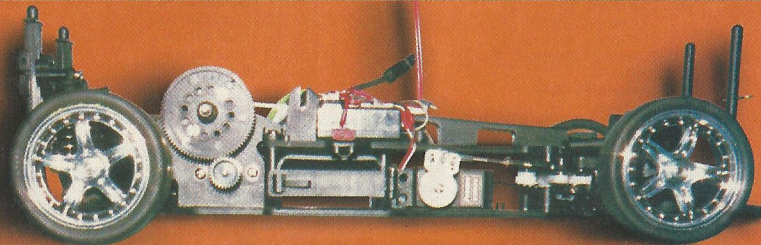
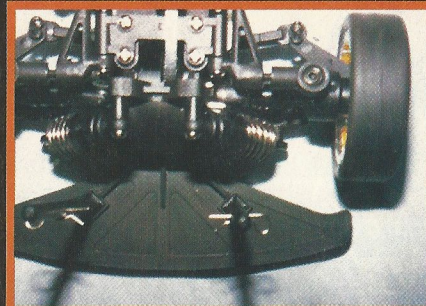


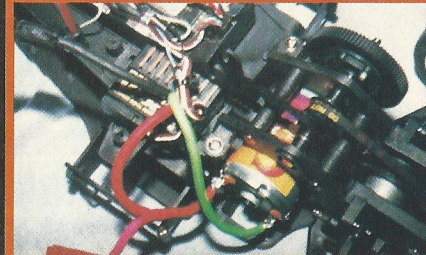
Countersunk screws a nice touch, allow car to run lower



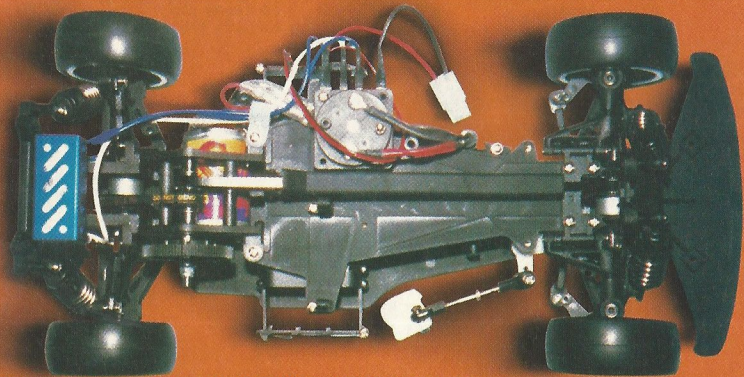
Plastic everywhere



Front wishbones, note the chunky ball joints



Radio installation. Mounting the Speedo' here keeps the wires nice and short



Just as it fell out of the box including the rotary speed control

## Traxxas

Traxxas, an all-American company, have been established for over ten years now. In their time they have tried their hands at several different classes; including top-class competition with their 2wd off road buggy, the TRX-3. Traxxas have also released cars at entry level, aimed firmly at newcomers to the RC field: IC and electric 1/10th scale trucks and buggies, all of them out-pricing their competitors at the lower end of the price range. They appeal to those who do not wish to spend a small fortune until they have the ability to get the best from a more expensive model, and also to those who just want to have some fun.

The latest addition to the substantial Traxxas range is the 4-Tec scale saloon, which also falls into the above category. Priced at just £110, I

was eager to see how it would be able to compete with the likes of Tamiya, who are already well established at this end of the on-road market.

## What do you get for your money?

You get a belt drive, full-time four wheel drive car, that gets the power to the track via twin ball diffs and U/J driveshafts. At the heart of the suspension are four oil-filled dampers. The shock rate, shock oil, camber

## Traxxas 4 Tec Review

change, castor, camber, tracking, belt tension, diff. slip, gearing and steering travel are all adjustable. Sounds a little daunting, doesn't it? Don't worry though, Traxxas include a set-up guide telling you what all of these things are, and what affect altering them will have on the car.

