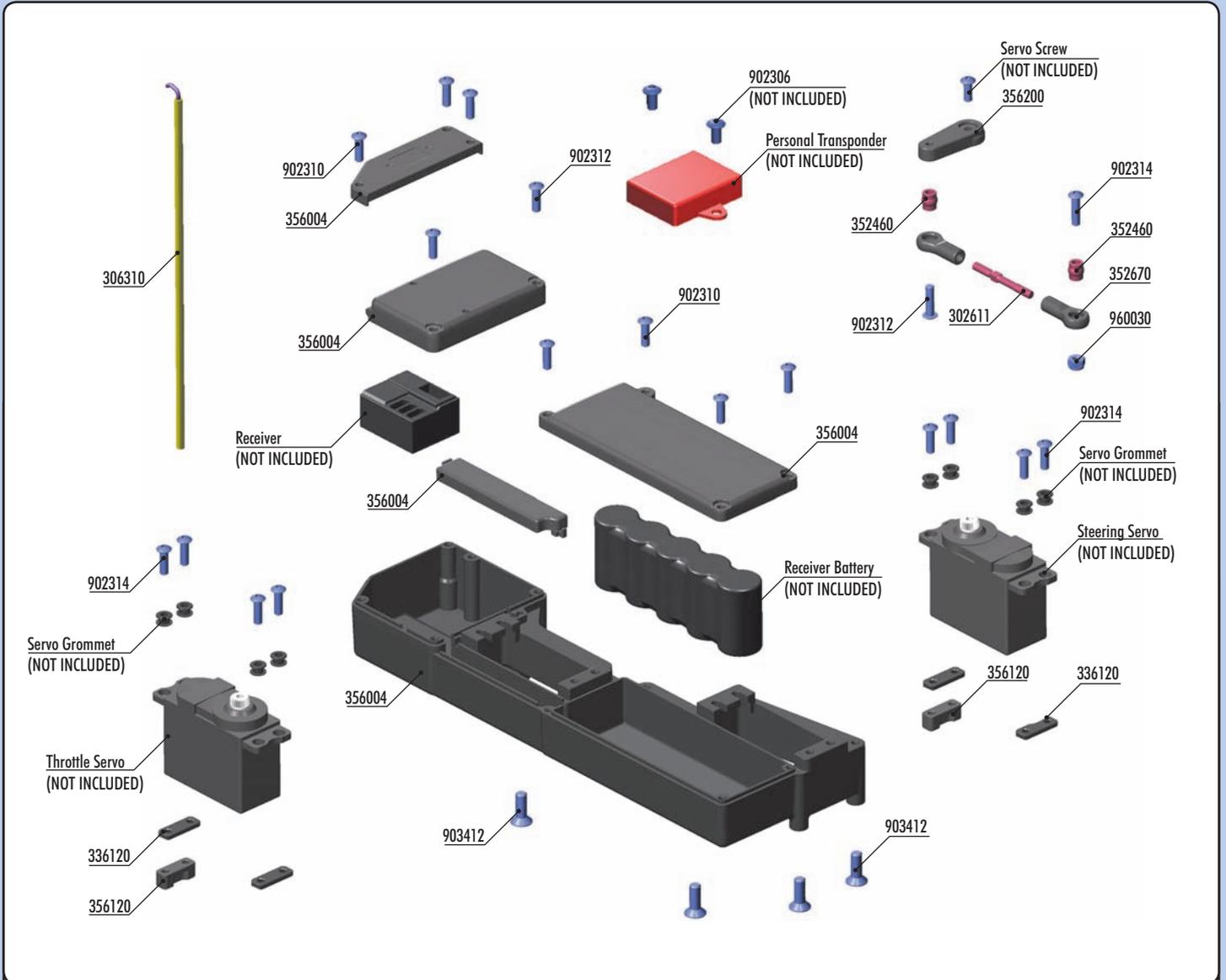


903410
SFH M4x10

TIP After running your engine, apply (#106250 HUDY ENGINE AFTER RUN OIL)



10. RADIO CASE



BAG

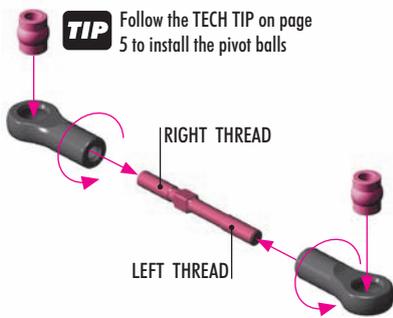
10

- 302611 ADJ. TURNBUCKLE L/R 35 MM - HUDY SPRING STEEL™ (2)
- 306310 ANTENNA TUBE (2)
- 336120 COMPOSITE STEERING SERVO HOLDER - SET - V2
- 352460 PIVOT BALL 5.8 (10)
- 352670 SERVO BALL JOINT 5.8MM (4)
- 356004 COMPOSITE RADIO CASE SET - SOFT
- 356050 BATTERY CABLE WITH SWITCH (OPTION)
- 356120 STEERING SERVO MOUNT - SET

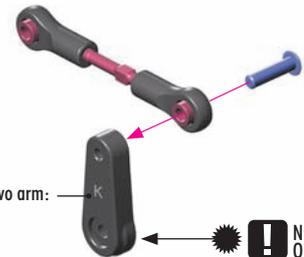
- 356200 BRAKE/THROTTLE ARMS & STEERING SERVO ARMS - SET
- 389135 CONNECTING CABLE RECEIVER/BATT. PACK (OPTION)
- 902306 HEX SCREW SH M3x6 (10) (OPTION)
- 902310 HEX SCREW SH M3x10 (10)
- 902312 HEX SCREW SH M3x12 (10)
- 902314 HEX SCREW SH M3x14 (10)
- 903412 HEX SCREW SFH M4x12 (10)
- 960030 NUT M3 (10)



902312
SH M3x12



The length of the linkages varies according to the type of servo.

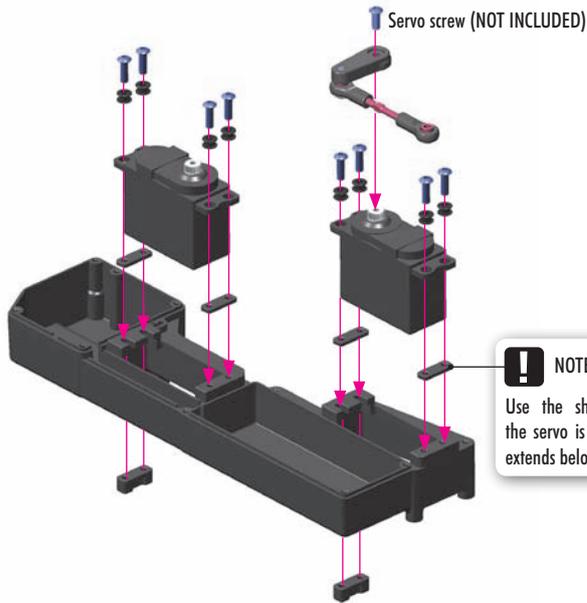


HUDY ALU SERVO HORNS		
#293501	23T KO Propo, Airtronics, Sanwa	OPTION
#293502	24T Hitec	OPTION
#293503	25T Futaba	OPTION



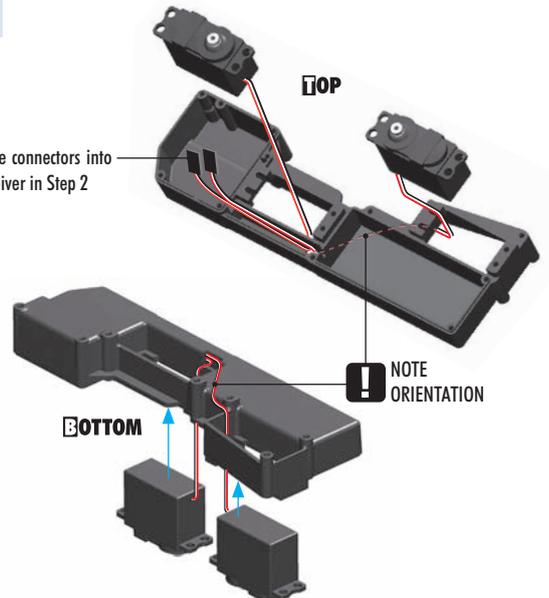


902314
SH M3x14



step 1

Plug the connectors into the receiver in Step 2



902310
SH M3x10

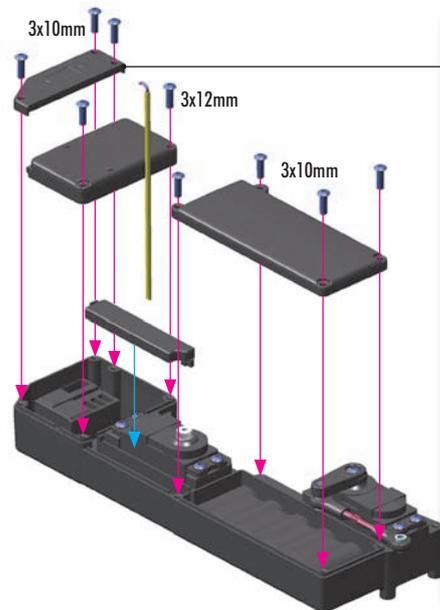
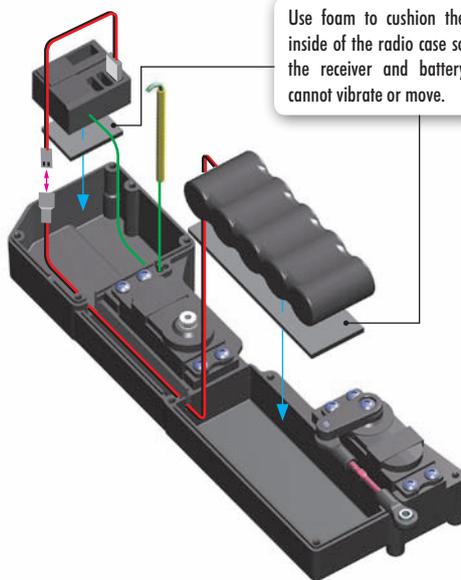


902312
SH M3x12

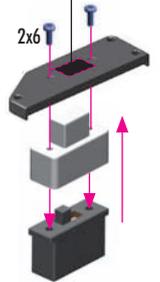


907206
SP M2x6

step 2



TIP CUT



SWITCH #356050 OPTION

When receiver switch is used, use hobby knife to CAREFULLY remove the material from the cover and mount the switch.



