WIN BILLY EASTON'S TC3!
– page 90

INSIDE THE WORLD'S SMALLEST RACING ESC!



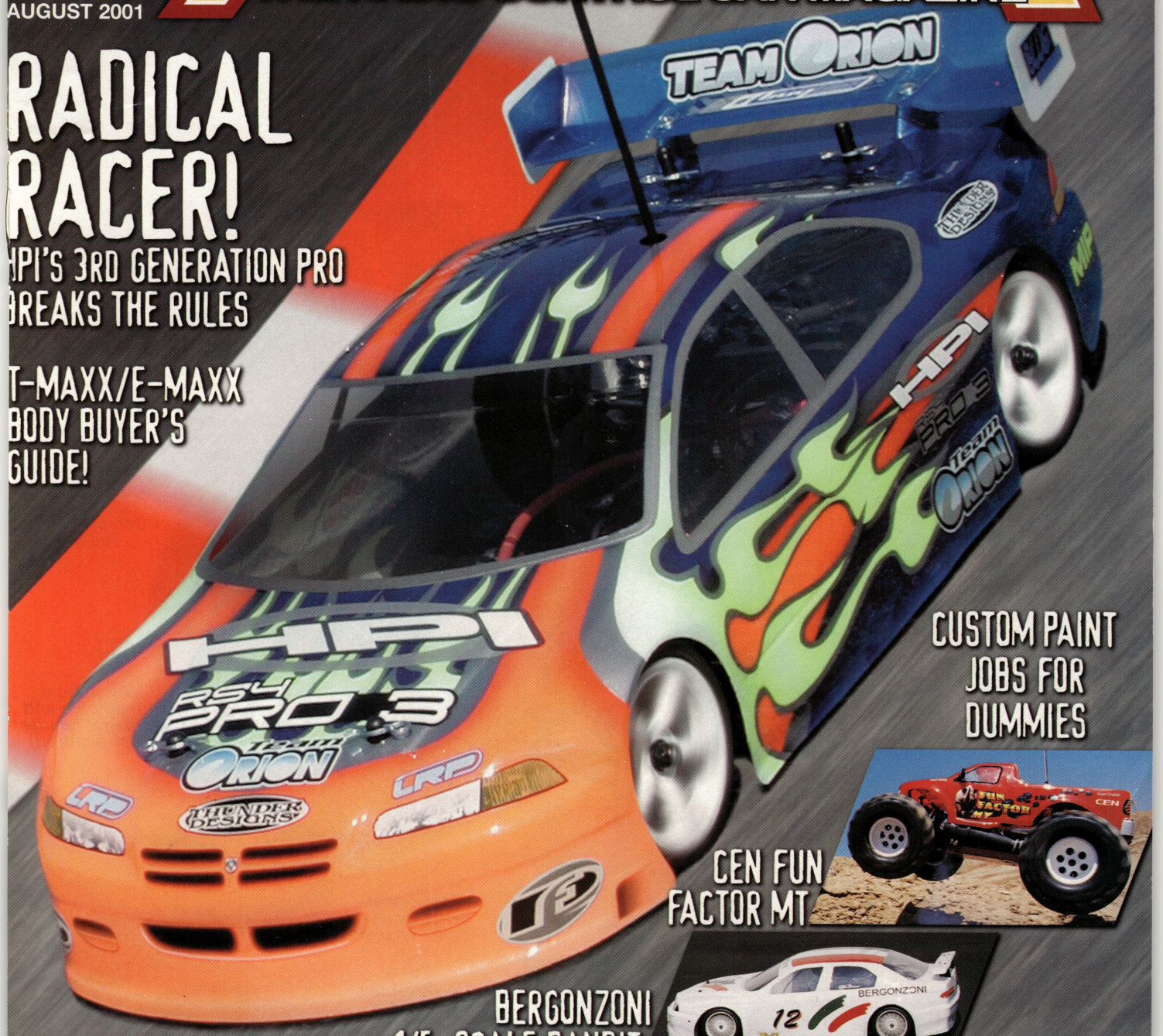
WPS
34486

HI-TORQUE'S

R/C CAR

THE RADIO CONTROL CAR MAGAZINE

AUGUST 2001



RADICAL RACER!

HPI'S 3RD GENERATION PRO BREAKS THE RULES

T-MAXX/E-MAXX BODY BUYER'S GUIDE!

CUSTOM PAINT JOBS FOR DUMMIES

CEN FUN FACTOR MT



BERGONZONI 1/5-SCALE BANDIT



KYOSHO ULTIMA RACING SPORTS

$4.50 CANADA $5.50
08>
0 70989 34486 0
ISSN 1097-0711
www.rc-car.com
Attn. retailer: Please display until July 26

If your FIRST truck was an RTR...



Team-Built™

•Available in pull-start or non-pull start versions

•Adjustable Caster, Camber and Toe-in

•High-quality sealed bearings in the wheels, outdrives, transmission, and clutch!

•Aluminum tuned pipe and exhaust header (not pictured)

•Pro-Line Stubbie "T" Rear tires

• New longer-wheelbase "Team" chassis

•Pro-Line Ribbed "Edge" Front tires

•White one-piece Pro-Line front and rear wheels

Here's your chance to join the TEAM!

A Team-level 16-bearing, Pre-Painted ASSEMBLED Racing GT!

Due to ongoing R&D, equipment pictured may not reflect most current kit updates





"Team-Built" T3 Features:

- **Rubber-sealed ball bearings**
- **Pre-painted and trimmed Pro-Line Body**
- **Blue-anodized Aluminum Shock bodies**
- **Rugged steel "dogbone" rear axles**

...and many other features of our "Team" level kits!

Assembled, "rolling chassis" competition-level trucks!

When you're ready to move up from your RTR, Team Associated has the perfect truck for you! Our new "Team-Built" trucks are the easiest way to graduate to a full-race quality vehicle without any of the building or painting hassles. Just install your own radio gear and motor and you're ready to go racing. Welcome to the Team!

Priced LESS than our T3 and GT Team Kits!



•Two different body color schemes available

"Team-Built" GT Features:

- **Pre-painted and trimmed Pro-Line Body**
- **Rubber-sealed ball bearings**
- **Blue-anodized Aluminum Shock bodies**
- **Rugged steel "dogbone" rear axles**

...and many other features of our "Team" level kits!

3585 Cadillac Ave., Costa Mesa, CA 92626
www.teamassociated.com or www.rc10.com

R/C CAR
THE RADIO CONTROL CAR MAGAZINE
August 2001, VOLUME 4, NO. 8

FEATURES


52 **LRP Quantum ESCs**
Is smaller better?


58 **AC/DC Charger Buyer's Guide**
From budget to top-of-the-line!


64 **Project SR-Maxx**
Creating the total race-ready E-Maxx!


68 **Project Mugen MTX-2**
Goin' graphite with Penguin r/c


74 **T-Maxx/E-Maxx Body Buyer's Guide**
Which Lexan lid is right for your truck?


80 **Easy Breathing**
How to clean your air filter


92 **2001 ROAR Off-Road Gas Nationals**
Who's the best gas guzzler in the land?

R/C Car Magazine (ISSN 1097-0711, Canada GST 12500#9266RT), August 2001 is published monthly by Daisy/Hi-Torque Publishing Company, Inc., with editorial offices at 25233 Anza Dr., Valencia, CA 91355. Subscriptions $19.98 for 12 issues (one year). Canada and foreign add $9 additional postage for one year, $18 for two years. Copyright ©2001 by Daisy/Hi-Torque Publishing Company, Inc. All rights reserved. Nothing in this magazine may be reprinted in whole or in part, by any means, without the express permission of the publisher. Contributors: Photographic submissions must be 5x7 or 8x10 glossy black and white, or 35mm and larger color slides. Please mark each photo with owner's name and address. Manuscripts should be typewritten. Unsolicited contributions, manuscripts, photographs and illustrations must be accompanied by a stamped, self-addressed envelope. Unless special arrangements are made in advance, all published material becomes the sole property of Daisy/Hi-Torque Publishing Company, Inc. The publisher does not assume responsibility for unsolicited material. Periodicals postage paid at Santa Clarita, CA 91380 and at additional mailing offices. POSTMASTER: Send address changes to *R/C Car* Magazine, P.O. Box 958, Valencia, CA 91380-9058. Printed in U.S.A.

On the cover: HPI's Pro 3, shot by John Howell. **Photos on this page** also by John Howell.

DEPARTMENTS



8 Drivers Standpoint
Cars I still wish I had...



11 Up Front
News, Reader's Projects, and The Detail Shop



24 Feedback
More readers' rantings

TEST DRIVES



28 HPI Pro 3
The most radical sedan yet, but does it work?



36 Bergonzoni/Dreier Racing Bandit
Fifth-scale Italian supercar



44 CEN Fun Factor MT
Living up to its odd name!



80 Kyosho Ultima RB Racing Sports
Nitro or electric: pick your flavor!

PRODUCT TEST



42 Hardcore Racing Maxx Stand



50 KO Propo Electrical Switch



88 Team Orion/Thunder Design Internal Decal Set



CERTIFIED SILICONE SHOCK FLUID

Losi certified silicone shock fluid. Available in seventeen weights– from 15 to 100, including new "quarter-weights" of 17.5, 22.5, 27.5, 32.5, and 37.5– each and every batch precisely graded and certified to guarantee that the weight you buy tomorrow will be exactly the same as the one you bought today.

TeamLosi

Engineering wins.

www.teamlosi.com

R/C CAR

THE RADIO CONTROL CAR MAGAZINE

EDITOR
FRANK MASI
ASSOCIATE EDITOR
JOHN "DOOGIE" HOWELL
CONTRIBUTING EDITOR
LITO REYES
ONLINE EDITIORS
BRAD ROE
BradR@hi-torque.com
TOM HINZ
TomH@hi-torque.com
DESIGNER
TIM La PAGLIA
ASSISTANT DESIGNERS
NIKKI ANGEL'LA CALDER
ALMA MARTÍNEZ de DICSÖ
JACKIE CLEVELAND
BETH BOWMAN RIDGWAY

PHOTO ARTIST
PAT CARRIGAN
COPY EDITOR
JIM ALGAR
PRODUCTION COORDINATOR
KAY DEICKEN

ADVERTISING

EXECUTIVE ADVERTISING DIRECTOR
MARK THOMAS
ADVERTISING MANAGER
BRIAN ROBERTS
AD PRODUCTION MANAGER
PEGGY REID
ACCOUNT ADMINISTRATOR
ZAHAVA SEGAL
EXECUTIVE WEB ADVERTISING DIRECTOR
SEAN McCOY
smccoy@hi-torque.com

HI-TORQUE PUBLICATIONS

PRESIDENT & PUBLISHER
ROLAND HINZ
ASSOCIATE PUBLISHER
LILA HINZ
ASSISTANT TO PRESIDENT
CASSANDRA MITTELBERG
ASSISTANT TO PRESIDENT
KATHARINE McCOY
CIRCULATION DIRECTOR
CUYLER GIBBONS
SUBSCRIPTION AND PROMOTION MANAGER
RYAN CLEEK

ADVERTISING & GENERAL OFFICES
25233 ANZA DR.
VALENCIA, CALIFORNIA 91355
(661) 295-1910
FAX: (661) 295-1278

Any change of address or subscription problems please contact us by e-mail: *corinne@hi-torque.com* or call (800) 767-0345.

www.team-orion.com

Constant updates and massive amounts of information keep **team-orion.com** on the cutting edge. The latest news and information from the rapidly changing R/C industry is right at the tip of your fingers.

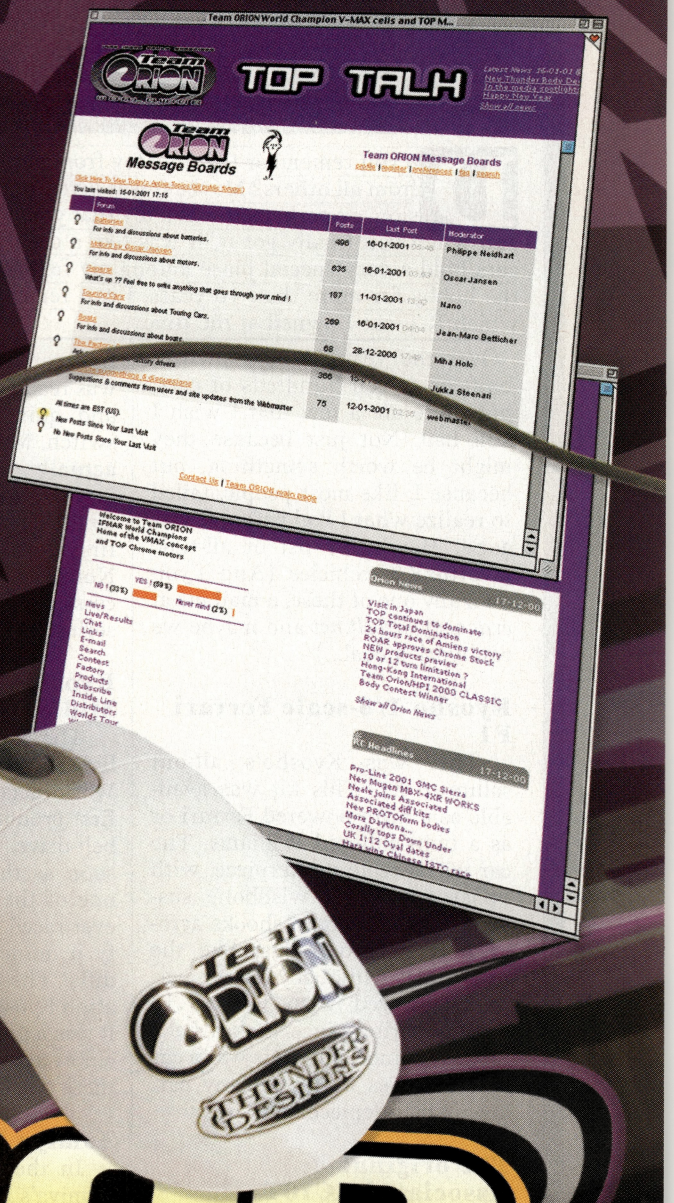
TOP Talk message boards keep you in touch with fellow racers as well as Team Orion's factory drivers. Whether you are looking for the hot set-up, have questions for the pros, or just want to hang out with your buds, **TOP Talk** is the place on the net.

Follow the action at the world's biggest events with **team-orion.com**. Our **"Live/Results"** section tracks the action from qualifying through the main events. If you can't be there, let us take you there!

Contests, technical tips, and an informative newsletter are among many other features designed to keep you informed.

Make sure you check back daily - you would not want to miss a thing!





e-shop

Team Orion's **e-shop** is now open for business! Our most popular products as well as hard to find items are now just a few mouse clicks away. Easy navigation makes purchasing a snap and prompt delivery insures you receive your order *before* your next event.

Our inventory varies, so stop by and see what we have in stock and are able to ship to you *today*!

22601 LA PALMA AVE. SUITE 103
YORBA LINDA CA. 92887 USA
PHONE: 714-694-2812 FAX: 714-694-2815

Team ORION

[Drivers' Stand]

BY FRANK MASI

Do you remember that one toy from your childhood that stood out from all others? Maybe it was given to you on a very special occasion, or perhaps it was a toy that you had wanted for a long time, and when you finally got it, it was like a dream come true. For me, R/C cars hold a very special place among my favorite "toys." Having been in the hobby for more than 16 years, I can remember significant events by which R/C car I owned at the time.

Over the years, I have owned, built or driven hundreds of cars, but there are a few that I wish I still had. Not just because they might be worth something, but because I, like most people, failed to realize what I had before it was gone! Here's my list of all-time favorite R/C vehicles. (And if you own any one of these, e-mail me at *evaone@pacbell.net* and maybe we can work a deal...)

Kyosho 1/8-scale Ferrari F1

This was Kyosho's all-out salute to F1. This kit was available as a nitro-powered Ferrari or as a twin-motored Williams. The car was a scale masterpiece, with upper and lower wishbone suspension and inboard shocks actuated by pushrods—just like the real thing. Although the car was underpowered with just a .10 engine, performance took a back seat to engineering. This was a car that deserves a slot on any car-lover's mantlepiece.

The original Associated RC10T

The RC10T wasn't the first purpose-built race truck (the Losi JRX-T was first), but it did offer the first challenge to Losi's "ownership" of the truck class. Associated debuted the RC10T at the Florida Winter Champs and had taken the top three spots. The truck's narrow front tires created such a controversy that they were soon banned from sanctioned competition.

Team Losi JR-X2

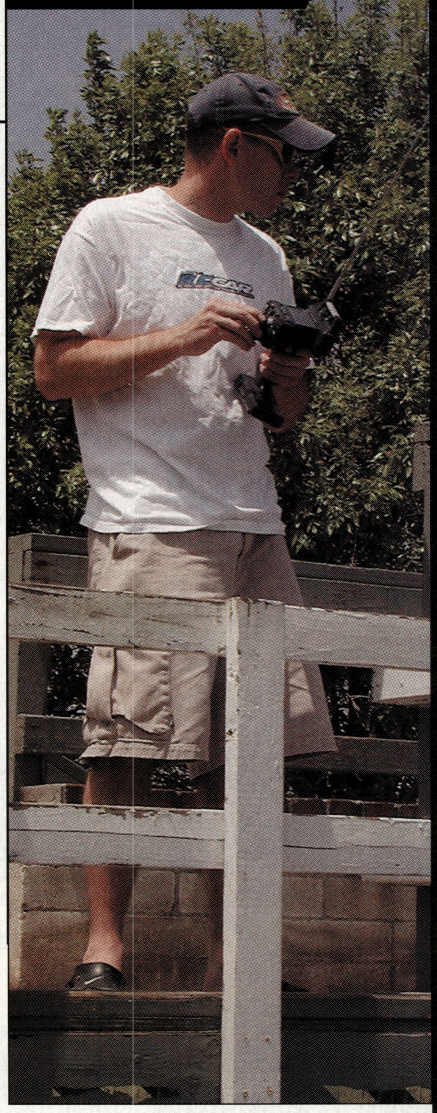
In '87, off-road racing was RC10 vs. RC10, with an occasional Kyosho Ultima for good measure. This all changed when Losi's first car was introduced. The JR-X2 was ready to race right from the box, and quite a few racers made the switch. Many believe that the JR-X2 actually forced Associated to improve the RC10 to meet the challenge. I had bought one of the very first "logo box" JRX-2 kits in the Northeastern U.S., and raced it successfully in the New England point series.

Kyosho Optima Mid & Lazer ZX

The Optima Mid was Kyosho's bid for the '87 IFMAR Off-Road World Championships, and was the first production Kyosho 4WD to use belt-drive. I bought one of these as soon as they came out, and it was one of the easiest to drive cars I've ever raced. And I never had to modify it; mine even had the stock gear diffs! The Lazer was the next generation Kyosho 4WD, and like the Mid, it was a dream to drive. I won a lot of club races back in Connecticut with these two cars. I miss the 4WD class!

Tamiya Mountaineer

In the world of collectible R/C, Tamiya's Bruiser is the king. Just log on to eBay and do a search for "Tamiya." You'll be surprised to find that a Bruiser in good condition can go for over a grand! The Bruiser came out a little before my time, but made a comeback in slightly disguised form as the Mountaineer. In terms of scale realism, the Bruiser/Mountaineer is the undisputed king (although some would argue that Tamiya's tractor-trailer series are even more realistic). With its ladder frame, leaf-spring suspension, multi-speed gearbox (controlled by the transmitter) and an injection-molded styrene body, we may never see the likes of these trucks again. Buy one now if you can find one!