You also get a mechanical 'rotary arm' speed control, as well as a 20 turn 540-type motor. They also give you a set of smart chrome wheels, a set of unmarked rubber slicks, and an Opel Calibra bodyshell. Unfortunately, the tyres and shell aren't legal for the premier BRCA class, but they are still legal for the 'Open' class, and there shouldn't be any problems at club level.

## Building it up

Our review car was supplied pre-built, although I understand that all future cars will be in 'kit' form. So, as I figured the Ed' was after more than just a track test, I decided to rebuild the major parts of the car to see if there are any tricky sections that may cause problems for a novice (or even an expert).

The instruction booklet supplied is very clear, using photographs accompanied by text (in clear English) to lead you through the build. The booklet doesn't attempt to do too many things at once; each step is very simple, so that building the car is not overcomplicated.

Section one covers building the ball diffs. These are fairly unusual, as they are much narrower than conventional diffs. Also, the output is a universal joint instead of a 'cup', as can be seen in the photographs. The idea behind this is to eliminate the wear that occurs between the driveshaft pin and the drive cup on most driveshafts. Thus, the life of the components is prolonged. Also unique to these diffs is that they can be adjusted without having to dismantle any of the car. Just drop an Allen key through the hole in the diff housing until it comes out the other side. Then, the diff can be adjusted by turning the right rear or left front wheel. This should make readjusting the diffs after they have run-in much easier.

Once the diffs are built, the rest of the transmission can then be assembled. The layshaft itself is ballraced, but the rest of the car uses oilite bushings. While these are not as efficient as ballraces, the transmission is still surprisingly free, so duration should not be a huge problem.

The layshaft is mounted directly above the motor, and is coupled to the diffs by a long front and short rear belt. The layshaft is a full-time 4wd type, onto which any multi-fit spur gear can be fitted. Thus, a wide choice of gear

ratios are possible to get the correct balance between acceleration and speed. A 48 dp spur and pinion are included in the kit, which is one less thing for a new racer to worry about.

made of plastic, this design means that there is almost no chassis twist, allowing the suspension to carry out the job it was designed for.

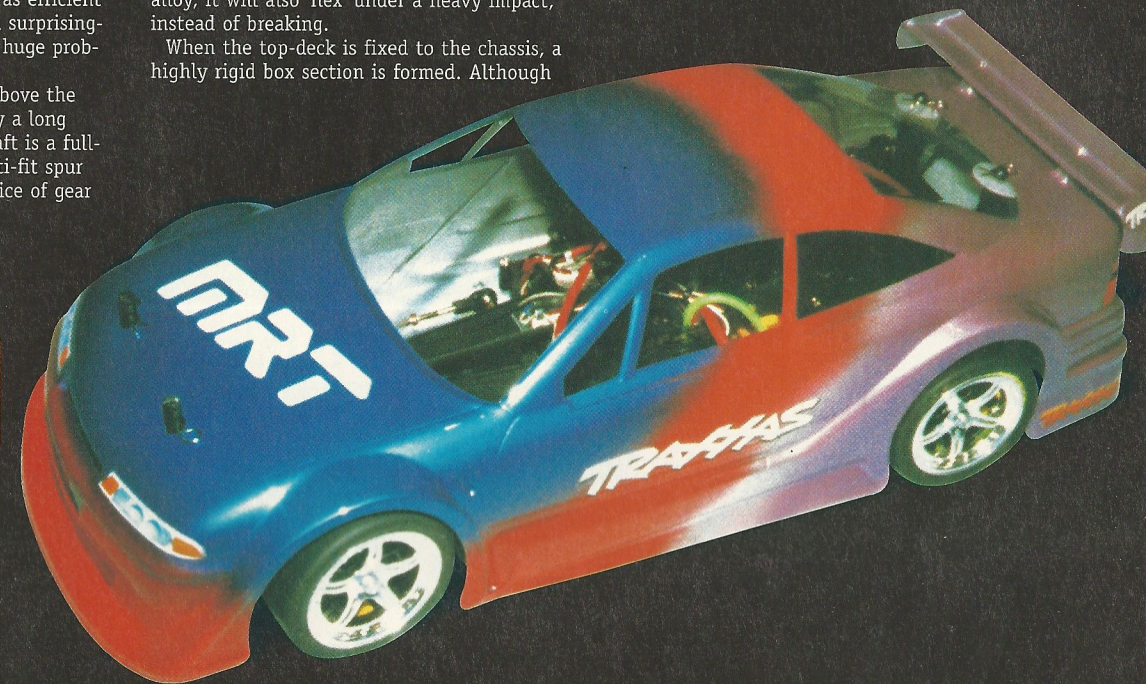
When the top-deck is fixed to the chassis, a highly rigid box section is formed. Although