902314
SH M3x14



903412
SFH M4x12



960030
N M3

Personal transponder (NOT INCLUDED)
#902306 Screws (NOT INCLUDED)

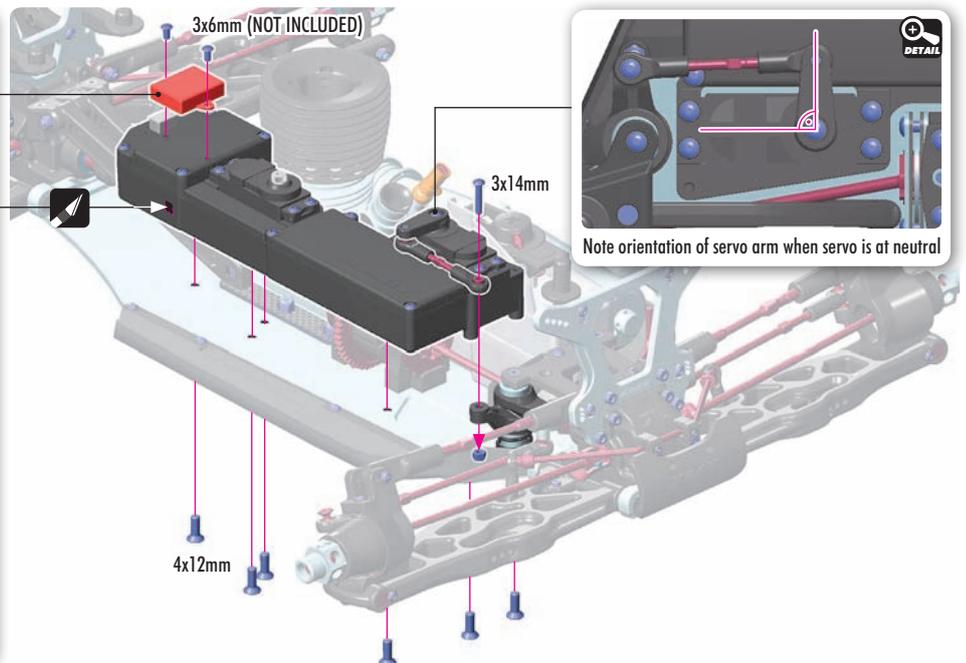
Personal transponder can be placed on the top of the radio box or inside of the radio box

ALTERNATIVE 1

When the transponder is placed at the top of the radio box, cut out some material from the radio box in order to allow the transponder wire to come inside.

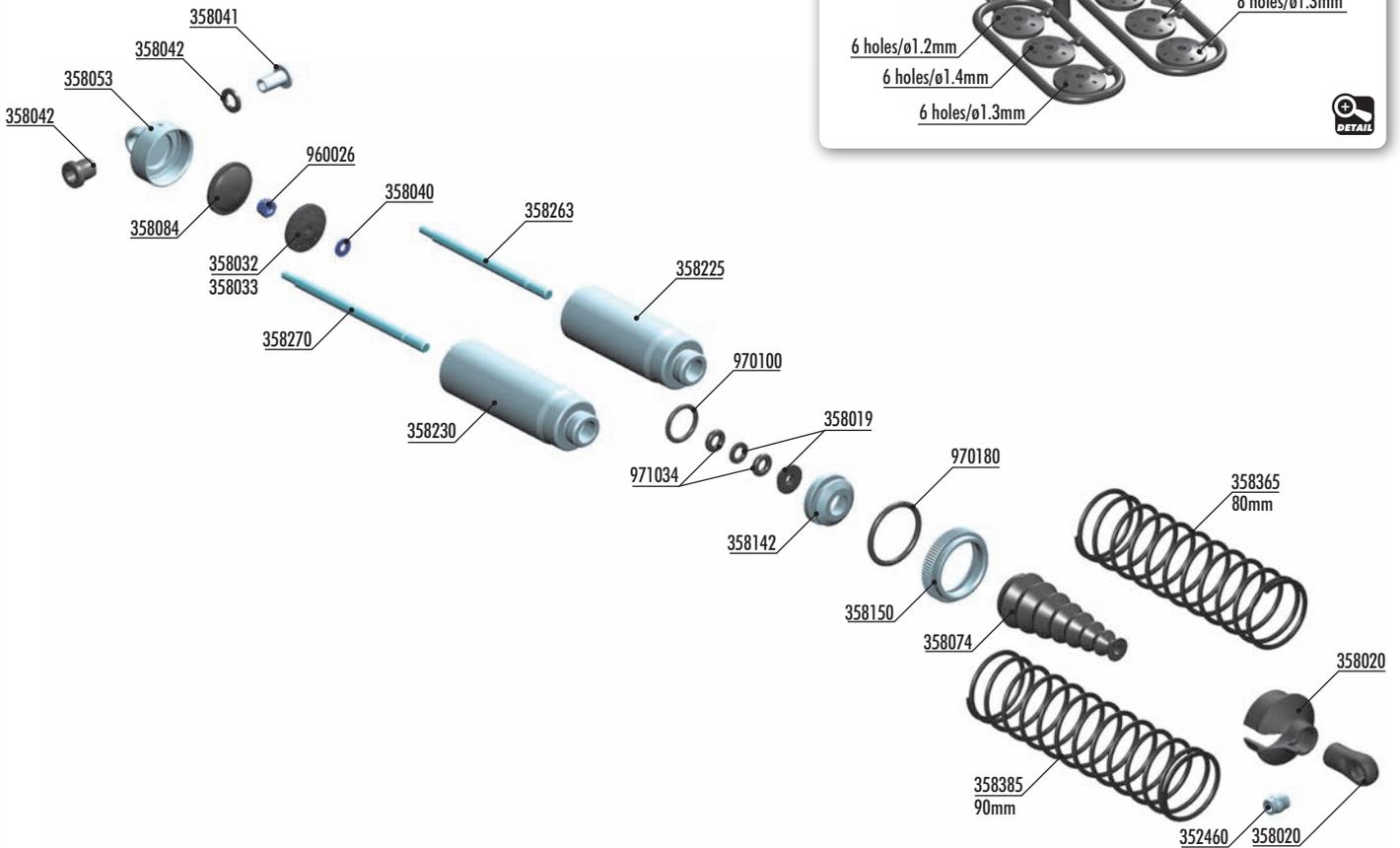
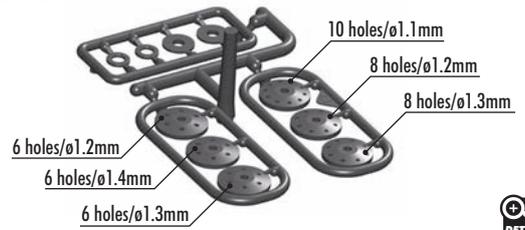
ALTERNATIVE 2

Place the transponder inside of the radio box by using double-sided tape.



11. SHOCK ABSORBERS

PISTONS



SHOCK SPRINGS

#358315	C=0.77-0.80	3 DOTS	69mm	OPTION
#358316	C=0.80-0.83	4 DOTS	69mm	OPTION
#358335	C=0.68-0.70	3 DOTS	85mm	OPTION
#358336	C=0.70-0.73	4 DOTS	85mm	OPTION



FRONT & REAR PROGRESSIVE SPRINGS

#358274	C=0.5-0.6	Grey	69mm	OPTION
#358275	C=0.65-0.7	1 STRIPE	69mm	OPTION
#358276	C=0.7-0.75	2 STRIPES	69mm	OPTION
#358277	C=0.72-0.8	3 STRIPES	69mm	OPTION



REAR PROGRESSIVE SPRINGS

#358279	C=0.55-0.63	2 STRIPES	85mm	OPTION
#358280	C=0.6-0.68	3 STRIPES	85mm	OPTION
#358281	C=0.65-0.7	4 STRIPES	85mm	OPTION



REAR LINEAR SPRINGS

#358282	C=0.47	White	83mm	OPTION
#358283	C=0.50	Grey	83mm	OPTION
#358284	C=0.53	Silver	83mm	OPTION
#358285	C=0.57	Grey-Blue	83mm	OPTION
#358287	C=0.65	Violet	83mm	OPTION
#358288	C=0.70	Purple	83mm	OPTION



#358054
ALU SHOCK CAP NUT WITH VENT HOLE - BLACK COATED (2)



