

WEAPON: LYNX II EL



by STEVE FORD



COMPOSITE CRAFT/TRC

LYNX

WEAPON: LYNX II ELITE
OBJECTIVE: ELIMINATE
ALL COMPETITION!

the car might look like other currently competitive machines, but the similarities between it and the others end at its flat chassis plate.

THE KIT

The Lynx II Elite has the beam front end that's found on many other $1/10$ -scale cars. One cinch block holds the beam to the graphite chassis plate and locks in the proper caster angle; and a carrier block on the other side of the chassis holds that side of the axle in place. Sound familiar so far? This setup sounds identical to that used on other cars, but it isn't. The Lynx uses a $3/8$ -inch front beam instead of the standard $1/4$ -inch, which bends easily (it was originally used on $1/12$ -scale cars). The larger, stronger axle doesn't weigh more because magnesium, not aluminum, was used in its construction.

At either end of the axle are larger-than-average kingpins—double the standard diameter. These are also designed to withstand the rigors of $1/10$ -scale racing. Their slots help to prevent the pins from bending, but if you do bend one, they're easily replaced. They aren't just pressed in, but are held by a setscrew at each end of the axle.

The Lynx chassis shows the usual Composite

NOT SINCE THE introduction of the ball differential or the T-plate suspension has anything rocked the high-performance, on-road racing industry as much as the Lynx II Elite. In an effort to make the Lynx the most advanced $1/10$ -scale pan car on the market, two manufacturing giants—Composite Craft® and Total Racing Connection (TRC)®—have combined forces. At a glance,

COMPOSITE CRAFT/TRC LYNX II

Type On-road
Scale 1/10
Sug. Retail Price \$299.95

DIMENSIONS:

Overall Length 17.5 inches
Width 9.125 inches
Height 7 inches
Wheelbase 10.25 inches
Front Track 7.5 inches
Rear Track 7.75 inches

WEIGHT:

Gross (w/bat.) 43 ounces

BODY:

Type Not included

CHASSIS:

Type Pan
Material Graphite

DRIVE TRAIN:

Primary Pinion/spur
Transmission Direct-drive
Differential Ball
Bearings Ball bearings

SUSPENSION:

Front: Type Large diameter
crossbar
Dampening Coil-spring
Rear: Type Single A-arm with
roll bar and rocker ball
Dampening Oil-filled
coil-over shock

WHEELS:

Front: Type Nylon
Dimensions (DxW) 1.7x1
inches
Rear: Type Nylon
Dimensions (DxW) 1.7x2
inches

TIRES:

Front/Rear Foam

ELECTRICS:

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

* not included

OPTIONS AS TESTED:

Andy's TOJ body, Tecnacraft Titanium Ti-rods, Tekin 310 ESC, Futaba 2PBKA with FP-132S servo, Trinity Joel Johnson Modified Motor, Magic Motorsports Matched SCEs, Bud's Large Bi-Level Wing, Robinson machined stainless-steel pinion gears, Kimbrough Servo Saver

COMMENTS:

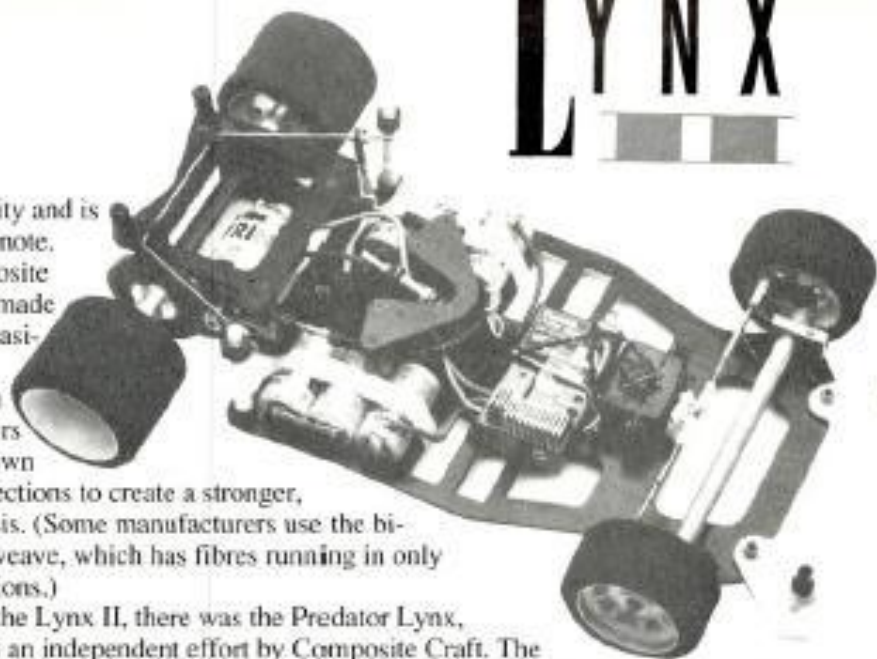
The Lynx II Elite is easy to assemble. It has a few minor flaws (see text), but this is the car to have. It's very versatile, and has a much better performance potential than the stock version.

