## **BEFORE YOU START**

The NT18 is a high-quality, 1/18-scale nitro touring car intended for persons aged 16 years and older with previous experience building and operating RC model racing cars. This is not a toy; it is a precision car model. This model racing car is not intended for use by beginners, inexperienced customers, or by children without direct supervision of a responsible, knowledgeable adult. If you do not fulfill these requirements, please return the kit in unused and unassembled form back to the shop where you have purchased it. Before building and operating your NT18, YOU MUST read through all of the operating instructions and instruction manual and fully

# **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 <u>info@teamxray.com</u>. Also, please visit our Web site at <u>www.teamxray.com</u> 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

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 included engine instructions, and examine all details carefully. If for some reason you decide the NT18 is not what you wanted or expected, <u>do not continue any further</u>. Your hobby dealer cannot accept your NT18 kit for return or exchange after it has been partially or fully assembled.

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

# XRAY Europe

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#### **XRAY USA**

RCAmerica, 167 Turtle Creek Boulevard Suite C Dallas, Texas 75207 USA Phone: (800) 519-7221 \* (214) 744-2400 Fax: (214) 744-2401 Email: 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 void guaranty immediately.

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

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, 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 - 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.

- 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.

- When not using RC model, always disconnect and remove battery.
- Do not disassemble battery or cut battery cables. If the running battery short-circuits, approximately 300W of electricity can be discharged, leading to fire or burns. Never disassemble battery or cut battery cables.
- Use a recommended charger for the receiver and transmitter batteries and follow the
  instructions correctly. Over-charging, incorrect charging, or using inferior chargers
  can cause the batteries to become dangerously hot. Recharge battery when necessary.
  Continual recharging may damage battery and, in the worst case, could build up heat
  leading to fire. If battery becomes extremely hot during recharging, please ask your local
  hobby shop for check and/or repair and/or replacement.
- Regularly check the charger for potential hazards such as damage to the cable, plug, casing or other defects. Ensure that any damage is rectified before using the charger

again. Modifying the charger may cause short-circuit or overcharging leading to a serious accident. Therefore do not modify the charger.

- Always unplug charger when recharging is finished.
- Do not recharge battery while battery is still warm. After use, battery retains heat. Wait until it cools down before charging.

# 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.
- 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 - 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 inflammable, 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.

# **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.

- 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.



- Do not swallow nitro fuel or get it in your eyes. If this happens, immediate measures should be taken.
- If fuel is swallowed, immediately drink large quantities of water and induce vomiting. Consult a physician or poison control center immediately.
- If fuel gets into the eyes, rinse them well with water, and then consult a physician immediately.
- · If fuel gets onto the skin, wash it with soap and water well.

- Nitro fuel for RC model cars is made of the combination of the methyl alcohol, castor or synthetic oil, nitro methane etc. The flammability and volatility of these elements is very high, so be very careful during handling and storage of nitro fuel.
- Keep nitro fuel away from open flame, sources of heat, direct sunlight, high temperatures, or near batteries.
- Store fuel in a cool, dry, dark, well-ventilated place, away from heating devices, open flames, direct sunlight, or batteries. Keep nitro fuel away from children.
- Do not leave the fuel in the carburetor or fuel tank when the model is not in use. There is danger that the fuel may leak out.
- · Wipe up any spilled fuel with a cloth
- Be aware of spilled or leaking fuel. Fuel leaks can cause fires or explosions.
- Do not dispose of fuel or empty fuel containers in a fire. There is danger of explosion.
- 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

Part bags used	Assemble left and right sides the same way	Assemble in the specified order	Pay attention here	Pivot ball type used	Apply instant glue	Ensure smooth non-binding movement	Cut off shadded portion	True-to-scale diagram	Assemble as many times as specified (here twice)
	۵ ۵ L=R	000		C-	<b>K</b> a		-	1:1	2x
Car orientation	Cut off remaining material	Cut off remaining material from all plastic parts.	Tighten screw gently	Self-tapping scre parts when tighte resistance is felt	ws cut threads into ening screws. It is re after the threaded p	the parts when bein commended to stop portion enters the pla	ng tightened. Excess tightening when th astic.	ive force may perm ne part is attached c	anently damage or when some
	<i>(</i>		formula	CORRECT 🗸		Overtigh	WRONG X	The three	eads are stripped.

INCL	UDED			TOOLS REQUIRED				
Engine + Muffler	Differential Assembly Tool	Phillips Screwdriver	1.5mm Allen Wrench	Hobby Knife	Side Cutters	Needlenose Pliers	Curved Scissors	Hole Reamer



### **1. FRONT DIFFERENTIAL**



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4.

# 2. REAR DIFFERENTIAL



BAG	385000 385060 385742	COMPOSITE GEAR DIFF. + DRIVESHAFT PINION GEAR GEARBOX CASE SPUR GEAR "H" 42T / 48	930610 930812 962030 970040 981316	BALL-BEARING MR106ZZ 6x10x3 (2) BALL-BEARING MR128ZZ 8x12x3.5 (2) WASHER S 3x6x0.3 (10) O-RING 4x1 (10) PIN 3x16 (10)	
			,01010		



















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906258

SCREW PHILLIPS FH 2.5x6 (10)

SCREW PHILLIPS FH 2.5x8 (10)

U	
L	1151
U	

381300

381340

COMPOSITE BODY POSTS (4) + BODY CLIPS

COMPOSITE REAR BODY POST HOLDER

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To adjust gear mesh, loosen these screws through bottom of chassis holes, move engine mounts as required, then retighten screws.



DOTTOM

Adjust engine position to achieve proper gear mesh



Insert a sheet of paper between gears to set proper mesh















### ELECTRONICS ASSEMBLY



# THROTTLE LINKAGE ADJUSTMENT

#### NEUTRAL (IDLE)



#### FULL THROTTLE



- 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.

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



- 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.





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

Engine idling 2mm



## **BODY PREPARATION**



# WARRANTY

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

Due to the high performance level of this model car you will need to periodically maintain and replace consumable components. Any and all warranty coverage will not cover replacement of any part or component damaged by neglect, abuse, or improper or unreasonable use. This includes but is not limited to damage from crashing, chemical and/or water damage, excessive moisture, improper or no maintenance, or user modifications which compromise the integrity of components. Warranty will not cover components that are considered consumable on RC vehicles. XRAY does not pay nor refund shipping on any component sent to XRAY or its distributors for warranty. XRAY reserves the right to make the final determination of the warranty status of any component or part.

#### **Limitations of Liability**

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

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

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

# **QUALITY CERTIFICATE**

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

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