

BEFORE YOU START

The MB PRO is a high-quality, 1/18-scale nitro truck intended for persons aged 16 years and older with previous experience building and operating RC model racing car is not intended for use by beginners, inexperienced customers, or by children without direct supervision of a responsible, knowledgeable adult. If you do not fulfill these requirements, please return the kit in unused and unassembled form back to the shop where you have purchased it. Before building and operating your M18 PRO, YOU MUST read through all of the operating instructions and instruction manual and fully understand them to get the maximum enjoyment and prevent unnecessary damage. Read carefully and fully understand the instructions before beginning assembly. Make sure you review this entire manual, the induded engine instructions, and examine all details carefully. If for some reason you decide the M18 PRO is not what you wanted or expected, <u>do not continue any further.</u> Your hobby dealer cannot accept your M18 PRO kit for return or exchange after it has been partially or fully assembled.

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

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 wew.web.atea.wew.web.atea.wew.web.atea.w

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

XRAY Furone

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Phone: 421-32-7440180 Fax: 421-32-7440179 E-mail: info@teamxray.com

XRAY USA

RCAmerica, 167 Turtle Creek Boulevard Suite C Dallas, Texas 75207, USA

Phone: (800) 519-7221 * (214) 744-2400 Fax: (214) 744-2401 E-mail: xray@rcamerica.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.

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 you'd augranty immediately.

Improper operation may cause personal and/or property damage. XRAY and its distributors have no control over damage resulting from shipping, improper construction, or improper usage. XRAY assumes and accepts no responsibility for personal and/or property damages resulting from the use of improper building materials, equipment and operations. By purchasing any item produced by XRAY, the buyer expressly warrants that he/she is in compliance with all applicable federal, state and local laws and regulation regarding the purchase, ownership and use of the item. The buyer expressly agrees to indemnify and hold harmless XRAY for all claims resulting directly or indirectly from the purchase, ownership or use of the product. By the act of assembling or operating in bis 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.

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.

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 engine and muffler, 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, dothes, etc.
- Be sure that your operating frequency is clear before turning on or running your model, and never share the same frequency with somebody
 else at the same time. Ensure that others are aware of the operating frequency you are using and when you are using it.
- Use a transmitter designed for ground use with RC cars. Make sure that no one else is using the same frequency as yours in your operating area. Using
 the same frequency at the same time, whether it is driving, flying or sailing, can cause loss of control of the RC model, resulting in a serious accident.
- Always turn on your transmitter before you turn on the receiver in the car. Always turn off the receiver before turning your transmitter off.
- Keep the wheels of the model off the ground when checking the operation of the radio equipment.
- Disconnect the battery pack before storing your model.
- . When learning to operate your model, go to an area that has no obstacles that can damage your model if your model suffers a collision.
- · Remove any sand, mud, dirt, grass or water before putting your model away.
- If the model behaves strangely, immediately stop the model, check and clear the problem.
- To prevent any serious personal injury and/or damage to property, be responsible when operating all remote controlled models.
- The model car is not intended for use on public places and roads or greas 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 imited in the street * In areas where loud noises can disturb others, such as hospitals and residential areas.
 At noising a street in the street * In areas where loud noises can disturb others, such as hospitals and residential areas.
 At noising a street in the street in a street in the street in a s

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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.

SYMBOLS USED

Assemble left True-to-scale Part baas Pay attention Pivot hall Apply instant Ensure smooth Cut off Assemble as Assemble in diaaram used and right the specified non-bindina shadded here type used alue many times sides the order. movement as specified portion (here twice) same way ₩ L=R 1:1 0 2 3 Self-tapping screws cut threads into the parts when being tightened. Excessive force may permanently damage Car Cut off Cut off Tighten screw orientation parts when tightening screws. It is recommended to stop tightening when the part is attached or when some remainina aently remainina resistance is felt after the threaded portion enters the plastic. material from all material plastic parts. WRONG X CORRECT Overtightened. The threads are stripped.