Craft quality and is worthy of note.

The composite chassis is made with a "quasi-isotropic weave," in which fibers are laid down in five directions to create a stronger, light chassis. (Some manufacturers use the bi-isotropic weave, which has fibres running in only two directions.)

Before the Lynx II, there was the Predator Lynx, which was an independent effort by Composite Craft. The new Lynx has many of the features of the original, e.g., the floating pod, which, unlike the T-plate suspension, was designed to move vertically without pivoting forward when the suspension is compressed. This design was very successful, but the five linkage rods that kept the pod in line with the chassis needed constant attention, or the handling would "disappear" faster than you were able to dialed it in.

LYNX

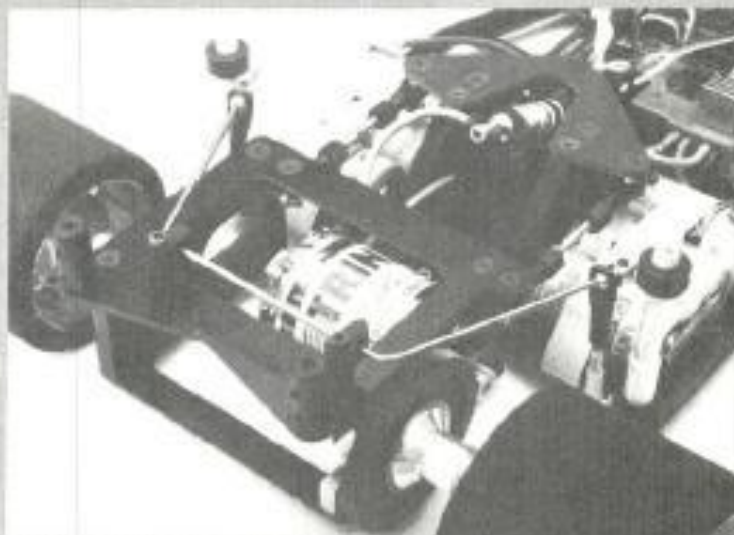


GAINING INDEPENDENCE

What's the most significant modification you can make to a pan car?—make the rear suspension independent. While trying to do that, the Composite Craft crew came up with an easy method: they made the rear pod independent of the chassis. What will this do, and how is it done?

Well, by not relying on the flexing of a piece of fiberglass or graphite for dampening, this new system makes the rear suspension totally predictable. Dampening is handled by an oil-filled shock that's connected to an A-arm by way of two molded uprights. The A-arm lies flat and is connected to the pod at its apex where it pivots on a rocker ball. The A-arm uprights tilt forward and compress the shock during travel.

The pod's sideways motion is dampened by an anti-roll bar that's attached to the pod's rear and the chassis' trailing edges. Two adjustable rods join the