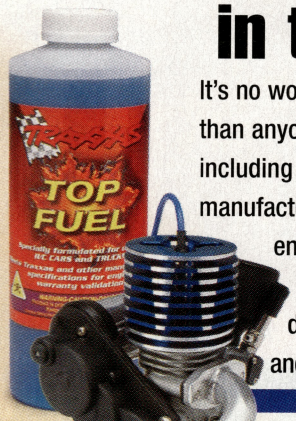


Yokomo Dog Fighter

I started my racing career with a Tamiya Hornet, but soon moved up to an RC10. But as soon as I got my RC10 dialed, along came a guy with a Yokomo Dog Fighter. Back then, 2WD and 4WD raced in the same class (how unfair was that?), so I naturally had to get a Yoke! Never mind that I put at least $800 into the thing to keep it running; at that time, there was nothing faster than a well-running Dog Fighter. ◆

MAKE THE RIGHT CHOICE

The #1 Selling Radio Controlled Hobby Models in the U.S.A. for 4-Years Running.



It's no wonder that Traxxas sells more cars and trucks than anyone else. Everything on a Traxxas model, including the engine and radio system is designed and manufactured by Traxxas. From the ground up, It's all engineered to work together for incredible speed, performance and dependability. And down the road, Traxxas is there with service and support you simply won't find anywhere else.

Everything is covered by the same warranty, service, and parts support from ONE manufacturer. Whether it's a question about an engine, a radio, or performance upgrades, 1-888-TRAXXAS is your toll-free link to fast, friendly solutions. Traxxas puts the fun into Ready-To-Run. It's the right choice made by R/C enthusiasts everyday. The original, the leader, TRAXXAS.

RTR READY TO RUN

T-Maxx: The benchmark that started a revolution in nitro monster trucks. 2-speeds, 4 wheel drive, forward/reverse, 3½ inches of plush suspension travel damped by 8 oil-filled Ultra Shocks,™ 3-channel radio, 30+MPH. T-Maxx is simply THE must have truck for anyone who wants serious RC fun!

Nitro 4-TEC: 50+MPH flyer! 2-speed, 4-wheel belt drive, 2.0 mesh wheels with Pro-Line™ tires, gear diffs, full ball bearings.

Nitro Stampede: The monster truck that handles. High center ground clearance, 2-WD Magnum 375 transmission with ball bearings, chrome wheels, high-torque steering servo.

Nitro Sport: The entry level nitro leader. TRX .15 engine, single needle tuning ease, Magnum 281 transmission with ball bearings, 30 MPH.

Nitro Rustler: Blazing 38+MPH 2-WD performance, Magnum 281 transmission with ball bearings, bellcrank steering, hi-torque servo, chrome wheels, T-6 aluminum chassis.

ProGraphix™

Beautiful 6-Color Painted and Trimmed ProGraphix™ Bodies*

EZ-Start™ Electric Starting

High Performance Nitro Made Easy From The Creator of Ready-To-

TRAXXAS®



Visit us online at WWW.TRAXXAS.com

*Except T-Maxx

Traxxas Corp.12150 Shiloh Rd. Dallas, TX 75228 Ph. 972-613-3300. Traxxas U.K., P.O. Box 1128, Winterbourne, Bristol BS17-2SH, England. Ph. 44-117-956-1002 Fax 44-117-956-1121. ©Copyright Traxxas Corp. 2000. www.traxxas.com. Pro-Line™ is a registered trademark of Pro-Line Corporation, used with permission.
e-mail: support@traxxas.com. Specifications subject to change.

JR Racing's pro-class R-1.

Someone's almost sure to suggest it's got more programmable bells and whistles than anyone could possibly use.

Fact is, it depends on what you're racing.

For example, electric racers won't give a rat about an exclusive feature called *Throttle Quick*. But when racing gas, guys like Gil Losi Jr. love it.

That's because Throttle Quick allows gas racers to electronically dial out the "mechanical dead-band" in throttle and brake linkages. So instead of that awkward little delay in your trigger, you have instantanious response.

Which adds up to one thing: faster laps.

Will you use all the features of the R-1? Probably not. But you can bet you'll use the ones that make you go faster.

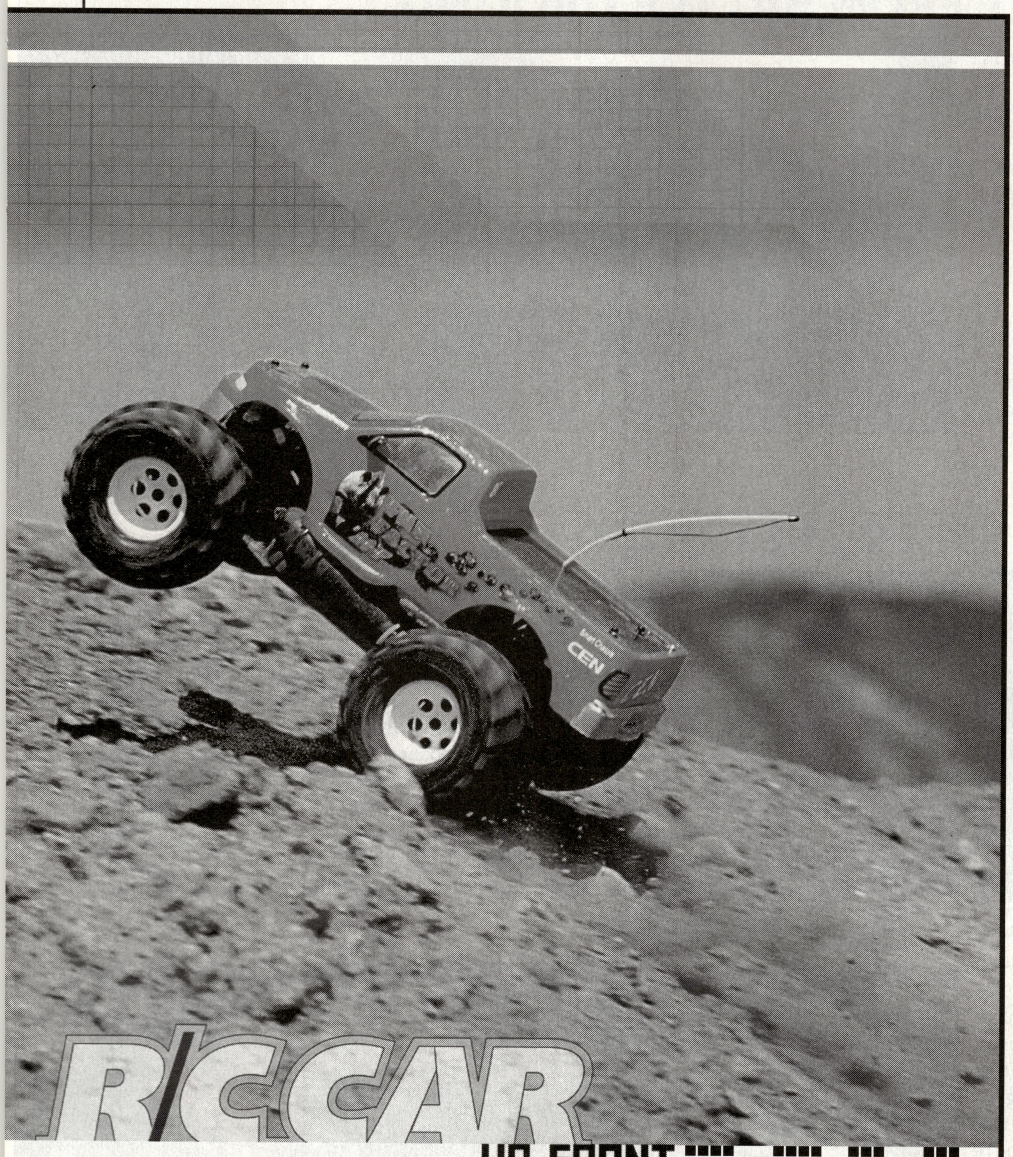


JR products are distributed exclusively by Horizon Hobby, Inc., 4105 Fieldstone Road, Champaign, IL 61822 www.horizonhobby.com
For additional information or your nearest JR retailer, call toll-free 877-504-0233.

JRP314

UP FRONT





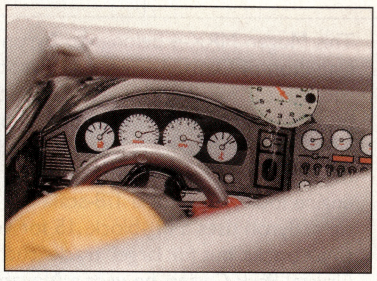
UP FRONT RC08



READERS' RIGS [PAGE 12]



NEWS [PAGE 14]

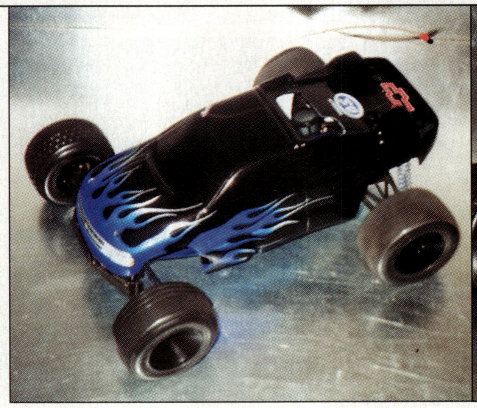


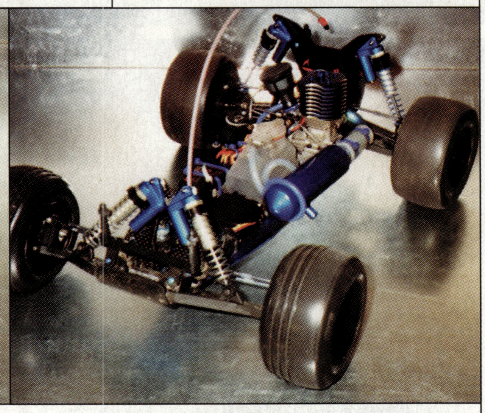
DETAIL SHOP [PAGE 20]

Welcome to *R/C Car's* Readers' Projects. We receive many impressive "home-built" reader projects each month, so we decided to showcase some of them in each issue. How about you? Got a lot of pride in your ride? Snap some pics and send 'em to us here at *R/C Car* Readers' Projects, 25233 Anza Drive, Valencia, CA 91355. Hi-res digital images can also be emailed to tomh@hi-torque.com. Who knows, maybe you'll see your car or truck in an upcoming issue! And if we use yours, you'll receive a free one-year subscription!

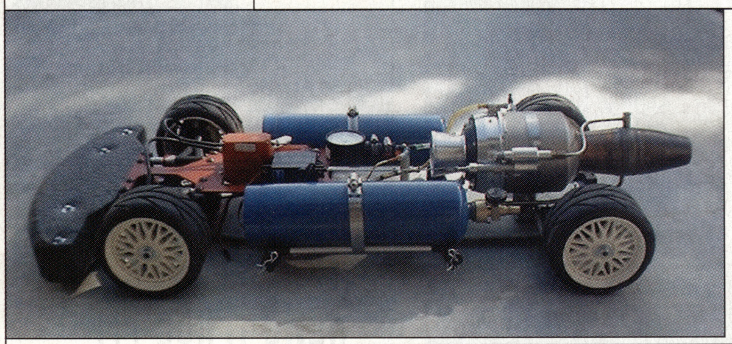
BAD GT FROM BATTLE GROUND

Tim Hay from Battle Ground, Washington, sent us these pictures of his Team Associated Factory Team GT. Tim says that although it's hard to find hop-ups that actually improve the performance of the GT, he feels that his additions have made a difference. Tim's truck is equipped with an O.S. .12 CVR engine that spins an MIP clutch and breathes through a Motor Saver filter. Progressive Suspension's PiggyBack reservoirs keep the shocks cool, and help the Pro-Line Blade and Square Fuzzie tires stay in contact with the ground. Tim steers his truck using a Hitec metal-gear servo, and says that he painted the Pro-Line 2001 Silverado body's flame-job himself.





WARP SPEED MISTER SULU!

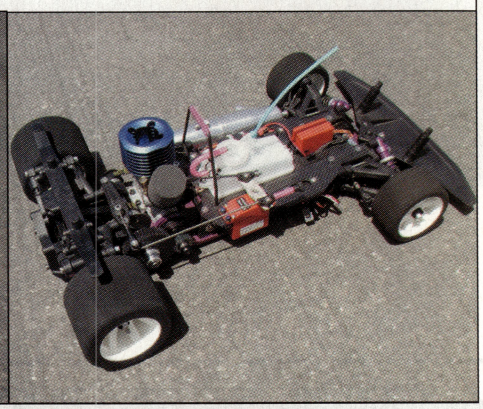


When Mike Allen from Camarillo, California, decided to adapt a JPX jet turbine engine to his SVM 1/5-scale car, he realized that in order to mount the engine low enough in the chassis, he would have to essentially remove the entire rear suspension to provide clearance. So with the suspension, gas engine and drive train gone, Mlke's car was now substantially lighter. Powered by a pair of propane tanks, the JPX engine creates about 14 pounds of thrust, and is capable of moving the big SVM with authority. Mike says that the car will probably go between 100 and 120mph, but that he doubts the stock tires could handle such speeds. During initial testing, he reports that the car ran out of room long before it ran out of thrust!

BYRON'S MEGA-MUGEN

This Mugen MRX-4 belongs to Byron Hamilton of Oxnard, California. Byron has had this car for almost a year, but because he shares his time between running his cars and his R/C boats, he is just now getting the MRX-4 up and running. If you think that engine looks small for a 1/8-scale car, you're right: Byron uses a big-block .15 for very small tracks, but for larger tracks such as Crystal Park Casino, he uses a Novarossi R1. Other features of Byron's car are a Picco Lola body painted by JP Paints and Multiplex servos. Byron controls his Mugen with a Futaba 3PJ-S PCM transmitter.





WARNING:

Multiple Cyclones on the Horizon



Constant Force Braking

built-in on/off switch

small size

low-resistance solder posts

3 updated touring car profiles

0.00049 On-Resistance

480 amps rated current

160 amps braking current

ultra smooth throttle response

Radio Priority Circuitry



user-changeable input harness

512 discrete steps fwd/rev

No Motor Limit

3 updated throttle profiles

lightweight

Polar Drive Circuitry

complete programmability

THE CYCLONE C2 AND TC2 ARE FORECASTED TO THRASH ANYTHING IN THEIR PATH

Novak Electronics has just unleashed two awesome new forces on the R/C world: The Cyclone C2 and TC2. Features that made the Cyclone a great speed control are still intact such as its small size, light weight, and full programmability. New features that will blow you away with their sophistication, yet simplicity and convenience, include a plug-in input harness that is user-replaceable; 3 updated, pre-programmed throttle profiles which can be easily selected via the One-Touch button, yet require no additional equipment to use; an installed power capacitor harness that requires no soldering; an improved data link socket; and a conveniently located, built-in, combination One-Touch Set-Up & ON/OFF button. Other Cyclone C2 and TC2 features are Constant Force Braking, low-resistance solder posts, and an ultra smooth throttle response. For ultimate control, Novak's optional Pit Wizard* allows users to adjust all operating parameters, store their newly customized profile in the ESC, and have access to it at a moment's notice!

NOVAK

NOVAK ELECTRONICS, INC. • 18910 TELLER AVENUE, IRVINE, CA 92612
TEL: 949.833.3838 • FAX: 949.833.1831 • WWW.TEAMNOVAK.COM

*Due to the plug update on the C2 and TC2, original Pit Wizard users will require the special Pit Wizard-to-C2/TC2 Adaptor Harness (#5710).

www.teamnovak.com

TRAXXAS JOINS FORCES WITH NOVAK!

We just received word that Traxxas has joined forces with Novak Electronics to produce an all-new 14-volt speed control system for the E-Maxx line. The new speed control will go under the name "EVX", and it has many features that far surpass the original E-Maxx's VX-12. Here's a list of the EVX's features—

• The most important new feature is that the EVX will have brakes (whereas the VX-12 didn't). The EVX uses Novak's new Electronic Smart Braking technology. Hit the brakes, and the unit will stop the vehicle before switching to full proportional reverse.

• The microprocessor control has three different built-in programming modes.

1) Normal mode with forward, reverse, and Smart Braking.

2) Racing mode with forward, brakes, and no reverse.

3) Marine mode with forward, 20-percent reverse, and no brakes.

• Novak's proven One-Touch Set-Up makes it easy to adjust the unit. Simply press the button once to begin setting it to your radio.

• Built-in thermal shutdown adds extra safety and protection.

• High-frequency operation and low internal resistance provide longer runtime and higher top speeds.

• Gold-plated battery connectors provide maximum efficiency.

• 550 19-turn motor limit.

We received a pre-production unit from Traxxas for testing and all we can say is "what a difference"! Having brakes is a big plus. We only had the unit for a few days before we went to press so we didn't have a lot of radio time with it. We plan on testing the new speedo further in our next issue, so stay tuned for a full report.

For more information, contact Traxxas at (972) 613-3300.



PANASONIC POWER—PLUS!

DuraTrax is now offering the latest generation of Panasonic 3000mAh NiMh cells in handy stick-pack form. With a higher average voltage per cell, these new packs are now perfect for stock-class racing as well as for modified. And with their high-capacity, you'll get much longer run times than with NiCads. Each DuraTrax pack features synthetic "shotgun" tubes for improved cooling, quad-welded tabs for better conductivity, and 14-gauge silicone wire. The Panasonics packs sell for $89.99 for 6-cells and $109.99 for 7-cells.

Contact DuraTrax at 1-800 682-8948 for the dealer nearest you.





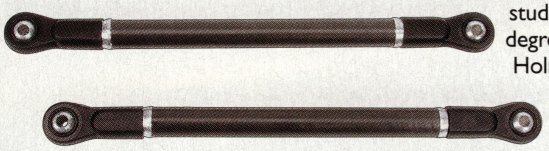
FMA BRINGS M.TRONIKS TO THE U.S. MARKET

FMA recently announced that they will be importing the new M.troniks Limited line of speed controls. The new speed control line, going by the name M.sonik, includes entry-level units all the way up to full-race ESCs. We've used M.troniks speed controls in the past with great success, and we plan on extensively testing these new units in future issues! Stay tuned for our results!

For more info, you can contact FMA at (800)-343-2934, 301-831-8980 or 301-831-8985.

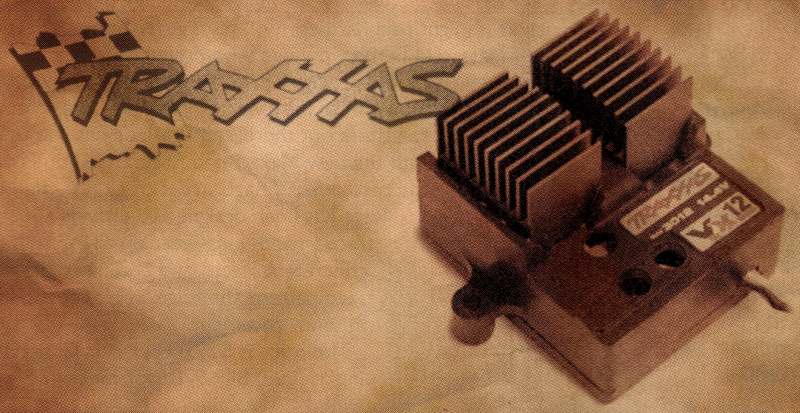
HOLMWRECKER GRAPHITE LINKS FOR THE T-MAXX AND E-MAXX!

In the March issue we showed some great graphite toe-links on one of our "Maximum Maxxes" called HolmWreckers Links. Since then we've had a couple of inquiries about them, so here is the scoop. These rear links are made of 7.5mm hollow graphite and have threaded-aluminum inserts for further strength. 8/32-in. stainless steel studs join heavy duty Kyosho ball ends to the aluminum insert. Length is set to give 0-degrees of toe. And don't forget that they will work just fine on the E-Maxx, as well.



HolmWreckers links are only available over the Internet at http://ovalqueen.n3.net . You can also contact OvalQueen@yahoo.com for more information. The price is $30 per pair, which includes shipping.