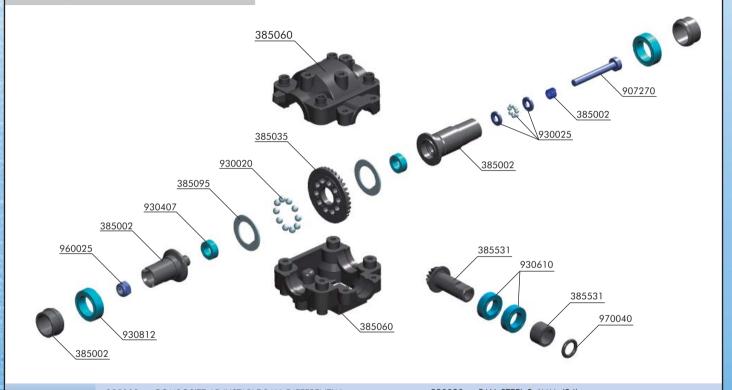




Hole Reamer

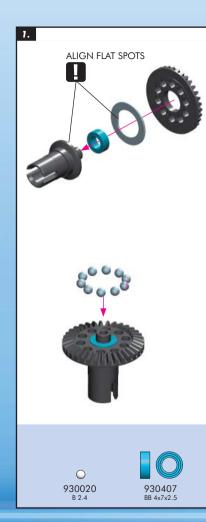
INCLUDED IN #389101

1. FRONT DIFFERENTIAL

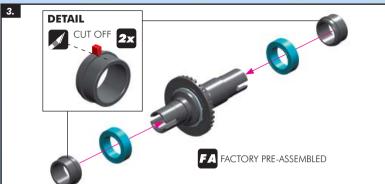


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385002	COMPOSITE ADJUSTABLE BALL DIFFERENTIAL	930020	BALL STEEL 2.4MM (24)
385035	BEVELED DIFF. GEAR FOR BALL DIFF.	930025	BALL-BEARING AXIAL 2.5x5.4x0.8
385060	GEARBOX CASE	930407	BALL-BEARING MR74ZZ 4x7x2.5 (2)
385095	BALL DIFF D - WASHER (2)	930610	BALL-BEARING MR106ZZ 6x10x3 (2)
385531	MAIN DRIVESHAFT PINION GEAR & COLLAR M18T, M18 PRO	930812	BALL-BEARING MR128ZZ 8x12x3.5 (2)
		970040	O-RING 4x1 (10)
907270	SCREW PHILLIPS M2.5x20 (10)	960025	NUT M2.5 (10)







VERY IMPORTANT

DIFFERENTIAL BREAK-IN AND ADJUSTMENT:

The ball differentials in the M18 PRO comes pre-built from the factory, but you must still perform a proper break-in on them in order to have them perform properly and give long life. The key is to gradually tighten the diff to break it in properly and obtain the correct tightness. DO NOT overtighten the diff initially or damage will result.

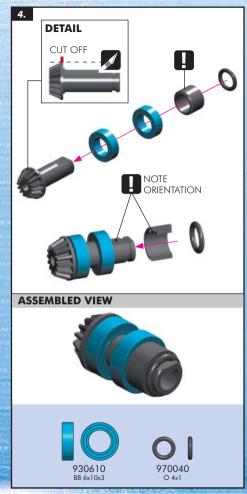
When initially tightening the diff, the screw should be tightened enough so that diff cannot be rotated while holding both

When breaking in the diff, the balls create a groove in the diff rings; this is normal and essential for proper operation. If you overtighten the diff initially, the balls will mar the surface of the rings (and damage the parts) instead of creating a proper groove in the rings.

Adjusting the differentials is easy to do. Tighten the diff until you feel some resistance; you do not need to make large adjustments - 1/16 or 1/8 of a turn will make a noticeable change in diff tightness.

Reassemble the car, run it for a few minutes, and then tighten each diff a little bit. Repeat this several times to break in the diff and set the correct tightness.