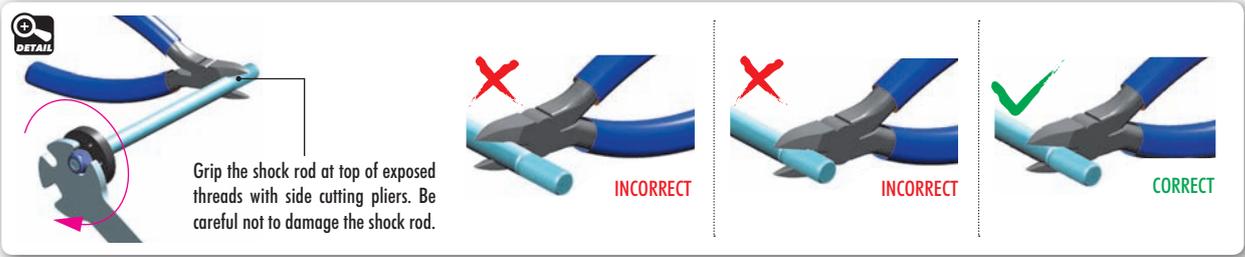
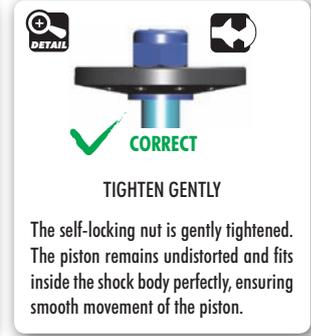
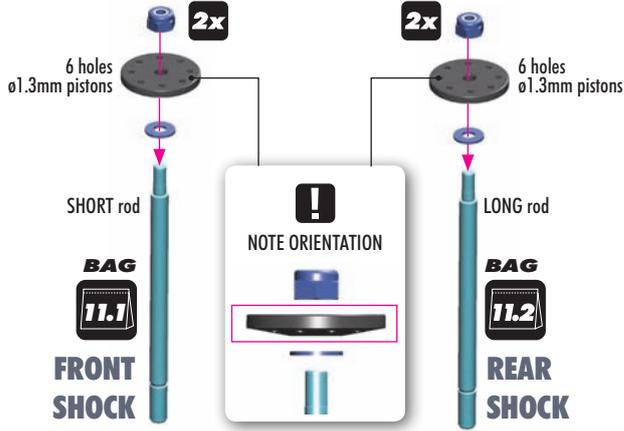
BAGS



352460	PIVOT BALL 5.8 - V3 (10)
358019	COMPOSITE SET OF SHIMS FOR SHOCKS - V2 (2)
358020	COMPOSITE SHOCK PARTS
358032	SHOCK PISTON SET 8-HOLE (1.2; 1.3) 10-H. (1.1MM) - DELRIN - V2
358033	COMPOSITE SHOCK 6-HOLE PISTON SET (1.2; 1.3; 1.4MM) - DELRIN - V2
358040	HARDENED SHOCK SHIMS (4)
358041	STEEL SHOCK BUSHING (2)
358042	COMPOSITE SHOCK BUSHING & SHIM - V2 (2+2)
358053	ALU SHOCK CAP NUT - BLACK COATED (2)
358054	ALU SHOCK CAP NUT WITH VENT HOLE - BLACK COATED (2) (OPTION)
358074	FOLDING SHOCK BOOT (4)
358084	SHOCK RUBBER MEMBRANE BOTTOM RIBBED (4)

358142	ALU SHOCK BODY NUT FOR SHOCK BOOT (2)
358150	ALU SHOCK BODY ADJ. NUT (2)
358225	XB8*16 ALU REAR SHOCK BODY - HARDCOATED (2)
358230	XT8 ALU REAR SHOCK BODY - HARDCOATED (2)
358263	XB8 REAR SHOCK SHAFT (2)
358270	XT8 REAR SHOCK SHAFT (2)
358365	XRAY FRONT SPRING 80MM - 3 DOTS (2)
358385	XRAY REAR SPRING 90MM - 3 DOTS
960026	NUT M2.5 - SHORT (10)
970100	O-RING 10 x 1.5 (10)
970180	O-RING 18 x 1.8 (10)
971034	SILICONE O-RING 3.5x2 (10)

11. SHOCK ABSORBERS



SET-UP BOOK
SHOCK DAMPING
SHOCK PISTONS



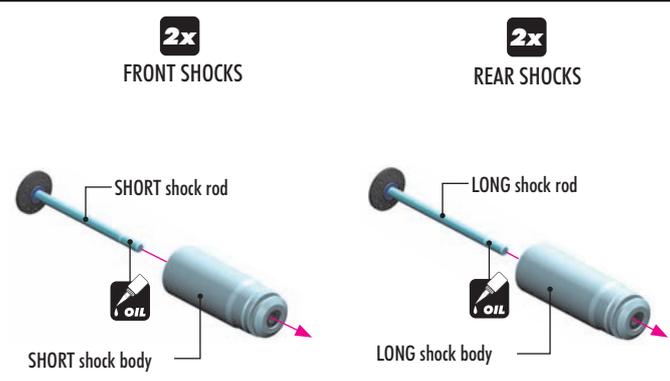
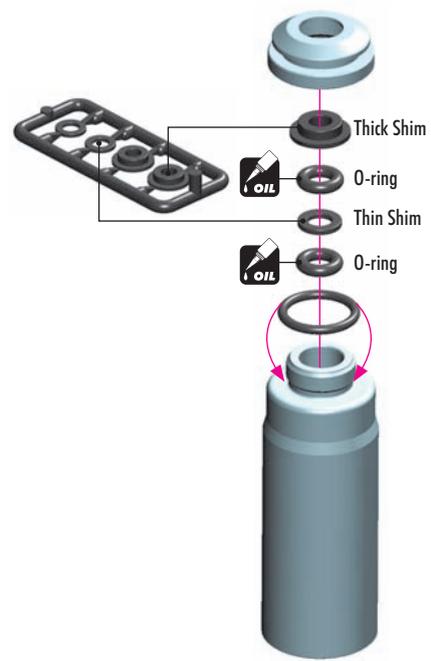
970100
O 10x1.5



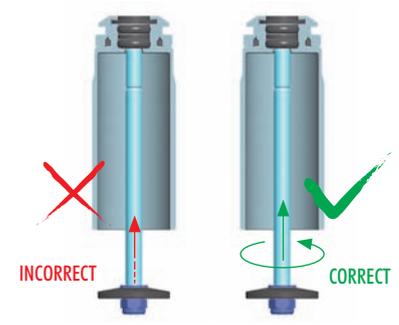
971034
O 3.4x2

- 2x** FRONT SHOCKS (SHORT)
- 2x** REAR SHOCKS (LONG)

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



EXTREMELY IMPORTANT



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

Twist the shock rod through the lower shock body assembly.

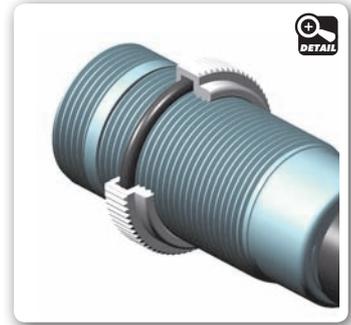
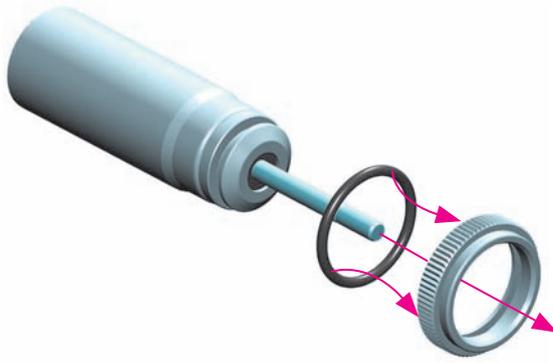
11. SHOCK ABSORBERS



970180
O 18x1.8

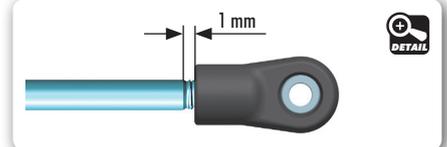
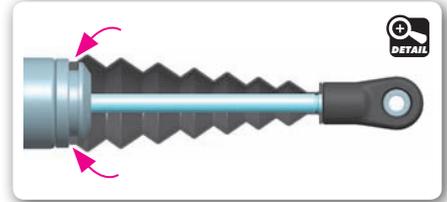
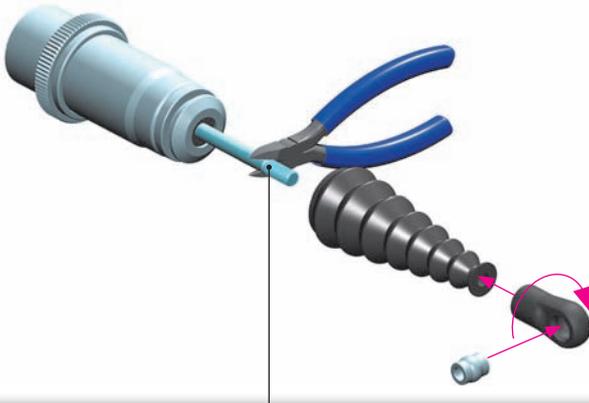
2x FRONT SHOCKS

2x REAR SHOCKS



2x FRONT SHOCKS

2x REAR SHOCKS



DETAIL Grip the shock rod at top of exposed threads with side cutting pliers. Be careful not to damage the shock rod.



DEFAULT SHOCK REBOUND SETTING 0% (LOW REBOUND)

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

2x FRONT (SHORT)

Oil 400cSt

2x REAR (LONG)

Oil 350cSt

SET-UP BOOK
SHOCK OIL



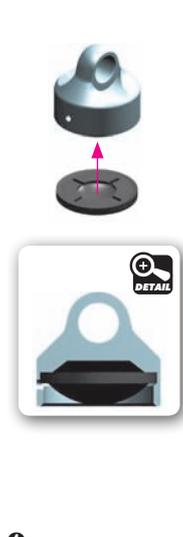
1 Extend the shock shaft completely. Fill the shock body with the shock oil. For the FRONT shocks (short) use 400cSt oil. For the REAR shocks (long) use 350cSt oil.



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



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



4 Install the shock membrane into the groove in the upper shock cap.



5 Gently place the shock cap assembly onto the filled shock body. Excess oil will spill from the shock. Screw the shock cap onto the body by only a few turns.



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



7 Keep the shock shaft pushed in the shock body and tighten the shock cap completely. The rebound will be at approximately 0%.

2x REAR SHOCKS
LONG rear shock

2x FRONT SHOCKS
SHORT front shock

LONG spring

SHORT spring

REAR shock PRELOAD
approx. 7mm

FRONT shock PRELOAD
approx. 5mm

SET-UP BOOK
SPRING RATE
SHOCK PRELOAD
RIDE HEIGHT

IMPORTANT!
Both rear shocks must be the same overall length.

IMPORTANT!
Both front shocks must be the same overall length.