WANTED





VX-12 ESC

Attention Traxxas E-Maxx Owners

URGENT RECALL AND REPLACEMENT NOTICE:

Traxxas Corporation is announcing the recall of all VX-12 electronic speed controls. The VX-12 comes as standard equipment in the Traxxas E-Maxx™ electric monster truck. Traxxas has determined that some components used in the VX-12 speed control are overly sensitive to moisture. In the presence of moisture, these components can short circuit and create a fire hazard. In addition, improper wire routing for the BEC (battery eliminator circuit) can melt the insulation from the wires, short the BEC circuit, and render the VX-12 inoperable.

Mandatory recall:

This recall is mandatory, and covers all VX-12 production. Even customers with good, working VX-12 speed controls must return them for a replacement to ensure the correct and safe operation of their Traxxas E-Maxx.

VX-12 Replacement:

Traxxas Corporation has partnered with Novak® Electronics Inc. to provide, free of charge, new Novak® designed and manufactured Traxxas EVX speed controls to replace all Traxxas VX-12 speed controls. The new Traxxas EVX speed control is microprocessor controlled, programmable, and features 14-volt forward and reverse operation, Smart Braking™, One Touch™ setup, moisture protection, high power servo output, and thermal protection. The EVX speed control will replace the VX-12 speed control in all new production Ready-To-Run E-Maxxes. Traxxas' partnership with Novak® ensures that Traxxas customers will have unquestionably the highest quality electronic speed control available, designed and manufactured especially for the E-Maxx by Novak®. Visit our website, www.traxxas.com for detailed technical specifications for the new EVX speed control. The Traxxas EVX speed control is only available from Traxxas and is warrantied and supported by Traxxas.

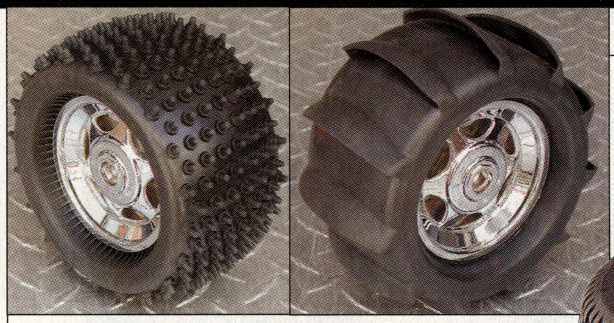
Directions:

Go online to www.traxxas.com/recall. **You must have an RMA number to return your VX-12.** Use the online form available to acquire your RMA number. After you complete and submit the online form, you will be issued the RMA number. Write the RMA number on the outside of your shipping package. This number will be used to track and expedite your VX-12, exchange. If you do not have access to the Internet, then contact Traxxas Corporation at 1-888-Traxxas (872-9927) **extension 888.** Please call Wednesday through Friday from 8:30 AM to 5:30 PM central time. Whenever possible, use the online form for faster service and to avoid possible long hold times. You must contact Traxxas prior to returning your VX-12 in order to receive your RMA number. Failure to use the RMA number could slow down the processing of your exchange or result in a rejected package. **Do not contact Novak® Electronics.** They will not be able to assist you in any way with the exchange of your VX-12 or with information regarding the specifications of this speed control.

We at Traxxas regret the inconvenience this recall may cause you. We hope to reward your patience with this stunning new EVX speed control. Again, this $180 retail speed control with greatly enhanced performance is being provided **FREE** in exchange for Traxxas VX-12 speed controls that were used in the Traxxas E-Maxx. **Your complete satisfaction and safety is our primary concern.**

TRAXXAS®
FROM START TO FINISH

Traxxas Corp.12150 Shiloh Rd. Dallas, TX 75228 Ph. 972-613-3300. ©2001 Traxxas Corp.
www.traxxas.com. e-mail: support@traxxas.com.
One Touch™ and Smart Braking™ are trademarks of Novak® Electronics Inc.



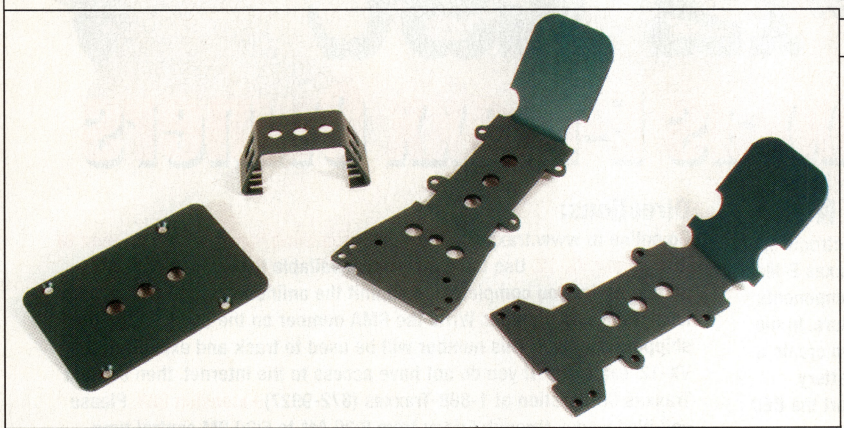
While Doogie was at the ROAR Gas Nats, Pro-Line's Scott Hughes showed him these two brand-new T-Maxx tires—a paddle tire and a spike tire. The paddle tires, named "Maxx Paddle", and the pin spike, "Maxx Mulcher" should be available by the time this issue goes to press, so keep an eye out for them at your local hobby shop!

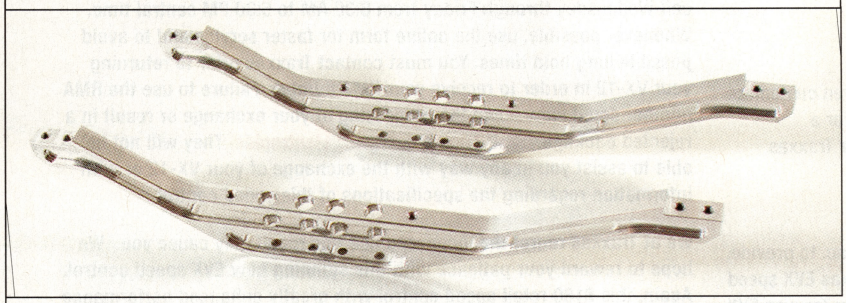
PRO-LINE'S NEW T-MAXX TIRES

As much as it might pain hard-core off-road guys, there seems to be quite a few T-Maxx and E-Maxx owners who prefer to drive their trucks on the street. Don't hate them; maybe they live deep in the city, or perhaps the EPA has shut down their local woods. Whatever the reason, there are some Maxx roadsters out there, and Pro-Line has just the tire for them with the new Maxx Road Rage. Based on Pro-Line's successful Road Rage street truck tire, the Maxx Rage has been designed to provide superb traction and long-wear on all asphalt and concrete surfaces, and because of its unique tread pattern, the Rage won't get too loose on sandy pavement.

The price is $29.00 per pair. Contact Pro-Line at (909) 849-9781 for more info.







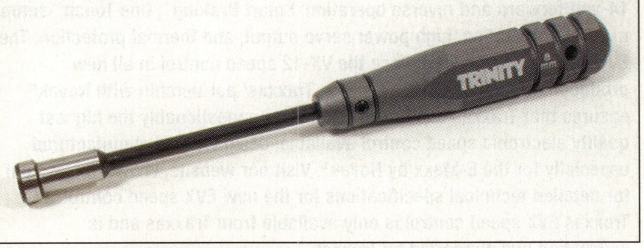
REMEMBER THE NAME

With a name like Ballistic Stupidity, this Canadian company definitely has a sense of humor. They also have a line of very nicely made hop-ups for the Traxxas T-Maxx and E-Maxx. The line includes front, center and rear skid plates as well as a clever servo skid plate (SST), all made from a special aluminum alloy that's lightweight and extremely durable. BS also offers a set of billet chassis braces and a cool set of wheelie bars. All of the aluminum parts are offered in your choice of seven colors to give your truck a true custom look. For more information, contact Ballistic Stupidity at *info@ballisticstupidity.com*.

DUAL-PURPOSE T-MAXX TOOL

The latest addition to Trinity's line of Team Tools is this high-quality 8mm nut-driver that fits both T-Maxx/E-Maxx wheel nuts as well as glow-plugs. The driver and socket are hardened steel for long-life, and the handle is beautifully machined from aluminum.

Contact Trinity at (732) 635-1600 for more information.



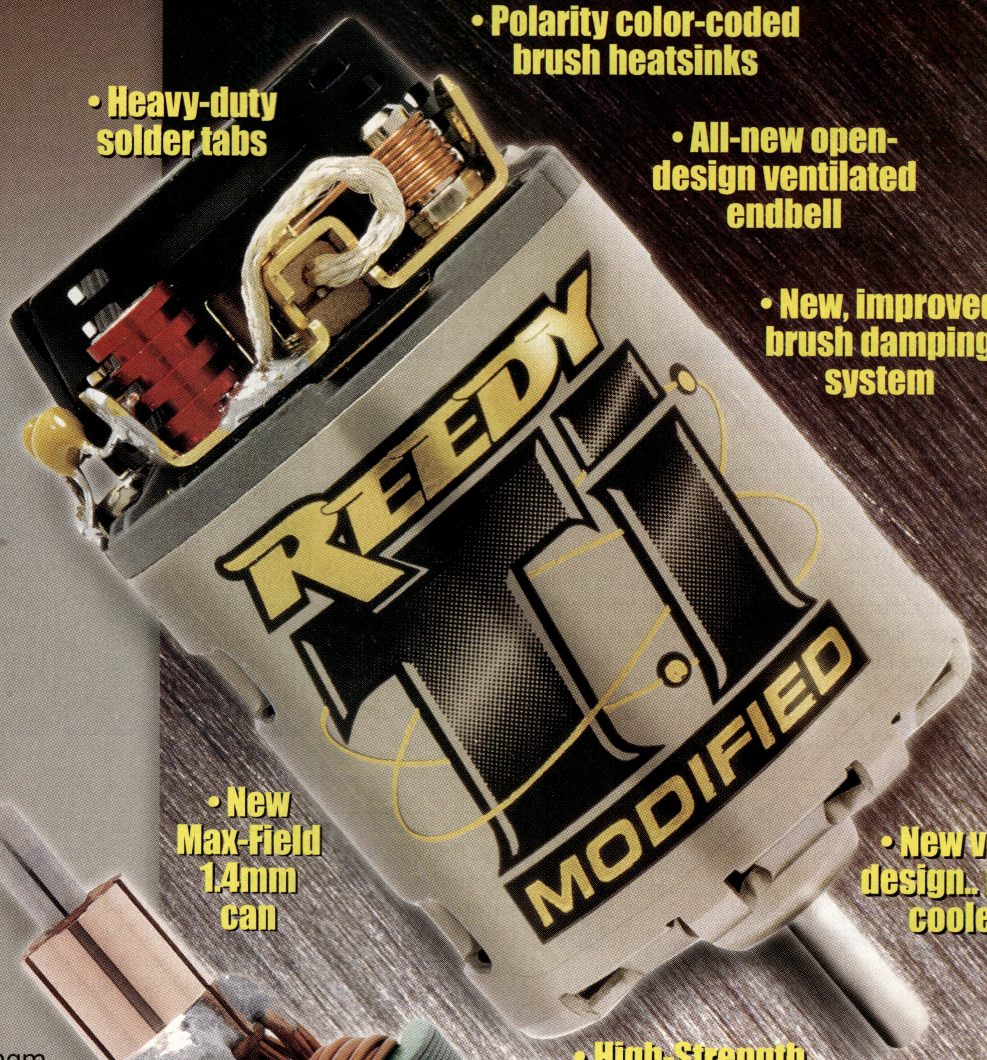
ELEMENT SERIES
MODIFIEDS

Winds Available:

#376	14 Dbl.
#377	13 Dbl.
#378	12 Dbl.
#379	11 Dbl.
#380	10 Dbl.
#381	9 Dbl.
#382	8 Dbl.
#383	7 Dbl.

Check the results...

The IFMAR Onroad World Championships in Japan... or the U.S. Indoor Championships in Cleveland... or the Novak Midwest Touring Car Championship... Reedy Modifieds has become the DOMINANT power at the top levels of touring car competition. The new Reedy "Ti" titanium-finish motor incorporates all the latest racing technology developed specifically for high-voltage 3000 Ni-MH Modified Touring Car racing.



• Polarity color-coded brush heatsinks

• Heavy-duty solder tabs

• All-new open-design ventilated endbell

• New, improved brush damping system

• New Max-Field 1.4mm can

• New vent design... runs cooler

• High-Strength "C4" Magnets



• New "Millennium II" Double-winds

• All-new, high-torque armature design creates a more intense magnetic field for quicker spool-up

• #729 Quasar Touring Competition brushes

REEDY Ti MODIFIED

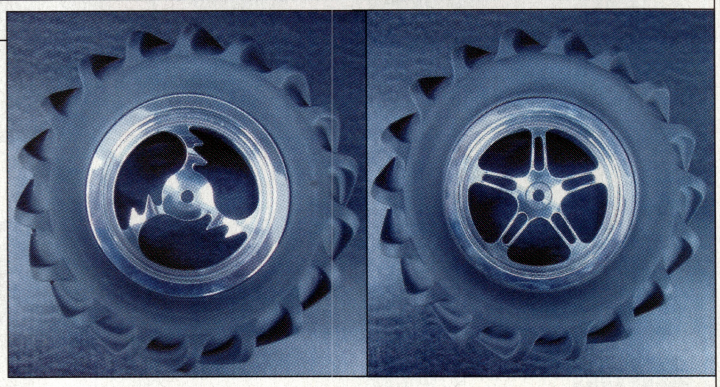
Send for your FREE Reedy Products Catalog!

Visit our website:
www.teamassociated.com
or www.rc10.com/aeinteractive

Reedy Modifieds • A Division of Associated Electrics, Inc.
3585 Cadillac Ave., Costa Mesa, CA 92626 •
(714) 850-9342 Fax: (714) 850-1744

Ad#1079

RADICAL RACING



Rad-Tech Racing from Phoenix, Arizona is the latest company to offer aluminum hop-ups for the T-Maxx and E-Maxx trucks. Their wheels are machined from solid billet 6061 aluminum stock to have a contoured designed, then polished to a lustrous shine. Currently, Rad-Tech offers three types of wheels: the Epsilon, Nebula and Radiant (which fit the Maxx trucks), as well as the Biohazard, which fits the Losi Triple-XT and NT trucks. In addition, Rad-Tech makes billet parts and wheels for 1/5-scale cars such as the Harm, and offers billet aluminum suspension arms, ladder bars and servo mounts for The T/E-Maxx, and foam wheel adapters for Associated buggies.

For pricing and additional information, contact Rad-Tech Racing at (623) 516-1849.

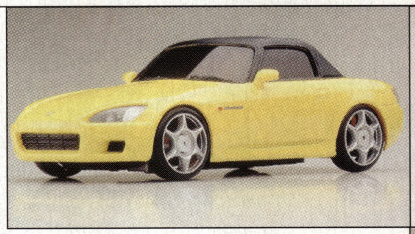


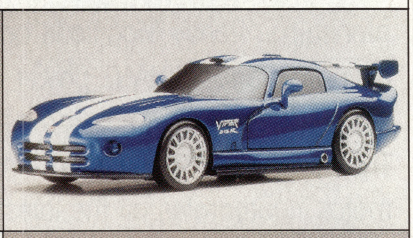
PRO-LINE LOWERS THE STANDARD?

It's true, but not in a bad way. Pro-Line's newest body for the popular Associated RC10GT Factory Team gas truck is this awesome-looking GMC Sierra, which has been designed to meet the newest legal specs and to be the lowest GT body on the market. The Sierra fits the GT chassis like a glove, and because it's molded from thicker .040 Lexan, durability is increased. The Sierra retails for $23.00 and comes with pre-cut window mask, an add-on rear spoiler and a high-quality vinyl decal sheet.

Contact Pro-Line at (909) 849-9781 for more information.

MORE MINI MADNESS







Are you one of those guys who can't get enough R/C? Don't you hate it when the rain keeps you from the track? Then join the club, brotha! When the weather gets us down (a rare occurence in sunny SoCal), we turn to Kyosho's Mini-Z racers. At less than seven-inches long, the Mini-Zs aren't cheezy toys that handle like a Barbie Fun Vette, no, these technological marvels feature fully proportional radio control, a forward/reverse ESC and functional—and adjustable—suspension that helps them grip most smooth surfaces.

Check this out: Kyosho now offers the Mini-Zs with a choice of three killer new body styles. The Honda S2000 (our personal fav) is available in red, yellow or silver, and the Toyota Altezza (Lexus 1S300 here in the U.S.) comes in yellow, metallic blue or white. Also available is a hot Dodge Viper GTS-R shown here in blue. All Mini-Z's come fully RTR with a Kyosho Perfex radio and a pre-painted hard-styrene molded body. Retail price is $219.99.

Contact Kyosho USA, distributed by Great Planes Model Distributors, 2904 Research Rd., Champaign, IL 61826-9021 • phone (217) 398-6300; fax (217) 398-0008 fax



IMPREZ-IVE BODY

Even though Subaru has just begun to import the hot Impreza WRX to the U.S. (it's about time, too!), we R/Cers have known about (and dreamed of) this turbocharged, all-wheel drive rocket for years. HPI has just released this 200mm Impreza WRC 2001 body for rally and nitro sedan racers. The WRC 2001 is a scale replica of the car that has been dominating the rally circuits this year, and has the new U.S. street car's signature round headlights. Included with the body are pre-cut window masks and overspray film for easy painting, two huge decal sheets and a large racing wing. Retail price is $24.00.

Contact HPI Racing at (949) 753-1099 for more information.

TEAM ASSOCIATED'S

Billy Easton



AND HIS

TC3

SWEEPS Cleveland!

2001 U.S. Indoor Championships

The team does it again! Billy Easton takes both the Modified and Stock Touring classes with his Reedy-powered, LRP-equipped Factory Team TC3. And congratulations to the other TC3 drivers in the Modified A-main...Mike Dumas, Mike Blackstock, Walter Henderson, and Mike Lufaso... and **ALL TEN** of the Stock Touring Class A-main finalists!

And this just in... at the third Triple Crown race in Gaithersburg, MD, Associated TC3's were in 18 out of 20 A-main positions... eight in the Modified A-main and **ALL TEN** Stock Touring Class finalists!

U.S. Indoor Champs

Modified A-Main

1.	**Billy Easton**	**TC3**
2.	Josh Cyrul	
3.	**Mike Dumas**	**TC3**
4.	**Mike Blackstock**	**TC3**
5.	**Walter Henderson**	**TC3**
6.	David Spashett	
7.	**Michael Lufaso**	**TC3**
8.	Brian Kinwald	
9.	Mike McMahon	
10.	Jacob Pritchard	



REEDY FACTORY Team LRP ELECTRONIC

3585 Cadillac Ave., Costa Mesa, CA 92626

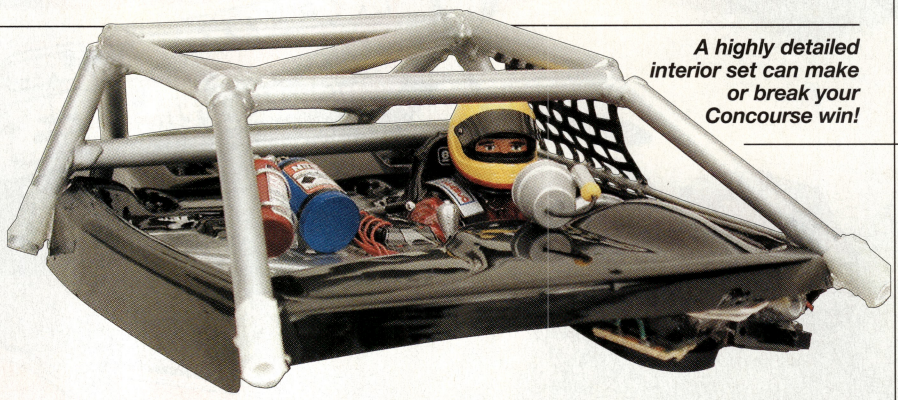
www.rc10.com • www.teamassociated.com

ae

od #1078

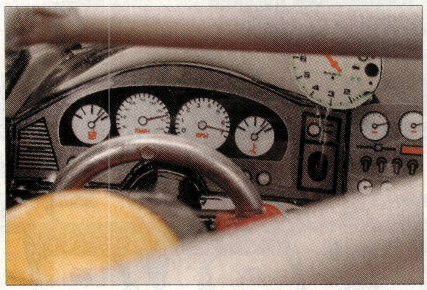
Interior Detailing 101

By Ian Aquino

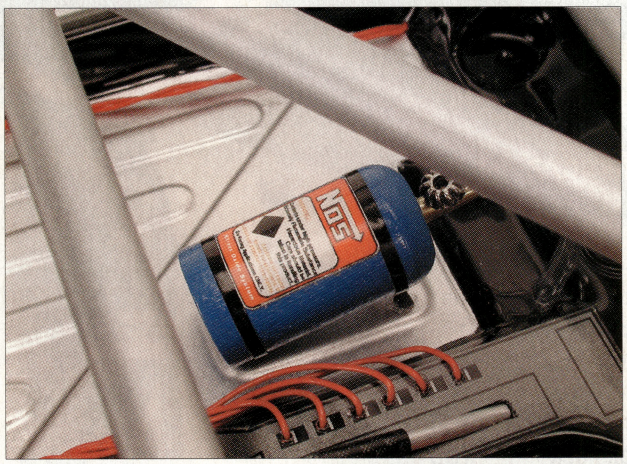


A highly detailed interior set can make or break your Concourse win!

