

I N T E R - F A B

VIPER PRO-10



ON-ROAD REPTILE

by LOU ANDREKO

THE NEW KID on the block just occasionally proves itself to be better than the local gang, and the new Viper Pro-10 has entered the scene looking really defiant. Progress and highly motivated high-tech manufacturers have combined in an attempt to bring serious R/C racers a competitive edge, whether they race on carpet or pavement. So how is this "new kid"?

THE KIT: From Inter-Fab Custom Machining*, the Viper Pro-10 is an assembled, 1/10-scale, on-road racer with a straightforward rolling graphite chassis, so it doesn't take long to get onto the track. It has a chassis stiffener and



two servo-mounting blocks, which will only accept the small hi-speed output servos.

The machined-aluminum front axle is completely assembled and has a coil-spring mounted above the steering blocks on the right and left kingpins (no caster adjustment). You'll have to supply your own steering linkages, servo-saver turnbuckles, and heavy-duty rod ends. The front of the chassis pan has holes so that you can change the wheel-base to make a difference of about 1 inch. The R/C gear is easily mounted to the chassis with servo tape. The chassis stiffener provides an extra platform, so you can mount your ESC on it for better airflow across the heat sink.

The rear pod is a very fine machined-aluminum assembly that's mounted to a flex-plate T-bar off the main pan. The rear suspension is a simple setup consisting of two 4-40 rods attached to a center post on the main pan. (The post comes up through a hole in the T-bar.) The other ends of the rods are attached to the rear pod and have small coil springs to achieve some dampening. This rod/spring setup also enables you to adjust chassis tweak.

The Viper's steel rear axle has an adjustable ball differential and precision ball bearings. (A titanium rear axle is also available.) The motor can be mounted on either side of the rear pod, and the wheel hubs will accept a wide range of lightweight wheels and your choice of tires.

Missing from the rear pod was any means to adjust the Viper's ride, so I can't change the height of the car to suit the ground. Without this, it's difficult to compensate for a bumpy track or decreasing tire diameter. The Viper also lacks wing-mounting posts, and wings

are necessities on high-speed tracks.

The chassis has four battery slots on each side, and these make saddle packs mandatory. Because I planned to run the car on an oval, I configured my Sanyo[®] SCR 6-cell pack with four cells on the left (inside) side of the chassis and the remaining two cells on the right. This arrangement puts most of the battery weight on the left side of the car and allows it to take tight turns better. Experiment with battery position to find where the weight should be for the type of track on which you race.

For this track report, I used a pre-painted 1989 IROC Camaro body from JG Manufacturing[®]. The Viper comes with four 1/4-inch nylon bolts, and these are used as body-mounting posts, but it doesn't come with the 1/4-inch nylon nuts that support the body. To give the Viper that total racing look, I added NASCAR decals and large numbers. I had to add an antenna, too, and I opted for an anti-roll fiberglass antenna to finish off the Viper's rolling chassis.

Equipped with a Trinity[®] stock motor, a Novak[®] T4 speed controller and a Futaba[®] Magnum Jr. radio with S132H servo, I thought my Viper Pro-10 was ready to challenge the gang at my local track.

PERFORMANCE: With everything in place, it was time to pack up the toolbox and head for the track. My local track, Sugar Hollow Speedway, in Danbury, CT, is a 320-foot, concrete tri-oval, and it's *very* fast.

With the chassis tweak set and traction compound added to the tires, I had to come up with a way to get some downforce on the rear end. At high speed, you'll lose it in the corners if you don't use a wing or a spoiler. Since the

Viper's rear pod has no wing mounts, I cut out a large polycarbonate spoiler and taped it to the rear of the body with servo tape.

I'm very familiar with the track, and I set up the Viper Pro-10 in the same way as I set up my other on-road car. On my first run, I found that, to take the corners, I had to slow down too much, so I had to go back to the workbench. I made a variety of dampener adjustments, but none seemed to correct the problem.

By taking a closer look at the Viper's T-bar, I found that it was of the same thickness as the chassis, whereas most T-bars are made of a thinner plate stock that allows more rear-pod flexing. To correct this problem, I took out the T-bar and narrowed it by grinding out a 1/8x1 1/4-inch section. This modification allows it to twist more.

To bring the rear end closer to the ground, I put some old, AJ Twinn-K low-profile black-dot tires on the rear wheels, and then I headed back to the track. This time, the Viper Pro-10 handled well, and I was able to maintain a lot more speed through the corners.

Although the Viper gets you to the track quickly, it unfortunately lacks some of the things included on other cars costing the same or less. It doesn't come with front ball bearings, wheels and tires; a means of ride-height adjustment; steering linkages; or nuts for the bolt-style body posts. The Viper Pro-10's T-bar needed work to make it handle well (especially in the corners), but by adding the necessary components and doing a little suspension work, anyone can have a competitive Viper, and my local gang has let this new kid join in the fun!