DETAIL
IMPORTANT!
FRONT & REAR SHOCKS

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

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

SETTING THE SHOCK REBOUND TO 50% (MEDIUM REBOUND)

REMOVE SHOCK CAP



1 Extend the shock shaft completely and remove the shock cap.



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



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

HALF TIGHTEN



4 Gently place the shock cap assembly onto the filled shock body. Excess oil will spill from the shock.



5 Push the shock shaft 50% into the shock body. Excess oil will bleed through the hole in the shock cap.

TIGHTEN FULLY



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

SETTING THE SHOCK REBOUND TO 100% (HIGH REBOUND)

REMOVE SHOCK CAP



1 Extend the shock shaft completely and remove the shock cap.



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



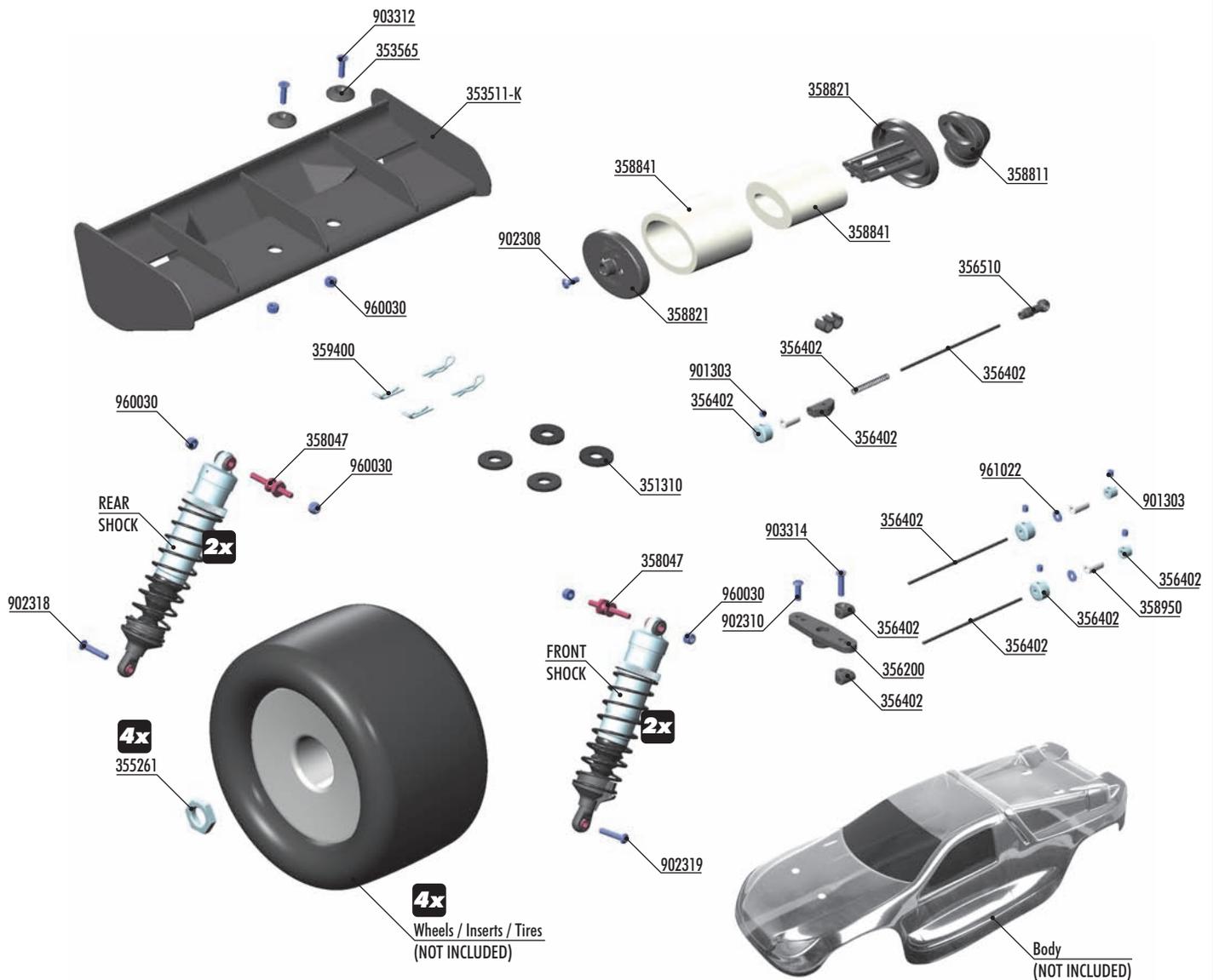
3 Orient the filled shock vertically for several minutes with the shock shaft fully extended. The remaining air bubbles will release.

TIGHTEN FULLY



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

12. FINAL ASSEMBLY



WHEEL NUTS			
OPTION	#355261	OPEN	INCLUDED
	#293560	COVERED	OPTION
	#355265	COVERED	OPTION

WING SHIMS			
OPTION	#353565	COMPOSITE	INCLUDED
	#293561	ALU	OPTION
	#293561-0	ALU	OPTION
	#353561	ALU	OPTION

HUDY ALU SERVO HORNS			
OPTION	#293504	23T KO Propo, Airtronics, Sanwa	OPTION
	#293505	24T Hiitec	OPTION
	#293506	25T Futaba	OPTION
	#293507	23T KO Propo, Airtronics, JR, Sanwa	OPTION
	#293508	24T Hiitec	OPTION
	#293509	25T Futaba	OPTION

OPTION	#358832	AIR FILTER RAIN COVER
--------	---------	-----------------------

WINGS			
OPTION	#353511-K	BLACK	INCLUDED
	#353511	WHITE	OPTION
	#353511-Y	YELLOW	OPTION
	#353512	LEXAN	OPTION

BAG

12

- | | | | |
|----------|---|--------|---------------------------------------|
| 351310 | FOAM WASHER FOR BODY POSTS (4) | 901303 | HEX SCREW SB M3x3 (10) |
| 353511-K | REAR WING - BLACK | 902308 | HEX SCREW SH M3x8 (10) |
| 353565 | COMPOSITE REAR WING SHIM - BLACK (2) | 902310 | HEX SCREW SH M3x10 (10) |
| 355261 | WHEEL NUT - RIBBED - HARDvCOATED (2) | 902318 | HEX SCREW SH M3x18 (10) |
| 356200 | BRAKE/THROTTLE ARMS & SERVO ARMS - SET | 902319 | HEX SCREW SH M3x18 - LEFT THREAD (10) |
| 356402 | BRAKE/THROTTLE SYSTEM - SET | 903312 | HEX SCREW SFH M3x12 (10) |
| 356510 | CLOSED BALL JOINT 3.9 (4) | 903314 | HEX SCREW SFH M3x14 (10) |
| 358047 | STEEL SCREW SHOCK PIVOT BALL WITH HEX (2) | 960030 | NUT M3 (10) |
| 358811 | AIR FILTER ELBOW - LOW PROFILE | 961022 | WASHER S 2.2 (10) |
| 358821 | AIR FILTER BODY & CAP - LOW PROFILE | | |
| 358841 | AIR FILTER FOAM & OIL - LOW PROFILE | | |
| 358950 | SILICONE TUBING 1M (2.4 x 5.5MM) | | |
| 359400 | BODY CLIP (10) | | |

12. FINAL ASSEMBLY

902318
SH M3x18

902319
SH M3x18
LEFT thread

960030
N M3

FRONT SHOCKS (SHORT)

SHORTER ← → LONGER

NOTE ORIENTATION

3x18mm

Use **STANDARD** M3x18 screw

On the front right arm use the **SILVER** M3x18 screw - this screw has **LEFT THREAD**

INITIAL SETTING

INITIAL SETTING

SET-UP BOOK
SHOCK ABSORBERS

902318
M3x18

902319
SH M3x18
LEFT thread

960030
N M3

REAR SHOCKS (LONG)

SHORTER ← → LONGER

NOTE ORIENTATION

M3x18mm

Use **STANDARD** M3x18 screw

On the rear left arm use the **SILVER** M3x18 screw - this screw has **LEFT THREAD**

INITIAL SETTING

INITIAL SETTING

SET-UP BOOK
SHOCK ABSORBERS

901303
SB M3x3

902310
SH M3x10

903314
SFH M3x14

Thread brake rods into plastic pivots until flush with outer end

Brake rod

Brake rod

Throttle rod

Use servo horn to match your servo

Cut off remaining material

K - (23T) H - (24T) F - (25T)

HUDY ALU SERVO HORNS

OPTION	#293504	23T KO Propo, Airtronics, Sanwa	OPTION
	#293505	24T Hitec	OPTION
	#293506	25T Futaba	OPTION
	#293507	23T KO Propo, Airtronics, JR, Sanwa	OPTION
	#293508	24T Hitec	OPTION
	#293509	25T Futaba	OPTION