good starting point.

Long shouldered screws are used to attach the front and rear wishbones to the pivots. Part of the screw is threaded, which means that there is no need to mess around with E-clips that usually end up buried in the carpet.

The front hubs mount to the top and bottom wishbones via large 'rose' joints. This allows the hubs to pivot forwards and backwards. By moving small clips around on the top wishbone mount, the castor can be adjusted. This means that straight line stability can be balanced with turn-in, so the car can be tuned to run equally well on large - fast tracks, as it would on small - tight ones.

Now that the suspension is assembled, the wheels can be put on. The 4-Tec uses slightly thinner wheel hexes than the standard Tamiya/Yokomo fitment, but other



ratios are possible to get the correct balance between acceleration and speed. A 48 dp spur and pinion are included in the kit, which is one less thing for a new racer to worry about.

## On to the back end

The whole rear end of the car is essentially based around two plastic composite mouldings. These bolt together (using self-tapping screws, as does virtually all of the car) to form the motor mount, wishbone pivots, layshaft mount and diff housing. This is where the cars one major fault lies. While a plastic motor mount may be okay with the mild kit motor, when a modified is fitted, I suspect overheating may become a problem. At the time of this review, an aluminium version is not available, and Traxxas have no plans to make one. Fitting a heat-sink is not possible either, as the layshaft position prevents this.

Anyway, that's my moan over, lets move on. The rear diff mounts into two eccentric 'cams'. These can be rotated to alter the rear belt tension, a very useful feature not seen on many scale saloons.

The front diff and driveshafts are identical to the rear, meaning that a minimum of spares need be carried; not that these should present

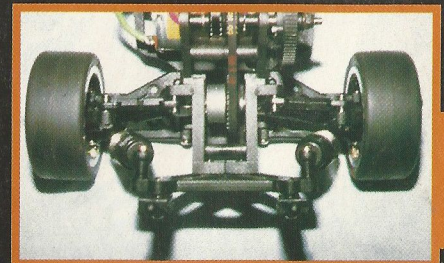
## Smooth shocks

Which brings us onto assembling the shock absorbers. Before assembling, make sure you remove any excess plastic from around the pistons with a craft knife or wet and dry paper; the shocks will feel quite rough if you don't. The shock bodies are plastic, and although alloy would be better, the extra price for this type of kit wouldn't be worth it; once the pistons are cleaned, the plastic shocks are very smooth indeed. A range of pistons is included (one to three hole), to allow the car to be tuned to different tracks and conditions. The instructions recommend building all four shocks with two hole pistons, and filling with 40 wt oil (supplied). The kit springs are quite soft, so this damping set-up seemed like a

makes of wheels can be fitted using the spacer set provided in the kit.

## Fit the radio - gain control

All that remains now is to fit your radio gear and paint the bodyshell. Although Traxxas supply the kit with a mechanical speed control, I would recommend that unless you just plan to run the car in the street, buy an electronic one. There are several adequate ones available



Rear transmission housing

## Quick Spec

Four wheel drive, ball diffs, belt drive, plastic telescopic driveshafts, oil filled shocks, bronze bushings, plastic chassis parts, stick battery layout, fully adjustable suspension geometry, mechanical speed control, 20 Turn 540 motor, bodyshell, decals, wheels & tyres.