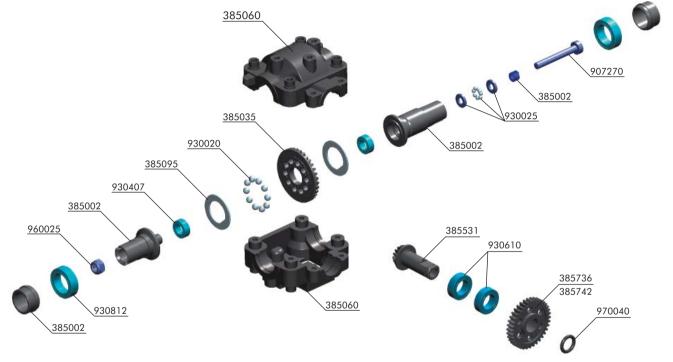






APPLY THIN LAYER OF GREASE ON CASE EDGES (WHERE THEY CONNECT) TO SEAL OUT DUST/DIRT. WIPE AWAY EXCESS GREASE

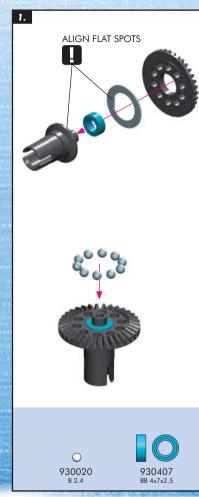
2. REAR DIFFERENTIAL



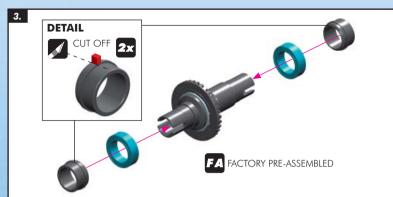
-	3/4	C
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385002 COMPOSITE ADJUSTABLE BALL DIFFERENTIAL	
385035 BEVELED DIFF. GEAR FOR BALL DIFF.	
385060 GEARBOX CASE	
385095 BALL DIFF D - WASHER (2)	
385531 MAIN DRIVESHAFT PINION GEAR & COLLAR	M18T, M18 PRO
385736 SPUR GEAR 36T/48	
385742 SPUR GEAR 42T/48	
907270 SCREW PHILLIPS M2.5x20 (10)	

930020 930025 930407 930610 930812 970040 960025	BALL STEEL 2.4MM (24) BALL-BEARING AXIAL 2.5x5.4x0.8 BALL-BEARING MR74ZZ 4x7x2.5 (2) BALL-BEARING MR106ZZ 6x10x3 (2) BALL-BEARING MR128ZZ 8x12x3.5 (2) O-RING 4x1 (10) NUT M2.5 (10)







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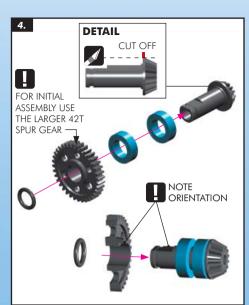
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ASSEMBLED VIEW





970040 0 4x1



36T SPUR GEAR WORKS WELL WITH 180-SIZE MOTORS.

42T SPUR GEAR RECOMMENDED FOR MODIFIED BRUSHED OR BRUSHLESS MOTORS.



ADD THIN LAYER OF GREASE TO INTERNAL GEARS (NOT SPUR GEAR).

