Thank you for purchasing the XTM Racing Mammoth RTR Nitro Monster Truck. This Operations Guide is provided to help you enjoy your new Mammoth RTR Nitro Monster Truck without any of the hassles you might expect. Please read through all of the literature that is provided in the box. Doing so will help you become familiar with how your Mammoth RTR Nitro Monster Truck, XTM Racing 24.7 size engine and Hitec Lynx radio system operate.

**IMPORTANT** Before operating your new Mammoth RTR Nitro Monster Truck, please read and understand the warnings listed on the next page. Failure to do so could lead to bodily harm and/or injury. The XTM Racing Mammoth RTR Nitro Monster Truck is not intended for persons under 12 years of age, unless closely supervised by an adult.

The XTM Racing Mammoth RTR Nitro Monster Truck is distributed exclusively by Global Hobby Distributors

18480 Bandelier Circle, Fountain Valley, CA 92708

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Kit Product # 145615
ENGINE WARNINGS

- Never use any fuel in your engine other than glow fuels specifically designed for use in model car engines. Use of any other types of fuel can cause severe damage to the engine and/or personal injury. **NEVER USE GASOLINE OR DIESEL FUEL!**

- Never operate your model on any public streets. This could cause traffic accidents, personal injury or property damage.

- Glow fuel engines emit exhaust vapors that are poisonous and can be dangerous to your health. It is important that you operate your engine in a very well-ventilated area, preferably outdoors.

- Before starting the engine, make sure that the throttle trim is set to the idle position. Starting the engine at any setting above idle can cause the model to lurch out of your hands.

- When the engine is running, there are certain parts that rotate at high speeds. Be careful not to touch the drive shafts, gears, clutch assembly or any other moving parts. Otherwise, serious injury could result.

- It is normal for the engine, exhaust header and tuned pipe to get very hot during operation. Never touch these parts while they are hot or you might be burned.

- Model car engines produce vibration when they are running. It is important to periodically check the engine mounting screws and other assemblies to ensure they are tight. Running the engine with the engine mounting screws loose can lead to severe engine and/or chassis damage.

FUEL WARNINGS

- Glow fuels like those used in your Mammoth RTR Nitro Monster Truck are poisonous. Follow all the precautions that are printed on the fuel manufacturer's container.

- Keep fuel out of the reach of children.

- Glow fuel is extremely flammable. Keep away from high heat, sparks and flame.

GENERAL WARNINGS

- Under no circumstances should you operate your model in crowds of people. Serious injury could result.

- Never operate your model on busy streets or if there are cars around.

- Do not use your model to chase pets or other animals.

- The radio system included in your model is not waterproof; therefore, do not drive through water, wet grass, mud or snow.

- Because your model is operated by radio control, it is important to make sure you always are using fresh and/or fully charged batteries. Never allow the batteries to run low or you could lose control of the model.

- If your model becomes stuck, allow the engine to idle, then retrieve your model by hand.

- To prevent excessive r.p.m.'s from damaging the engine and/or drive-train components, we suggest reducing throttle while in the air during jumps.

FOR YOUR INFORMATION

If you should have any trouble with any of the steps listed in this Operations Guide, we have provided an extensive troubleshooting guide beginning on page # 16. The troubleshooting guide is provided to help you find a quick and immediate resolution to a number of problems that might occur. If you cannot solve a problem using the troubleshooting guide, or if you have any other questions or concerns, please contact us at the address below:

Global Services
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Visit Our Website http://globalservices.globalhobby.com

CHECK IT OUT! We urge you to come check out our website at http://globalservices.globalhobby.com. There you will find public message boards frequented by other XTM Racing product owners and the XTM Racing support staff. This is a great place to learn about new XTM Racing products, get help and suggestions for your current XTM Racing products or just simply hang out and chat with people that share your same interests.

IMPORTANT INFORMATION ABOUT YOUR EMAIL ADDRESS

Global Hobby Distributors will not disclose the information it collects to outside parties. Global Hobby Distributors does not sell, trade, or rent your personal information to others. Your privacy is important to us.
SECTION 1: OUR RECOMMENDATIONS

This section lists the recommended items necessary to run and maintain your new Mammoth RTR Nitro Monster Truck. We have tested these items extensively with the Mammoth RTR Nitro Monster Truck and found that they offer the best in reliability and value.

What Fuel Do I Use in My Mammoth RTR Nitro Monster Truck?

Fuel can make a big difference in the way your engine performs. For the break-in period you should use a fuel specifically designed for R/C car engines that contains no more than 20% nitromethane. Once the engine has been adequately broken in (about 45 minutes of run-time) you can switch to an R/C car fuel containing up to, but no more than, 30% nitromethane.

**WARNING** We do not recommend using fuels in your Mammoth RTR Nitro Monster Truck that are designed for R/C airplane engine use. These fuels do not contain the proper amount of lubricants; therefore, they will cause the engine in your truck to overheat and severe damage to the engine will result.

Use the following fuels for the best performance:

- Trinity 16% Nitro Car Fuel - Part # 837826 (use this for break-in)
- Trinity 20% Nitro Car Fuel - Part # 837828 (use this after break-in)
- Trinity 30% Nitro Car Fuel - Part # 837832 (use this after break-in for more power)

Do I need to Use a Fuel Bottle?

Yes. Because fuel is packaged in quarts or gallons, you will need to use a smaller bottle with an extension tube or wand to fill the fuel tank. Fueling using this method is much easier and a lot less messy. The Promax 500cc Fuel Bottle is a good choice.

How Do I Remove the Glow Plug?

A long reach glow plug wrench is necessary to easily and quickly remove and replace the engine’s glow plug. The Magnum Long 4-Way Wrench works great.

What Do I Use to Ignite the Glow Plug?

A glow starter is a battery-operated device that, when attached to the glow plug, heats the glow plug so that the engine can start. The glow starter is then removed after the engine is running. The Magnum Glow Starter with Meter is a perfect choice. It comes complete with a battery, charger and a built-in meter to let you know if your glow plug is good.

Do I Need to Purchase Extra Glow Plugs?

Yes. Even though your Mammoth RTR Nitro Monster Truck comes with a glow plug already installed in the engine, glow plugs wear out, especially during the break-in period; therefore, it’s a good idea to have a couple of spares handy.

The glow plug can make a big difference in how your engine performs. We recommend using a “hot” heat-range glow plug intended specifically for performance engines, like the Thunderbolt # 3 (P/N 115559) or the McCoy MC-59 (P/N 690215), for the break-in period. After the break-in period you may want to use a medium heat-range glow plug like the McCoy MC-8 (P/N 690205). Do not use glow plugs intended for four stroke airplane engines. Using the wrong type of glow plug will cause the engine to run erratically and make it difficult to tune properly.