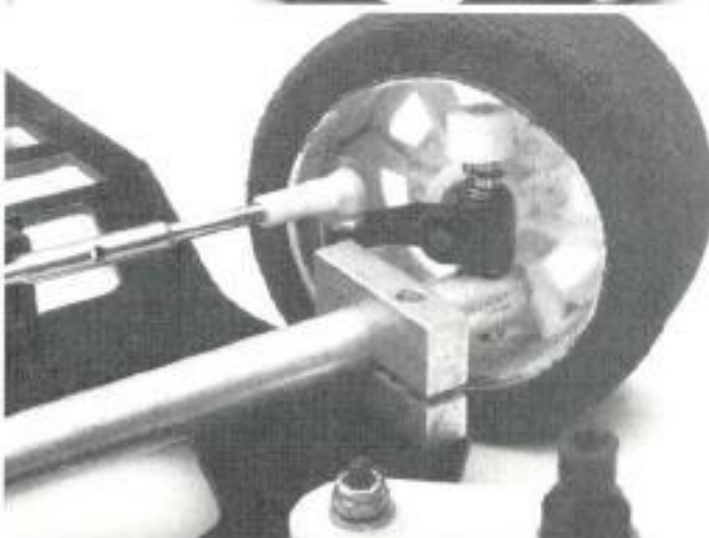
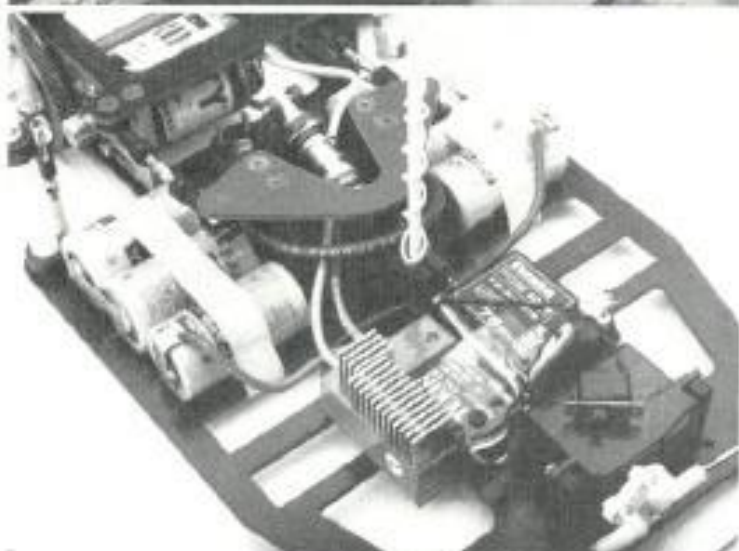
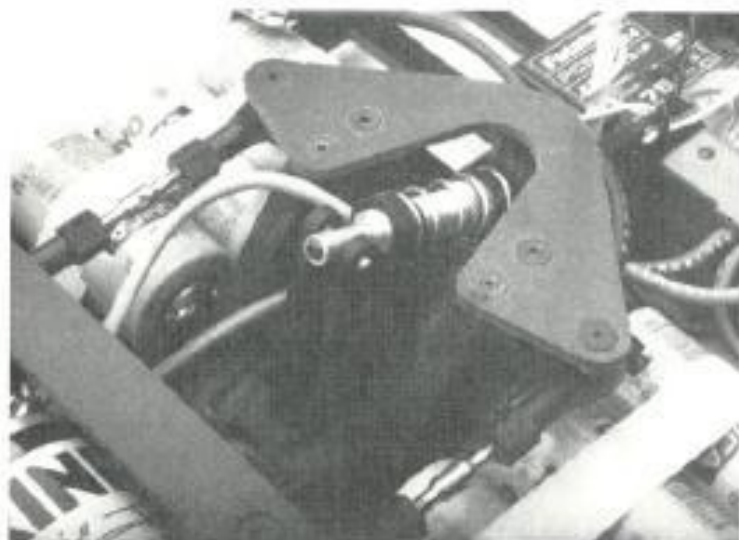
top front of the pod to the top of the shock mount. Are you confused? It's really a very simple, effective system.

Use of this system makes the rear pod incredibly smooth throughout its travel. Since it's attached to the chassis by a rocker ball, two control rods, and the roll bar instead of a T-plate, the pod stays level throughout its vertical motion.

Will this suspension configuration make the T-plate design obsolete? It's difficult to predict, but I can't imagine too many manufacturers sticking with it when they see the capabilities of the newer system.

LYNX

The new Lynx II pod operates in a similar way, but with only two linkage rods. It has a fixed suspension "arm" to which the bottom of the pod is fastened, and two upper links keep the pod aligned. This allows the same freedom



of movement, but there are only two rods to be adjusted instead of five. To put the motor on the chassis center line, the pod has also been moved to the left. With the motor sitting at dead center, pod movement is much more consistent.

The pod's right side includes a strong, light, aluminum motor-mounting plate that's a good heat sink when the motor temperature reaches triple digits. An anti-roll bar keeps the pod's lateral movement in check, and it's also used to set the tweak.

The Lynx II axle is the standard graphite/aluminum unit with five ride-height adjustments. The kit also in-

“When other cars skip around bumpy turns, the Lynx soaks them up...”

cludes a complete set of ball bearings for the front wheels, the real axle and the pro diff, and a set of body mounts that can be used with a stock-car body (not included).

ASSEMBLY

Assembling the Lynx II is about as easy as assembling any other 1/10-scale on-road car, and compared with off-road cars, there are relatively few parts. You'll get no points for assembling the car quickly; the more time you take to ensure that every component is working properly, the faster you'll be on the track.