Small gap

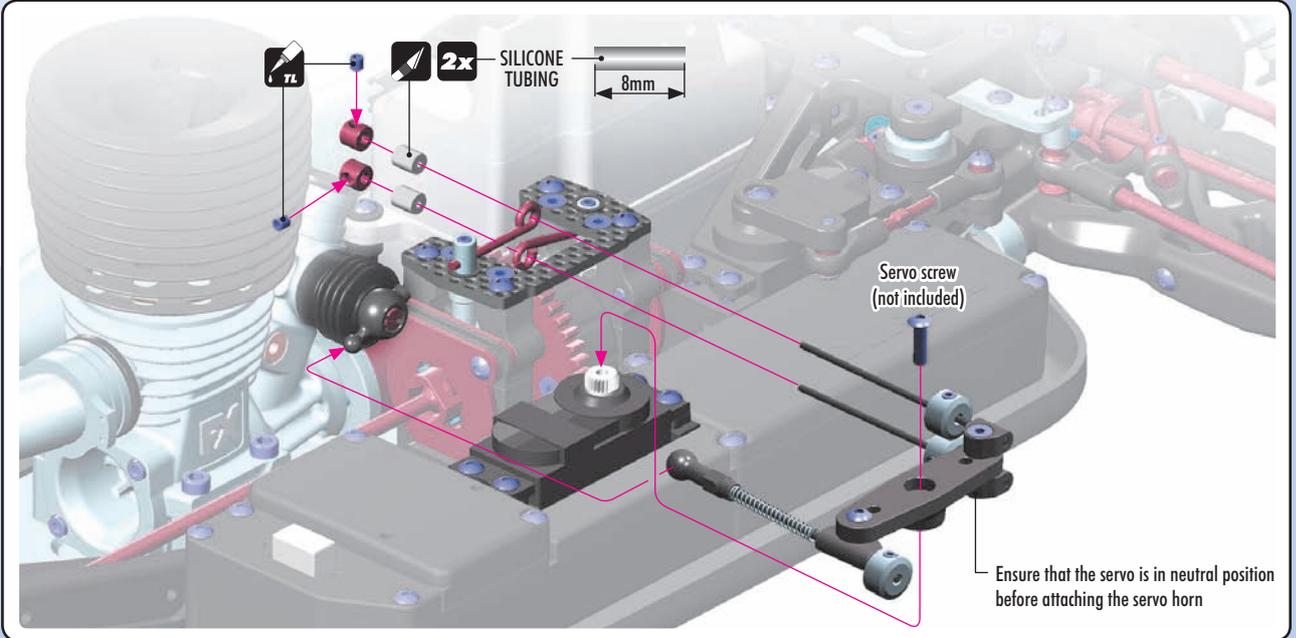
Small gap

Tighten screw until snug. Pivots should move freely.

12. FINAL ASSEMBLY

901303
SB M3x3

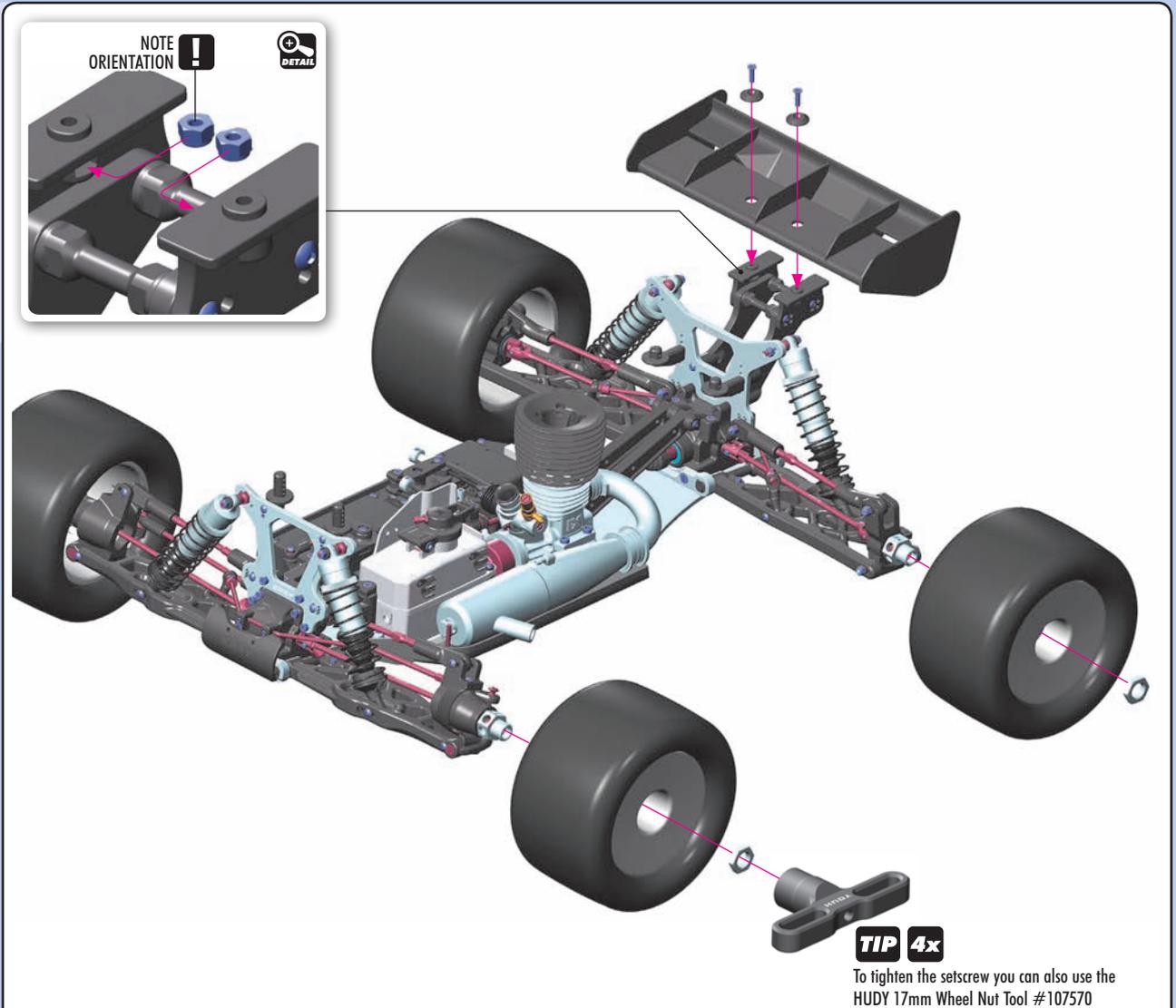
961022
S 2



903312
SFH M3x12



960030
N M3



OPTION

WING SHIMS

#353565	COMPOSITE	INCLUDED
#293561	ALU	OPTION
#293561-0	ALU	OPTION
#353561	ALU	OPTION



OPTION

WINGS

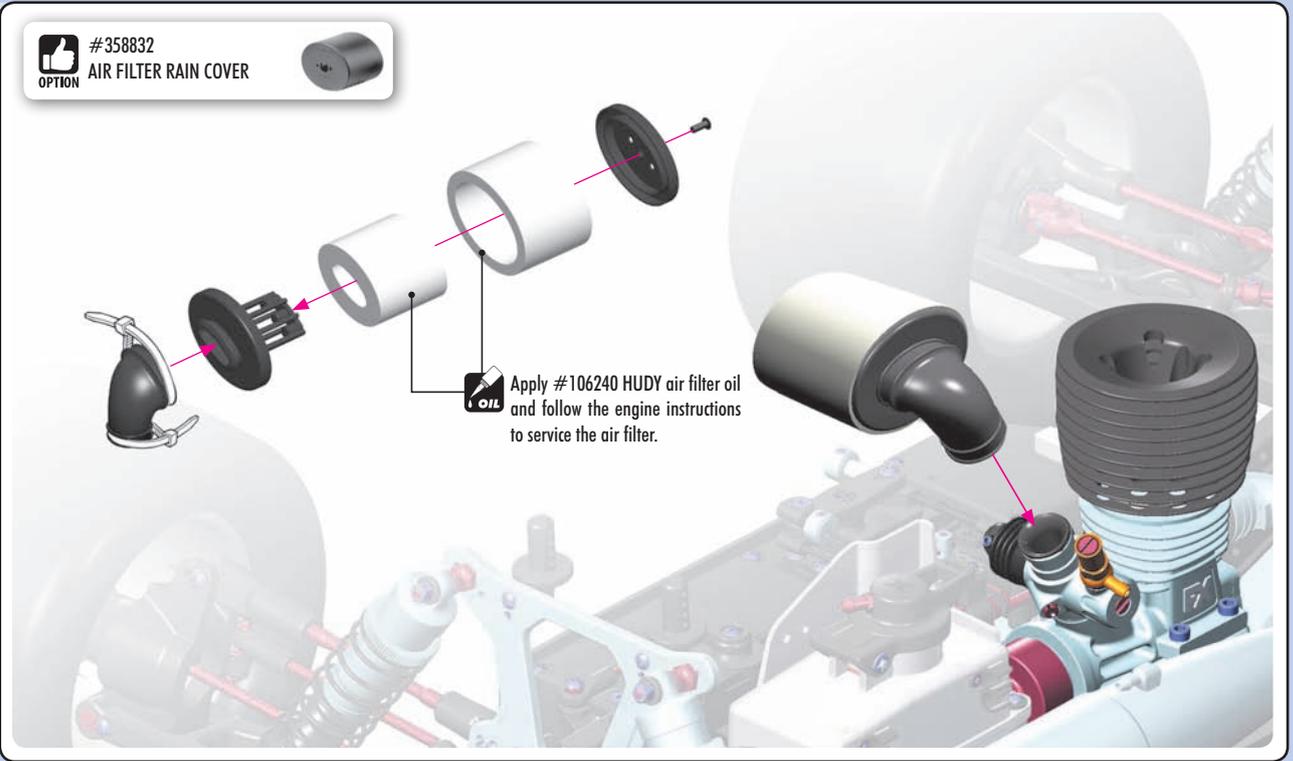
#353511-K	BLACK	INCLUDED
#353511	WHITE	OPTION
#353511-Y	YELLOW	OPTION
#353512	LEXAN	OPTION



OPTION

WHEEL NUTS

#355261	OPEN	INCLUDED
#293560	COVERED	OPTION
#355265	COVERED	OPTION

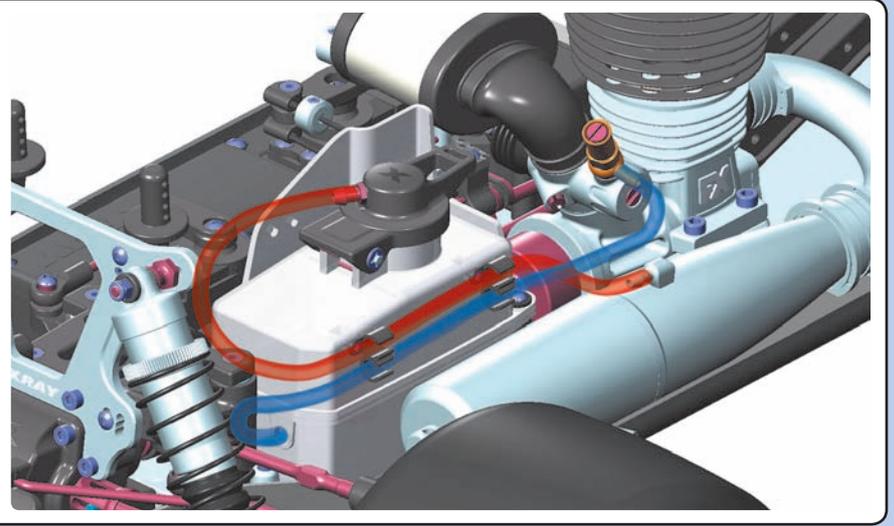


Cut the silicone tube depending on engine and muffler. Use the plastic clips to hold the tubes together.