Need help or have any questions? Call us at 1-714-963-0329 or send us an Email at service@globalhobby.net
SECTION 2: OTHER RECOMMENDED ITEMS

- Trinity "8 Pack" AA Alkaline batteries for the transmitter -- Part # 837801
- Trinity "4 Pack" AA Alkaline batteries for the receiver -- Part # 837800
- Trinity "Final Solution" after-run oil to "wet" the air filter and to lubricate the engine -- Part # 843744
- Emerald Nitro Car Cleaner to clean the chassis and engine -- Part # 340196
- Small, flat blade screwdriver to make engine adjustments -- Part # 146101
- Adjustable wrench and other assorted tools to make chassis adjustments
- 1.5mm hex wrench to make brake and 2-speed transmission adjustments
- Assorted weights of silicone shock oil to tune the shocks and differentials - Optional

SECTION 3: BECOMING FAMILIAR WITH YOUR MAMMOTH RTR NITRO MONSTER TRUCK

Each radio system comes with stickers on the back of the transmitter and on the receiver showing which frequency the radio system operates on (either in the 27Mhz or 75Mhz band). No two radio systems can operate nearby each other if they are on the same frequency. You can purchase transmitter and receiver crystals separately and change them if you plan on running your Mammoth RTR Nitro Monster Truck with other people. We have provided a list of the frequencies that are available for your radio system.

<table>
<thead>
<tr>
<th>Channel #</th>
<th>Frequency</th>
<th>Part # (tx/rx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>16.995</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>27.045</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>27.095</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>27.145</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>27.195</td>
<td></td>
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<tr>
<td>06</td>
<td>27.255</td>
<td></td>
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<tr>
<td>61</td>
<td>75.410</td>
<td></td>
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<tr>
<td>60</td>
<td>Through</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>75.990</td>
<td></td>
</tr>
</tbody>
</table>

Note that "xx" is the actual channel number you want to purchase.

Antenna: Transmits the signal from the transmitter to the receiver. The antenna should be completely extended during use.

Battery Cover: This cover houses the 8 AA Alkaline batteries that power the transmitter.

Crystal: This is the frequency crystal of the transmitter. You can change crystals in both the transmitter and the receiver (in the chassis) so that you and your friends can drive at the same time. No two radio systems nearby can be operated on the same frequency.

On-Off Switch: Turns the transmitter on and off. Two L.E.D.s show the power of the batteries.

Servo Reversing Switches: Allow you to quickly and easily change the direction the servos rotate by just flipping the switches on the top of the transmitter.

Steering Wheel: Controls the Mammoth RTR Nitro Monster Truck's steering. Turn the wheel to the right and the truck turns right. Turn the wheel to the left and the truck turns left.

Throttle/Brake Trigger: Controls the speed and braking ability of your Mammoth RTR Nitro Monster Truck. Pull the trigger to accelerate, release the trigger to decelerate, and push the trigger to brake.

Trim Levers: These levers, one for steering and one for throttle/brake control, allow you to fine tune the servo's center by sliding the levers on the transmitter back and forth.
2-Speed Transmission: The 2-speed transmission automatically shifts from low to high gear for awesome top speed and features an adjustable shift point.

Air Filter: The air filter is made of foam and prevents dirt and debris from entering the engine through the carburetor.

Battery Box w/On-Off Switch: This is where the receiver battery, receiver and on-off switch is mounted. The battery box protects these electronic components from dust, dirt and oil.

Body Mount: Made of high-impact plastic for strength, the body mount secures the body into place. There is one body mount assembly on the front of the chassis and one on the back of the chassis. Both body mounts are adjustable to suit different bodies.

Engine: The Mammoth RTR Nitro Monster Truck includes the powerful XTM Racing 24.7 engine with pull-starter and tuned pipe for ease of use and great performance.

Front Bumper: Made out of high-impact nylon, the front bumper protects the chassis from most head-on impacts.

Fuel Tank: The fuel tank holds the fuel that your engine uses. This fuel tank includes a fuel pressure nipple that connects to the tuned pipe to pressurize the fuel system and also features a quick-flip type lid for fast refueling.

Pull-Start Handle: Used to start the engine in place of an electric starter.

Receiver Antenna: Receives the signals from the transmitter. The antenna should always be extended during use and never cut shorter.

Shock: Each shock is oil-filled and uses a spring that is well suited for most off-road conditions. The shocks feature threaded shock bodies that allow the shocks to be easily tuned for different driving conditions. The Mammoth RTR Nitro Monster Truck features eight shocks.

Steering Servo: This servo controls the vehicle's steering. A "servo saver" is used to help prevent the servo gears from being stripped out.

Steering Tie-Rod: The tie-rod connects the steering linkage and the castor block. The tie-rods are adjustable so you can make toe-angle adjustments to the front wheels.

Tuned Pipe: The tuned pipe is an expansion muffler that greatly increases the power output of the engine.

Wheel/Tire Assembly: The Mammoth RTR Nitro Monster Truck includes molded rubber tires with a tread pattern that is good for most off-road applications. The wheels are molded in one piece from high-impact plastic for strength.

Note: Photo Above May Differ From Production Model
SECTION 4: PREPARING TO RUN YOUR MAMMOTH RTR NITRO MONSTER TRUCK

Now that you are familiar with the major component parts of your Mammoth RTR Nitro Monster Truck, and with the functions of the Hitec Lynx Sport transmitter, it's time to prepare your Mammoth RTR Nitro Monster Truck for its first run.

IMPORTANT Before continuing, please double-check that you've read and understand the warnings printed on page # 2. It's important that you understand this information before preparing to run your Mammoth RTR Nitro Monster Truck. Also, remember, if you have any questions or encounter any problems, you can contact us using the information listed near the bottom of page # 2.

Step 1: Final Assembly

- Push the antenna down into the molded hole in the top of the transmitter.
- Thread the antenna (clockwise) into place and tighten it gently until it stops.

IMPORTANT Do not force the antenna into place or tighten it too strongly. Doing so could cause damage to the antenna and/or transmitter.

- Remove the plastic battery cover from the bottom of the transmitter.
- Install 8 AA Alkaline batteries into the battery tray, double-checking to make sure that the polarity is correct.
- Reinstall the battery cover and set the transmitter aside for now.

- Open the battery box cover by pushing on the molded tab at the back of the battery box cover and lifting up on the back of the cover. The battery box cover is hinged at the front for convenience.
- Remove the battery holder from the battery box.

IMPORTANT You may need to temporarily remove the receiver to get to the battery holder. Don't unplug anything from the receiver. The battery holder plug has already been plugged into the switch. Do not unplug it when removing the battery holder.