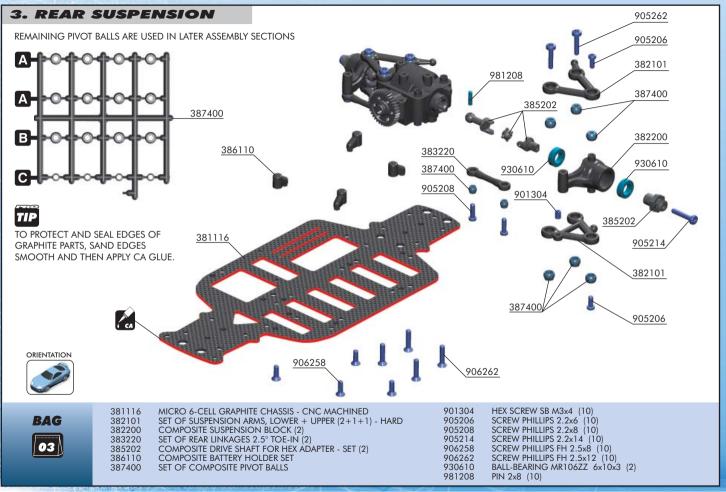


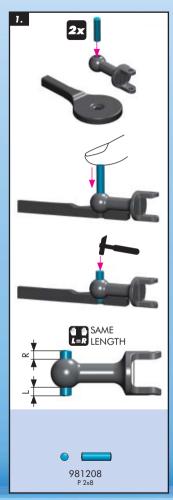
ASSEMBLED VIEW

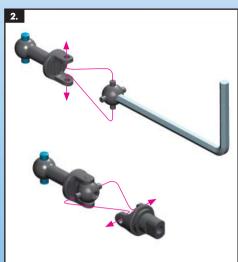


TIP

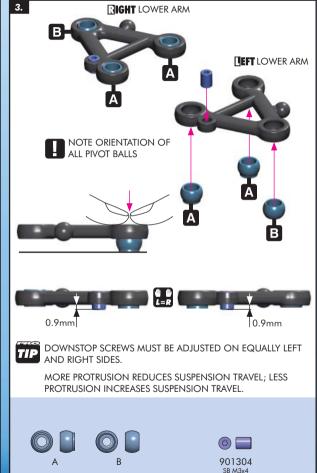
APPLY THIN LAYER OF GREASE ON CASE EDGES (WHERE THEY CONNECT) TO SEAL OUT DUST/DIRT. WIPE AWAY EXCESS GREASE.

