Peter Chaldecott

the long and the short of it

Tamiya Mobil 1 NSX and PIAA Porsche 911GT2

Mobil 1 NSX leads PIAA Porsche 911

Being a dedicated F1 racer, I have steadfastly resisted the temptation to join the mass migration to 4WD Touring/GT cars. However, a chance encounter with Ben Elliott's Tamiya TA03 based touring car at Ashby really opened my eyes as to how pleasant these cars are to drive, particularly when the going is slippery. As a consequence, when the opportunity came to review the recently released Tamiya TA03R chassis Mobil 1 NSX, my resistance started to weaken! When it was suggested that I also review the TA03RS (the 'S' stands for short-wheelbase) PIAA Porsche 911, any resistance that remained immediately evaporated - the chance to evaluate both a long and short wheelbase car was too good to miss!

All change

Earlier Tamiya 4WD touring cars were shaft driven and as such were outclassed in top level competition. A couple of years ago, though, the shaft driven cars gave way to the current crop of belt driven cars and instantly they became much more competitive. There is now a bewildering number of variants including the TA03F, TA03F Pro, TA03RS and TA03R. Confusing, isn't it? Well, perhaps not - apart from the TA03F Pro, which features a unique double-deck chassis, the variants are essentially similar. In TA03 language, the 'F' variants are all front-engined, whilst the 'R' variants are all rear-engined - 'RS' denotes rear-engined short-wheelbase.

Spot the Differences

The more parsimonious amongst you will perceive the most significant difference between the NSX and the Porsche to be that the NSX retails in the region of £139 whereas the Porsche retails at around just £119. Why the difference? Well, the NSX is a Limited Edition kit and includes Type A racing tyres and inner foams, a complete set of ball bearings, and long rear axles to allow identical wheels to be used front and rear. Type A tyres and ball bearings are essential items for the serious racer and it is useful that these are supplied in the kit. These items do not come cheap so a differential of £20 makes the NSX a bargain, and the NSX does look gorgeous when it's finished. In the go department, the NSX strangely comes with a 540 motor whilst the lower spec. Porsche comes with the more powerful sport-tuned unit. Don't quite understand the thinking behind that one, but I'm sure the clever marketing people at Tamiya have their reasons.

Mechanics

Both cars come with the now familiar Tamiya 3-step forward and reverse mechanical speed controller. It may seem surprising that cars of this sophistication are supplied with such units and, for that matter, such relatively low-powered motors, but it must be remembered that Tamiya sell to a very wide market. The inclusion of these items at least allows newcomers to get started without having to invest in costly extras, whilst hardened racers will undoubtedly fit electronic speed controllers and much hotter motors. The motors supplied may be too slow to be fun for experienced drivers, but I suspect provide more than enough power for most novices.

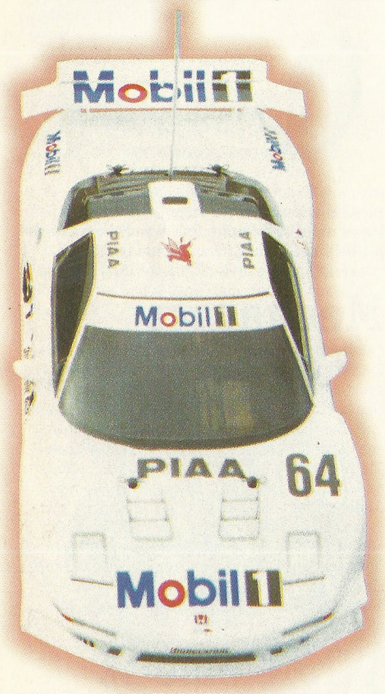
What else is different?

The NSX is based on the TA03R chassis, whilst the Porsche is based on the TA03RS chassis. The NSX has a wheelbase of 257 mm, whilst the Porsche is 20 mm shorter at 237 mm.

Ready to run, the NSX weighs in at 1508g and the Porsche 1570g. The battery is carried much further forward in the NSX, which results

'the NSX does look gorgeous when it's finished'

The PIAA Porsche 911 comes with a sport-tuned motor.



Our favourite, the Mobil 1 NSX.