- Install 4 AA Alkaline batteries into the battery holder, double-checking to make sure that the polarity is correct.

IMPORTANT Make sure that the batteries are pushed firmly into place. They should not be loose. If for any reason the plug from the battery holder is not plugged into the switch plug, plug them together now. The plugs can fit together only one way.
Push the battery holder into the battery box, along with the wire and plugs, then mount the receiver upside down on top of the battery holder, making sure it won’t interfere with the on-off switch when the battery box cover is reinstalled.

Reinstall the battery box cover, making sure that you don't pinch any wires.

**IMPORTANT** Make sure that the tab at the back of the battery box cover snaps firmly into the battery box. This will ensure that the battery box cover doesn't come loose during use.

Slide the receiver antenna into one end of the plastic antenna tube and out the other end.

**IMPORTANT** To make it easier to slide the antenna through the tube, first make sure there are no kinks or bends in the antenna wire, then wet the antenna wire with glass cleaner. The glass cleaner will make the antenna slide easily through the tube.

Push the end of the antenna tube firmly into the molded hole in the top of the receiver box cover where the antenna exits.

**IMPORTANT** Leave the excess antenna hanging from the top of the tube. Under no circumstances should you cut or shorten the antenna.

Slide the transmitter's on-off switch forward to turn on the transmitter. The green LED should glow brightly.

**IMPORTANT** If the green LED does not glow or if the red LED is glowing, check the batteries in the transmitter and replace them if necessary.

Slide the receiver's on-off switch to turn the receiver on. You should hear the servos move to their proper positions. Notice that the on-off positions are molded into the top of the switch cover.

**IMPORTANT** Always turn on the transmitter first, followed by the receiver. After you're done, turn off the receiver first, then turn off the transmitter. This will prevent the possibility of a runaway model or damage to the servos.
Step 2: Range Checking the Radio System

To ensure that the radio system is operating properly and prevent any chance of a runaway model, the radio system should be range checked before the first run of the day and/or after a crash. To range check the radio system, do the following:

- With the transmitter and receiver turned on, extend the transmitter antenna completely.

**IMPORTANT** Remember to always turn on the transmitter first, then turn on the receiver.

- With the Mammoth RTR Nitro Monster Truck on the ground (without the engine running) walk away from it about 150 feet. Move the steering wheel while looking at the vehicle’s wheels. The wheels should pivot back and forth as you rotate the steering wheel back and forth. Because of the Mammoth RTR Nitro Monster Truck’s weight and large wheels, the steering won’t operate perfectly smoothly unless you lift the front of the truck off the ground. This tendency goes away as soon as the truck is rolling.

**IMPORTANT** If the radio system does not operate properly, please refer to the troubleshooting guide starting on page # 16 before continuing further. Never attempt to operate your Mammoth RTR Nitro Monster Truck if the radio control system is not functioning properly. Doing so could be harmful to others around you and/or to you or your model.

Step 3: Checking the Steering and Throttle/Brake Controls

**PRO TIP** We suggest doing the steering tests while lifting the front of the truck off the ground. This will allow the steering system to operate without any binding.

- With the transmitter and the receiver turned on, rotate the transmitter’s wheel forward (to the right). The front wheels on the Mammoth RTR Nitro Monster Truck should turn right.

**IMPORTANT** If the wheels don’t turn right, flip the steering servo reversing switch on the top of the transmitter to change the direction. Refer to the transmitter photo on page # 4 if you don’t remember how to use the servo reversing switches.

- Rotate the transmitter’s wheel backward (to the left). The front wheels on the Mammoth RTR Nitro Monster Truck should turn left.

- Let go of the wheel. The Mammoth RTR Nitro Monster Truck’s wheels should return to center.

**IMPORTANT** If the wheels do not point straight ahead (center) after you return the steering wheel to center, move the steering trim lever on the transmitter to adjust the wheels so that they point straight ahead. Refer to the transmitter photo on page # 4 if you don’t remember how to use the servo trim levers.
Carefully pull the air filter assembly off of the carburetor.

Pull back on the throttle trigger. The carburetor barrel should open completely and both brakes should be disengaged.

Let go of the trigger and the carburetor barrel should return to its idle position - open about 1/16”. The brakes should still be disengaged.

**IMPORTANT**: If the carburetor barrel does not open when you pull back on the trigger, flip the throttle servo reversing switch on the top of the transmitter to change the direction.

If the carburetor barrel does not open completely, move the throttle trim lever on the transmitter until the barrel is opened completely when you pull back completely on the trigger.

Push the throttle trigger forward. The carburetor barrel should stay in the idle position (open about 1/16”) and the brake linkage should move forward and engage both of the brakes.

Let go of the trigger and both brakes should disengage.

**IMPORTANT**: If necessary, you can adjust the brake linkage by sliding the wheel collars (on the brake linkage wire) forward or back. See page #15 "Adjusting the Brake Linkage" for more details.

Turn off the transmitter and receiver for now and push the air filter back onto the carburetor.

**WARNING**: Never run your Mammoth RTR Nitro Monster Truck without the air filter installed on the carburetor.

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**SECTION 5: BECOMING FAMILIAR WITH THE XTM RACING 24.7 NITRO ENGINE**

Your Mammoth RTR Nitro Monster Truck comes equipped with the user-friendly and powerful XTM Racing 24.7 nitro engine. Before starting the engine for the first time, please read these next two sections very carefully.

Please refer to the photo below to familiarize yourself with your engine’s carburetor. You should have a small flat blade screwdriver handy to make adjustments to the carburetor.

**Idle Stop Screw:**

The idle stop screw is preset from the factory and should not require adjustment. The idle stop screw adjusts the closure of the throttle barrel. We recommend that the idle stop screw be adjusted so that the carburetor barrel stays open about 1/16”. Turning the screw clockwise will cause the barrel to stay open more. Turning the screw counterclockwise will allow the barrel to close more.

**High Speed Needle Valve:**

The high speed needle valve is preset from the factory for the initial starting procedure. Do not make adjustments to it at this time. The high speed needle valve is used to meter the air/fuel mixture at full throttle. Turn the needle valve clockwise to lean the mixture or turn the needle valve counterclockwise to richen the mixture. When you start the engine for the very first time, the needle valve should be turned in completely, then backed out 3 turns. When you start the engine after that, leave the needle valve in the same position it was in when you shut down the engine.
Low Speed Needle Valve:
The low speed needle valve is preset from the factory for the initial starting procedure. Do not make adjustments to it at this time. The low speed needle valve meters the air/fuel mixture at idle and during transition from idle to full throttle. Turn the low speed needle valve clockwise to lean the mixture. Turn the low speed needle valve counterclockwise to richen the mixture. The low speed needle valve is preset from the factory, but minor adjustments may need to be made to suit your application: fuel used, glow plug and environment all contribute to the setting. If you need to reset the low speed needle valve to the factory setting, follow these simple procedures:

- Open the carburetor barrel completely.
- While holding the carburetor barrel open with your fingers, use a flat blade screwdriver to turn the low speed needle valve clockwise until it stops. From this point, turn the low speed needle valve counterclockwise 8-1/2 turns. This is the factory setting.