INTER-FAB CUSTOM MACHINING

VIPER PRO-10

Type On-road
Scale 1/10
Sug. Retail Price \$260

DIMENSIONS:

Overall Length 13.5 inches
Width 7 inches
Height 2.5 inches
Wheelbase 10.5 inches
Front Track 7.5 inches
Rear Track 6 inches

WEIGHT:

Gross (w/bat.) 43 ounces

BODY:

Type '89 IROC Camaro*
Material Polycarbonate

CHASSIS:

Type Pan w/stiffener
Material Graphite

DRIVE TRAIN:

Primary Pinion/spur
Transmission Direct-drive
Differential Ball-type
Bearings Ball bearings (rear only)

SUSPENSION:

Front: Type Coil springs
Dampening None
Rear: Type T-bar
Dampening Two rods w/coil springs

WHEELS:

Front: Type BBS-style nylon*
Dimensions (DxW) 2x1.25 inches
Rear: Type BBS-style nylon*
Dimensions (DxW) 2x2 inches

TIRES:

Front/Rear Twinn-K black-dot
foam*

ELECTRICS:

Motor 05/540*
Battery 6- or 7-cell saddle pack*
Speed Controller Electronic*

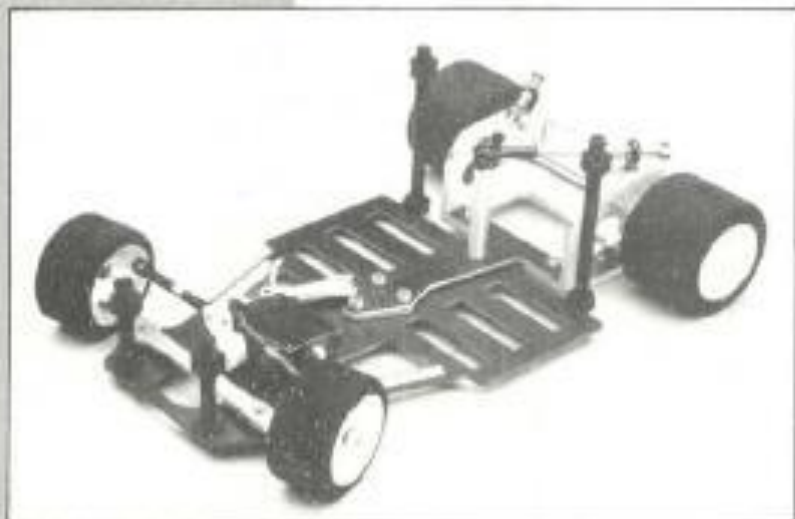
OPTIONS AS TESTED:

Futaba Magnum Jr. radio; Novak NESC T-4 speed controller; AJ's Twinn-K black-dot tires; Trinity stock motor; JG Mfg. '89 IROC Camaro body.

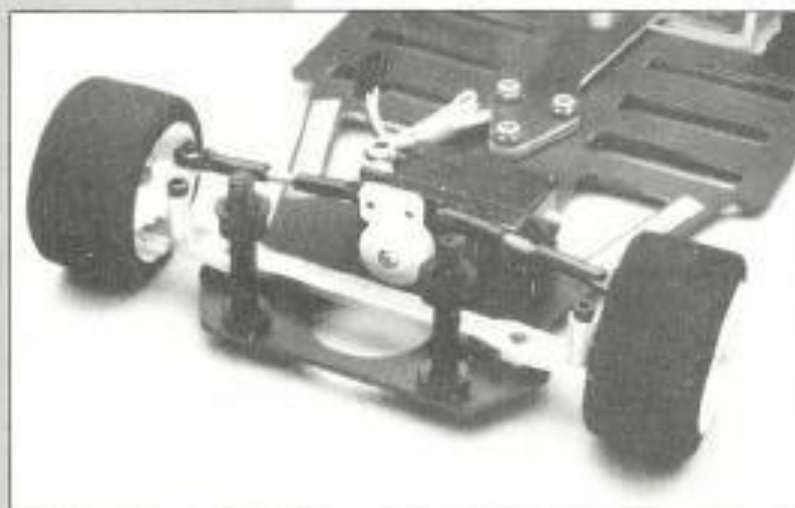
COMMENTS:

The Viper Pro-10 is a good-looking, well-machined chassis. I was able to achieve competitive handling after working on the T-bar and adding low-profile tires to lower the ride height. The price is a consideration in view of the necessary items that aren't included with the kit.

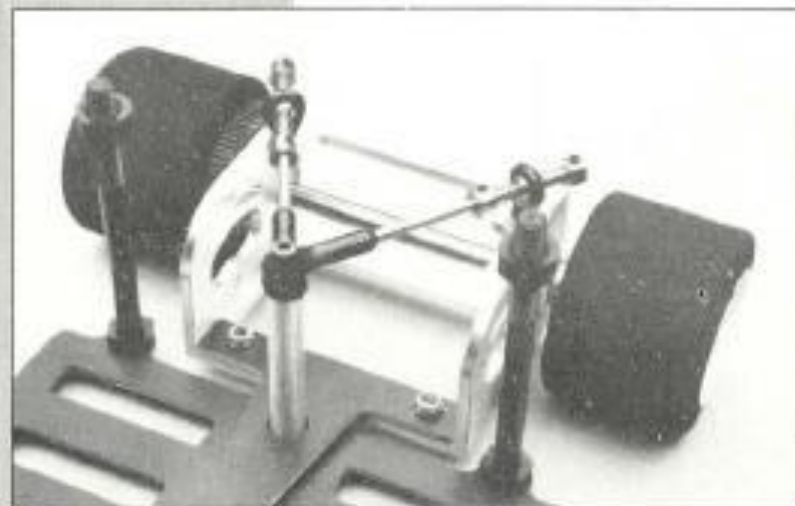
*not included



The rolling chassis of the Viper Pro-10 features a T-bar in the rear and battery slots for saddle packs.



A non-adjustable crossbar makes up the front end of the Viper.



Two rod links with springs control rear flex. Note the lack of wing mounts.