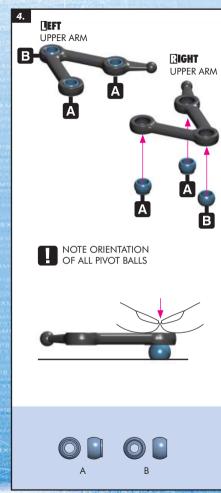






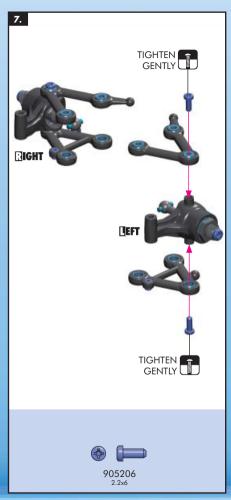


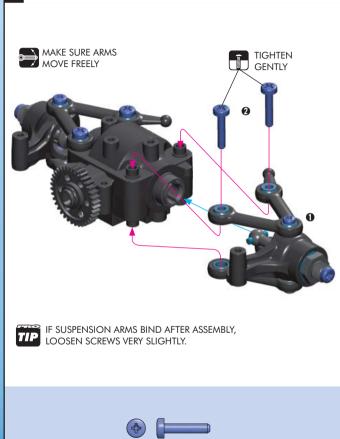




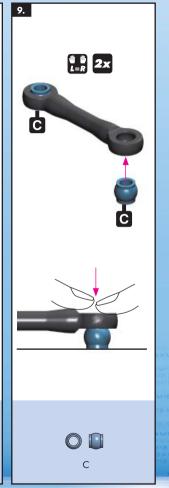








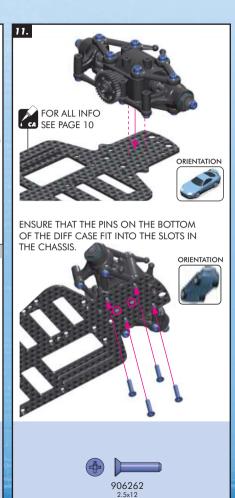
2.5x12

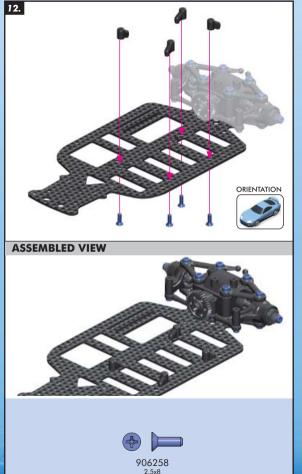


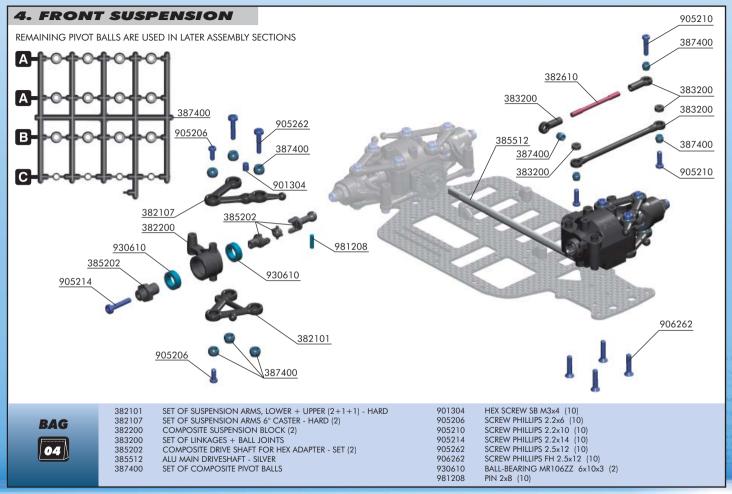


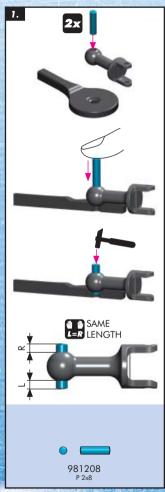


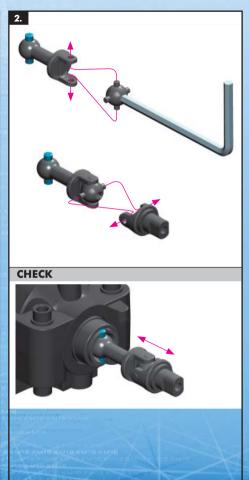
2.2x8

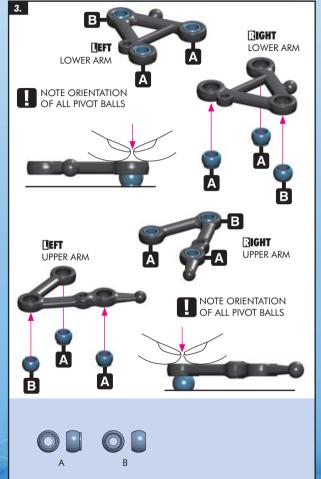


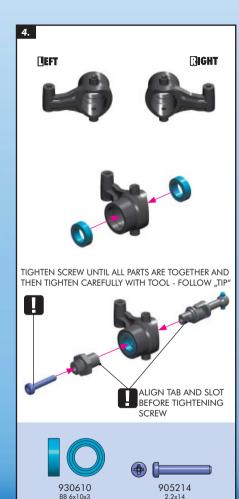


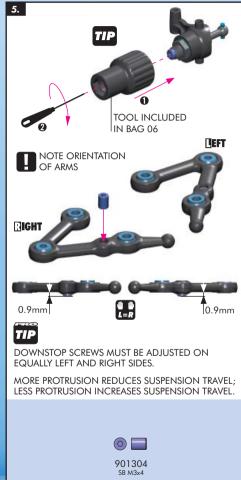


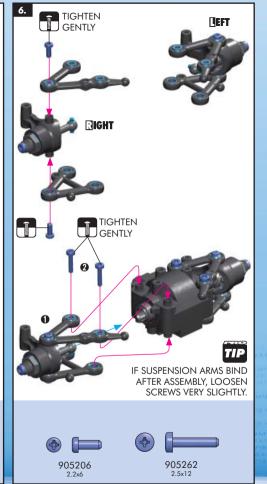


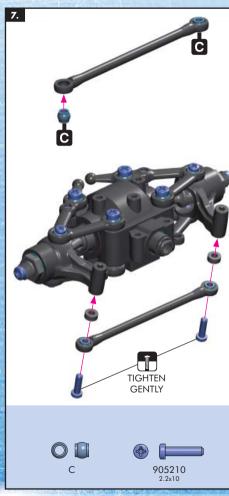


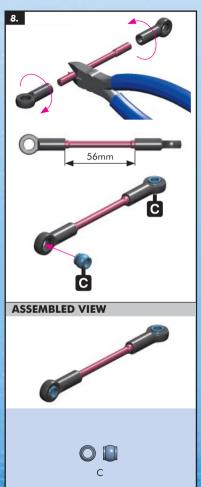
















11.

ENSURE THAT THE PINS ON THE BOTTOM OF THE DIFF CASE FIT INTO THE SLOTS IN THE CHASSIS.



ORIENTATION



IF SUSPENSION ARMS BIND AFTER ASSEMBLY, LOOSEN SCREWS VERY SLIGHTLY.