SECTION 6: FUELING AND STARTING THE XTM RACING 24.7 NITRO ENGINE

⚠️ WARNING!! PLEASE READ THIS BEFORE STARTING YOUR ENGINE FOR THE FIRST TIME!! ⚠️

If at any time the pull-starter becomes very tight or difficult to pull - STOP! The engine has become flooded and the excess fuel must be removed from the engine or damage to the pull-starter and/or engine could occur. To remove the excess fuel from the engine follow the procedures listed below:

- Completely close the high speed needle valve until it bottoms out.
- Remove the glow plug from the cylinder head.
- With a rag over the top of the engine, pull the pull-starter cord several times to expel the excess fuel from the engine.
- Check to make sure that the glow plug has not been fouled, then reinstall it.
- Reset the high speed needle valve 3 turns out from bottom.

⚠️ WARNING‼️ Under no circumstances should you operate the engine without the air filter installed on the carburetor. The air filter prevents dust and debris from entering the engine and damaging it. If you operate your engine at any time without the air filter installed, the engine will not be covered under warranty should it need repair.

PRO TIP If, during the break-in process, the pull-starter assembly slips when you try to start the engine, the one-way bearing and pull-starter shaft may be coated with excess fuel oil. If this is the case, carefully remove the one-way bearing and the pull-starter shaft, clean them with rubbing alcohol and reassemble the parts. Use the engine exploded parts view included with your truck to see how the parts are assembled. Also, be careful when removing the pull-starter assembly to ensure that the recoil spring does not blow out.

- Lift the fuel tank lid and carefully fill the fuel tank until the fuel level is just below the top of the tank.

⚠️ WARNING‼️ Use fuel that is appropriate for nitro car and buggy engines. Do not use gasoline or diesel fuel!

- Using your glow plug wrench, verify that the glow plug is installed in the cylinder head and tight. If it's not already preinstalled, install it using one copper gasket.

- Prime the engine by first opening the throttle completely and covering the exhaust opening in the tuned pipe with your thumb, then pull the pull-starter cord several times until you see fuel just start to enter the carburetor through the fuel line.

⚠️ IMPORTANT‼️ Do not pull the cord all the way out or damage to the pull-starter will occur. Use a couple of short pulls - about 7 or 8 inches long.
Remove your finger from the exhaust opening in the tuned pipe and close the throttle down to the idle position.

While holding the truck with one hand, carefully pull on the pull-starter cord 3 times using short, quick pulls.

**IMPORTANT** If you can’t turn the engine over using the pull-starter, don’t force it. The engine is probably flooded. See the warning and resolution on the previous page.

Connect a fully charged glow starter to the top of the glow plug, making sure that the glow starter is locked firmly onto the top of the glow plug. You don’t want it to fall off while you’re trying to start the engine.

While holding the truck with one hand, carefully pull on the pull-starter cord using short, quick pulls, until the engine starts.

After the engine starts, release the pull-starter cord, allow the engine to run for about 10 seconds, then remove the glow starter from the glow plug.

**IMPORTANT** If the engine does not start after a dozen pulls, refer to the troubleshooting guide starting on page #16 before continuing.

To stop the engine, carefully pinch the fuel line with your fingers until the engine stops. Make sure to pinch the fuel pick-up line and not the fuel pressure line. The fuel pick-up line is the one connected to the carburetor.

**WARNING** Be careful not to touch any parts of the engine or tuned pipe because they will be hot.

SECTION 7: BREAKING IN THE XTM RACING 24.7 NITRO ENGINE

Fuel Recommendation:
Fuel can make a big difference in the way your engine performs. For the break-in period you should use a fuel specifically designed for R/C car engines that contains no more than 20% nitromethane. Once the engine has been adequately broken in (about 45 minutes of run-time) you can switch to an R/C car fuel containing up to, but no more than, 30% nitromethane.

**WARNING** We do not recommend using fuels designed for R/C airplane engine use. These fuels do not contain the proper amount of lubricants; therefore, they will cause the engine to overheat and severe damage to the engine will result.
Glow Plug Recommendation:
The glow plug can make a big difference in how your engine performs. We recommend using a "hot" heat-range glow plug intended specifically for performance engines like the Thunderbolt # 3 (P/N 115559) or the McCoy MC-59 (P/N 690215) during the break-in process. After the break-in period you may want to use a medium heat-range glow plug like the McCoy MC-8 (P/N 690205). Do not use glow plugs intended for four stroke airplane engines. Using the wrong type of glow plug will cause the engine to run erratically and make it difficult to tune properly.

Air Filter:
The air filter is a very important part of your engine. Failure to use the air filter will damage the engine in a very short period of time. If you are driving your vehicle in very dusty conditions, we suggest wetting the foam air filter element with after-run oil to prevent fine dust particles from passing through the filter element.

### Step 1: Breaking In the Engine

**IMPORTANT** The XTM Racing 24.7 nitro engine is an ABC engine. The cylinder sleeve is tapered at the top, causing severe resistance when the piston moves through the top of the stroke. This is normal. When the engine heats up to operating temperature, this resistance will decrease and the proper clearance will be achieved. The break-in procedure will guide you through the steps necessary to properly break in your new engine. Please follow the steps closely.

The break-in process allows the engine parts to perfectly fit to each other and properly protect each part from premature wear. The engine should be broken in using a good quality R/C car fuel that contains no more than 20% nitromethane.

- Follow the previous procedures to fill the fuel tank and start the engine.

- Once the engine starts, keep the glow starter attached to the glow plug and let the engine run for about 10 seconds without giving it throttle. This will allow the engine to warm up. At this point the engine should be running very "rich" and there should be excessive white smoke coming from the tuned pipe. The engine will also sound like it's running rough.

- After the engine has been running for about 10 seconds, remove the glow starter from the glow plug. Advance the throttle in short, quick bursts and drive the truck around for about 2-3 minutes. If the engine is running rich enough, you should notice excessive white smoke coming from the tuned pipe and the engine should sound like it's running very rough. Also, the truck will barely be moving. If there is not excessive white smoke coming from the tuned pipe, richen the high speed needle valve. After 2-3 minutes stop the engine by pinching the fuel line to the carburetor.