SILICONE TUBE MARKED AS BLUE = FROM FUEL TANK TO CARBURETOR

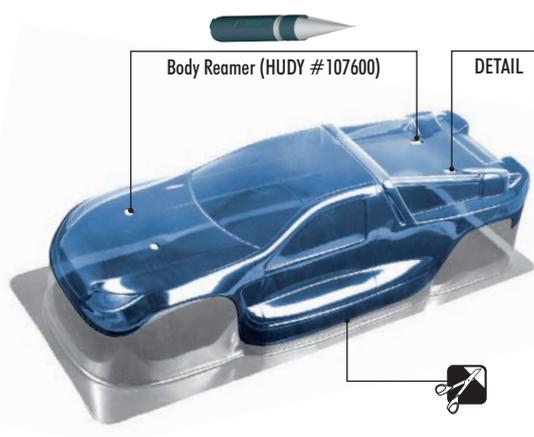
SILICONE TUBE MARKED AS RED = FROM MUFFLER TO FUEL TANK (TOP)

! Keep fuel line away from clutchbell and flywheel.



- 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.
- 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.



Ensure to make this rear body mount hole oval so in the case of chassis flex after a big jump the body mount will not tear up the hole.

TIP To reinforce the body or to fix broken body use #106280 HUDY BODY FIX

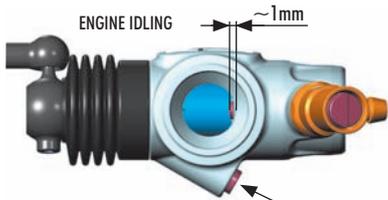
THROTTLE LINKAGE ADJUSTMENT

NEUTRAL (IDLE)



Turn on the transmitter and receiver and set the engine control servo trim to the neutral position. Adjust the idle adjustment screw on the carburetor to open approx. 1mm. Adjust both the throttle linkage and brake linkages accordingly. DO NOT adjust the linkage with the engine running.

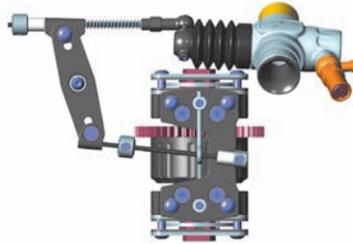
ADJUST INDIVIDUAL LINKAGES SEPARATELY TO AVOID INTERFERING WITH THE OPERATION OF THE OTHERS



IDLING ADJUSTMENT SCREW

Use to adjust the idle setting of the carburetor. Do not allow carburetor to close to less than 1mm.

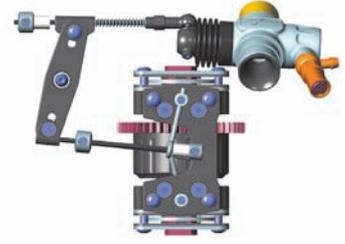
FULL THROTTLE



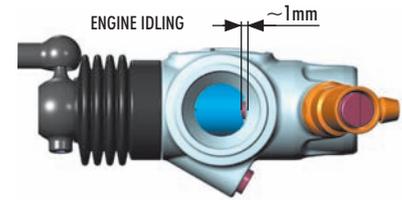
Adjust the servo-horn mounting position for the carburetor to open fully. Change the pivot mounting position on the servo horn in case the carburetor is not opening fully or if it is opening excessively. Or if available on the transmitter, adjust the throttle high end point.



BRAKE



Adjust the adjustable collars so the brakes work smoothly. If the brakes apply too much or not enough, adjust the adjustable collars accordingly. Or if available on the transmitter, adjust the brake endpoint. To tighten brakes, turn collar to thread brake rod INTO pivot. To loosen brakes, turn collar to thread brake rod OUT of pivot.



BRAKE ADJUSTING KNOBS:

Upper linkage - rear brake
Lower linkage - front brake

MAINTENANCE

ENGINE OPERATION

PREPARING TO OPERATE THE ENGINE

- Never modify the engine or muffler.
- Confirm the position of needle and idling before running. Be sure to run a new engine smoothly.
- Make sure the air filter is clean and oiled.
- Never run your engine without an air filter. Your engine can be seriously damaged if dirt and debris get inside the engine.

STARTING AND RUNNING THE ENGINE

Be sure to observe the following starting process. Failure to do so may cause the model car to start suddenly, which may lead to damage or unexpected accidents.

1. Make sure the transmitter and receiver batteries are fully charged.
2. Make sure that your transmitter and receiver are both on the same frequency. If you have a transmitter with multiple model memory, make sure you have selected the proper profile for your car.
3. Put the car on the starter box and keep the tires from touching the ground.
4. Turn on the transmitter.
5. Turn on the receiver in the car.
6. Make sure the steering servo and engine servos work normally and adjust them correctly.
7. Put fuel in the fuel tank, and close the cap securely.
8. Apply the glow igniter to the engine glowplug.
9. Push the model car onto the starter box to start the engine. (If the engine is new, follow the instruction manual and be sure to break in the new engine properly).
10. When the engine has started, remove the glow igniter.
11. Follow your engine break-in procedure and tune the engine as appropriate.

STOPPING THE ENGINE

Before you stop the engine, try to make sure the engine is at idle first. There are several ways to stop the engine:

- Use a rag to cover the exhaust tip. Be careful! The exhaust is extremely hot so use a thick rag and gloves.
- Pinch the fuel tubing to stop the flow of fuel to the carb. Be careful, this can make the motor run lean which can damage the motor.
- Put your hand over the air filter, or squeeze the air filter element to block the airflow.
- Press an object (such as a screwdriver handle or shoe) against the rotating flywheel to stop its rotation. Be very careful, and do not stick your hand or fingers near the rotating flywheel.

FINISHING OPERATIONS

1. Stop the engine.
2. Turn off the receiver in the car.
3. Turn off the transmitter.

MAINTENANCE AFTER RUNNING

Take proper care of your car after running to keep it performing well, and take notice of any damage and wear.

1. Do not leave fuel in the tank.
2. Go outside to drain any residual fuel from the exhaust pipe.
3. Clean the car and remove all sand, mud, and other debris.
4. Use after-run oil in your engine after you have finished running for the day.

SHOCK MAINTENANCE

The most important maintenance task for keeping consistent shock performance is refilling and bleeding them correctly. If built correctly, it will not be necessary to re-build them often. Replacing warped/hard rubber bladders and o-rings, scarred piston rods, or shaved/split/loose composite upper and lower ball joints are also important.

- For club racing, it is recommended to check the shocks for air inside before each race and only re-fill and bleed them if necessary. Before each race day, make sure you take the spring off of each shock, hold it up to your ear, and 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.
- If installing new rubber bladders, carefully trim the thin excess rubber from the edges of their lips. Curved body scissors work the best.
- Regularly inspect the amount of dirt on the felt protector in the shocks (if present) and regularly replace with a new one.
- During regular shock operation, oil naturally gets on the shock shaft and drop-by-drop slightly gets out of the shock body. Shocks should be inspected regularly after each race, and oil replaced as required.

BEARING MAINTENANCE

Ball-bearings in an off-road car or truggy must be properly maintained for smooth operation and long lifespan. Typically, the ball-bearings included in new cars are greased for highest lifespan and as such the drivetrain may not seem to be as free as with lightly-oiled ball-bearings. However, when the car is run the ball-bearings will become more free and the drivetrain will become very efficient. There are several types of bearings discussed here: bearings which already come greased from the factory, bearings which must be lubricated using the HUDY Bearing Grease, and then there are also bearings in the steering system which need to be lubricated with HUDY Bearing Oil. The following procedures are recommended to clean all of the bearings in your off-road car or truggy. For high-competition racing, we recommended doing this every 3-4 weeks, or before a major race.

1. Remove the seals on both sides of the bearing (if present). If the seals bend a little and you can see a kink, carefully flatten the kink out by hand.
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.

CLUTCH BEARINGS

To prolong the lifespan of the clutch bearings, they must be regularly cleaned and lubricated (preferably after each run) using a high-quality grease such as HUDY Bearing Grease. However, after some time the clutch bearings must be replaced with new ones.

RECOMMENDED PRODUCTS

- Use HUDY Bearing Grease to regularly lubricate grease-bearing ball-bearings.
- Use HUDY Bearing Oil to lubricate the bearings of the steering system.
- Use HUDY Bearing Grease to regularly lubricate the clutch bearings.