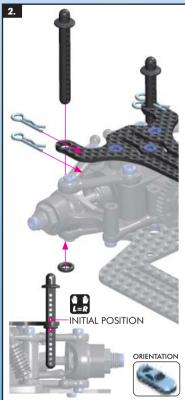




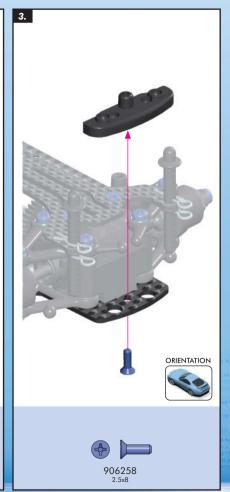
906262 2.5x12

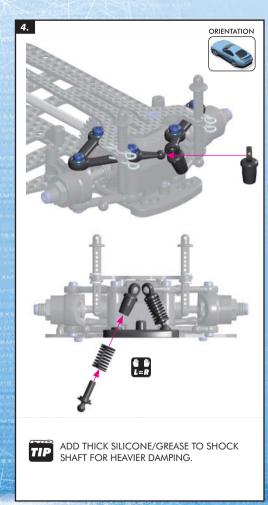
5. FRONT & REAR FINAL ASSEMBLY 381116, ORIENTATION MICRO 6-CELL GRAPHITE CHASSIS - CNC MACHINED COMPOSITE SHOCK BODY SET (4) BAG MICRO M18 GRAPHITE TOP DECK - CNC MACHINED MICRO BODY CLIP (10) LOWER FRONT BUMPER M18 UPPER HOLDER FOR BUMPER - GRAPHITE SCREW PHILLIPS FH 2.5x6 (10) FOAM BUMPER - BLACK SCREW PHILLIPS FH 2.5x8 (10) SILICONE O-RING 3x1.5 (10) COMPOSITE BODY POSTS (4) + BODY CLIPS