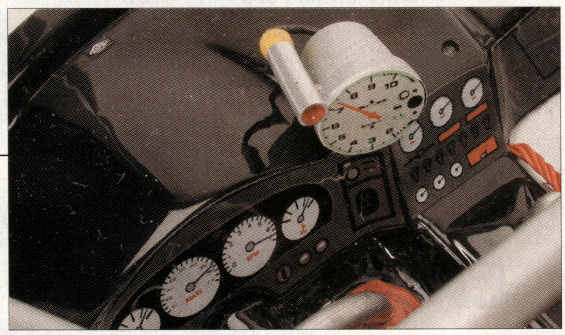
In building R/C show cars, one thing is often neglected—"the interior." Why, you ask? Maybe for many enthusiasts the thought of building and detailing it is an intimidating task, or even more, a time consuming process taken aside from painting the main Lexan body. Whatever the reason may be, an R/C car just doesn't look realistic enough without a matching interior set. No matter how good your car looks on the outside, there always seems to be something missing with nothing but empty space inside. How about adding a racecar driver with full Momo gear, perhaps, or that Recaro seat you've wanted to install in your 1:1 sports car? These details will surely add a lot of character and attitude to any of your existing R/C vehicles. And always remember, it's your car, it's your interior, and anything you put in it is your call. But for now, let us be your guide in starting out this quest in creating a one of a kind inner-shell masterpiece for your unique show car. And for all Concourse aspirants out there, be reminded that interior sets are being regarded as one of the "must-haves" in the long



Check out all the dash gauges—these are basic elements when detailing your interior.



Every car could use a little "boost" on the way towards claiming a Concourse win, right? How about adding a nitrous bottle!



Adding a large tachometer can help bring your dashboard alive and will help impress the judges.

R/C INTERIOR SET GUIDE

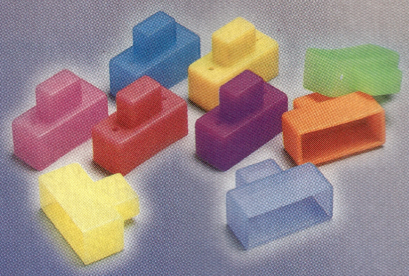
- **Paint base unit**—depending on material, be sure to use the proper kind of paint. Acrylic or enamel paints should be avoided on Lexan interior sets. Also, if painting Lexan, experiment by painting outside as opposed to under the skin. This will give you a realistic satin finish instead of the glossy look we all are used to.
- **Detail head and helmet piece**—take extra time doing this step, as the driver is usually the focal point of the whole interior.
- **Put everything else together**—for example, shift knobs, steering column, roll bars etc. Paint these items as needed.
- **Add custom details**—such as helmet visors, hand brakes, carbon fiber trimmings, real cloth seatbelt straps, rear view mirrors and buckles. There are tons of ideas out there and your theme should help you decide what works for your project. ●

The Finest Silicone Rubber Products for R/C Models!

GS Racing™

Absolutely the Most Colorful Silicone R/C Parts on the Market!







Ultimate Silicone Wire Giga-V & Mega-V

- Pure 40 gauge copper wires w/soft 50 Shore A silicone rubber
- 2 sizes: Giga-V (12 AWG) -- 665 strands
  Mega-V (14 AWG) -- 420 strands
- 3 ft./pkg. • 11 colors - BK/RD/BL/SBL*/FY/FG/FP/FO/FR/YL/PR
- Part No./Size: GSCW143--14 AWG ;GSCW123--12 AWG

*Sky Blue

Silicone Switch Covers

- Glow fuel, water, and dust-resistant
- 2 pcs./pkg. • 9 colors -- PR/FG/FY/FP/FO/FR/BL/YL/TBL
- Part No.: GSCCOV

Super-C Silicone Recoil Fuel Tubing

- Pure 70 Shore A silicone rubber with special additive
- Good recoil memory w/excellent glow fuel-resistance
- ID.: 2.6 mm, OD.: 6.0 mm • 2 lengths
- 6 (solid) + 6 (translucent) colors -- FY/FG/FP/FO/FR/BL
- Part No./Size: GSCRE4S--4 ft; GSCRE4T--4 ft
  GSCRE6S--6 ft; GSCRE6T--6 ft





Ultimate Silicone Wire Giga-V & Mega-V

- Pure 40 gauge copper wires w/soft 50 Shore A silicone rubber
- 2 sizes: Giga-V (12 AWG)--665 strands;
  Mega-V (14 AWG)--420 strands • Packing: 100 ft./spool
- 11 colors - BK/RD/BL/SBL*/FY/FG/FP/FO/FR/YL/PR
- Part No./Size: GSCW14--14 AWG; GSCW12--12 AWG

*Sky Blue

Regular/Special Helicopter Landing Stop Skids

- Special triangle types offer 3 different landing surfaces
- 2 sizes • 4 pcs./pkg.
- 12 colors -- FY/FG/FP/FR/FO/BL/SBL/TBL/YL/RD/GR/PR
- Part No./Size: GSCHEL70--Regular--(S)GSCHEL100--Regular--(L)
  GSCSP70--Special--(S); GSCSP100--Special--(L)





Silicone Rubber Shock Rebuilt Kit

- Pure 55 Shore A silicone rubber made O-rings & bladders
- 2 sizes • 5 bladders and 20 O-rings /pkg.
- 13 colors - FY/FG/FP/FO/FR/FB/PR/BL/SBL*/TBL/YL/GR**/RD
- Part No./Size: GSCSH10--1/10 scale; GSCSH8--1/8 scale

*Solid Blue **Green

Super-C Silicone Fuel Tubing

- Pure 55 Shore A silicone rubber w/special additive
- Flexible plus excellent glow fuel & heat-resistance
- 3 sizes : S -- 5/64" ID.; M -- 3/32" ID.; L -- 1/8" ID. • 50 ft./spool
- 7 (solid) + 6 (translucent) colors available -- FY/FG/FP/FO/FR/BL/PR
- Part No./Size: GSC2048T (50'); GSC2048S (50'); GSC20483T (3'); GSC20483S (3')
  GSC2452T (50'); GSC2452S (50'); GSC24523T (3'); GSC24523S (3')
  GSC3260T (50'); GSC3260S (50'); GSC32603T (3'); GSC32603S (3')

HORIZON HOBBY

Distributed Exclusively by Horizon Hobby, Inc.
4105 Fieldstone Road, Champaign, IL 61822
www.horizonhobby.com Central/East 800-535-5551 West 800-443-1872

GS™ Since 1970

GENERAL SILICONES GROUP, INC.
14120 Live Oak Ave., Unit A-2 Baldwin Park, CA 91706 USA
Phone: (626)338-3815 Fax: (626)338-3875
E-mail:gsusa82@aol.com http://www.gsweb.com.tw

© 2001 General Silicones

QS 9000 ISO 9002

Colors: FG=Fluorescent Green; FY=Fluorescent Yellow; FR=Fluorescent Red; BL=Blue; PR=Purple; YL=Yellow; GR=Gray; TBL=Translucent Blue; SBL=Sky Blue; RD=Red

STEPS IN CREATING A CUSTOM ROLL CAGE

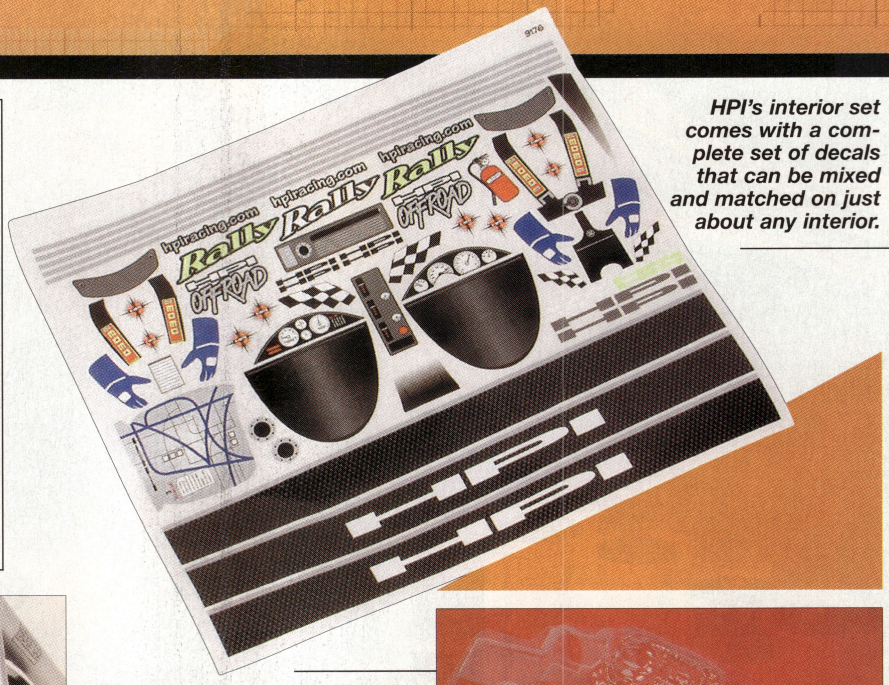
● Want to try something different? complete your interior package with your own roll cage design…

• Size up styrene plastic tubing according to roll bar/cage design (may vary with different body type).

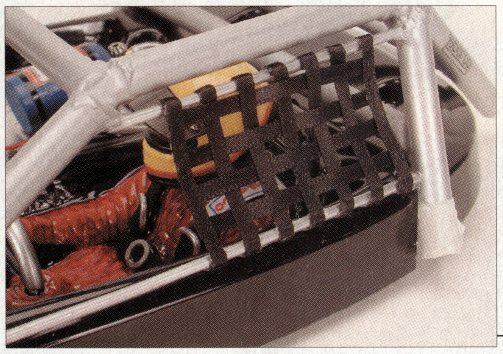
• Glue pieces together using shoe goo or model epoxy; bend under open flame if necessary for portions that need curvatures.

• Coat with appropriate model paint to match body color scheme.

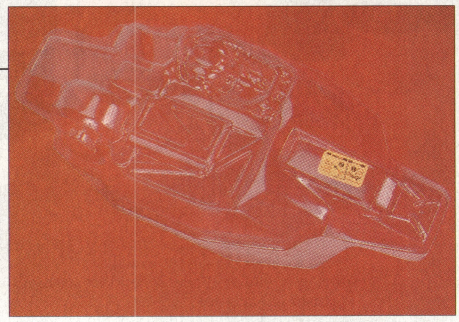
• Add sponsor decals to give your roll cage a custom look. ●



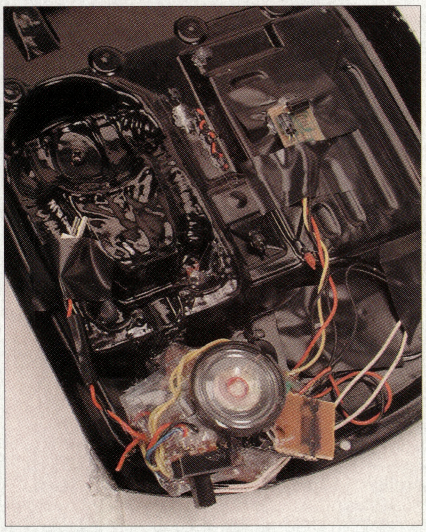
HPI's interior set comes with a complete set of decals that can be mixed and matched on just about any interior.



If you have a rollbar in your car, it helps to complement it with some sort of window restraint system.



Believe it or not, this is how the finished interior started out. HPI offers this as a separate item for their rally car kits.



Check out the detail work that went into this interior. A complete motion-detected alarm system was installed. As soon as someone tapped the car, it set off the alarm system.

list of features judges look for now. Exclude it, and you might pay the price of being left in the dust by the rest of the competition. Time-consuming it may be, but the resulting rewards should speak for themselves.

Building a custom interior for R/C bodies is an art form. As with any art form, the foundation or theme determines the outcome. Before you start indulging in interior detailing, make sure that you set your goals straight from the start. Are you building a touring car racer or an import street legal machine? Of course, you may not want to put a fully geared driver complete with crash helmet on a street cruiser (or maybe you do!). Either way, you'll really be surprised at how your chosen theme plays a big role in customizing your inner shell. Next question: where can you get an interior set for your sedan? If you bought one of the new "rally" car kits recently, chances are you already own a perfect interior for your car. But for the masses who purchase on-road touring cars, there really is no choice but to adopt aftermarket interior sets to their existing chassis. To name a few companies, Tamiya, HPI, OFNA and Parma all produce excellent quality interior sets. With little or no modifications at all, these detailing wonders could easily turn your R/C car into a true-to-scale replica of the real thing, driver included!

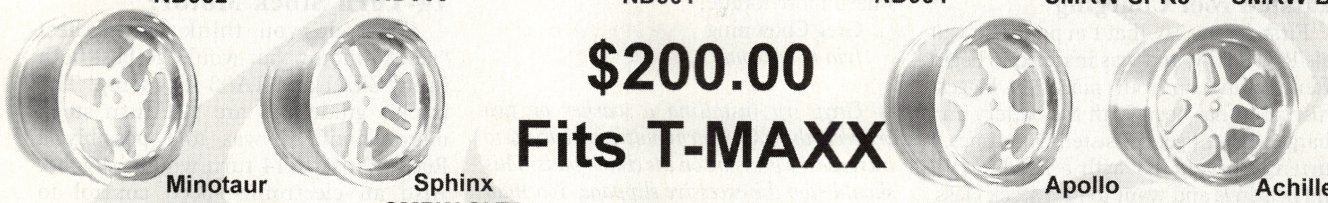
Once you have acquired the right set for your car, putting together a matching interior shouldn't be all that difficult. You might want to do some research and look into import car magazines for an idea on how you should go about on your chosen subject. Believe me, there are tons of things you could add to your basic interior setup. The key is to let your imagination flow. But, just a word of caution; stick to being feasible and realistic, as you don't want to overdo it. Usually, interior kits already come with pre-made plastic details such as figurehead, steering column, shift knobs and roll bars, but with a little more time in your hands, the possibilities are endless. And after all is said and done, your show car couldn't be more complete.

Toll free 1-866-700-TIRE(8473) ORDER NOW !

www.PantherTire.com



Comet ND902 | **Comet 2** ND903 | **Nitro Summit** ND901 | **Gladiator** ND904 | **Haydes** SMRW-SPK8 | **Heracles** SMRW-BNK1



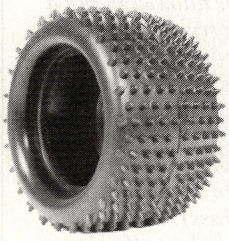
Minotaur SMRW-ISS3 | **Sphinx** SMRW-SLT5 | **Apollo** SMRW-HCO3 | **Achilles** SMRW-WDG3

$200.00
Fits T-MAXX

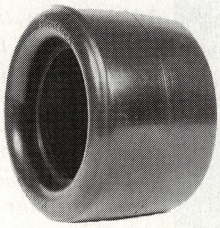
27 Custom Wheels Available

HOP-UPS for T-MAXX..."SUPER-MAXX" what is it?

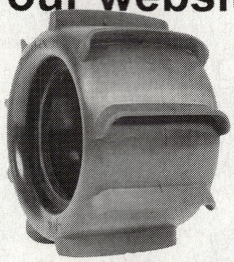
See our website



$29.00
Meat Grinder
Fits T-MAXX
Med-Soft
PT950



$29.00
MEGA MAXX Slick
Fits T-MAXX
Med-Soft
PT952



$29.00
Panther Paddle
Fits T-MAXX
Med-Soft
PT850



$29.00
Plow Boy 1
Fits T-MAXX
Med-Soft
PT957

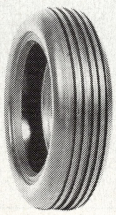


$29.00
Plow Boy 2
Fits T-MAXX
Med-Soft
PT959



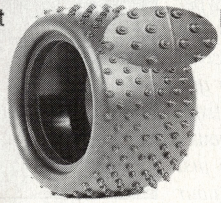
HOT

$14.00
Cheetah
Buggy Rear
Med Soft **PT750**
Soft **PT751**



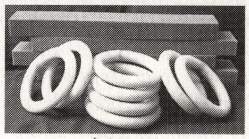
HOT

$13.00
Lynx
Buggy Front
Med Soft **PT700**
Soft **PT701**

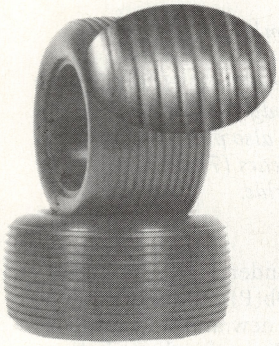


HOT

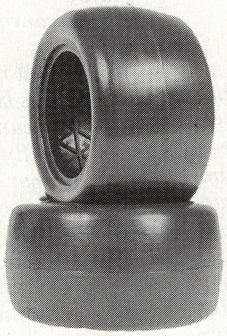
$14.00
Tiger
Buggy Rear
Med Soft **PT760**
Soft **PT761**



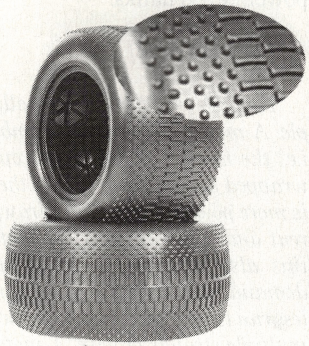
$17.00
Racing Foams
Fits T-MAXX
PT954



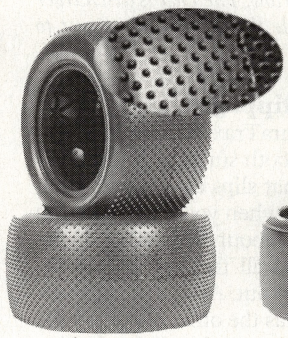
$15.95
Micro Rib
2.2 Truck Tires
Med Soft **PT550**
Soft **PT551**



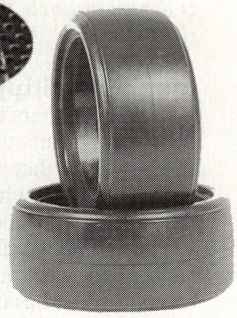
$15.95
Burner Slick
2.2 Truck Tires
Med Soft **PT450**
Soft **PT451**



$15.95
Switch
2.2 Truck Tires
Med Soft **PT150**
Soft **PT151**



$15.95
Stinger
2.2 Truck Tires
Med Soft **PT250**
Soft **PT251**



$10.50
Super Slick
26mm Sedan
Med Soft **PT350**
Soft **PT351**

Hassle-Proof Charging

First, let me say that I'm pretty new at this R/C hobby, and was inspired to begin after picking up your mag. My biggest frustration has been with the battery and charger. I don't get consistent run times. I currently have a T3 with a Reedy MVP and bearings and want to race stock class. I want to get a no hassles, dumbbell-proof battery and charger. Do I go with a AC/DC charger or DC? Do I go NiCad or NiMh? And what about cyclers and dischargers? I wouldn't mind spending up to about $300 for these items. Any suggestions, even brands and models would be appreciated. Thanks.