HUDY Joint Grease #106213



HUDY Bearing Grease #106220



HUDY Premium Bearing Grease #106222



HUDY #Bearing Grease Extra106221



HUDY Bearing Oil #106230
HUDY Bearing Oil #106232

XPAY 1/8 LUXURY ELECTRIC RACING TRUGGY

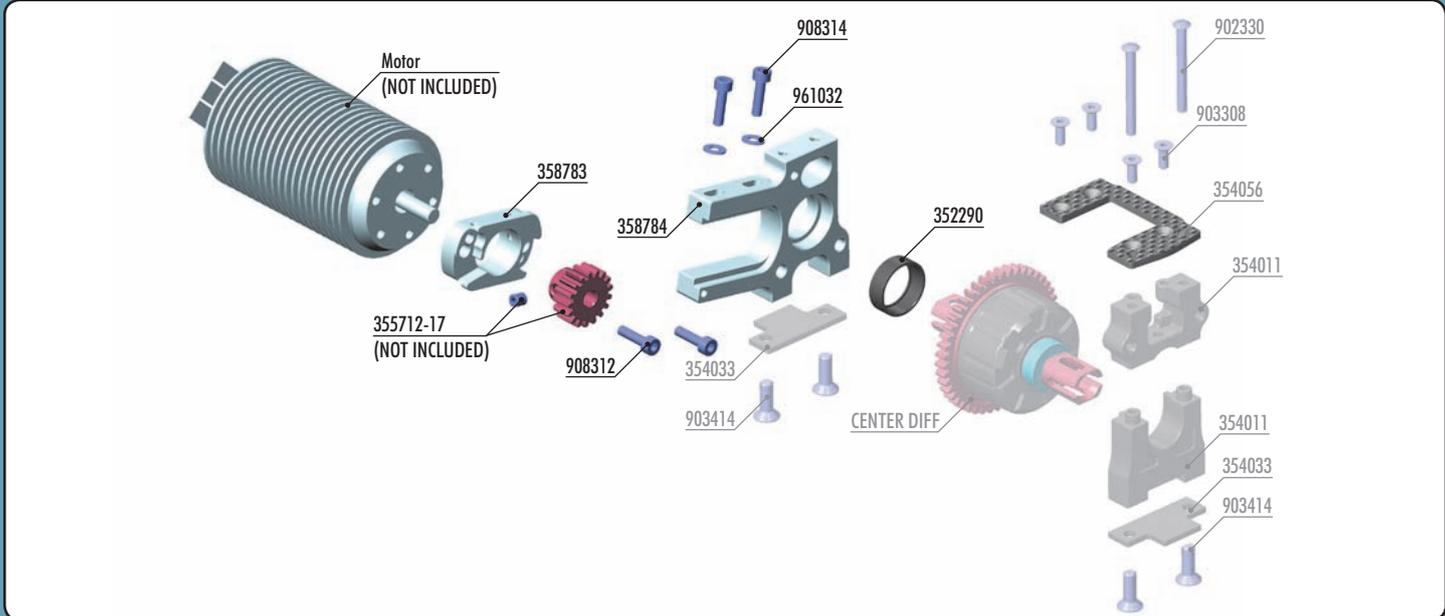
XT8E

CONVERSION INSTRUCTIONS

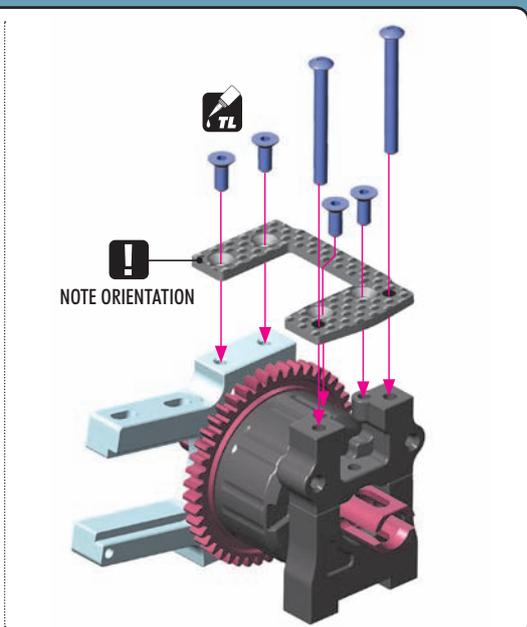
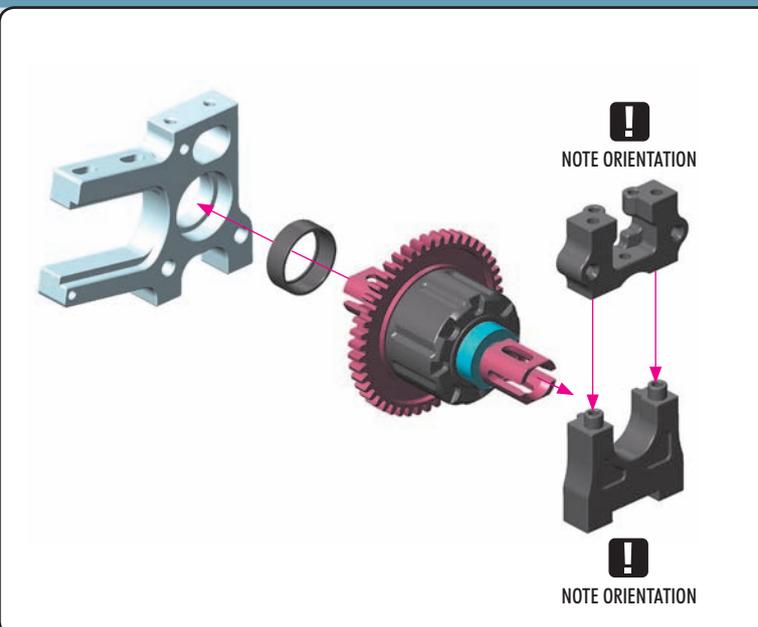


#350905 XT8E CONVERSION SET

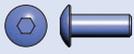
The XT8E conversion is not included and must be purchased separately. To convert the XT8 into XT8E you have to dismount the engine with muffler, fuel tank, radio box, center diff holders and follow these instructions. All parts in the section exploded views which are shaded are to be used from the original XT8 kit.



352290	COMPOSITE BUSHING FOR ALU STEERING BLOCK (4)	902330	HEX SCREW SH M3x30 (10)
354011	CENTER DIFF MOUNTING PLATE SET - HIGHER	903308	HEX SCREW SFH M3x8 (10)
354033	COMPOSITE 2-SPEED HOLDER PLATE (2)	903414	HEX SCREW SFH M4x14 (10)
354056	XT8E GRAPHITE CENTER DIFF MOUNTING PLATE	908312	HEX SCREW SOCKET HEAD CAP M3x12 (10)
355712~17	12~17T PINION GEAR (OPTION)	908314	HEX SCREW SOCKET HEAD CAP M3x14 (10)
358783	ALU MOTOR MOUNT PLATE - V2	961032	WASHER S 3.2 (10)
358784	ALU MOTOR MOUNT - V2		



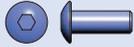
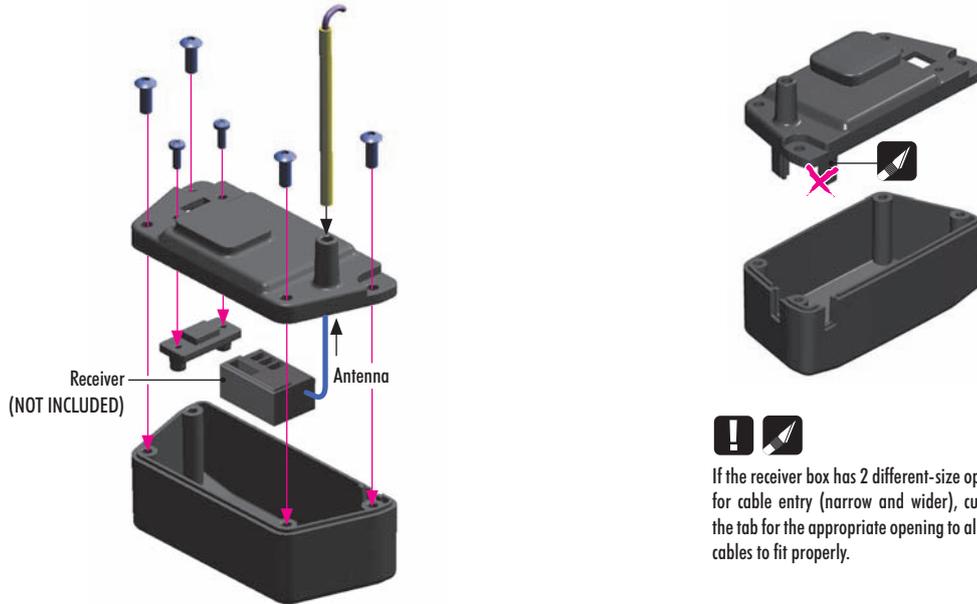
XT8E CONVERSION INSTRUCTIONS