NSX wheel mouldings are to the usual Tamiya high standard.

in a significant difference in weight distribution between the two cars. The NSX carries 48% of its total weight on the front wheels, whereas the Porsche carries only 43%. Should make for some interesting handling comparisons.

Chassis

The TA03R chassis comprises the front gearbox assembly, the rear gearbox assembly, and the centre bathtub. The gearbox assemblies provided for the NSX are identical to those in the Porsche, but the centre bathtubs are quite different.

The NSX bathtub is 20 mm longer than that of the Porsche, which gives the longer wheelbase, and carries the battery well forward. This gives ample space for the Rx and electronic speed controller to the rear of the battery, but necessitates the steering servo being mounted high, above the battery. In the Porsche, the battery is carried at the very rear of the bathtub, which allows the steering servo to be mounted on the floor of the bathtub, but results in less space for the Rx and electronic speed controller.

The front gearbox is assembled first and comprises the now familiar Tamiya gear differential, drive train, and mounting points for the front suspension. I built the Porsche as standard, but fitted a ball diff (53267) and aluminium counter shaft (53274) to the NSX.

The rear gearbox comprises an identical gear differential, drive train, mounting points for the rear suspension, motor mount, and drive belt pulley. Again, I built the Porsche as standard, but fitted a ball diff and aluminium counter shaft to the NSX.

A drive belt tension pulley is provided, but knowing that most TA03 racers dispense with this item, I elected to do the same. The drive belt obviously runs much slacker, but this doesn't seem to be a problem. I fitted the kit supplied drive belt to the Porsche, but used the hop-up Aramid Fibre reinforced drive belt (53278), which is said to be more flexible and less power-sapping, on the NSX.

Suspension

Apart from the uprights, suspension is identical front and rear and comprises a double wishbone/coil spring damper unit arrangement at each corner. The kit-supplied dampers are oil-filled and seem perfectly satisfactory. Take note, though, that the damper bodies and piston rods are not the same front and rear. The front damper bodies are shorter and the piston rods are black. Knowing how to put dampers together, I pressed on without referring to the instructions - oops!

I built the Porsche as standard, but treated the NSX to universal drive shafts (53310) on the front and anti-roll bars (fluorescent colour stabiliser set - 53276) front and rear. If fitting anti-roll bars, I also recommend using the carbon stabiliser supports (53312).

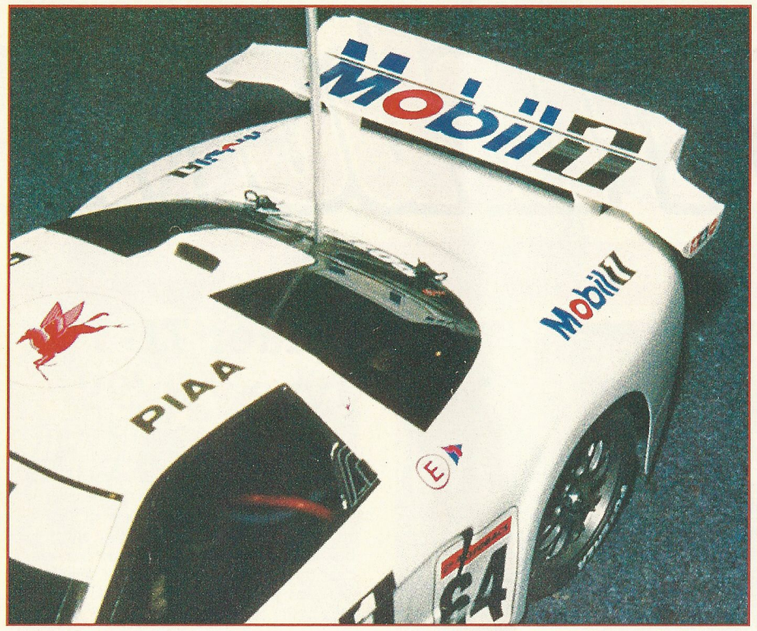
Tamiya also provide a hop-up turnbuckle upper arm set (53192) to permit camber adjustment, which could be useful, although I've not tried it yet.

Body

Both the NSX and the Porsche bodies are beautifully detailed and perfectly to scale. There is no doubt that this is another area where Tamiya set the standard by which others are judged. Both come with a thin film covering the outside to protect from over spray and a neat set of window masks.