Jimmy B.
[via rc-car.com]

Since your racing goals are pretty specific, so shall be our answer! Although the latest iteration of the 3000 NiMh cells are indeed quite rugged, you can't beat a NiCad when it comes to stock-class racing. Our advice is to pick up three packs of decent 2400s. They have the most voltage (good for stock) and will provide more than adequate capacity (run time). They are also cheaper than NiMhs. As far as chargers, cyclers and dischargers, go with a good peak-detection charger. You can go the AC/DC route, or you could buy a DC charger and run it from your car battery or from a regulated power supply. In the end, you'll be spending just about as much for either setup. Run your packs until the vehicle begins to slow (or after the race is ended), and place the pack on a 12v bulb or similarly appropriate discharger. Get a discharger that has an autocutoff so that the pack's voltage can't be brought down too low. The Deans discharger is a good example that you might want to check out.

Maximum Slippage

I bought a DuraTrax Maximum MT; it runs fine on smooth surfaces, but it has a slipper clutch that slips even when tightened all the way when you try to run it in the grass. I ran about five tanks of gas with it tightened all the way before the slipper pads wore out. Are these pads necessary, since it has the other clutch on the motor? I'm not happy with all the slipping going on, and was thinking of making this a solid transfer of power, or maybe just thicker pads, which wouldn't slip so easy. I need more torque!

Greg Chowning
[via rc-car.com]

Greg, try installing a washer or two between the adjustment nut and spring to increase the pressure on the clutch pads. This should stop the excessive slippage. You may also want to purchase new pads and a new spur gear, as your parts may have become worn out from all that slipping!



Motor Lingo

Could you please explain the meaning and differences between different winds of electric motors, e.g. torque, run time, power etc.? Thanks.

Steve Plowman
[via rc-car.com]

No problem Steve, it's actually very simple. A motor with a fewer number of turns, i.e., the number of times the copper wire is wrapped around each pole of the armature, is more powerful because is draws more current and turns higher rpm. Unfortunately, this also means that lower-turn motors demand more from the battery, resulting in less run time. Often, motors are wound using multiple strands of wire. A motor with two strands is referred to as a "double," three winds "triple," etc. More strands tend to smooth out the power delivery of the motor.

14-Turn Stock Motor?

What do you think is the best "stock" motor that would go best both in my TL01 and TA03 for racing! The track's guidelines are "21 turn stock motor limit." I was told possibly a Reedy Pulse-R 14 turn would be good. Also an electronic speed control to match it has to be less than £59.00 (that's about 90 dollars). Cheers!

Paul C
[via rc-car.com]

Well Paul, since your track's rules clearly state a limit of 21-turns for the stock class, you won't be allowed to run a 14-turn. Now, there are several manufacturers which produce machine-wound "mod" motors (such as the Reedy Pulse-R). These can vary in turns (you should be able to find one in the 21-turn range) and may or may not have bearings (check with your club to see if they allow bearings in the stock class). Believe it or not, you may actually be best off using a 27-turn stocker such as the Reedy MVP, Trinity P2K or Orion Chrome RS. Although they are higher in turns, these stock motors are incredibly powerful. Also, check with other racers to see what they are using.

Full Size Focus

I am looking for a 1/10 scale Ford Focus ZX3 body, and all I can find is the HPI kit, and I don't need all that. I just want the body so I can paint it to match my car and take it to shows with me. If you can help me out in finding one I would appreciate it. Thanks.

Aaron
[via rc-car.com]

Aaron, you're in luck! HPI sells their 200mm Focus body (part no. 7412) separately. You can also pick up HPI's interior set for rally cars (7112) to add more realism to your ride.

Too Tight

I have a Thunder Tiger EB-4 with the new OS v99b(P) .21 engine. The engine is brand new and it keeps locking up even without the glow plug inserted. Therefore it is very difficult to start. Could you tell me why? The engine is not even run-in yet.

Martin
via rc-car.com

We've had similar problems with various .21s over the years. The cause, as you've probably have guessed, is that the fit between the piston and cylinder sleeve is too tight. Well, perhaps not too tight, as there are several engine builders we know of that believe in the "tighter is better" theory, but tight enough to make the engine difficult to start. There are a couple of things you can do. First, you can run-in the engine with an electric drill (attach the drill to the crankshaft) for a few minutes to help the piston and sleeve wear-in to eachother. If you decide to go this route, we suggest that you place a small amount of Mobil 1 motor oil inside the combustion chamber. This will help to parts seat. And that you only run the drill at a slow speed and only for a few seconds at a time. Another way to overcome a tight engine is to loosen the glow-plug so that the compression inside the chamber is reduced. Once the engine fires and begins to idle, you can tighten the plug. After about a half a tank of fuel, the engine should be sufficiently loose. It's also important to make sure that the piston is in its lowest point in the cycle after it has been run. As the parts cool, this will help maintain a tighter piston/sleeve fit.

Melting Motors

My HPI rally car melts endbells off motors. It's getting expensive and frustrating! I have stock gears and a 11-turn double Trinity Speed Gem motor. I also have a Novak Super Rooster ESC that has been wired correctly. I use the stock tires and rims, the gear mesh is correct, and the car has the proper belt tension. I tried going up and down in pinions, but nothing works. Help me!

Eric Jennings
via rc-car.com

What makes a motor get too hot? The most common cause, as you have pointed out, is improper gearing. Another cause is drivetrain drag. Although your belts are set correctly, check the drivetrain by removing the current pinion gear and spinning the wheels. They should move very freely. If

Hot NEW ITEM GREEN RUBBER SEALED BEARINGS

FOR GAS CARS AND TRUCKS

LONGER LIFE • NO MAINTENANCE
NO FURTHER LUBRICATION

GO GO BOCA

CALL TOLL FREE: 800-332-3256
FAX TOLL FREE: 800-409-9191

WE SHIP WORLDWIDE FAST AND ECONOMICALLY

EASY ORDERING www.bocabearings.com

E-MAIL US AT:
bearing@gate.net

BOCA BEARING

1500 SW 30th Ave., Unit #3 • Boyton Beach, FL 33426

MINIATURE BEARINGS FOR HOBBY & INDUSTRY

not, check the belts, pulleys and bearings. Yet another cause could be insufficient airflow. The HPI RS4 Rally has an inner body as well as an outer body. In hot weather, it can get pretty stuffy inside the inner shell. Cut some vents in the shell to improve airflow, or if that doesn't do the trick, remove the inner shell completely. If all else fails, go to an even smaller pinion gear or a milder motor.

Rustler Upgrade

I have a Traxxas Rustler and I'm thinking about installing the Reedy MVP. Would I need a new ESC? What type of batteries would be best for this application?

Robert Edwards
via rc-car.com

One of the first hop-ups we recommend for the Rustler is the addition of an ESC (electronic speed control). Regardless of whether you install an MVP, or stay with the stock motor, you'll gain run time and improved throttle control with any ESC. As for batteries, we recommend that you go with Sanyo 2400 NiCad cells, as they have excellent capacity for stock running, and they have plenty of voltage for increased punch and acceleration.

Homemade Glow Igniter

I made my own glow starter out of one cell off of my seven-cell pack (it is now a six-cell pack). I am new to gas and I don't know if I should discharge my glow starter before I charge it up again so it can have a longer life. Can you please tell me how to keep glow starters in good condition?

Michael Trupka
via rc-car.com

If you're using a NiCad cell, then you'll want to discharge it fully before recharging. If you are using a NiMH cell, then you can just "top it off" whenever you like without fear of losing performance. ◆

E-mail your letters direct to the editors! You can get ahold of Frank Masi at evaone@pacbell.net or Doogie at doog2@earthlink.net. If you're going the old fashioned route, send along your letters to R/C Car at 25233 Anza Dr., Valencia, CA 91355. Check us out on the web at www.rc-car.com.

ATTENTION NEW JERSEY

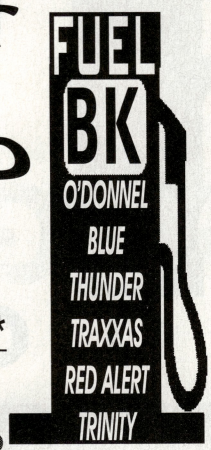
YOUR NITRO PLACE IS

L.F. SIGNS & HOBBIES INC.

SPECIALIZE IN GAS POWERED CARS



CHECKED OUT THE REST NOW COME TO THE BEST



SERPENT *NEO * HPI* OFNA * KYOSHO * MUGEN * TRAXXAS * FUTABA * JR * HITEC * MULTIPLEX * KOPROPO * AIRTRONICS * JP ENGINES * PICCO * NOVA ROSSI * RB * MEGA * OS * ETC.

ONE WAY

201-991-0033

124 SCHUYLER AVE. * KEARNY, NJ. 07032.

VISIT OUR WEB PAGE AT

WWW.LFHOBBIES.COM



XXX-T
2000
- National Champion- Modified
- National Champion- Stock

2001
- Midwest Off-Road Winter Championships- Modified
- Midwest Off-Road Winter Championships- Stock
- Cactus Classic- Modified
- Cactus Classic- Expert Stock
- Rumble in the Rockies- Modified
- Rumble in the Rockies- Stock

XXX-NT
2000
- NORRCA National Champion
- ROAR Regional Champion
- Euro-Champion

2001
- Nitro Challenge
- Midwest Winter Gas Championships
- Silver State Nitro Challenge

XX-4WD World's Edition
1999-2000
- IFMAR World Champion
- ROAR National Champion
- Euro-Champion

2001
- Midwest Off-Road Winter Championships- Modified
- Cactus Classic- Modified
- Rumble in the Rockies- Modified

XXX & XXX Graphite Kinwald Edition
1999-2000
- National Champion- Modified
- National Champion- Stock

2001
- Midwest Off-Road Winter Championships- Modified
- Midwest Off-Road Winter Championships- Stock
- Cactus Classic- Modified
- Rumble in the Rockies- Modified
- Rumble in the Rockies- Stock

TEST DRIVE



HPI RS4 Pro 3

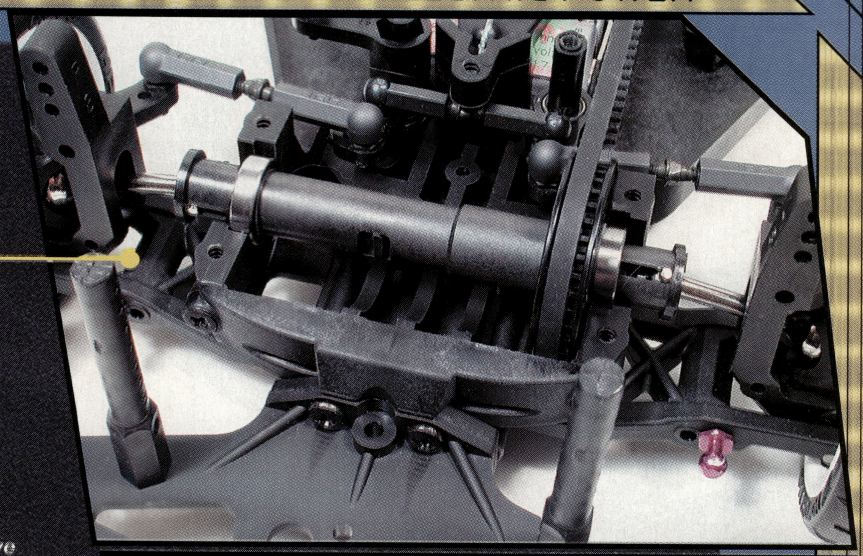
By now, you've probably read quite a bit about HPI's all-new RS4 Pro 3 touring car (including a First Look in our June '01 issue). But until recently, the only information we have had has been provided by HPI's press releases. We finally got our hands on a full-production Pro 3 kit for building and testing. In a world of lookalike belt-drive cars, no one can brand the Pro 3 as a copycat; HPI truly began with a clean sheet of paper here. But the pitfall of being innovative is that you often must traverse uncharted waters, which can sometimes end catastrophically. Is the Pro 3 a performer, or is it merely a design study? Here are the answers to the questions potential Pro 3 owners ask most frequently.



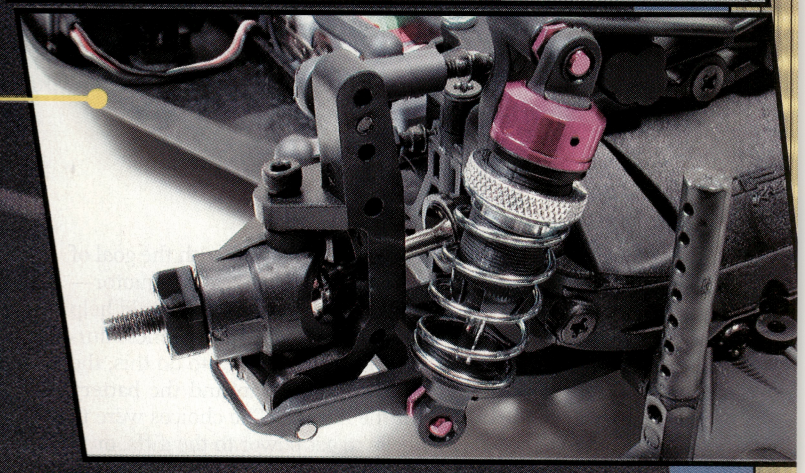
Things you'll need

- Two-channel surface radio
- Steering servo
- Electronic speed control
- Six-cell battery pack (stick or saddle-style)
- Battery charger
- 190mm sedan-style body
- Polycarbonate paint for body
- 24mm touring car tires and inserts
- CA glue for tires

THE MOST RADICAL SEDAN YET,



To accommodate the battery position, the Pro 3 makes use of the widest ball diffs ever seen on a touring car. The diff outdrives are molded from a lightweight yet strong graphite composite for increased acceleration.



HPI's new shocks debut on the Pro 3, and we loved them. Threaded composite bodies house smooth Teflon pistons. Even the seal-retention system has been redesigned.



BUT DOES IT WORK?

HPI RS4 Pro 3



HPI engineers shunned convention with the Pro 3's radical design. The centrally located battery and motor required a host of innovative design solutions.

Specifications

Type ..... 4WD electric-powered touring car
Scale 1/10
Price ..... $210—est. street price

Length 14.1in./356mm
Width 7.5in./190mm
Wheelbase 10-10.4in./255-264mm
Track (F/R) 6.4in./163mm
Weight w/o body ..... 3lbs.,1.2oz.

Transmission

Type ..... belt-driven full-time 4WD
Differentials ..... adj. ball (F/R)
One-way ..... no
Driveshafts ..... MIP CVD
Bearings ..... metal-shielded ball bearings

Suspension

Type ..... independent upper/lower A-arm with adj. upper link
Material ..... molded composite

Front end

Caster ..... adjustable between 6-8 deg.
Camber ..... adjustable
Toe ..... adjustable
Down-travel ..... non adjustable
Kick-up ..... adjustable

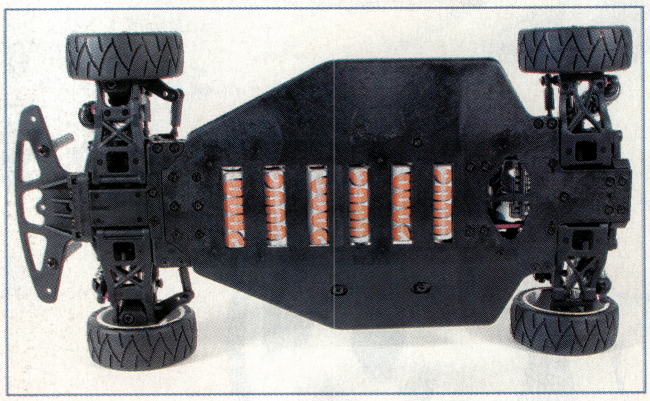
Rear end

Anti-squat ..... adjustable
Camber ..... adjustable
Toe ..... adjustable
Down-travel ..... adjustable (up-travel also)
Shocks ..... molded-composite oil-filled dampers
Springs ..... HPI silver
Wheels ..... 24mm white nylon 5-spoke
Tires ..... not included
Inserts ..... not included
Body ..... not included

Why are the diffs so wide?

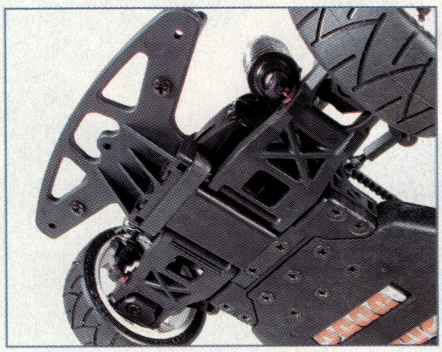
It's very simple: HPI began the Pro 3's design with the goal of having the heaviest components—the battery and motor—placed straight down the middle of the chassis. This would help centralize the weight of the car and improve responsiveness during cornering, braking and acceleration. In order to do this, the front and rear drive belts had to be routed around the battery and motor, far to the outside of the chassis. The choices were to use additional jackshafts and belts to get power to the diffs, or to widen the diffs themselves to allow them to connect directly to the belts. As the first option would add weight and drag to the drivetrain, the only choice was to use ultra-wide diffs.

The Pro 3's low-CG theme carries through each part of the car. The molded chassis places the batteries as low as possible, while raised sides prevent the chassis from scraping during hard cornering.



How do the short driveshafts affect handling?

With diffs that are nearly half as wide as its entire chassis, the Pro 3 must use very short driveshafts (these are actually specially made MIP CVDs). The generally accepted rule of thumb in car design is that in order for the suspension to work most effectively, the length and angle of the driveshafts should match those of the suspension arms as closely as possible. In case you haven't noticed, the Pro 3's arms are much, much longer than its driveshafts. Is this a design faux pas? No, it's the only choice available if HPI's dream of a centralized battery was to be realized. Fortunately, a touring car's suspension moves so little, there is virtually no discernable driveshaft/suspension conflict. This is also due to the fact that the driveshafts exit the diffs with a straight run to the front and rear hubs, so there is minimal operational friction except during the hardest cornering.



The Pro 3 uses ultra-long suspension arms at each corner. The front and rear roll-centers are very closely matched, making the car very consistent and easy to drive in all conditions.

Is it true that the chassis is very flexible?

In a word, yes. We do feel that there is merit to the argument that chassis flex can help a car to handle better on very slippery and/or bumpy tracks. And in this context, the Pro 3's chassis does help absorb bumps and provide the compliance that can improve traction in certain conditions. Overall, however, the Pro 3's molded composite chassis has too much side-to-side flex. With the battery brace installed, the chassis is quite rigid from front to back. Apply any amount of sideways force, however, and the flexing becomes instantly noticeable. Does this characteristic detract from the Pro 3's handling? Only in certain conditions. On a typical parking-lot surface, the chassis flex is barely

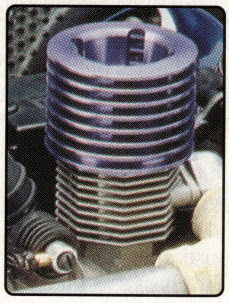
INFERNO MP-6 SPORTS



With a powerful .21 engine pre-installed!

WHERE PERFORMANCE MEETS CONVENIENCE

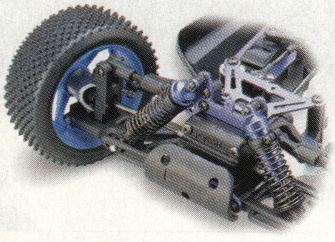
It's based on the same high-performance buggy that has won four consecutive IFMAR World Championships. But the MP-6 Sports boasts one big difference: a GS-21R engine that's not only included, but pre-installed as well. That's one less decision to have to make when choosing your competition-level off-roader, and it's the right one for ensuring that your racing experience will be enjoyable — and successful — right from the start.