## Testers Kit

MRT VRx-FP speed control, Infinity 12x2 motor, Futaba Field Force radio gear, Futaba 3001 servo, HPI Honda Accord shell, Ride 'S' tyres.

for under thirty pounds, and the performance difference is huge. I chose to fit MRT's new VFx-FP, which also offers the advantage of being 100% waterproof.

The last thing to do before play time is to prepare the bodyshell. The holes in the shell for the body posts are already 'dimpled', which makes life much easier. A set of window masks is included as well, so there's no need to spend ages cutting up bits of parcel tape to do the job. The 4-Tec comes with a large range of decals, so there should be some suitable for whatever colour scheme you decide to use. The shell is covered in a thin film of plastic to protect it from overspray while painting, another helpful feature that Traxxas have thought to include.

## Track Test

The 4-Tec was taken to the Bedworth track on a dry but cool February afternoon. The track was quite dusty, with a few small damp patches, so should really test the ability of the 4-Tec to handle in low-grip conditions.

Although the kit tyres are quite hard, and not belted, I decided to give the car a run with them anyway: a beginner isn't likely to have a stockpile of tyres to choose from. I also ran the standard motor, at the kit supplied gearing (28/84). It was never going to be a rocketship in kit form, but it wasn't tragically slow either. With a bigger pinion gear, I'm quite sure it would be able to keep pace with the guys in the Stock class of the Bedworth winter series.

The kit tyres weren't all that bad either; although the car was a little unstable at times, it was far from undriveable. Some thicker front shock oil, or a change to one hole pistons, should cure the problem.

## Go for it

Well, the clouds had started to move in, so it looked as if one more run was all that was going to be possible. So, I decided to go for it. I changed the kit motor for an Infinity Sport Modified 12x2 geared at 27/86. A set of Ride 'S' compound tyres was fitted, as practise has shown that these are ideal for low-grip conditions. Finally, the Calibra shell was replaced with a HPI Honda Accord. While the kit shell certainly looks the part, the rear wing is really too small for creating the sort of downforce needed at the speed I hoped the car would do.

For a car running on bronze bushes, the speed it now achieved was most impressive. The change made by fitting a set of belted tyres and a different bodyshell was also quite astounding. I was able to throw the car into the corners, boot the throttle coming out of

## Likes Dislikes

Price  
Strength  
Light weight  
The grip!  
It's American

Plastic motor mount  
Illegal shell and tyres

them, and use loads of brakes; nothing I could do would make the car spin out, even though it had started to spit with rain! However, the best representation of this car's ability was the lap time. It managed 17 laps in a split of 312.65, with a fastest lap of 17.86. This would have qualified me in the middle of the B-Final at Bedworth's winter series held a couple of weeks previously, in similar conditions. The batteries did go a bit flat on the last lap, but a set of ballraces should fix that problem for no great expense.

It might be interesting to note that I placed the 4-Tec on a set of electronic scales after the final run. It weighed in at exactly 1480g, and is about 50g lighter with the kit shell and motor. I won't attempt to explain why this car is so light, because I can't. Traxxas have baffled me, but well done anyway.

## Conclusion

For a beginner, I don't think there is another car on the market that can beat the Traxxas. In terms of cost, specification and quality this is by far the best kit that I have seen. With a few of Traxxas' after market parts fitted, which include roll-bars, carbon fibre bits, ballraces, turnbuckles and alloy shock caps, I suspect it could even give a few of the higher spec kits a run for their money out on the track.

The design team at Traxxas have done a good job. How successful the car is now depends on what kind of job Traxxas' marketing people can do, in ensuring that a good spares backup becomes available.

RRCi would like to thank Traxxas, MRT for the speed control and Bob Burr for the paint job. **RRCi**