The instructions are like those that were once included with the RC10: a well-written instruction book and one with photographs. The two will get you through the assembly without a hitch, but they should have been combined. This is a minor inconvenience, but it would have been more helpful to have the pictures right above the writ-

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Left (from top to bottom): ■ Included in the kit is a Delta pressurized shock, which is tough to set up, but does an adequate job of dampening. Note the adjustable upper links for fine-tuning the rear end. ■ A Tekin ESC 310 and a Futaba PCM 1024 make an awesome electronics package, while Magic Motorsports matched SCEs provide the power. ■ Extra-heavy kingpins are designed to take the punishment of 1/10-scale racing. Note the Tecnicraft titanium linkage.

ten instructions (call me picky)

The instructions list the required tools and supplies and a few "optional" items, e.g., 8-32 and 4-40 taps for cutting threads in some of the parts that have to be screwed together. In my view, these items are necessities rather than options. Even the plastic parts are reinforced with graphite, and it's difficult to put a screw into them. Cutting threads on the screws makes the assembly easier, and it relieves some of the stress that's created when you try to force a thread into the material with a machine screw.

Did I encounter any problems during assembly? Not really, but I do have one minor gripe: the stock aluminum steering turnbuckles are 1/4 inch too long! The instructions don't tell you to shorten each side 1/8 inch to make them fit. I'm sure that when the manufacturer has exhausted all supplies of these linkage rods, they will be replaced with those of the correct length, but right now, it's a pain. There's also a clearance problem on the front end where there are holes through which you mount the axle for a longer or shorter wheelbase. With the axle mounted for the longer wheelbase, the tires scrub the chassis in the turns. I had mounted the axle for the shorter wheelbase, so I had no problem, but if you prefer the longer wheelbase, be prepared to file the chassis.

To complete the kit, you need a body, a 2-channel radio, a motor, batteries, and a speed controller. I had seen the Lynx II's performance on an oval track, so I decided to go with an Andy's* TOJ body for roadcourse racing. The kit includes a set of green-dot foam tires, which are suitable for this type of racing, but I wanted tires that would last longer. I bought some TRC 1.7-inch wheels and mounted a number of sets with the Twinn-K* UFRA black-dot rubber. Because the rims were small, the 2-inch pre-trued foams wouldn't fit. My only alternatives were un-trued donuts, which are actually cut for 1/8-scale cars, so they're rather large. When all the dust (tire dust!) had settled, there was a large pile of foam, but the result was worth the effort. The tires will last much longer, and compared with those made of standard foam, they stick very well.

The Lynx uses the Futaba* Magnum Jr. radio with high-speed S132 servos. (They fit perfectly into the molded servo mounts included in the kit). For roadcourse racing, I chose a Trinity* Joel Johnson Modified Motor, which was designed for off-road use but works equally well on tight roadcourses. Trinity's Pushed SCE packs provide the power. They're rated according to capacity, so you know just what you're getting. To complete the package, I installed a Tekin* ESC310 speed controller. Tekin's latest version of its least expensive speed controller has the same features but includes torque control.

AT THE TRACK

My tests included numerous runs on asphalt, concrete and carpet (covers all bases?). It would be an understatement to say the car is competitive on carpet, because it was always in the thick of the competition, but this is where the Lynx had its best run for my money. Carpet tracks are usually considerably smoother than asphalt or concrete, and here, cars with inferior suspension can keep up with the Lynx, but on outdoor concrete and asphalt surfaces, the Lynx forges ahead. Outdoor surfaces are bumpier, and you'll eat the competition alive.

The stock, Delta-type shock is difficult to assemble properly, and its travel is limited, but with the unique rear suspension, it's tough to beat. When other cars skip around bumpy turns, the Lynx soaks them up with its tires planted on the ground. This is essential for fast lap times, and nothing does it as well as the Lynx II. Don't get me wrong: there's no substitute for driving skill, and this car won't turn you into an overnight success. Cars with good drivers will always give you a run for your money, but if your skills match theirs, the Lynx II will put the odds in your favor.

Is this the perfect car? No way. Just like any other car, it has design flaws that must be addressed. I had some problems: diff side hubs were bent when I opened the box, and the aluminum part of the rear axle bent very easily or came apart where the graphite and aluminum meet. I also broke a couple of the aluminum steering rods.

Should these problems steer you away

from this car? Nope! The Lynx II's distributor is TRC, and their spokesperson told me that they will replace defective parts and are now working on solutions to the problems. It's probable that only a small percentage of Lynx II owners will have these problems, and if this is the price you have to pay for this kind of performance, I say deal with it. There are already many optional parts available for the Lynx II through TRC, and this increases the car's versatility and makes it suitable for a variety of track conditions.

Stay tuned for Project Lynx. I'll be slapping a stock-car body and a number of other "trick" accessories onto it and heading out for some high-speed oval racing!



COMPOSITE CRAFT