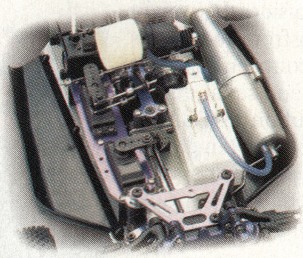


This awesome power plant is the perfect complement to the MP-6 Sports' long list of race-winning features. It features easy recoil starting, a newly designed KG2C carburetor and a high-performance muffler.

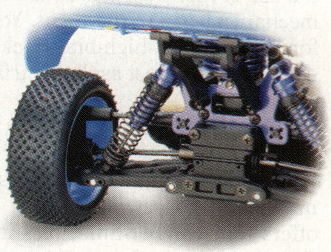
Features race-winning Inferno technology:

The Inferno MP-6 Sports masters off-road tracks with full-time 4WD and three diffs. The slightly longer chassis adds stability, and 8° of front kick-up reduce "digging in" on landings. Wrap-around side guards keep dirt and debris away from the chassis, and the waterproof radio box protects the receiver and NiCd from the elements.





The single front and rear stainless brake disk delivers durability and super stopping power, and features an adjustable linkage system that you can fine-tune to meet track conditions. For added reliablility, the MP-6 comes with single-length "I" suspension arms that are bolted to the wheel hubs, and the rear shock stays have been re-engineered for better geometry.



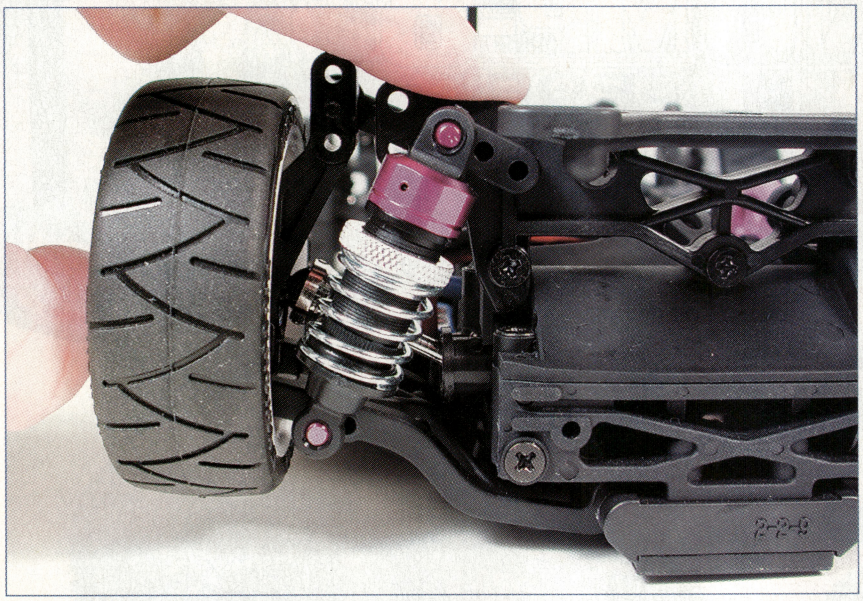
KYOSHO®
THE FINEST RADIO CONTROL MODELS

www.kyosho.com

For the location of the dealer nearest you, please call 1-800-682-8948 and mention code number 2930J.

Distributed Exclusively Through: GREAT PLANES MODEL DISTRIBUTORS COMPANY, P.O. BOX 9021, CHAMPAIGN, IL 61826-9021

© Copyright 1999 — 3070493



This photo demonstrates the disparity between the angle of the short driveshafts and that of the suspension arms during extreme compression. On an off-road car, this would be a problem, but because on-road cars use very little suspension travel, the driveshafts and suspension work well together.

detectable as slight tire chatter during hard cornering. Put the Pro 3 on a very high-bite, smooth or carpet track, and the chatter becomes more bothersome. Hotter mod motors or very firm springs only accentuate this condition. Yes, this is the Pro 3's Achilles' heel, but a graphite composite chassis (which will soon be available) or perhaps the addition of an upper chassis deck (which we understand has been tested in competition by HPI team drivers) would be a simple solution.

We do have some praise for the Pro 3's chassis. First, the molded "tub" design simplifies construction and lowers the cost of the kit. Also, the raised side pods reduce the chances of the chassis scraping the ground during hard cornering. Finally, we like all the space for electronics; any size receiver and ESC will fit with room to spare.

How does the chassis layout work?

All the work that HPI put into the Pro 3's general layout pays off in the form of fantastic steering response and excellent control during braking. With the battery and motor placed along the chassis' centerline, the Pro 3 exhibits class-leading balance and poise on the track. Steering feel is perfect in both directions, and the car is very forgiving to tweak problems. Didn't build the shocks perfectly? Don't worry; the Pro 3 won't feel it, and neither will you when you drive it.

In addition to being centered from side-to-side, the weight of the Pro 3 is also very close to center from front-to-rear (as well as being very close to the ground). This contributes to less front-end dive during braking, and less rear-end squat during acceleration. The centralized weight distribution also allows the use of softer springs at all four corners, resulting in greater mechanical grip in the turns. You'll want to use firmer springs for smoother or high-bite tracks, but the stock silver springs work well for most asphalt surfaces and for stock-class racing.

How adjustable is the chassis?

Feedback from Pro 2 owners prompted HPI to increase the number of suspension tuning options on the Pro 3, which offers four camber-link holes in each shock tower, as well as three holes in the front uprights and two in the rear hubs. With this selection, there are plenty of ways to tune the Pro 3's roll-center to your track. There are also multiple positions in which to mount the shocks; two holes in each lower arm, two in the front tower and three in back. HPI also provides a choice of front uprights; one that provides six-degrees of caster and one with eight degrees. Adjustment of the front suspension arms' kickup and the rear arms' toe-in and anti-squat is made simple through the use of easily replaceable molded hinge-pin mounts. There is also a provision for altering the car's wheelbase by as much as 4.5mm by the arrangement of the small plastic spacers that are located on the lower arms' hinge-pins (incidentally, these spacers will be the first parts you'll lose the first time you disassemble the car for maintenance).

Aren't plastic shocks for sport sedans?

Plastic shocks were once thought to be symbolic of cheaper sport-level cars, but things have changed. Today, many high-performance cars come with plastic composite shocks that perform on par with aluminum shocks. Such is the case with the Pro 3's shocks, which have threaded reservoirs molded from a lightweight and strong composite material. Knurled aluminum spring pre-load adjusters allow for near-infinite ride-height adjustments, and O-rings ensure that your settings stay put. Inside, you'll find a slippery Teflon shock piston and a foam-rubber donut that compensates for displaced oil as the shock is compressed. For a more secure assembly, the shock seal retainers now twist in place rather than snap.

What we didn't like

Our biggest complaint about the Pro 3 is the amount of chassis flex. Unless there's some as-yet-unknown benefit to this amount of lateral flex, we maintain that the Pro 3, as with any car, would be better with a stiffer chassis. We would also like to see an easier way to adjust the diffs; to gain access to the diff screw, you must pop off a camber link and remove the driveshaft. Our criticism of this shortcoming

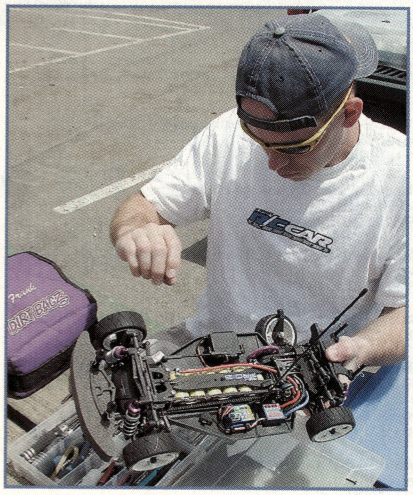


The steering servo resides in the right-side chassis pod. An ultra-long tie-rod bridges the gap to the steering bellcranks.

isn't leveled solely at the Pro 3; there are several other cars that suffer from the same problem, including the Associated TC3 and Yokomo MR-4TC.

What we like

The Pro 3's most outstanding feature is obviously its balance. This car just plain feels easy to drive—even with monster horsepower. Add to this HPI's typical high-quality, an exceptional amount of tuning options and an instruction manual (which is more like a book) with great CAD drawings and clear details (although we felt additional text and tuning tips would be helpful), and you have the recipe for a user-friendly, high-performance sedan with appeal to racers of all skill levels. ◆



As with many touring cars, some disassembly is needed to reach the diff-adjustment screw. When will they make it easier to set this critical adjustment?



We tested the Pro 3 at the Ventura Roadrunner's permanent facility in Camarillo, California. The track's asphalt provided plenty of grip for our Pro 3's Advan tires.

PERFORMANCE

Location: Ventura Roadrunners R/C Club, Camarillo, CA
Conditions: Medium-sized, permanent asphalt roadcourse.
Temperature: 80-85 degrees.

Our test took place over a period of two weeks. For the first part, we tested the Pro 3 using a Team Orion Chrome RS stock motor and an assortment of Orion Sanyo 2000MAh packs, which we had conditioned for stock racing by cycling them at five amps for higher voltage output. The stock kit's fine-toothed 64-pitch gearing (35-tooth pinion and 116-tooth spur) proved spot-on for stock racing. For the second portion of our test, we used an Orion 9-turn double mod motor along with an Orion Sanyo 3000Mah Stock Metal Hydride pack. After a bit of experimentation, we settled upon using a 27-tooth pinion along with the stock 116-tooth spur. With the exception of some minor spring and damping changes, our entire test was conducted using the factory recommended setup.

Steering—This is definitely the Pro 3's strongest suit. In stock trim, this car handles all types of turns-sweepers, hairpins and switchbacks-with startling ease and speed. The overall feel begins with a twitchiness that takes a little getting used to, but once you're comfortable, the Pro 3 turns-in with razor-sharp precision, sticks through the apex and pulls hard on exit. It's a car that inspires great confidence with its unique combination of precise and stable handling. And if the car does break loose, it does so with little drama; it's very difficult to spin this car.

And where was that tire chatter that we had been worried about? It was there, but it was less evident than we had originally predicted. As we had thought, the chatter became more evident when we used the modified motor and when the track was freshly treated with traction additive (actually cherry sno-cone syrup!). But overall, we came away from the test session with less concern for chassis flexing. We also found that wheel chatter could be minimized by using slightly thicker shock oil and by installing stiffer springs, however these changes resulted in less overall traction, so we chose instead to retain the kit's stock silver springs.

Acceleration and braking—Evidently, all of the work HPI has done to centralize the weight of the Pro 3 has paid off. The Pro 3's drivetrain is as free and smooth as any twin-belt system we've tested, providing crisp throttle response and good run time. When we grabbed a handful of throttle, the car exhibited no tendency to pull to one side—not even slightly. The same goes for braking, where the Pro 3's excellent balance, weight distribution and four-wheel braking make it easy to late-brake and dive inside other cars. Many HPI team drivers use front one-ways, which do away with the front wheels' ability to brake. For extremely high-bite surfaces or on tracks with larger, flowing curves, a one-way would be an advantage. But for the average racer on an asphalt surface, we definitely prefer the stock front diff—the car is much easier to drive.

Track tuning—The Pro 3 definitely offers more tuning options than the Pro 2. In fact, the Pro 3 is one of the most tunable sedans available (although there's very little tuning info in the manual). This also means that it's easier to screw up! We spent many hours testing the Pro 3 in stock trim, and we found that HPI has done an excellent job of providing customers with a good basic setup. You might not have the fastest lap at every race in stock form, but you also won't be struggling to get around the track.

There are lots of adjustments to play with on the Pro 3, and fortunately, most of them are easy to access. In particular, the optional lower arm mounts let you alter the angle of the arms' hinge-pins with the removal of just two screws. And the upper camber links are held in place with self-tapping screws (no ball-cups to pop off). Diff tightness is an important yet often overlooked tuning option, and on the Pro 3, the only way to set the diffs is through the outdrive, which means that the driveshaft has to be removed.

Durability—During the Pro 3's final run (final for more than one reason), a brush with a wooden track barrier resulted in a broken rear suspension arm. A call to Kent Clausen at HPI revealed that there was indeed a problem with arm breakage with the initial shipment of Pro 3s. Kent told us that some racers boil their suspension arms to make them more flexible, and that new Pro 3 kits already contain replacement arms that will fare better during crashes. If you own an early Pro 3, these arms are available as direct replacements.

Synopsis—When we first saw the Pro 3, we thought that it was a neat design, but the question of performance remained a mystery. After spending some quality wheel time with the Pro 3, we can say in good conscience that it works really well, especially for a brand-new design. Beginners will find it easy to setup and drive, while experts will appreciate the car's multitude of adjustments. This is without a doubt HPI's most competitive sedan to date.

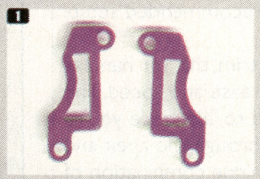
Stronger Faster

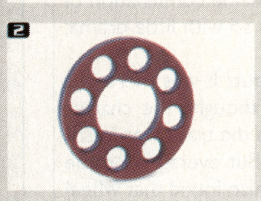
HARDCORE RACING COMPONENTS

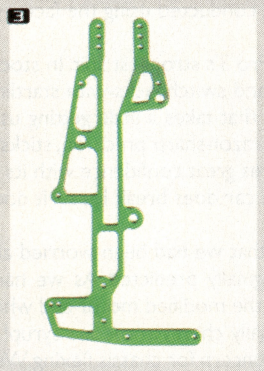
Quality Titanium and Aluminum components for:

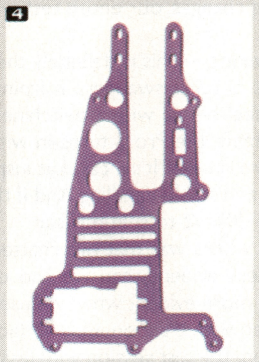
HPI • TRAXXAS • SERPENT • MUGEN • YOKOMO • OFNA • KYOSHO • ASSOCIATED

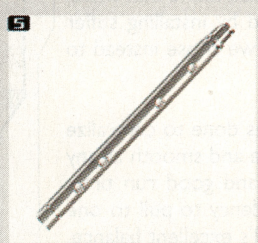
A complete line of components for HPI's RS4 and Nitro RS4 is available.



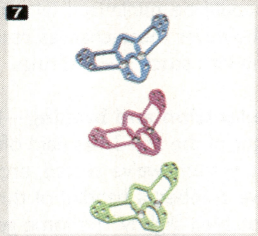


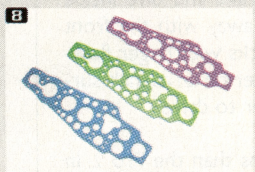


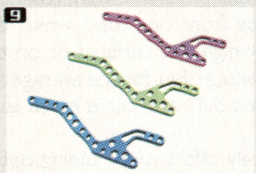


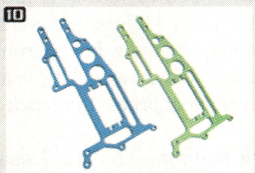


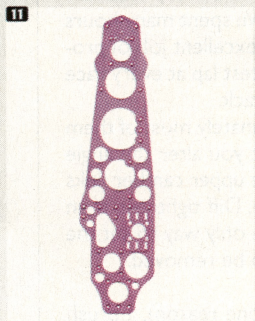


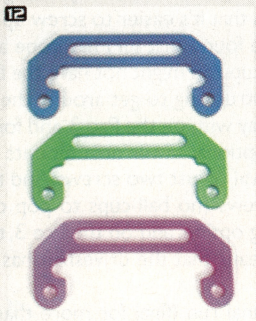


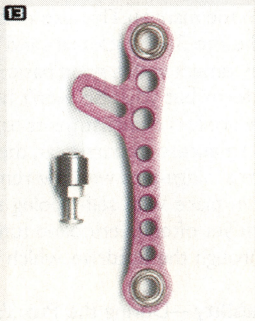


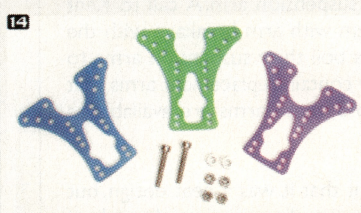


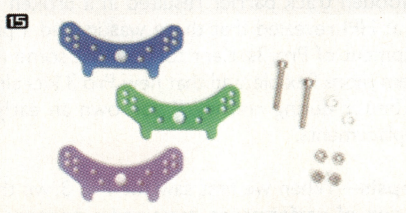












1] Velocity Brake Kit HCR-00110; **2] Carbon Brake Disk** HCR-00109; **3] Nitro Super Upper Deck** HCR-00101; **4] STD Upper Deck 65cc Gas Tank** HCR-00103; **5] Single Speed Titanium Shaft** HCR-01510; **6] Nitro Front Shock Tower** HCR-00107; **7] Nitro Rear Shock Tower** HCR-00108; **8] STD Nitro Chassis** HCR-00102; **9] Y-Brace** HCR-00106; **10] Pro Team Upper Deck 75cc Gas Tank Included** HCR-00105; **11] Nitro Super Chassis** HCR-00100; **12] Front Hinge Pin Brace** HCR-00118; **13] Side Belt Brace/ Tensioner** HCR-00111; **14] Super Rear Shock Tower** HCR-00117; **15] Super Front Shock Tower** HCR-00116;

Hardcore T-Maxx & E-Maxx Component

1] **T-Maxx/E-Maxx Titanium Front Skid**
HCR-00308

2] **T-Maxx Titanium Chassis**
HCR-00310 (.21 motor version)
HCR-00300 (.15 motor version)

3] **T-Maxx/E-Maxx Titanium Center Skid**
HCR-00307

4] **T-Maxx Hyper-Laminate Brake Disc and Titanium Calipers**
HCR-00301 (brake disc)
HCR-00302 (calipers)

5] **T-Maxx/E-Maxx Titanium Pillow Balls**
HCR-01504

6] **T-Maxx/E-Maxx Billet Aluminum Shock Towers**
HCR-00312

7] **T-Maxx/E-Maxx Billet Aluminum Suspension Arms**
HCR-00304

8] **T-Maxx/E-Maxx Titanium Rear Skid Plate**
HCR-00309

9] **T-Maxx/E-Maxx Billet Titanium Rear Bumper**
HCR-00305

10] **T-Maxx/E-Maxx Aluminum Chassis Braces** (pair) HCR-00303

11] **T-Maxx/E-Maxx Billet Titanium Front Bumper**
HCR-00306

12] **T-Maxx/E-Maxx Ultimate Work Stations**

13] **E-Maxx T-6 Aluminum Chassis**
HCR-00330

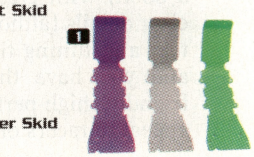
14] **T-Maxx .21 Conversion Kit**
HCR-00310

15] **T-Maxx/E-Maxx Aluminum Wheels**
Set of Four
Matrix - HCR-003111
Vortex - HCR-003114

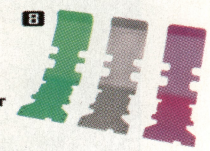
16] **T-Maxx/E-Maxx Knuckles**
HCR-00321

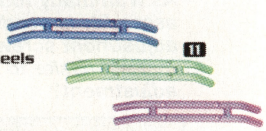
17] **T-Maxx/E-Maxx Bulkheads**
Front - HCR-00315
Rear - HCR-00316

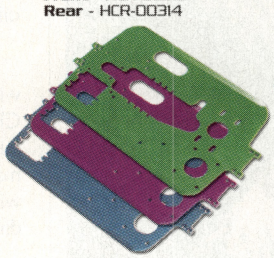
16] **T-Maxx/E-Maxx Body Posts**
Front - HCR-00313
Rear - HCR-00314

