

TRAKSTAR

Track Test BY LEWIS ECKETT

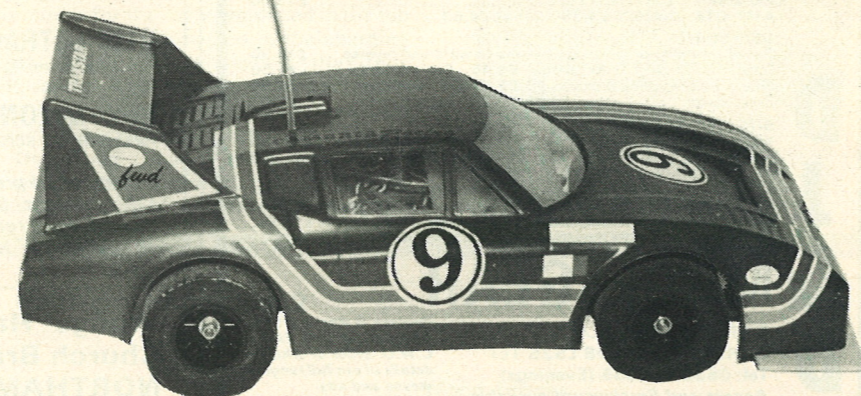
FWD OR FRONT WHEEL DRIVE (not to be confused with 4WD (Four Wheel Drive) is a Continental/European feature which has 'made' success for many a British car. BL's Mini series are the most commonly known — and anyone who has driven one will know what a difference that FWD can make to cornering. Drive a Renault and you start to learn all over again: but I digress — this is MODEL Cars! Front wheel drive/steering sets up a body trail that can take any vehicle through a curve with greater stability than the traditional rear drive, of course there are snags. The weight distribution is less favourable and traction up hills can be dodgy: but for track cars this hardly applies. Full marks to Welsh backed Cambria for landing into the 1/12th field again with this attractively packaged trakstar.

The attractive kit box was hardly noticed in my haste to see what was inside; what I did find was a set of alphabetically identified plastic parts bags. Just before I opened them all to see what was what, I realised that a more logical approach would be needed. Back to the hastily pushed aside instructions to see what Cambria deemed the logical approach to construction.

After reading the instructions, I amassed the set of tools I thought would be needed, including the 21-piece precision screwdriver and tool set I got for Christmas and a few other tools, cleared my desk top and began the first step.

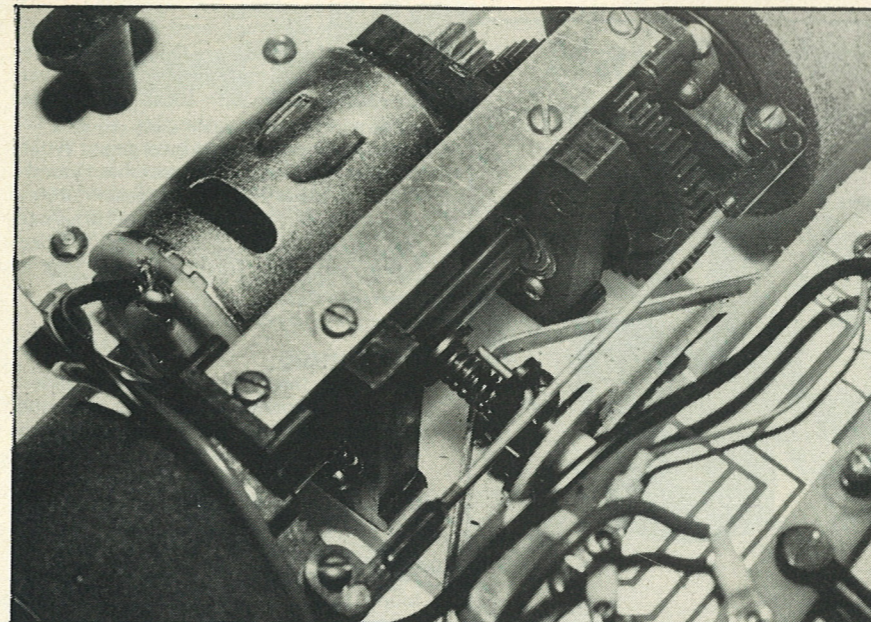
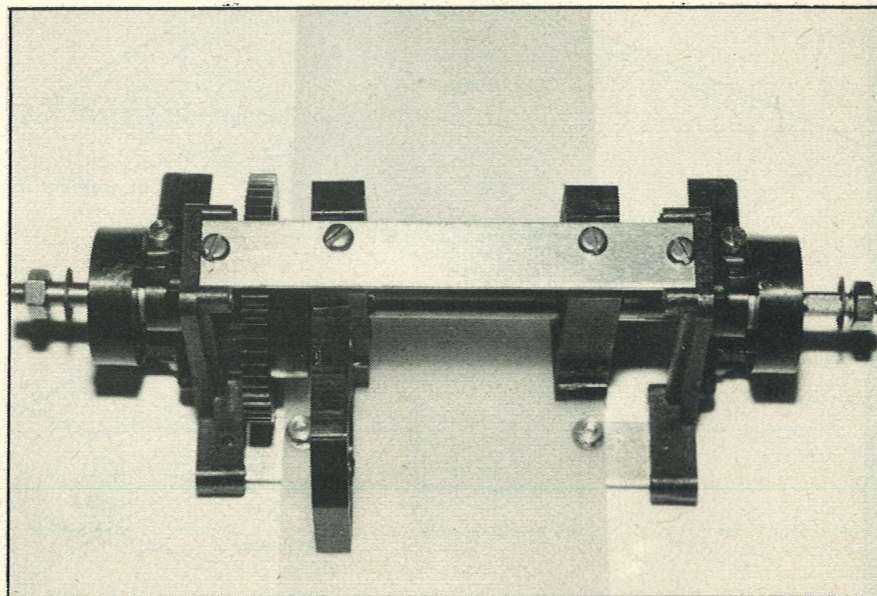
Construction