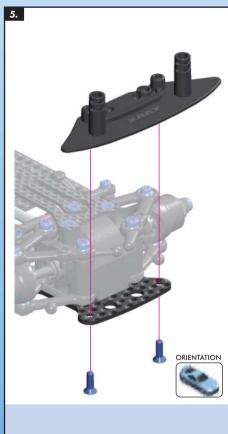




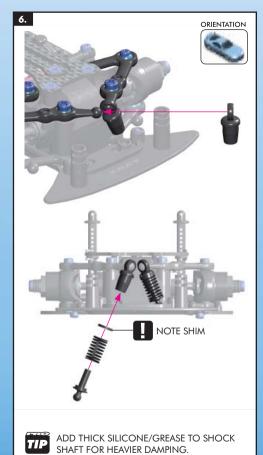


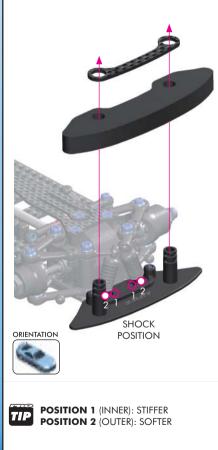


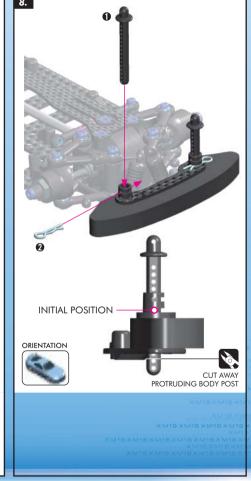






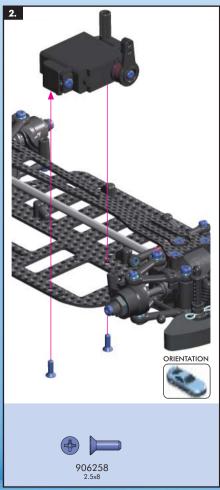


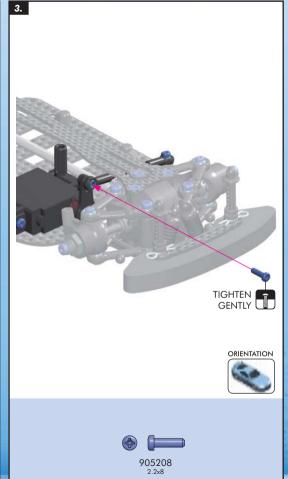


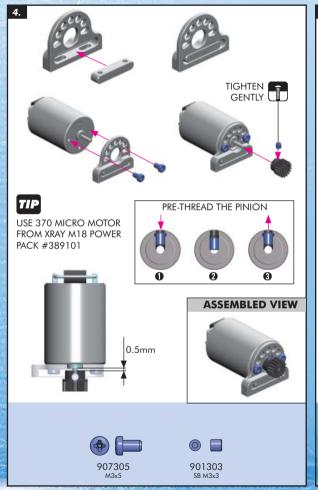


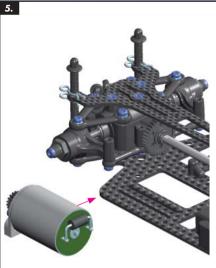
6. FINAL ASSEMBLY ORIENTATION MICRO BODY CLIP (10) ALU MOTOR HOLDER M18 - 7075 T6 (5MM) REAR FOAM TIRE MOUNTED WITH HEX HUB (35DEG) - SOFT BAG MICRO SERVO SAVER ALU WHEEL NUT (2) COMPOSITE PINION SET (17,19,21,23) FRONT FOAM TIRE MOUNTED WITH HEX HUB (50DEG) - HARD HEX SCREW SB M3x3 (10) SCREW PHILLIPS 2.2x8 (10) COMPOSITE BATTERY HOLDER SET SCREW PHILLIPS 2.5x8 (10) **GRAPHITE BATTERY HOLDER - BLACK** SCREW PHILLIPS FH 2.5x8 (10) BATTERY HOLDER FOR 6-CELL IN-LINE BATT, PACK COMPOSITE SERVO MOUNT+ ANTENNA HOLDER - SET SCREW PHILLIPS M3x5 (10) SCREW PHILLIPS M 2.5x8 (10) **ANTENNA**













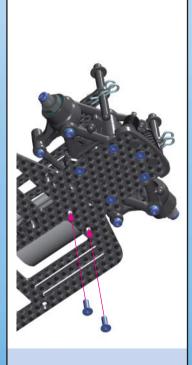
36T SPUR GEAR

WORKS WELL WITH 180-SIZE MOTORS.

42T SPUR GEAR

RECOMMENDED FOR 370 MOTOR, OR MODIFIED BRUSHED OR BRUSHLESS MOTORS.

USE APPROPRIATE PINION(S).





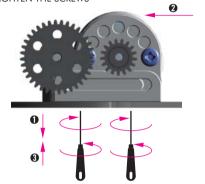


910258 _{M2.5x8}

TECH TIP

THE MOTOR STAND IS ADJUSTABLE:

- 1. RELEASE SCREWS FROM THE BOTTOM OF CHASSIS
- 2. MOVE THE MOTOR STAND AS NEEDED
- 3. TIGHTEN THE SCREWS

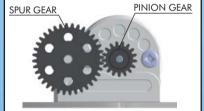


ADJUST MOTOR STAND SO GEARS MESH SMOOTHLY



	SPUR GEAR		PINION GEAR	FINAL RATIO	ACCELERATION
		0	13	8.08	ER
		0	14	7.50	
2.5		0	15	7.00	\S \
INTERNAL RATIO 1 : 2.5	42	0	16	6.56	A
M	42	Х	17	6.18	
I R		Х	19	5.53	
I I		Х	21	5.00	
E I		Х	23	4.57	
		Х	17*	5.29	↓
	24	Х	19	4.74	
	36	х	21	4.29	SPEED
		х	23	3.91	\ \&

- * ONLY FOR BRUSHLESS MOTOR
- X INCLUDED WITH KIT
- AVAILABLE OPTION





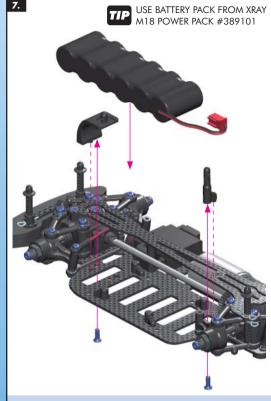
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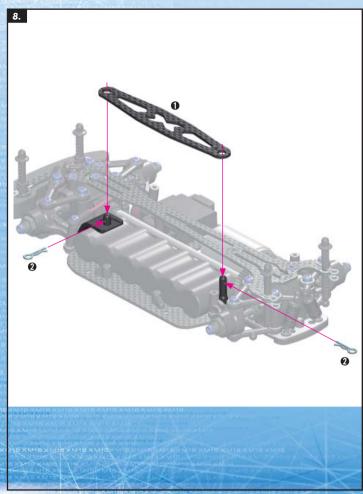
USE APPROPRIATE PINION(S).