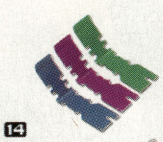


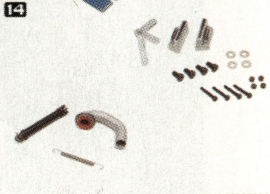




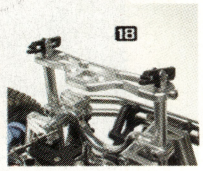












www.racinghardcore.com



Hardcore Associated GT Components

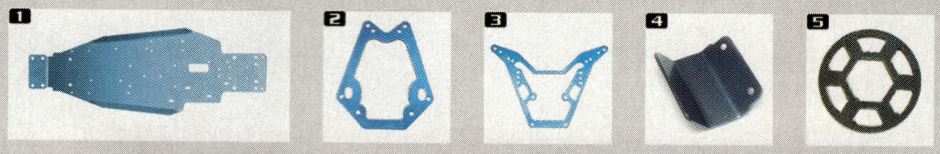
1] **GT Titanium Chassis**
[team version]
HCR-00200

2] **GT Titanium Font Shock Tower**
HCR-00201

3] **GT Titanium Rear Shock Tower**
HCR-00202

4] **GT-10 Titanium Front Skid Plate**
HCR-00204

5] **GT-10 Carbon Fiber Brake Disc**
HCR-00203



Hardcore Mugen Mbx4-xr-rr Components

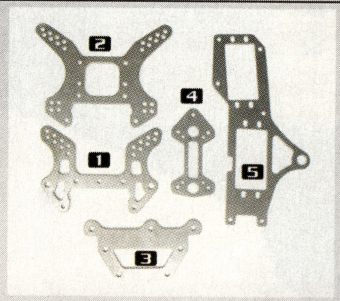
1] **MBX Front Shock Tower**
HCR-00623

2] **MBX Rear Shock Tower**
HCR-00624

3] **MBX Front Bulk Head Brace**
HCR-00625

4] **MBX Center Diff Brace**
HCR-00626

5] **MBX Servo/Transponder Mount**
HCR-00627



Hardcore Kyosho MP7.5 Components

1] **MP7.5 Front Shock Tower**
HCR-00623

2] **MP7.5 Rear Shock Tower**
HCR-00624

3] **MP7.5 Steering Linkage Arm**
HCR-00625

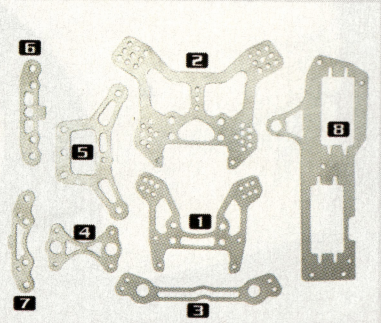
4] **MP7.5 Center Diff Brace**
HCR-00626

5] **MP7.5 Front Bulk Head Brace**
HCR-00627

6] **MP7.5 Rear Hinge-Pin Brace**
HCR-00628

7] **MP7.5 Front Hinge-Pin Brace**
HCR-00628

8] **MP7.5 Servo/Transponder Deck**
HCR-00628



Hardcore Racing Components
25435 Rye Cyn, Rd., Valencia, CA 91355
Ph: 661.294.5032 • *Fax:* 661.294.0770
e-mail: sales@racinghardcore.com

- The original developer of Hop-Up Titanium Chassis.
- Cutting edge materials: 6AL4V Titanium - 6061 T6 Billet Aluminum.
- Designed, built and tested at Hardcore in the U.S.A.
- All parts come in Blue, Purple, Green, and Silver.
- No modifications are needed to install any of our parts.
- Superior strength, super light.
- Superior workmanship/machining and design.
- Mounting hardware included where needed.

Parts also available for:
SERPENT IMPULSE, IMPACT, VTEQ, VECTOR • MUGEN MTX2, MBX4XR • YOKOMO GT-4 • OFNA OB-4 AND WORLD CHAMPION KYOSHO MP7.5

Also, the most advanced, performance enhancing TC3 hop-up kit ever is now available!

HRP Distributing - 1.800.622.7223 Dealers Only

TEST DRIVE

Bergonzoni/Dreier Racing Bandit

One of the most exciting and crowd-pleasing classes of R/C car racing is the 1/5 scale class. These huge cars, powered by "weed whacker"-style engines running on standard pump fuel, are the R/C models that look and handle most like their full-scale counterparts.

Running Gear

- Multiplex profi car 707 radio
- Multiplex Jumbo mcV2 (steering)
- Multiplex power speed mcV2 (throttle/brake)
- Multiplex power BB FET (brake)
- Multiplex IPD micro receiver
- Multiplex 5-cell Rx pack

Things you'll need

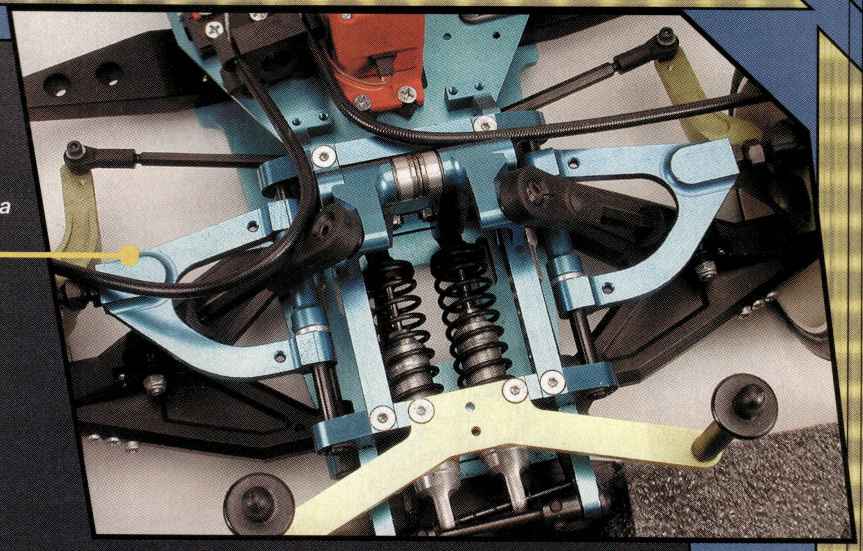
- Radio gear (including steering, throttle, and brake servos)
- Pump fuel
- Two-cycle oil
- Polycarbonate Paint

What you get

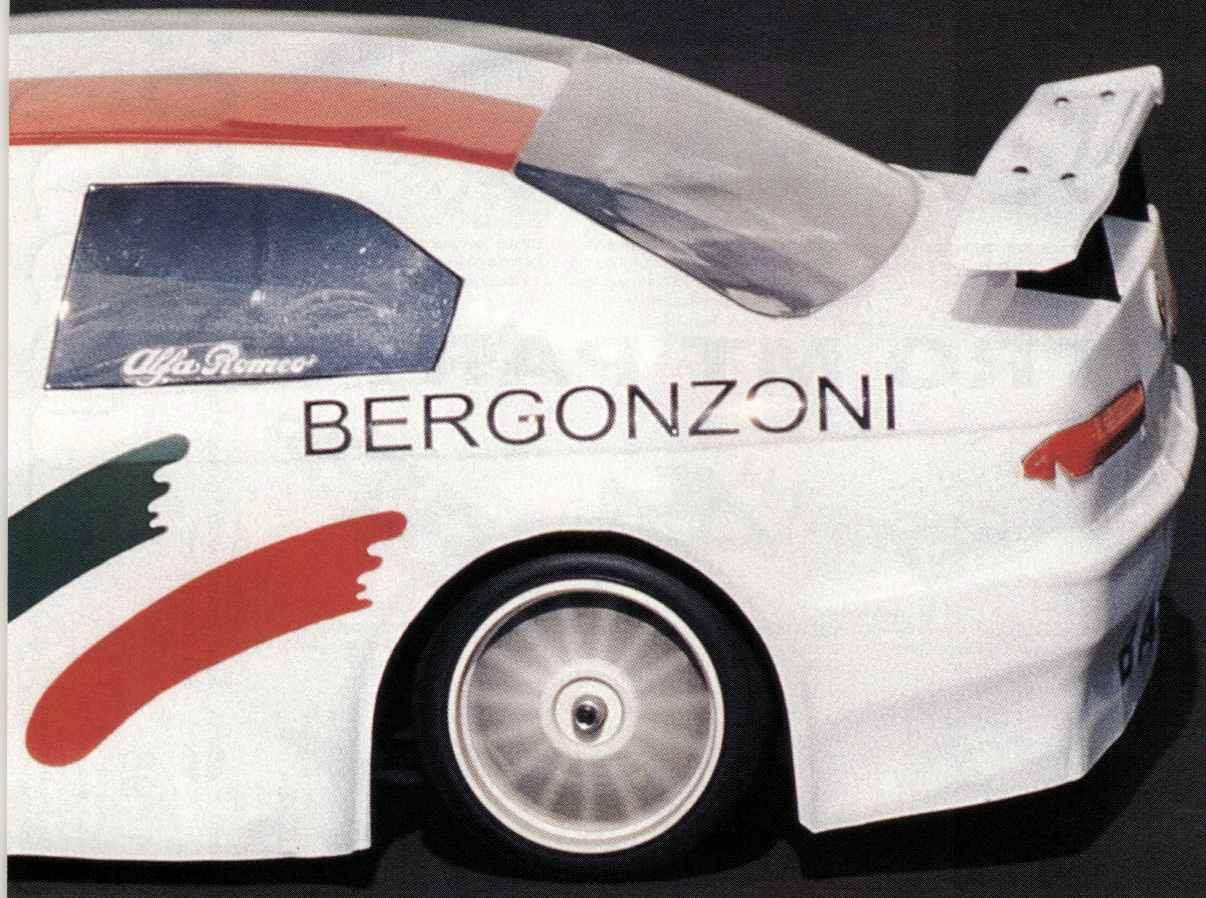
- Rolling chassis with body, wheels, tires, and engine



As you can see, a 1/5-scale car takes up quite a bit of room on a full-size truck bed!

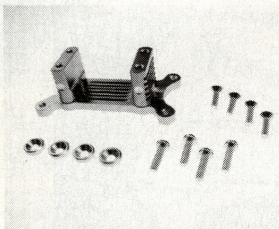


The Bandit's front suspension uses a lot of Ergal alloy (an exotic aluminum-based alloy), along with composite lower suspension arms. The shocks are laid down in-line and are activated via a cantilever system.

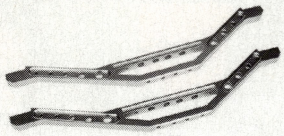


FIFTH-SCALE ITALIAN SUPERCAR!

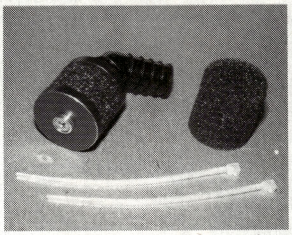
TRAXXAS T-MAXX ALUMINUM



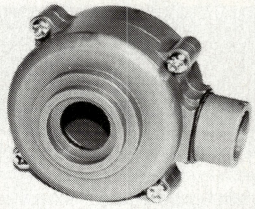
TMX1080 Replace your stripped out original cast aluminum engine mount with our machined aluminum one. $25.00



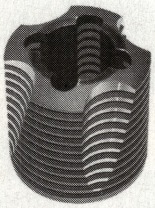
TMX1014 This will help you to improve your stock chassis. These replace your orginals perfectly. $50.00



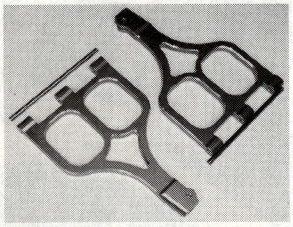
AF01 Has 45 Degree rubber boot, two zip ties and an outer foam pre filter. $15.00



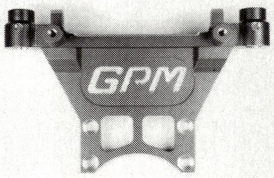
TMX1011 These are the first step to building a bullet proof drive train. You will need 2 sets for each truck. $65.00



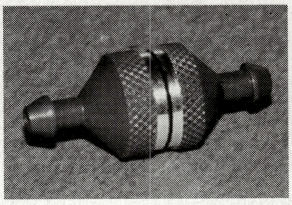
TMX1815 With 30% more cooling area and a large opening for easy maintenance. This is a must for longer engine life. Fits Pro 15 engine. $40.00



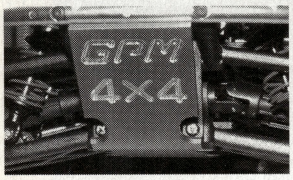
TMX1054 Set of 2 upper control arms. These are by far stronger than the original plastic arms. Includes pins and clips. $40.00



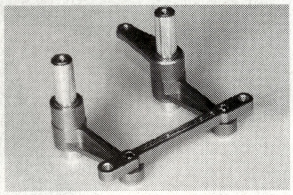
TMX1028 You will need 2 for each truck. These are direct replacements for the stock shock tower. Replaces original perfectly. $40.00



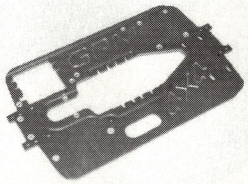
OF01 Filter comes apart to allow cleaning and is sealed with an o-ring. Fits standard size fuel tubing, common on all cars. $8.00



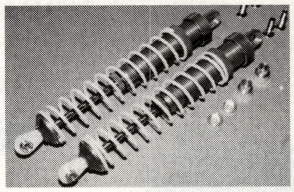
TMX1331F Don't be a poser, get one of these 3mm thick skid plates and be with the "in" crowd. $25.00



TMX1048 Tighten your steering slop with this. Comes with everything you see in the picture, as well as all necessary screws. $40.00

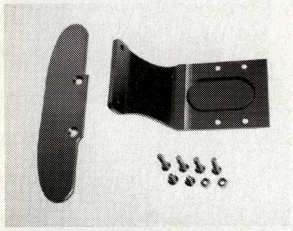


TMX1016 This 3.5mm thick main chassis features thick 4.5mm Ribs don't risk loosing power to a thinner chassis! It is a must for a more power engine hop-up. $75.00

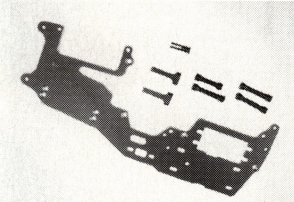


DP100 Threaded shock bodies are perfect for fine tuning your ride hieght. These are 4.125 inches long. $45.00

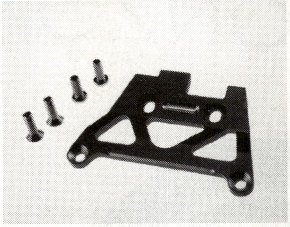
HPI NITRO MT PARTS



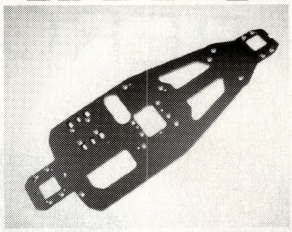
NMT4003 Is your bumper large enough? Install this bumper and matching skid plate for improved protection. $40.00



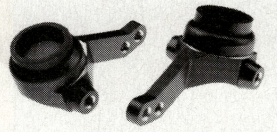
NMT4014 Customize your Nitro MT with an alloy radio plate. Includes posts and screws need to mount. $40.00



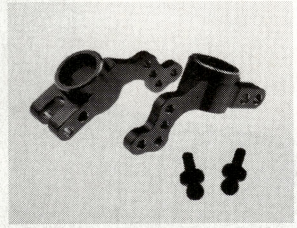
NMT4015 Keep your truck on the track and running strong with an alloy front top plate. $25.00



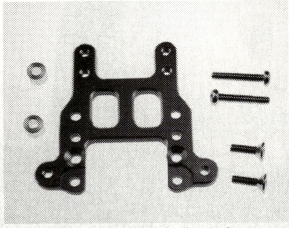
NMT4016 Set your truck apart from the crowd with a 3mm thick chassis machined from 6061 T6 Aluminum $55.00



NRS4021 Includes all parts needed to install. Improve strength and looks with a pair of alloy front knuckles. $25.00



NRS4022 Keep the rear wheels pointed where they should! These hubs will remove the flex found in your stock plastic parts. $25.00



NMT4028 Improve both looks and durability with one of these front shock towers. $20.00



NMT4030 Did you break your shock tower, again? Replace it with this aluminum one! $25.00



NMT4038 Alloy center gear mount replaces original perfectly. Keep your gear mesh in line with a rigid aluminum replacement. $45.00



NMT4048 Tighten your steering and improve straight line tracking with a ball bearing steering assembly. $40.00



NMT4055 Replace your fragile stock front control arms with a pair of sturdy aluminum ones. $35.00



NMT4056 Replace your fragile stock rear control arms with a pair of sturdy aluminum ones. $35.00

www.gpmracing.com

Hobby Etc., Inc.

603-595-8549

Store Hours: Mon-Fri Noon to 9pm
Sat 10am to 7pm

Shipping (to 5lbs) $6.00
Sorry, No COD's

Fax:603-595-1498

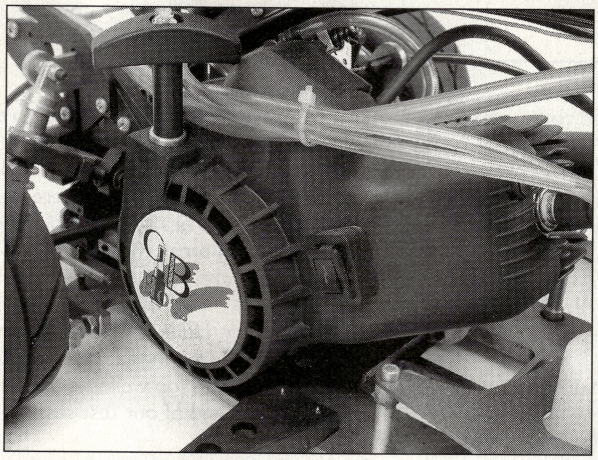
All warranties and guarantees handled directly by manufactures with exception of GPM Racing Products. Prices subject to change without notice. Mailed orders must include copies of the front and back of your credit card as well as your signature. Personal checks will need 3 weeks to clear. Shipping charges are not refundable. All returns must have approval. Electronics and opened merchandise may not be returned.

Hobby Etc., Inc.
90 West Pearl St
Nashua NH, 03060

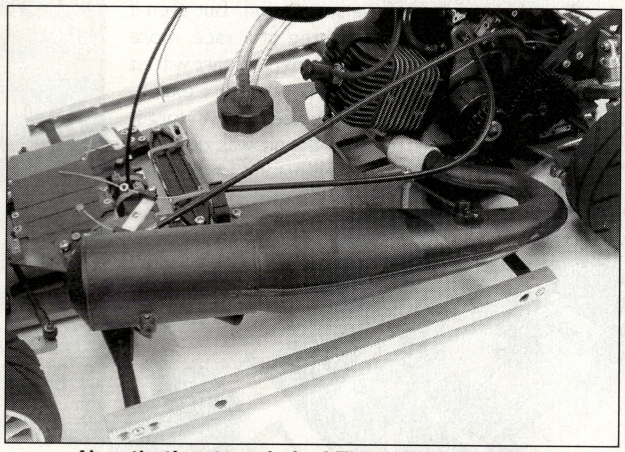
Bergonzoni/Dreier Racing Bandit

About four feet long with the body, it's hard not to picture a driver inside the car negotiating each turn. Among the on-road classes, these guys are truly the Big Boys of R/C.

The newest entry into the American 1/5-scale scene is the Bandit, made by Bergonzoni of Italy, and imported by Dreier Racing. Bergonzoni was an innovator in 1/8-scale R/C racing, and now their sights are set on bringing the larger scales to the public. Their top-of-the-line car, the Bandit, is a blue-anodized work of art. And on top of its looks and performance, it is priced much lower than similarly-equipped race-ready cars of other manufacturers. In fact, rumor has it that an entry-level car with the same 3.4 HP engine is in the works at a price point of $399. So is this car ready to take on the stiff competition from SVM, Harm, and FG Modellsport? Let's take a look at the features and see if we can find some clues to the answer.