- Let the engine cool for approximately 10 minutes, then restart it. Set the high speed needle valve mixture to a slightly leaner setting, about 1/8 turn more in. Repeat the procedure above then stop the engine and let it cool for approximately 10 minutes.

- Repeat the procedure above, while leaning the needle valve slightly more each time. In all, you should run the engine a total of about 45 minutes. After 45 minutes of run-time the engine will be broken in. Run the engine with the needle value set slightly rich, but lean enough to power the truck adequately. At this point the engine should hold a good setting on the high speed needle valve and you can begin to fine tune the needle valve settings to increase performance.

**IMPORTANT** It is of the utmost importance that the engine never be leaned out too much. When running the engine, you should always be able to see a trail of white smoke coming from the tuned pipe. If you can't, stop the engine immediately and richen the high speed needle valve mixture. You should also make sure there is plenty of air flowing over the cylinder head to keep the engine from overheating.

### Step 2: Fine Tuning the Engine

After your engine has been broken in, you can set the high and low speed needle valves for optimum engine performance.

**IMPORTANT** Be careful to never lean out the engine too much. Remember that the lubricants for your engine are suspended in the fuel. If you lean out the fuel mixture too much you will also be lowering the amount of lubricant entering your engine. Less lubricant means more chance of your engine overheating and possible engine failure.

**Setting the High Speed Needle Valve:**
- Start the engine and remove the glow starter from the glow plug, then allow the engine to warm up for about 10 seconds.
- After the engine has warmed up, drive the truck as you normally would. If the engine seems to be running rich, lean the high speed needle valve about 1/16 of a turn at a time until the desired setting is achieved. Always make sure you run the engine slightly rich - you want to be able to see a white exhaust trail at all times.

To get more power from your engine you can use fuels containing up to 30% nitromethane. We must caution you, though, that once you run the engine with increased nitro you may not get satisfactory results if you decide to go back to a lower nitro content. Also, if you use fuels containing 30% nitro, we highly suggest adding a .10mm head gasket (# 148418) to lower the compression ratio. If you don't lower the compression ratio, overheating and erratic running will likely occur.

**Setting the Low Speed Needle Valve:**
- Start the engine and lean out the high speed needle valve as per the previous procedures. Close the throttle until the engine slows down enough so that the clutch is disengaged and the wheels don't turn when the truck is lifted from the ground. Allow the engine to idle for about 10-15 seconds.
- While holding the truck off the ground (making sure to keep your fingers out of the moving parts) quickly open the throttle in a short burst. If the engine just stops running as soon as the throttle is advanced, the low speed needle valve is too lean. With the engine stopped, richen the low speed needle valve about 1/16 of a turn.

- Restart the engine and repeat the procedure above until the engine will transition smoothly and quickly. Very slight hesitation in the transition is normal.
- If you quickly advance the throttle and the engine seems to be very rich during transition (i.e., lots of smoke coming from the tuned pipe and very rough sounding), the low speed needle valve is too rich. With the engine stopped, lean the low speed needle valve about 1/16 of a turn.
- Restart the engine and repeat the procedure above until the engine will transition smoothly and quickly. Very slight hesitation in the transition is normal.
- Now drive the truck as you normally would for a while to get a feel for how the engine reacts to throttle. Now that you know the proper way to tune the engine, you can make slight adjustments to the carburetor until you are satisfied with the performance.
SECTION 8: INSTALLING THE BODY

- Not much to installing the body. Begin by peeling away the thin plastic protective layer from the top of the body, then install the body onto the chassis, using four body clips to hold it in place.

**PRO TIP** The body mounts are adjustable and can be lowered or raised if you decide to purchase and install a different body.

**IMPORTANT** After the body is installed, double-check that no part of the body interferes with the chassis, tuned exhaust system or tires. This is especially true in the case of the front tires. When they are turned from lock-to-lock, they should not hit the body.

SECTION 9: MAKING CHASSIS ADJUSTMENTS

Chassis alignment and geometry are important if you want your Mammoth RTR Nitro Monster Truck to perform well. A good performing truck means a truck that is easier to drive, too. Follow our guidelines in this section to get the most out of your Mammoth RTR Nitro Monster Truck.

**IMPORTANT** It's very important when making changes to the settings of your truck that you make the settings the same for each side. For example, if you change the camber angle on the right front tire, you should change the camber angle on the left front tire the same amount. If you change the spring tension on the left front shocks, you should change the spring tension on the right front shocks the same amount, and so on.

Do not make any changes that are more than 3 degrees from the initial settings listed or the handling characteristics of your truck will become very poor.

Step 1: Adjusting the Toe Angle

The toe angle is the angle of both front tires (or rear tires) to each other, when viewed from above. Toe-in is when the front of both tires point toward each other and toe-out is when the front of both tires point away from each other.

- For the front tires, toe-in will make your truck track straighter, but the steering will be more sensitive. Toe-out will desensitize the steering, making the truck a little more driver-friendly.
- For the rear tires, if you’re running on a smooth surface, we suggest no toe-in. If you are running on a rough surface, we suggest about 1 - 2 degrees of toe-in. This will give the rear end a little more “bite.”

**RECOMMENDED INITIAL SETTINGS:**
- 0 degrees toe-in on the front and rear for overall best 4WD driveability on most surfaces.
- Adding more than 3 degrees of toe-in or toe-out will result in excessive loss of speed and erratic handling.

**IMPORTANT** For more precise toe-in adjustments, use the R.P.M. Toe-in Gauge part # 708049.

To adjust the toe-angle of the front tires, turn the tie-rods (steel rods connecting each wheel to the steering arm) in or out with an adjustable wrench. To adjust the toe angle of the rear tires, you need to replace the toe angle block, using the reference below:

To adjust the toe-in on the rear tires, use one of the different composite toe angle blocks provided in your kit to set the desired toe angle. For convenience, the degree of toe angle in each block is molded into the back of the blocks.

To change the rear toe angle block, first remove the rear bumper by removing the two bumper-retaining screws on the bottom of the chassis. Second, carefully remove the two C-Clips holding the rear hinge pins in place. Next, remove the two screws that hold the toe angle block in place. Replace the toe-angle block with the desired one. Installation is the reverse of the disassembly procedure.
Step 2: Adjusting the Camber Angle

Camber is referred to as the amount of the tire's surface that contacts the ground. Tires that are exactly perpendicular to ground have 0 degrees of camber. If the top of the tire leans in toward the chassis, the tire has negative camber. If the top of the tire leans out away from the chassis, the tire has positive camber.

RECOMMENDED INITIAL CAMBER SETTINGS:
- For driving on smooth surfaces set both the front and back wheels at 0 degrees.
- For driving on rough surfaces set the front wheels at -1 degree and the back wheels at -2 degrees.