The instructions turned out to be very clear indeed and for the majority of the time the 'exploded' view diagrams sufficed, although reference to the written instructions was needed later in the assembly as it became slightly more complicated. First step was to start putting together the front engine and axle mountings, these mountings were of moulded nylon which, although light, felt very robust. The two mountings were fixed to the epoxy glass chassis plate using self-tapping screws. Self-tapping screws were used for much of the construction, which made sure the car stayed together once they were in, but left me with sore palms and a chewed up screwdriver blade! Once the mountings were fitted, the top and bottom alloy cross beams were added, a small amount of adjustment with a scalpel to the nylon mounting was needed to accommodate the top cross beam. Scalpel



adjustment or trimming up of excess plastic was needed throughout the assembly. This was to be expected even though the moulded parts were of a very high standard there is almost always a trace of the moulding 'sprue' left on the moulding. The axle and differential slide through the bearing in the axle mounts nice and square to the chassis, an exploded view of the axle and differential was given, although this was already assembled.

To finish the front axle assembly, the wheel hubs had to be made up then screwed to the suspension struts. Finally the struts were fitted to the top and bottom alloy cross beams. This was quite fiddly (well, it was for me) especially the positioning of two drive pins in the ends of the stub axles; once this was done, everything else could be put together. Again, a little bit of cutting out on the right-hand suspension



Opposite page: bottom front sub-assembly showing the made up wheel hubs and differential. Above: completed front construction with the steering linkages connected and servo override attached.

strut with the scalpel had to be done to give the wheel hub clearance on full lock. Well, that was that! During the running of the car we found that the alloy cross beams were not quite square which was putting the whole front assembly slightly out of line, a bit of filing on the initial parts would solve this problem. The rear axle was pushed through the two rear nylon mountings fixed to the chassis and was then retained with a 4BA socket screw through the back of the mounting; clearance was marginal, but a little bit of application soon persuaded it to slide home.

The fitting of the motor pinion-gear and alloy equipment-pan was accomplished quite simply, which brought me to the installation of the steering servo; problem, no radio gear! After searching the office a pair of suitable servos were found and plugs quickly fitted to match my Acoms R/C equipment. Once the nylon steering override mouldings had been fitted to the servo arm, holes had to be drilled for the servo mountings through the chassis plate. I took a lot of care over this to make sure the servo would fit properly as a space between the servo and the equipment pan had to be left. After much deliberation, I drilled the holes, praying that they would line up, which they did — thankfully. Setting up the linkages took me ages, in fact due to my inexperience the whole steering system took ages to set up correctly until everything looked and felt right, although final adjustments would be made when actually running the car.