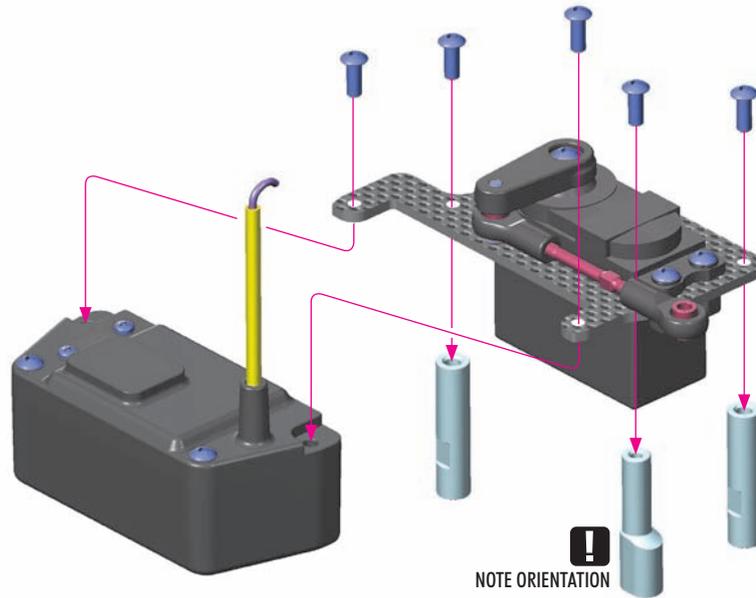
902308
SH M3x8



907206
2x6



902308
SH M3x8



902314
SH M3x14



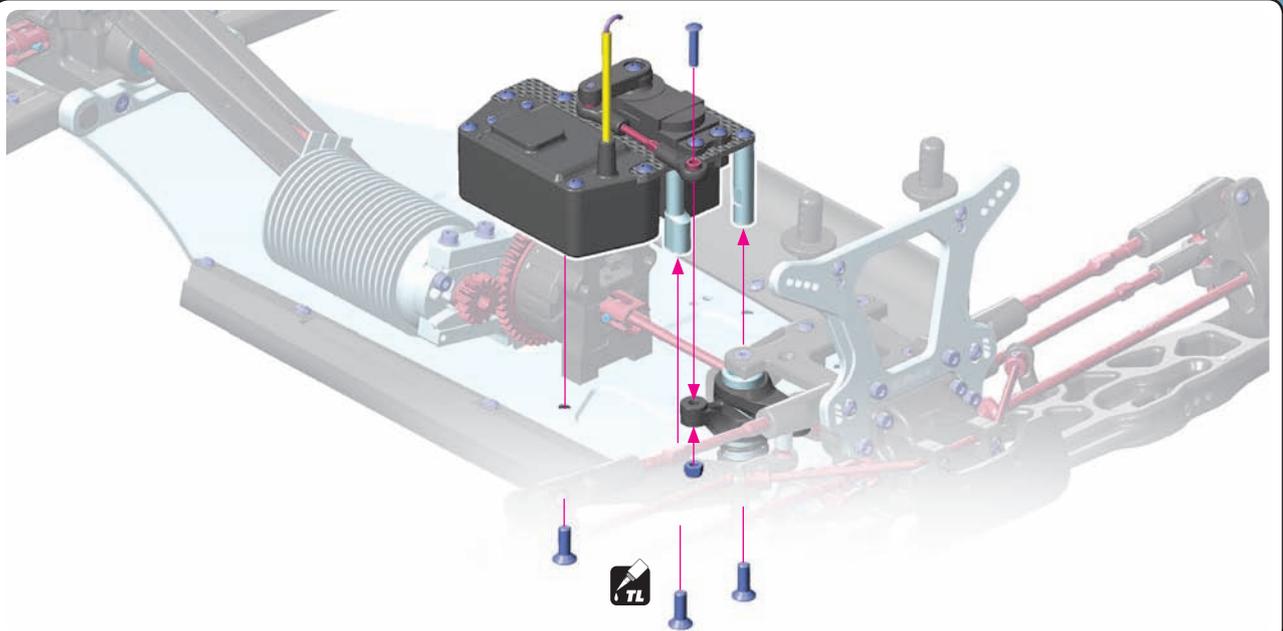
903412
SFH M4x12



960030
N M3



960030
N M3



XT8E CONVERSION INSTRUCTIONS



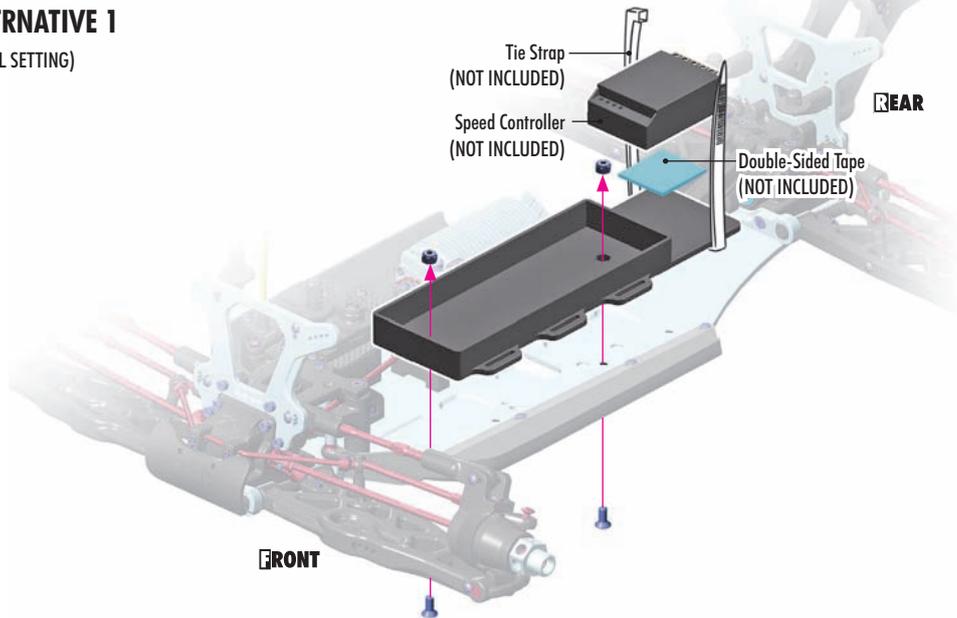
903410
SFH M4x10



960040
N M4

ALTERNATIVE 1

(INITIAL SETTING)

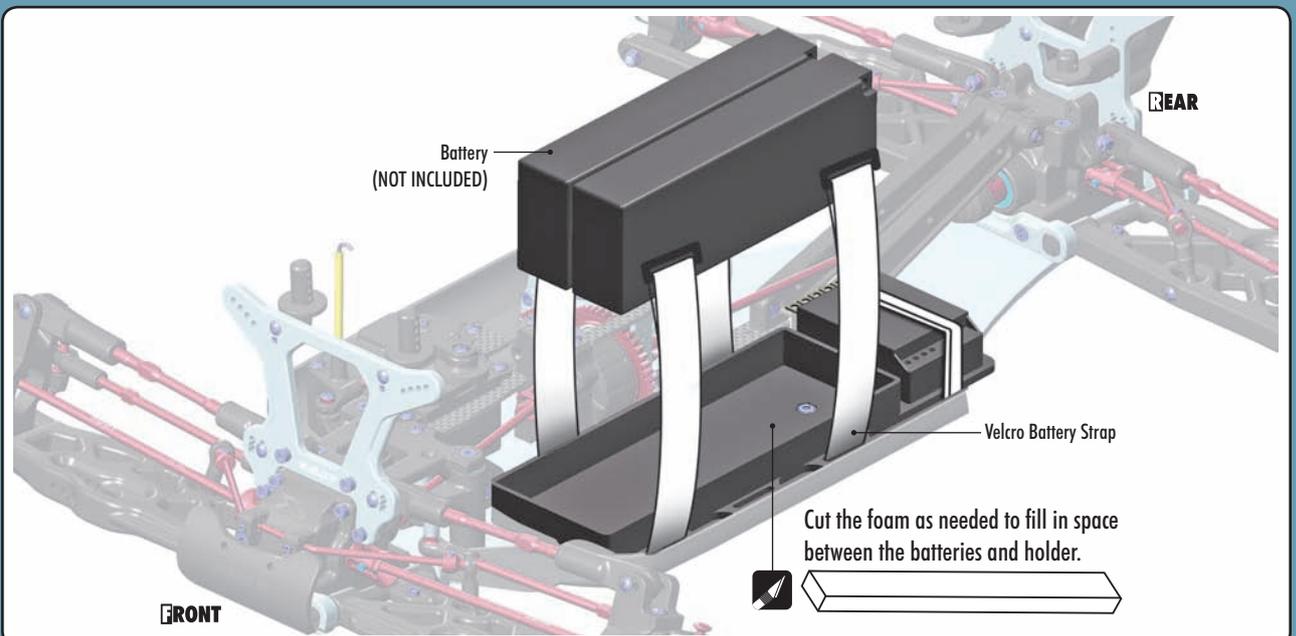
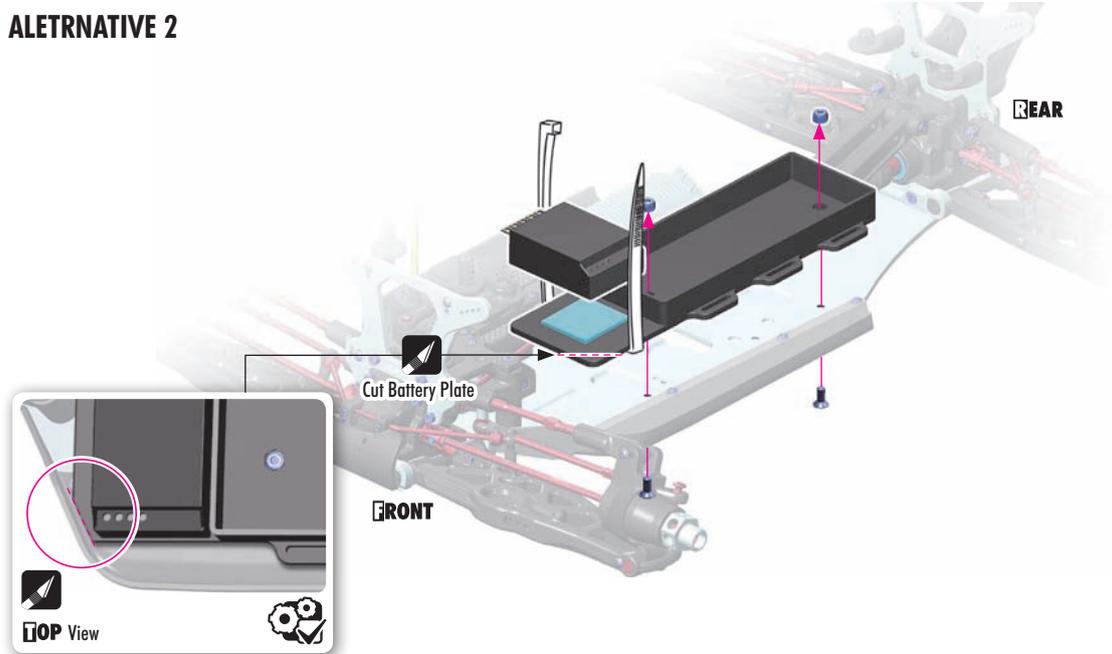


903410
SFH M4x10



960040
N M4

ALTERNATIVE 2



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