Adjust the camber angle of the wheels by turning the upper turnbuckles in or out using an adjustable wrench.

Step 3: Adjusting Shock Spring Tension

By adjusting the spring tension of the shocks, you can increase steering sensitivity and increase the ride-height of your vehicle. How you drive your vehicle will dictate what settings you should be using. As an example, if you’re using your vehicle off-road and going over lots of jumps, you may want to increase the spring tension of the front shocks to help prevent the front of the vehicle from bottoming out.

RECOMMENDED INITIAL SETTINGS:
- We recommend initially leaving the adjustment rings in the factory locations.

Increase or decrease spring tension by threading the adjustment ring up or down the shock body. Threading the ring down increases spring tension and the truck's ride height, threading the ring up decreases spring tension.

When adjusting the spring tension, make sure to adjust the right and left sides equally.

You can make subtle suspension adjustments by adjusting the outer and inner shocks separately. As an example, if you thread all four adjusting rings down on the front shocks to stiffen the front suspension, but you find the front suspension to be too stiff, you can thread the ring on each of two inner shocks up to reduce those shocks' spring tension. This will have the affect of changing both shocks very slightly.

Step 4: Adjusting Shock Dampening and Replacement Shock Springs

Changing the shock oil (the oil inside the shocks) will change the dampening characteristics of the shocks. Typically, if you are running on smooth surfaces, use a heavier weight oil. If you are running on rough surfaces, use a lighter weight oil.

We recommend using only 100% Silicone Shock Oil. Do not use motor oil. The shock oil in the Mammoth RTR Nitro Monster Truck's shocks is good for most off-road applications.

Shock springs are easy to change and can make a difference in the way your truck handles relative to the type of terrain you’re running on. If you run your truck off-road, in a smooth, high-traction area, use stiffer springs to reduce body roll and weight shift. If the area where you run your truck is very bumpy, you might consider using softer springs to help absorb the bumps. If the area is bumpy and you use harder springs, the truck will have a tendency to jump and hop around. The shock springs included with the Mammoth RTR Nitro Monster Truck are suitable for most general off-road applications, but experimentation with different shock springs may be necessary to find a setup that suits your particular driving style and location. And, as described above, you can make subtle suspension adjustments by using different shock springs on the outer and inner shocks separately. As an example, you could use stiff springs on the outer shocks and soft springs on the inner shocks. This will have the affect of using medium springs on all shocks.
**Step 5: Adjusting the Brake Linkage**

The Mammoth RTR Nitro Monster Truck uses a dual-disc brake system. The brake linkage is preset from the factory; however, after running the truck for awhile you may find that the brake linkage needs adjusting.

With the transmitter and receiver turned on, and the throttle/brake trim lever centered, the truck should roll smoothly (i.e., the brakes should be disengaged). If the brakes are dragging when the throttle trigger is at neutral, the brake discs will wear out very quickly. To ensure that the brakes are disengaged, always make sure that there is a 1/16" gap between the two rear adjustment collars and the brake levers. Both adjustment collars should be adjusted so that they are equal distance behind each of the two brake levers. This will ensure that both brake levers engage equally during braking.

- To make adjustments to the brake linkage, simply loosen the grub screw in the adjustment collar behind each brake lever and reposition it, then retighten the grub screw.

**Step 6: Adjusting the 2-Speed Transmission Shift Point**

The transmission shift point has been preset for you from the factory, but it is possible to fine tune the adjustment to suit your driving style. The shift point is the point at which the 2-speed transmission will shift from first gear to second gear.

- Adjust the shift point by turning the small grub screw in the aluminum 2-speed clutch housing using a 1.5mm hex wrench. Turning the grub screw clockwise will make the transmission shift at a higher speed. Turning the grub screw counterclockwise will make the transmission shift at a lower speed.

**RECOMMENDED INITIAL SETTINGS:**

- The 2-Speed transmission has been preset for you from the factory. No adjustments are necessary.

To adjust the 2-speed transmission, you must first locate the small grub screw in the clutch housing. To locate the screw, lift the truck off the ground and slowly rotate the spur gear assembly until you can see the small grub screw through the milled access hole in the clutch housing. Once the small grub screw is visible, use a 1.5mm hex wrench to adjust the grub screw. To make the transmission shift at a higher speed, turn the grub screw clockwise 1/8th of a turn. To make the transmission shift at a lower speed, turn the grub screw counterclockwise 1/8th of a turn.

**WARNING** We suggest making 1/8th of a turn adjustments at a time, testing the truck's shift point between each adjustment you make, until you are satisfied with how the truck shifts.

**IMPORTANT** There are two screws in the 2-speed clutch housing. One is a grub screw that uses a 1.5mm hex wrench and the other is a steel socket-cap screw that uses a 2.5mm hex wrench. Do not attempt to adjust the larger screw. This screw holds the clutch housing onto the transmission shaft.

**Step 7: Adjusting the Front and Rear Differentials**

The Mammoth RTR Nitro Monster Truck features front and rear gear differentials that each feature five o-ring seals and cup-style housings. Both differentials are packed with differential grease that is good for most driving conditions.

You can make fine-tuned adjustments to each differential by removing the differentials from the chassis, opening them up and replacing the grease already inside the differentials with heavy-weight silicone shock oil. Removal, disassembly and reinstallation of the differentials can be done using the exploded parts diagram included with your kit.

- Adding heavier silicone oil will tighten the differentials and adding lighter silicone oil will loosen the differentials. If your truck feels loose during turns, you can tighten the front differential or loosen the rear differential. If your truck is pushing during turns, you can loosen the front differential or tighten the rear differential. We recommend using silicone shock oil weights between 30,000 and 100,000.

**WARNING** We don't recommend attempting to make adjustments to the differentials unless you have knowledge of how to remove, disassemble and reassemble gear differentials. If you don't reassemble the differentials properly, damage to the differentials will happen quickly and will not be covered by warranty.
SECTION 10: MAINTAINING YOUR MAMMOTH RTR NITRO MONSTER TRUCK

Following a simple maintenance schedule will ensure that your Mammoth RTR Nitro Monster Truck, engine and radio system operate in top condition every time you use them. It is strongly suggested.