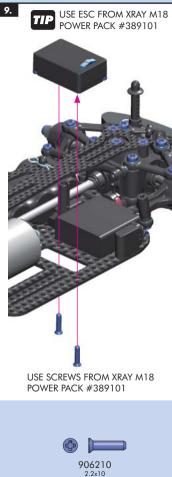


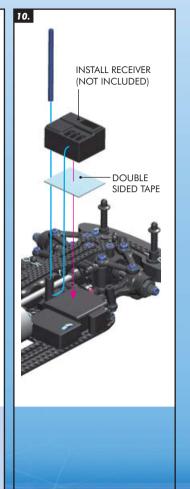


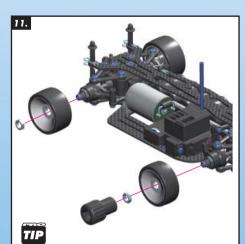


906258 2.5x8









BE CAREFUL WHEN THREADING ALU NUT ONTO COMPOSITE HEX HUB. DO NOT CROSSTHREAD.

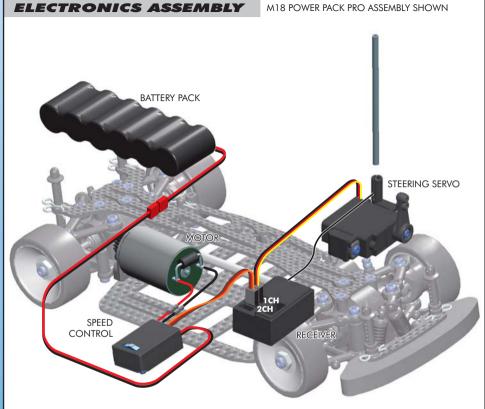
FRONT	REAR	USE WHEN:	
45	35	grip is low and when you need more steering.	
50	35	grip is low and when you need less steering. Makes the car easy to drive. (This is the standard tire combination included in the kit.)	
45	40	grip is high and when you need more steering.	
50	40	grip is high and when you need less steering.	

#38 9543 REAR FOAM TIRE MOUNTED WITH HEX HUB (35DEG) - SOFT

#38 9543 REAR FOAM TIRE MOUNTED WITH HEX HUB (40DEG) - MEDIUM

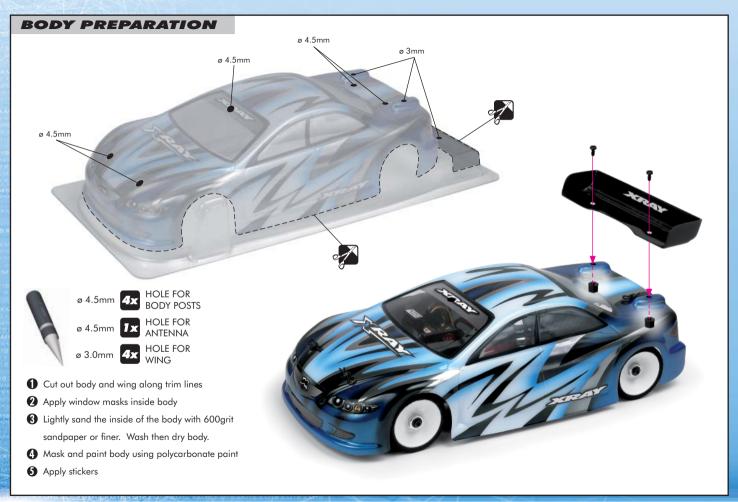
#38 9544 FRONT FOAM TIRE MOUNTED WITH HEX HUB (45DEG) - MEDIUM

#38 9546 FRONT FOAM TIRE MOUNTED WITH HEX HUB (50DEG) - HARD



INSTALL ELECTRONICS ACCORDING TO MANUFACTURER'S INSTRUCTIONS

USE XRAY M18 POWER PACK PRO #389101 THAT INCLUDES ALL ELECTRONICS REQUIRED FOR OPERATION. (RECEIVER & TRANSMITTER ARE NOT INCLUDED)





IMPORTANT NOTES - ELECTRICAL

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

LIMITATIONS OF LIABILITY

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

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

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

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.

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 TOM (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!

