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Small Motors. Big Power.

JUNE 2006 / ISSUE 128



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**THINK**  
omnimedia



If it weren't for the cans, it wouldn't seem that small.





What even happened to taking photos before getting the body dirt?

# Xray NT18

Words: Dave Palacios ■ Photos: Jason Yu

## *It's micro, it's nitro, it's Xray!*

**H**ere I am once again, reviewing yet another addition to Xray's line of RC cars. This time I'll spare you the details of opening the box and get right to it. As usual, Xray's top-notch quality and design shows through on their 1/18-scale 4WD micro nitro car dubbed the NT18 (Nitro Touring 18, perhaps). This nitro car is based off of its predecessor the M18, which makes me wonder why they didn't name it the NM18, but oh well—enough about the name. When I first saw photos of the NT18 on the internet, I was a bit skeptical of its practicality. It is a cool idea and it's awesome how the Xray designers were able to pull off a small-scale nitro burner, but how well does it perform and where would one drive such a vehicle? Those were the thoughts running through my head. Now I have a NT18 of my own to test out my thoughts, so... let's see what this engine on wheels can do!

# Xray NT18

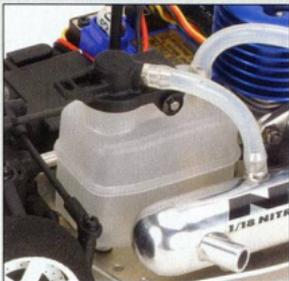


• 1/18-SCALE NITRO TC •

## VEHICLE FEATURES

As mentioned before, the NT18 is based off of Xray's electric micro car, the M18. The drive train and suspension components are identical, which I would assume means they are interchangeable. Parts are already out on the market should anything break, which I'm hoping won't happen. If you're not familiar with the M18 (where have you been?), it's a shaft-driven 4WD micro car with gear differentials and pivot ball suspension. The same holds true for the NT18, along with some added bonuses.

### ▶ 30cc FUEL TANK



The first thing you'll notice, aside from the engine, is the fuel tank. At 30 cubic centimeters it would seem a little on the small side, but in relation to the engine it's actually not that small at all. When the tank is filled to its maximum it can provide approximately five minutes of run time. That's a pretty good amount of time spent on the track. Since the tank is on the smaller side, that results in the tank lid and fill hole being small as well. When filling the tank this can be a bit of a problem (more like messy), especially when using fuel bottles with larger spouts.

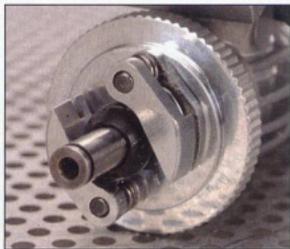
### ▶ ADJUSTABLE ALUMINUM CHASSIS

The NT18 chassis is made from 1.5mm thick aluminum and is polished to a nice shine. The cool part is that it's adjustable! The front of the chassis has two slots cut into it that resemble a pan car T-plate. A plastic brace spans the slots and connects to the chassis in three places with screws. The two outside screws are tightened firm, but the center screw sandwiches an O-ring between the chassis and the brace and can be adjusted either tight or loose. Tightening or loosening the center screw will stiffen or soften the front chassis and will change the way the front suspension grips the driving surface.



### ▶ CLUTCH

A two-shoe clutch system handles the job of transferring power from the engine to the drive train. The NT18 clutch looks just like a larger scale clutch and even has a pair of aluminum shoes for maximum gripping force. The whole clutch mechanism is spring loaded so clutch drag is not an issue.



### ▶ BUILDING AND INSTRUCTIONS

As usual, Xray's instruction booklet is top notch! There is nothing better than full color high-gloss 3D rendered instructions. These instructions were pretty much flawless except for one step, installing the downstop screws (tech tip 4, bag 4). It states that the downstop screws are in the last bag, but when I looked there weren't any. This could have been a packaging issue, where they were accidentally left out of the kit we got. Other than that minor setback, these instructions are some of the best for any kit! Other manufacturers should take note.



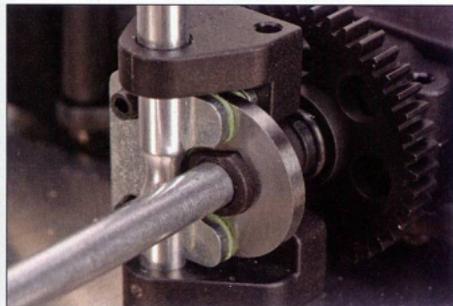


That's one packed chassis.