- Check the foam air filter element for dirt blockage. If the foam is dirty, remove it from the filter housing and wash it in liquid soap and warm water. Dry the foam element with a paper towel, reinstall it and "wet" it with after-run oil.
- Check the steering linkage and the throttle/brake linkage for any signs of wear or misalignment. Tighten and/or readjust them if necessary.
- Once in a while, remove the wheels and clean the wheel bearings using a bearing cleaner. This will remove any dust and grit that may, over time, damage the bearings. After cleaning the bearings, re-oil them using a good quality bearing oil. Never run the bearings dry or damage to the bearings will result.
- Include in your kit is a plastic sprue that includes some plastic replacement parts. Included are fuel line clips, throttle linkage mounts and other small accessories.
- After a period of time the chassis will accumulate a lot of dirt and debris, especially around the engine area. This build-up should be cleaned off using a high-powered spray cleaner like Emerald Nitro Car Cleaner. Some nitro car cleaners will damage anodized and/or plated parts. Test on an inconspicuous area first.
- After cleaning the chassis and engine with Nitro Car Cleaner you should oil the moving parts of the chassis. Do not oil the clutch bell, spur gears or the brake discs.
- Always use new fuel and keep the cap on the fuel tightly closed. As fuel ages it absorbs water, which degrades the fuels performance and will cause erratic engine operation.
- Never leave unused fuel in the fuel tank for more than a couple of days. The nitromethane and methanol in the fuel will evaporate, leaving the oil behind. This will eventually turn into a thick sludge that will require replacement of the fuel tank to fix.

SECTION 11: TROUBLESHOOTING GUIDE

This troubleshooting guide has been provided to help you diagnose and solve most problems that you may encounter with your Mammoth RTR Nitro Monster Truck. Most problems encountered can be solved by carefully following the problem-cause-solution sections. If you cannot solve the problem using this troubleshooting guide, please feel free to contact us at the address, phone number or email address shown on the second page of this Operations Guide.

IF YOU’RE HAVING A PROBLEM WITH THE HITEC LYNX SPORT RADIO SYSTEM:

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Radio system does not operate</td>
<td>A) Transmitter and/or receiver batteries are low</td>
<td>A) Replace transmitter and/or receiver batteries</td>
</tr>
<tr>
<td></td>
<td>B) Batteries are installed incorrectly</td>
<td>B) Check that the polarity of the batteries is correct</td>
</tr>
<tr>
<td></td>
<td>C) Receiver battery connector is loose</td>
<td>C) Check that receiver battery connector is plugged in and tight</td>
</tr>
<tr>
<td>2) Operating range is short</td>
<td>A) Transmitter antenna is retracted</td>
<td>A) Extended transmitter antenna completely</td>
</tr>
<tr>
<td></td>
<td>B) Receiver antenna is not extended</td>
<td>B) Extend receiver antenna completely</td>
</tr>
<tr>
<td></td>
<td>C) Receiver antenna is cut</td>
<td>C) Return receiver to Hitec/RCD for repair</td>
</tr>
<tr>
<td></td>
<td>D) Transmitter and/or receiver batteries are low</td>
<td>D) Replace transmitter and/or receiver batteries</td>
</tr>
<tr>
<td>3) Servos do not operate normally</td>
<td>A) Transmitter and/or receiver batteries are low</td>
<td>A) Replace transmitter and/or receiver batteries</td>
</tr>
<tr>
<td></td>
<td>B) Servo gear stripped or otherwise damaged</td>
<td>B) Return to Hitec/RCD for repair</td>
</tr>
<tr>
<td>4) When engine is running, radio system operates erratically</td>
<td>A) Receiver crystal is loose</td>
<td>A) Remove and reinstall the receiver crystal</td>
</tr>
<tr>
<td></td>
<td>B) Receiver battery connector is loose</td>
<td>B) Check that receiver battery connector is tight</td>
</tr>
<tr>
<td></td>
<td>C) Damage to receiver after a crash</td>
<td>C) Return to Hitec/RCD for repair</td>
</tr>
</tbody>
</table>
### IF YOU'RE HAVING A PROBLEM WITH THE XTM RACING 24.7 ENGINE AND/OR PULL-STARTER ASSEMBLY:

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Engine does not start</td>
<td>A) Failed glow plug</td>
<td>A) Replace glow plug with new one</td>
</tr>
<tr>
<td></td>
<td>B) Glow Starter not charged and/or faulty</td>
<td>B) Fully charge glow starter and/or replace</td>
</tr>
<tr>
<td></td>
<td>C) Idle mixture screw set too lean</td>
<td>C) Reset idle mixture to factory setting (P10)</td>
</tr>
<tr>
<td></td>
<td>D) Old or contaminated fuel</td>
<td>D) Replace with new fuel</td>
</tr>
<tr>
<td></td>
<td>E) Engine flooded with too much fuel</td>
<td>E) Remove glow plug and expel fuel from cylinder (P10)</td>
</tr>
<tr>
<td></td>
<td>F) Air leak in fuel system and/or engine</td>
<td>F) Replace fuel lines and/or tighten all engine bolts</td>
</tr>
<tr>
<td>2) Engine does not draw fuel</td>
<td>A) Air leak in fuel system and/or engine</td>
<td>A) Replace fuel lines and/or tighten all engine bolts</td>
</tr>
<tr>
<td></td>
<td>B) High speed needle valve fully closed</td>
<td>B) Reset high speed needle valve to factory setting (P9)</td>
</tr>
<tr>
<td></td>
<td>C) Idle mixture screw set too lean</td>
<td>C) Reset idle mixture to factory setting (P10)</td>
</tr>
<tr>
<td></td>
<td>D) Fuel lines kinked</td>
<td>D) Check and straighten fuel lines</td>
</tr>
<tr>
<td></td>
<td>E) Defective fuel tank</td>
<td>E) Replace fuel tank</td>
</tr>
<tr>
<td>3) Engine does not transition</td>
<td>A) Failed and/or wrong type glow plug</td>
<td>A) Replace with new recommended glow plug (P12)</td>
</tr>
<tr>
<td></td>
<td>B) Old and/or wrong type fuel</td>
<td>B) Replace with new recommended fuel (P3)</td>
</tr>
<tr>
<td></td>
<td>C) High speed needle valve set too rich</td>
<td>C) Reset high speed needle valve to leaner setting (P12)</td>
</tr>
<tr>
<td></td>
<td>D) Idle mixture set too lean</td>
<td>D) Set idle mixture richer (P12)</td>
</tr>
<tr>
<td></td>
<td>E) Idle mixture set too rich</td>
<td>E) Set idle mixture leaner (P12)</td>
</tr>
<tr>
<td></td>
<td>F) Air leak in fuel system and/or engine</td>
<td>F) Replace fuel lines and/or tighten all engine bolts</td>
</tr>
<tr>
<td>4) Engine overheats</td>
<td>A) Engine running too lean</td>
<td>A) Richen high speed needle valve (P12)</td>
</tr>
<tr>
<td></td>
<td>B) Body too Restrictive</td>
<td>B) Open larger vents in body to allow air to enter and exit</td>
</tr>
<tr>
<td></td>
<td>C) Wrong type of fuel used</td>
<td>C) Use fuel recommended only for R/C cars (P3)</td>
</tr>
<tr>
<td></td>
<td>D) Engine not fully broken in</td>
<td>D) Allow engine further break-in time (P12)</td>
</tr>
<tr>
<td>5) Engine vibrates excessively</td>
<td>A) Engine and/or engine mounts loose</td>
<td>A) Tighten all engine and engine mounting bolts</td>
</tr>
<tr>
<td>6) Engine does not idle down</td>
<td>A) Idle stop screw out of adjustment</td>
<td>A) Adjust idle stop screw to factory setting (P10)</td>
</tr>
<tr>
<td></td>
<td>B) Engine has developed an air leak</td>
<td>B) Check and tighten all engine screws</td>
</tr>
<tr>
<td></td>
<td>C) One or more carburetor O-rings damaged</td>
<td>C) Replace carburetor O-rings</td>
</tr>
<tr>
<td>7) Pull-Start Assembly Slips</td>
<td>A) One-way bearing coated with oil</td>
<td>A) Clean one-way bearing using rubbing alcohol (P10)</td>
</tr>
</tbody>
</table>