The paint jobs on these cars are simple - just spray white, strip off the protective film and then add decals. To complete the effect, I used Tamiya Polycarbonate PS-31 Smoke on the windows. It's amazing how much this enhances the appearance, but for best results care must be taken to spray just thin coats.

One thing to watch on the Porsche is the position of the holes for the door mirrors. Contrary to normal, they are not the same left and right. The right-hand mirror is in fact mounted further back relative to the left-hand mirror. Look for the small dimples moulded into the body, trust Tamiya, and drill on the dimples! You have been warned - I wasn't - oops again!



Rear end detail of the NSX.

Testing, Testing

Being resident at my Southern home for the Christmas break, the circuit at Turbary Common in Bournemouth was selected as the venue for the track test. It was the afternoon of New Years Eve when Rob and I ventured out. The weather was unsettled and it was a grey winter's day, but the track was completely dry.

We first tried the NSX and were immediately impressed with its totally neutral handling. There was neither understeer nor oversteer. It just went where you pointed it and cornered as if on rails - magic! With the kit supplied motor it was painfully slow down the straight and with its super handling could be driven at full throttle almost everywhere. We deliberately tried to spin it, but couldn't! I don't recall driving many cars like that! To test the brakes we drove flat out down the straight and then hit them hard - the car just stopped - no sliding, no snatching to one side, no drama - it just stopped in a perfectly straight line - magic again!

Now it was the turn of the Porsche. Straight away, it did not feel as secure and, with power off, oversteered badly. Power on, it understeered. To see if it was the tyres, we fitted the Type A tyres from the NSX and tried again. This resulted in a considerable improvement (there is no doubt that the Type A tyres are good), but the underlying handling characteristics remained. I said that the difference in weight distribution should make for some interesting handling comparisons, but I hadn't expected quite such a difference. With the more powerful sport-tuned motor, the Porsche was slightly faster down the straight, but not by much. Braking was just as good as on the NSX.

To be fair to the Porsche, the NSX was fitted with more hop-ups, including anti-roll bars front and rear, ball diffs front and rear, universal drive shafts on the front, aluminium counter shafts front and rear, and an Aramid fibre reinforced drive belt (note that none of these items are included in the kit). We will work on the Porsche, but my feeling is that it is unlikely to ever be as nicely balanced as the NSX. The next task is to fit something hotter in the motor bay and try again. It will be interesting to see how both chassis cope with more power.

The Ed' says

The relatively low powered motors supplied in the kit are ideal for Car park bashing and general running away from the race track where the mild wind motors give the reward of a longer run time. If you don't need to optimise for a 5 minute race performance a longer run is longer fun!

I too built an Honda NSX 'R' and an Porsche 911GT1 'RS'- (in the June '98 issue) - one with hop ups and the other standard. I then ran both in standard and modified form, a process made easier by the ability to swap the suspension/gearbox modules between the chassis. And I too preferred the 'R' to the 'RS' because it was more predictable but if you like a sharp turn in and great agility, and you have the reflexes to catch it - the RS is great. Ben Elliot, well known Tamiya and Kyosho racer put the 'R' and 'RS' back to back and he decided that he needed both, the 'RS' for twisty circuits and the 'R' for more open tracks. You pays your money and takes your choice....

Which One?

For me it has to be the NSX. It looks terrific and handles a dream. With more power it should be real fun. I'm definitely going to race this one soon! RRCi

Quick Spec

1:10th scale belt drive 4WD electric TA03R/TA03RS chassis cars. Supplied with 540/Sport-tuned type motors and mechanical speed controllers. Require 2-channel radio, 2 servos (or 1 servo and an electronic speed controller), battery and charger to operate. The NSX is a Limited Edition kit and includes Type A racing tyres and a complete set of ball bearings.

Tester Kit

Futaba FF3 radio
Infinity 1700 SCR's
NSX:
Futaba FP-R113F receiver
LRP ICS electronic speed controller
Futaba FP-S148 steering servo
Porsche:
Futaba FP-R103F receiver
Tekin TSC412P electronic speed controller
Futaba FP-S148 steering servo

Likes

The looks of the NSX
The neutral handling of the NSX
Type A tyres
Window masks and protective film
Excellent instructions

Dislikes

Straight-line speed with kit motors
Less sure handling of the Porsche

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