*The NT18 chassis is made from 1.5mm thick aluminum and is polished to a nice shine. The cool part is THAT IT'S ADJUSTABLE!*

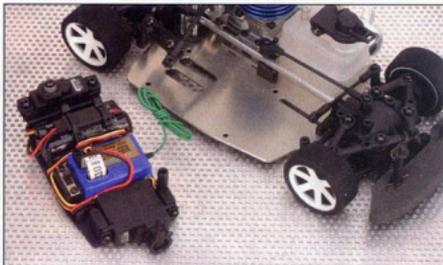
#### ▶ STEEL BRAKE DISC

For stopping power the NT18 incorporates a laser-cut hand-ground steel brake disc on the center shaft. Squeezing the brake are two stamped steel callipers with fiber brake pads. It's a simple and yet very effective braking system that gets actuated by an aluminum brake cam.



#### ▶ REMOVABLE RADIO PLATE

I was very surprised to see that the NT18 uses a removable radio plate. All the electronics are mounted to this plate, which is then mounted to the chassis using only four countersunk screws. This is very convenient when it comes time to clean the car or charge the receiver pack. You still need to disconnect the steering and throttle linkage from the servos, but this is much easier than having to remove each component from the chassis individually.



## TESTING

While building the NT18 I kept wondering where I was going to test the car. I couldn't take it to Revelation Raceway; it's way too large of a track for a micro car. I couldn't drive it at a local indoor carpet micro track I know of, as I'm sure they wouldn't appreciate the oil on the carpet and exhaust in the air. Finally I decided I would set up a track of my own behind our offices. The asphalt was recently repaved and sealed so it was perfectly smooth, and the recent rains washed away most of the dust, which meant it was fairly clean. So I grabbed our box of Road Domes, some duct tape, and started setting up a decent-sized road course fit for a nitro-powered micro racer.

After a few tanks on the stock tires (during the break-in period) I decided to swap them out for something more suitable for the surface I was running on. A set of wide soft rear rubber tires and a pair of narrow hard rubbers up front was the perfect setup for my little track.

**Acceleration and Speed** • One thing came out of my mouth, and that was "WOW!" This thing is quick; not just off-the-line quick, but fast all the way through. Being such a small-scale nitro, you'd think it would spool up and run out of gear quickly, but that's not the case. The NT18 is geared so it's quick off the line, but it still keeps on pulling throughout the power band. As a matter of fact, during one of the radar test runs I had to lift off the throttle at almost the one hundred fifty foot mark. At that point, the NT18 engine was just barely topping out! Maybe, just maybe, Revelation Raceway isn't too large a track for the NT18 after all.

**Rating: 10/10**

**Braking** • As I said earlier, the brakes on the NT18 are simple yet very effective. So much so that I actually had to dial out some braking just to get the car to stop within a reasonable distance. At full brake the tires would just lock up and the car would lose traction, sliding into whatever obstacle

stood in its way. So I adjusted the brakes so the tires would still rotate under full brake and the car would come to a complete stop under perfect control (pretty much like ABS). Once set, the car would track straight under full brake and was easy to slow down for a turn by just tapping the brakes gently. Now it was very hard to bring the rear end around under full brake.

**Rating: 9**

**Low-Speed Handling** • The NT18 doesn't want to go slow. With half the weight of the car being the engine it's hard to NOT want to go fast. But, since on a track you don't want to be pinned at every turn, I was forced to let off the throttle...sometimes. At low speeds the NT18 is very easy to drive. Entering a corner only required a slight tap of the brakes to slow the car down. Then it was as simple as turning the steering wheel slightly, straightening out and hitting the throttle. If the car had a little too much rear traction, a blip of the throttle usually broke the rear end just loose enough to make a

## OUR TEST GEAR

	<b>Radio:</b> Airtronics MX3S, 90520FM75, \$310
	<b>Receiver:</b> Airtronics 3-ch Receiver, 92926Z, included with radio
	<b>Fuel:</b> Trinity Nitro Power Platinum 20%, MH0020T, \$10
	<b>Starter Box:</b> Hudy HUD104300, \$89

## RTR GEAR

	<b>Engine:</b> Xray NT18 0.8cc
	<b>Pipe:</b> Xray NT18 muffler
	<b>Tires:</b> Xray foam tires
	<b>*Nitro Electronic Pack:</b> Includes two XM501 MG servos and one rechargeable 4-cell pack, Part #389103

\*Electronic pack is an optional upgrade for this kit. The Xray NT18 can be purchased with or without Electronic Pack. See Xray's website for details.