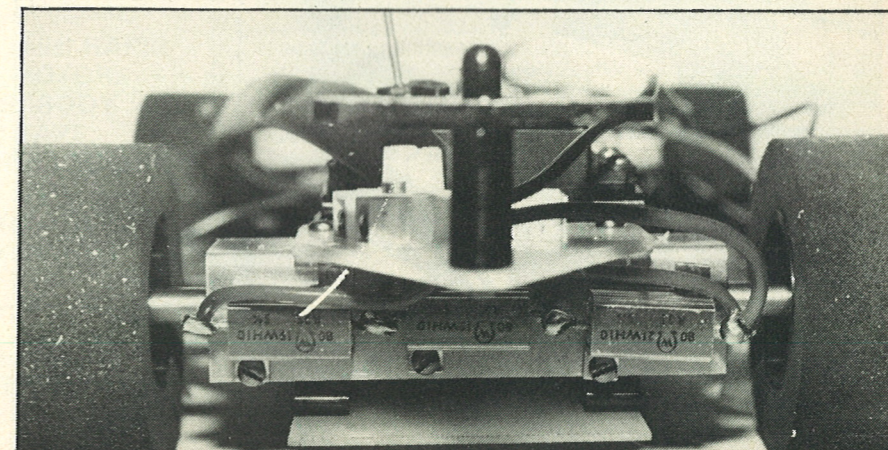
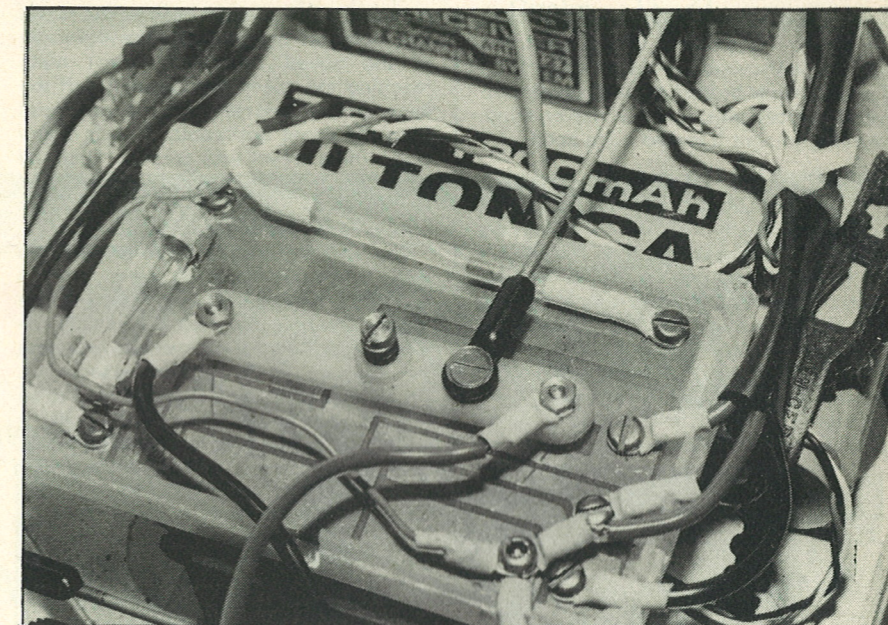
The speed controller was of the printed circuit board and wiper arm type, the wiring and circuitry looked very complicated, with an internal charging circuit using three metal clad resistors and a receiver battery