### IF YOU'RE HAVING A PROBLEM WITH THE MAMMOTH RTR NITRO MONSTER TRUCK CHASSIS:

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Vehicle pulls to one side</td>
<td>A) Steering trim out of adjustment</td>
<td>A) Readjust trim to center both wheels (P8)</td>
</tr>
<tr>
<td></td>
<td>B) Toe angle out of adjustment</td>
<td>B) Readjust toe angle (P13)</td>
</tr>
<tr>
<td></td>
<td>C) One wheel is hanging or has damaged bearing</td>
<td>C) Remove wheel and clean bearing. Replace if necessary</td>
</tr>
<tr>
<td>2) Brakes seem ineffective</td>
<td>A) Brake linkage out of adjustment</td>
<td>A) Readjust brake linkage (P15)</td>
</tr>
<tr>
<td></td>
<td>B) Brake disc(s) worn</td>
<td>B) Replace affected brake disc(s)</td>
</tr>
<tr>
<td>3) Clutch does not engage</td>
<td>A) Clutch shoes damaged or worn</td>
<td>A) Replace clutch shoes</td>
</tr>
<tr>
<td></td>
<td>B) Clutch bell damaged or worn</td>
<td>B) Replace clutch bell</td>
</tr>
<tr>
<td>4) Clutch does not disengage</td>
<td>A) Clutch springs worn or damaged</td>
<td>A) Replace clutch springs</td>
</tr>
<tr>
<td>5) Vehicle does not &quot;go*</td>
<td>A) Stripped spur gear(s)</td>
<td>A) Replace spur gear(s)</td>
</tr>
<tr>
<td></td>
<td>B) Stripped differential gear(s)</td>
<td>B) Replace differential gear(s)</td>
</tr>
<tr>
<td>6) Suspension not smooth or free</td>
<td>A) One or more shocks sticking</td>
<td>A) Clean and/or rebuild the affected shock</td>
</tr>
<tr>
<td></td>
<td>B) Bent shock shaft</td>
<td>B) Rebuild affected shock</td>
</tr>
<tr>
<td></td>
<td>C) Bent or otherwise damaged hinge pin</td>
<td>C) Replace hinge pin</td>
</tr>
<tr>
<td>7) Shocks leaking oil</td>
<td>A) Shock seals worn</td>
<td>A) Replace shock seals</td>
</tr>
<tr>
<td></td>
<td>B) Bent shock shaft</td>
<td>B) Rebuild affected shock</td>
</tr>
<tr>
<td>8) 2-speed transmission shifts at too high or too low a speed</td>
<td>A) Shift point not adjusted properly</td>
<td>A) Readjust shift point (P13)</td>
</tr>
</tbody>
</table>
IMPORTANT WARRANTY INFORMATION - PLEASE READ!

Your XTM Racing Mammoth RTR Nitro Monster Truck is warranted against manufacturer defects in materials and workmanship for a period of 90 days from the date of purchase. Warranty service will be provided within 90 days of the date of purchase only if you are able to provide the original or a copy of the original dated sales receipt.

SPECIAL NOTICE

The radio control system preinstalled in your XTM Racing Mammoth RTR Nitro Monster Truck is manufactured and warranted by Hitec/RCD North America. This includes the transmitter, receiver, servos, battery box and on/off switch. Do not return the radio system to Global Services. It must be removed from the truck and returned to Hitec/RCD at the address shown:

Hitec/RCD, Inc.  
Attn: Customer Service Center  
12115 Paine Street  
Poway, CA 92064

IMPORTANT WARRANTY SERVICE INFORMATION

Before returning your Mammoth RTR Nitro Monster Truck for warranty consideration, the status of the unit must be within the guarantee as stated above. Do not return your Mammoth RTR Nitro Monster Truck to the place of purchase. They are not authorized or equipped to perform warranty work on XTM Racing products. When requesting warranty service, please observe the following:

- Crash damage will not be covered under warranty. Do not request warranty service for a crash-damaged product.
- If you are requesting warranty on anything other than just the radio control system, always send your vehicle complete with the transmitter. Please unplug and/or remove the batteries both from the transmitter and the vehicle before returning it. We like to have the vehicle complete so it can be thoroughly tested before returning it to you.
- If you are requesting warranty service for only the radio system do not send the radio system or the vehicle to us. Remove the radio system from the vehicle and return it to Hitec/RCD at the address shown: See Special Notice above.
- Include a note detailing the problem or service you are requesting. Service cannot be provided without this information. Include your daytime phone number, shipping address and/or email address in the event we need more details pertaining to the service requested.
- If your vehicle is out of the warranty period you may request an estimate of services at the time you return your vehicle for service. An omission of this request implies permission for Global Services to service your vehicle at our discretion.
- Include a method of payment for any service charges.
- Send the unit to us by United Parcel Service, Federal Express or by Insured Mail. Postage is non-refundable. Send your package to:

Global Services  
18480 Bandilier Circle  
Fountain Valley CA 92708  
Phone: (714) 963-0329  
Fax: (714) 964-6236  
Email: service@globalhobby.net

PURCHASING REPLACEMENT PARTS

Included with your Mammoth RTR Nitro Monster Truck is a separate listing of available replacement parts. The part numbers for each part are provided for ordering convenience. Replacement parts are available through your local authorized XTM Racing dealer or directly from us.

To locate the dealer nearest you, please call us at (714) 963-0133 or visit our dealer directory on the Internet at www.globalhobby.com/where2buy.htm

or Order Directly From Us at the Address, Phone Number or Web Site Shown Above