## CONNECT

XRAY	ph: 800.519.7221 web: www.teamxray.com
AIRTRONICS	ph: 714.978.1895 web: www.airtronics.net
TRINITY	ph: 732.635.1600 web: www.teamtrinity.com



tighter turn. Overall the low-speed cornering of the NT18 was very manageable even with the slight understeer in some of the higher-bite corners.

#### Rating: 9

**High-Speed Handling** • Depending on how much dust there was on parts of the track (our back office parking lot) the NT18 could get a little squirrely at times. With this much power on such a small chassis, I wasn't surprised. On the stock foam tires it was way worse. However with the rubber tires it was pretty manageable. If I hit a very dusty part of the track then the car would spin out until traction was found again. Surprisingly the NT18 handled the tremendous power very well when traction wasn't an issue. On your average residential street or parking lot though, I can't see driving the NT18 at top speed very easily (unless it was recently paved and smooth). I would highly recommend finding a large open space with a near-perfect driving surface to open up the NT18's nitro power.

#### Rating: 9

#### Wrenching

**Maintenance** • The design of the NT18 is very simple, which makes it easy to work on. The removable radio plate makes things especially easy when it comes time to clean up the chassis. There were several times I needed to use this feature to make changes to the electronics, charge the receiver pack and of course clean the NT18 at the end of the day. The only thing I see being a problem is the size of the vehicle. If you're one of those people with large hands, it could be a little difficult to work on. But,

that's just the nature of a 1/18-scale car.

#### Rating: 9

**Wear and Tear** • Except for the tires, there wasn't really any excessive wear and tear on the NT18. Even after hitting a large bump at full speed, sending the car five feet in the air and tumbling for twenty feet or so, the NT18 drove away with only a few minor scratches to the Lexan body. Like all of Xray's other "luxury" cars, the NT18 can take whatever you can dish out. Although I shudder to think what would happen should you hit a concrete curb at full throttle. This thing is an engine on wheels!

#### Rating: 9

**Tuning** • There aren't too many chassis tuning options for the NT18. The only adjustments available are the front/rear lower shock positions, droop, and front chassis flex. There are optional parts available to make further adjustments such as ball differentials, rear toe links, and an adjustable front tie-rod to replace the solid non-adjustable stock one. Although the car handles very well out of the box, I would have liked to have the option of adjusting the front toe. I guess I'll just need to pick up an adjustable toe link.

#### Rating: 8

#### Conclusion

The NT18 packs all the power and fun of nitro racing into a small package. It's small enough that you could race almost anywhere with a few friends and have just as much fun as you would at a larger RC track. However, the same could be said for any 1/18-scale RC car. The downside, and

SCORECARD	
SCALE RATINGS: 1=POOR • 10=EXCELLENT	
9	INSTRUCTIONS
10	PARTS QUALITY/FIT
9	DURABILITY
8	TUNABILITY
9	OVERALL PERFORMANCE
7	VALUE
<b>+ HITS</b>	
<ul style="list-style-type: none"> <li>• Very fast for its size</li> <li>• Engine is easy to tune and reliable</li> <li>• Decent run times</li> </ul>	
<b>- MISSES</b>	
<ul style="list-style-type: none"> <li>• Body needs lots of trimming to fit</li> <li>• Requires large smooth outdoor area to drive</li> <li>• Requires a special starter box</li> <li>• Very expensive for its size</li> </ul>	

in my opinion a major one, is the cost. At about \$310 for the kit we tested (and that's just the kit with the Nitro Electronic Pack—without the pack it sells for \$260) things begin to add up rather quickly (remember you still need to buy a starter box, radio, glow igniter, etc). I'm not sure if the NT18 is the best value, but the cool factor would definitely be appealing to some. The thing is, once you get over the cool factor you're left with a very expensive micro car that is limited on where it can run. I think some people would rather spend that kind of cash on a larger nitro RTR kit. Regardless, if you're into nitro and you're into touring, chances are you'll want to try out an NT18 for yourself. ○