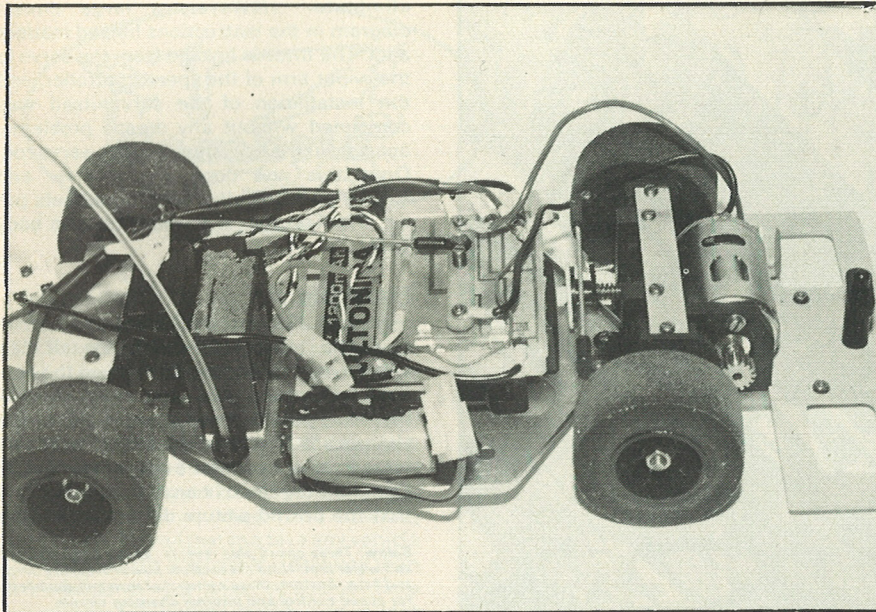
eliminator. However, a large circuit diagram in the instructions helped matters a lot. The throttle linkage from the servo to the wiper arm of the speed controller, and the installation of the servo itself was completed without any drastic problems, apart from the adjustment to the servo rod. Once this was done, the receiver and battery pack installed and the wheels put on, the 'Trakstar' was ready bar the body shell.

Finishing

A Ligier JS2 body shell was provided, the kit box lid showed it to be white overall. I felt white was uninspiring so sprayed the cut-out shell cherry red. The clear window moulding provided was glued in place with contact adhesive, and the attractive decals were fixed on, using the box lid as a guide. One didn't seem to fit anywhere — the fact that the box lid picture did not show both

Below: Three speed plus reverse, speed control board and wiper arm. Note the receiver power dropping diode and fuse. Bottom: three metal-clad resistors double up for speed control and internal charging circuit.





sides probably accounted for that. Finally, the aerofoil at the rear was cut out and glued on with cyanoacrylate adhesive; this I thought, would be the first thing to come off when the car was raced — never mind, overall I thought it looked quite good.

Running the 'Trakstar'

The moment of truth. Would it work? If so, how well? Using the internal charging circuit and taking charge from the editor's car battery, I charged up the Ni-Cads for about fifteen minutes, those fifteen minutes seemed an eternity. Charged up, the receiver and servos worked fine, although there was a lot of distortion of the chassis plate when the servos were operated, it seemed that the epoxy glass chassis was too flexible as it was not

providing a firm enough base for the servo. The motor ran smoothly, but the wiper arm of the speed controller wasn't quite reaching top speed. By loosening off the wiper arm bolt and removing the roughness from the wiper arm contacts with emery cloth, more travel was created. Then, by adjusting the servo rod and kinking it slightly so as not to put load on the wiper arm, a better result was created.

The steering had to be re-adjusted as well, when the steering servo was in operation, the wheels were locked to one side, a new hole in the servo arm had to be drilled and the steering override moulding moved round. To get the steering servo out, the whole speed control system had to be disconnected and disassembled. Finally, it was done and its first run could be made.

The drive system operated reasonably well, although the noise from the wheels told me a certain amount of running-in was necessary. Even with these adjustments made to the speed controller, all was still not exactly as it should have been. What I did find pleasing was the fact that I found it easier to steer the car, especially around corners, whereas the rear wheel drive cars I had driven before tended to spin the back round, with the 'Trakstar' there was no such problem.

Conclusion

Building the 'Trakstar' was certainly a rewarding experience, however, I do rather feel that *Cambria* have incorporated too much into the kit. The flexible glass chassis did not provide a completely firm basis for the steering servo and speed controller to operate at their best; if a happy medium could be found then I feel performance could be improved. The speed controller I found basically cumbersome and would have preferred a straight resistance speed-controller. Nevertheless, when all has been said and done, the 'Trakstar' still provides plenty of scope for the individual to interpret the design for themselves. For the novice, the kit provides the chance to see how electric race cars operate and can provide a good starting point for competition driving. Certainly, the front wheel drive enables the novice to compete without rearranging racetracks and other cars. Price £48.50.

Top left: completed TRAKSTAR chassis ready for its first run. Bottom left: plug in battery leads make charging quick and easy. Below: TRAKSTAR with its finished bodywork looks all set for competition.