This Bergonzoni 23cc engine is the first "R/C specific" powerplant used in a 1/5 scale car. It is rated at 3.4 horsepower at 17,000 rpm.



Now that's a tuned pipe! The sound that comes out of this powerplant is mean!

ENGINE

The Bergonzoni engine is the first R/C-specific 23cc engine used in a 1/5-scale car. Not just a hopped-up "weed-whacker" powerplant, it was designed with a long stroke to make power, and special internal coating for long wear. It is rated at 3.4 hp at 17,000 rpm. Standard pump fuel mixed with Valvoline synthetic two-stroke oil in a 25:1 ratio is required. The exhaust exits underneath the side of the engine to a the stock black-finish tuned pipe.

CHASSIS

Other than the engine, the most visually striking attribute of the Bandit is the use of contrasting blue and yellow anodized aluminum and Ergal, an exotic aluminum-based alloy. The 26-inch long lower chassis plate is 8mm-thick Ergal, and is milled out for lightness and strength. The upper deck is 2mm thick aluminum and is finished in the same medium blue anodizing as the lower main chassis. Aluminum standoffs tie the upper and lower decks to form a strong foundation for the car.

FRONT SUSPENSION

The suspension arms, with the exception of the front lower arms, steering knuckles, and uprights, are all made from the same Ergal material. Pivot balls and a double-wishbone design suspend the steering knuckles for little slop and a wide range of motion. Up front, the shocks are laid down in-line with the chassis and are activated via a cantilever system, much like some full-size race cars. The main benefits of the in-board shock design are a lowered center of gravity, less unsprung weight, and getting more weight along the centerline of the chassis.

An adjustable front swaybar is standard, and helps to dial more or less steering into the front end.

REAR SUSPENSION

In the rear, the lower A-arms are suspended with a traditional upright shock strut. A hinge pin mounts the upright to the lower arm, and an alloy and composite arm acts as the camber link, which connects to the upright with a pivot ball. Rear toe is also adjustable in the Bandit. The wheels mount to standard 18mm square hubs.

DRIVETRAIN

An adjustable clutch drives the steel clutch bell, which then drives a spur gear. The drivetrain is gear-to-gear for efficiency and low maintenance. In the center of the rear bulkhead is an alloy-cased differential. The outdrives turn 6mm-thick drive shafts that go to the rear axles.

BRAKES

Of course, stopping a car this big and heavy is pretty important. Fortunately, Bergonzoni and Dreier have specified a top-line braking system. Featuring 1.5mm vented steel brake discs on each wheel, the cable-actuated brakes are stopped with long-wear fiber composite brake pads and steel shoes. Left/right brake balance, which is critical in getting the car to brake consistently, as well as front/rear bias, is adjustable by moving the individual cable stops.

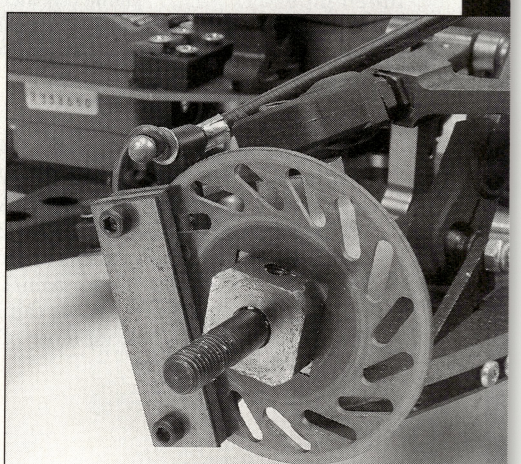
WHEELS & TIRES

Standard 122mm diameter, 65mm-wide PMT tires come standard. The rears are a soft 20 compound, while the front tires are a medium firm 30 compound. The intermediate tread pattern gives has the benefit of a slick tire's large contact patch, along the dust channels of a full tread. Closed-cell foam inserts are also standard.

BODY

There are two bodies available with the Bandit, the Alfa Romeo 156 that we used, and the Honda Accord. Both bodies come with a full decal set, so the car is almost guaranteed to look good.

1.5mm vented steel disc brakes at each corner help stop this 1/5 scale car in a hurry! The discs are stopped with long-wear fiber composite brake pads and steel shoes.



Bergonzoni/Dreier Racing Bandit

SPECIFICATIONS

Type . . . . RWD gasoline-powered touring car
Scale 1/5
Price . . . . . $1399 retail

Length 36in
Width 15in
Wheelbase 20.75in
Track. 12.5in

Transmission

Type . . . . . gear-driven RWD
Differentia . . . . . planetary
Driveshafts. . . . . steel dogbones/steel axles
Bearings. . . . . metal-shielded ball bearings

Suspension:

Type . independent upper/lower A-arm (front), lower H-arm/upper A-arm (rear)
Material . . . . . Ergal alloy/molded composite

Front End

Caster . . . . . adjustable
Camber. . . . . adjustable
Toe . . . . . adjustable
Down-travel. . . . . non-adjustable

Rear end

Anti-squat . . . . . non-adjustable
Camber. . . . . adjustable
Toe . . . . . adjustable
Down-travel . . . . . adjustable

Shocks . . . . . anodized aluminum dampers w/threaded bodies
Spring. . . . . Firm black (front), medium white (rear)

Wheel . . . . . 15-spoke white "turbine"
Tires . . . . . PMT intermediates 20 (rear), 30 (front)
Inserts . . . . . closed-cell foam

Body . . . . Alfa Romeo 156 or Honda Accord

Engine . . . . . 23cc Bergonzoni Boss
Manifold . . . . . included
Tuned pipe . . . . . aluminum, included
Clutch . . . . . adjustable

PERFORMANCE

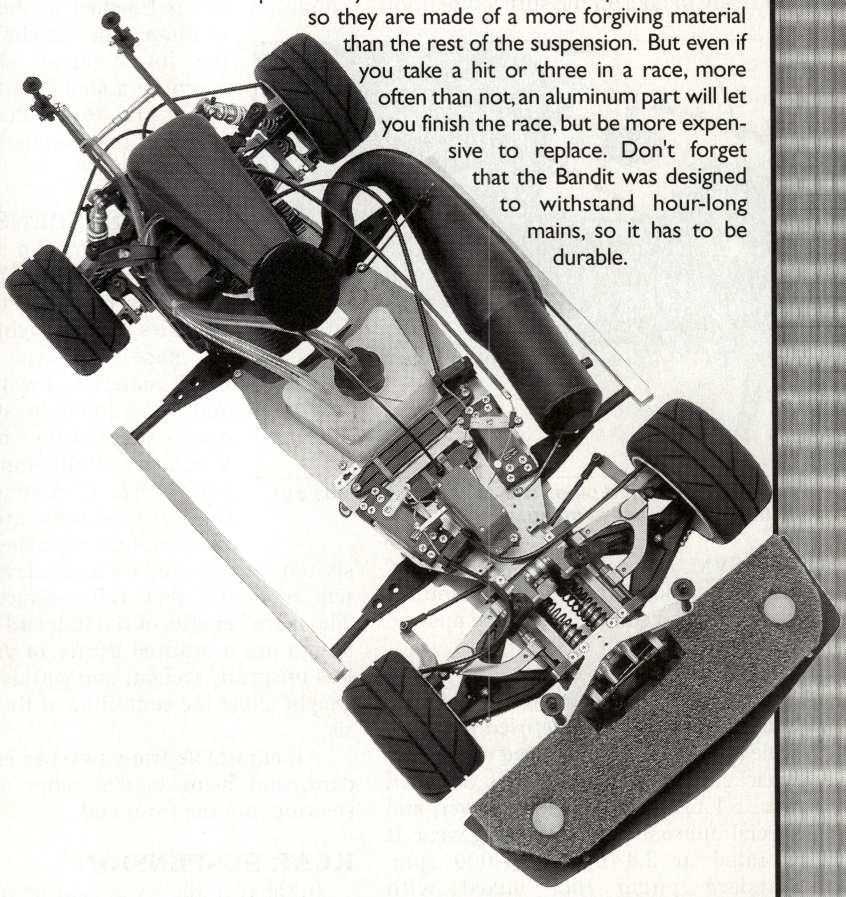
Location: Calabasas, California
Weather: Sunny and warm
Track condition: Slightly dusty asphalt

Traction—After a few adjustments to the rear toe settings, we headed out to our test area. Though a bit dusty, the running surface was pretty new, and fairly abrasive. Once warmed up, the PMT intermediate tires gripped the track very nicely. That is, as long as we were easy on the throttle coming out of a turn. The Boss motor has so much low-end torque that even on a pretty high grip track, we could break the rear wheels loose with an over-zealous trigger finger.

Steering—The Multiplex steering servo did its job very well. With the stock car setup, the steering felt quick enough to maneuver the heavy car nimbly. What didn't do it's job well was the servo saver. It started to come apart, which signaled the end of our test session.

Braking—As it came to us, the brakes were set up so that the just slowed the car enough to set up for a turn. Actually, throttle modulation is used more in turn than braking is in a 1/5-scale car. It took a little tweaking to get the front/rear bias and the left/right balance, but once set it braked straight and true every time.

Durability—As is any top-level racing machine, the Bandit was designed more for speed than durability. That said, we didn't really want to hit anything, although we certainly came close a number of times. There's a reason that the front lower arms are composite; they are the most vulnerable part of the car, so they are made of a more forgiving material than the rest of the suspension. But even if you take a hit or three in a race, more often than not, an aluminum part will let you finish the race, but be more expensive to replace. Don't forget that the Bandit was designed to withstand hour-long mains, so it has to be durable.



THE VERDICT

If you have been on the fence about getting into 1/5 scale racing, this should car should knock you right off it. At this price, and with these features, the Bandit should make it to many tracks around the country, and once Bergonzoni/Dreier release their entry-level car, we think that you'll be seeing a whole lot more of these cars in the next year.◆

SOURCES

Bergonzoni, distributed in North America by Dreier Racing 1015 E. Semoran Blvd., Ste 117 Casselberry, FL 32707 • (888) 898-9139
Multiplex, 560 Library St., San Fernando, CA 91340 • Phone (818) 838-6467; Fax (818) 838-3127

HOT ROD HOBBIES & RACEWAYS

TEAM LOSI | HI TORQUE'S R/C CAR MAGAZINE | REEDY

www.hotrodhobbies.com

OFF-ROAD SHOOTOUT

4th Annual

2001

July 13-15

Novice & Sport Classes get a full set of Team Losi Spec tires & a Reedy Handout Stock Motor

July 11-12 Open Practice 11am - 7pm
July 13-15 Practice 6am-8am Racing@9am
Friday 2 Qualifiers Saturday 2 Qualifiers
Sunday Triple A mains for all Electric classes

Trophy's 1-5 in all "A" Mains
1-3 in other mains

FREE T-Shirt to all entries before July 6th

Sport Gas 30 min. A Main
Exp. Gas 45 min. A Main
2 Bump Ups thru all Mains
Qual. Points used in All Classes

Novice Sport $40 Per Class Expert $30 First Class $20 2nd Class

OFFICIAL ENTRY FORM

HOT ROD 661-255-2404

OFF-ROAD SHOOTOUT

NAME _____

ADDRESS _____

CITY _____ STATE _____

ZIP _____ PHONE _____

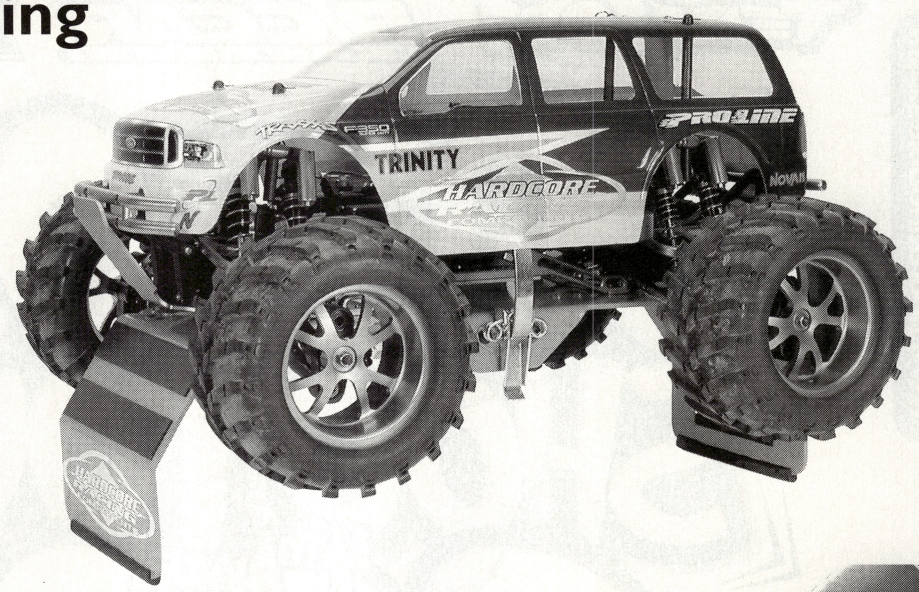
YOUR SPONSORS _____

- ☐ NOVICE FREQ. 1 ____ 2 ____
- ☐ SPT. STOCK BUGGY FREQ. 1 ____ 2 ____
- ☐ EXP. STOCK BUGGY FREQ. 1 ____ 2 ____
- ☐ EXP. MOD BUGGY FREQ. 1 ____ 2 ____
- ☐ 4W MOD FREQ. 1 ____ 2 ____
- ☐ SPT. STOCK TRUCK FREQ. 1 ____ 2 ____
- ☐ EXP. STOCK TRUCK FREQ. 1 ____ 2 ____
- ☐ EXP. MOD TRUCK FREQ. 1 ____ 2 ____
- ☐ SPT. GAS TRUCK FREQ. 1 ____ 2 ____
- ☐ EXP. GAS TRUCK FREQ. 1 ____ 2 ____

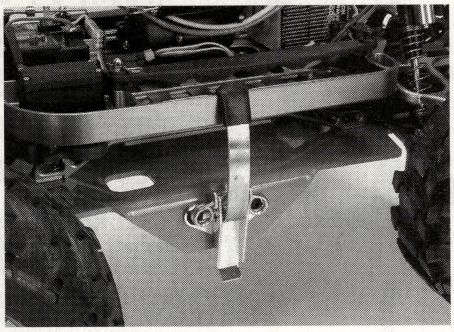
PLEASE SEND CHECK OR MONEY ORDER TO HOT ROD HOBBIES, 25845 SAN FERNANDO RD. #21 SAUGUS, CA 91350

Hardcore Racing Maxx Stand

The best parking spot in town!



Hardcore Racing has made quite a good business for itself by being over the top. Everything they make has been designed to be beautiful as well as functional, and it would seem that there are plenty of people out there who don't mind paying a premium for parts and accessories that are a bit beyond what's currently available. Case in point: Hardcore's new Maxx Stand, a purpose-built aluminum work stand for the incredibly popular Traxxas E-Maxx and T-Maxx trucks.



Billet clamps keep the truck from sliding once on the stand. The clamps are reversible for use with either the T-Maxx or electric E-Maxx.

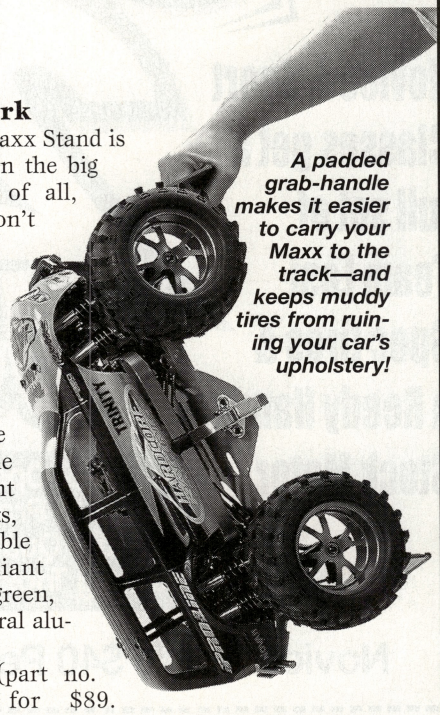
Stand by me

Made from aircraft-grade aluminum, the Maxx Stand is the perfect place to work on your Traxxas monster. Designed to fit the T-Maxx/E-Maxx chassis perfectly, the stand uses billet aluminum clamps to grasp the sides of the chassis, essentially locking it to the stand. This innovative feature not only keeps the T-Maxx from fidgeting about while idling on the stand, but also allows the Maxx Stand to pull double-duty as a carrying handle.

And the features don't end there. Need to work on your T-Maxx's undercarriage? No problem; flip the truck upside-down and you'll find a perfectly positioned hole through which the truck's cylinder head fits so that the chassis is supported by the body posts. Additionally, Hardcore added two helpful tool-holding features. One side of the stand has a pair of magnetic strips to hold small wrenches and parts, while the other side has plastic grommets that can be used to hold screwdrivers and Allen drivers.

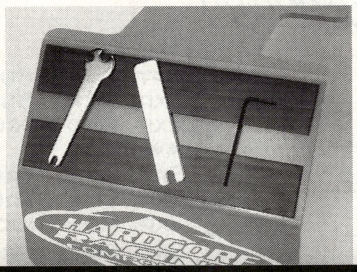
A nice place to work

We found that the Maxx Stand is essential for working on the big Traxxas trucks. First of all, standard car stands don't work with the Maxx trucks; they aren't high enough to raise the trucks' wheels off the ground. Secondly, the chassis clamps keep the T-Maxx nicely in place for easier engine tuning. Add to this the superb quality inherent in all Hardcore products, and a choice of available finishes: three brilliant powder-coated colors (green, blue or purple) or natural aluminum.



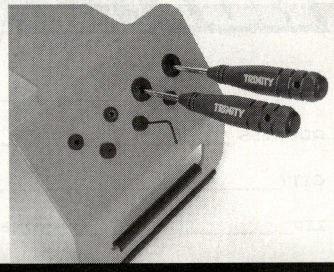
A padded grab-handle makes it easier to carry your Maxx to the track—and keeps muddy tires from ruining your car's upholstery!

The Maxx Stand (part no. HCR00320) retails for $89. Contact Hardcore Racing, 25435 Rye Canyon Rd., Valencia, CA 91355; phone (661) 294-5032; fax (661) 294-0770. ◆



◄ Magnetic strips hold small metal parts such as tools, body clips and miscellaneous hardware.

Handy plastic grommets provide convenient access to your most frequently used Allen drivers and screwdrivers. ►



Forget Everything you Know about Radios



Introducing the Profi. Driving will never be the same again!

- **7 channels lets you drive anything on the ground—from race cars to dump trucks!**
- **12-model memory. Optional PC interface for unlimited memory!**
- **The lightest and best-balanced radio system available today!**
- **50-percent faster signal to give you the ultimate control!**
- **Switch from FM to AM to use all your old receivers!**
- **Ultra-small, lightweight and super-efficient IPD receiver included!**

MULTIPLEX®



The Profi is loaded with racing features. It even has a special angled LCD display that lets you see everything in one quick glance—without taking your eyes off the track!



MULTIPLEX has been making digital servos since 1991! See our full line at your dealer

MULTIPLEX USA, 560 LIBRARY ST., SAN FERNANDO, CA 91340
(818) 838-6467; FAX (818) 838-3127
www.multiplexrc.com

TEST DRIVE



CEN Fun Factor MT

All right, lets get it out of the way...you have to admit, "Fun Factor MT" is an odd name for a monster truck. Now we've seen some odd-named vehicles over the years, but Fun Factor is one of the more strange we've come across. But, happily we can say that once you get past the name, this is truly one rugged, well-designed monster truck. Add to it that the truck comes completely assembled (as do all CEN cars kits), ready-to-run with radio gear installed, and is topped-off with a pre-painted, pre-trimmed, and decaled body set and you have the makings of a winner. Let's look a little past the name on the box and see what comes inside...

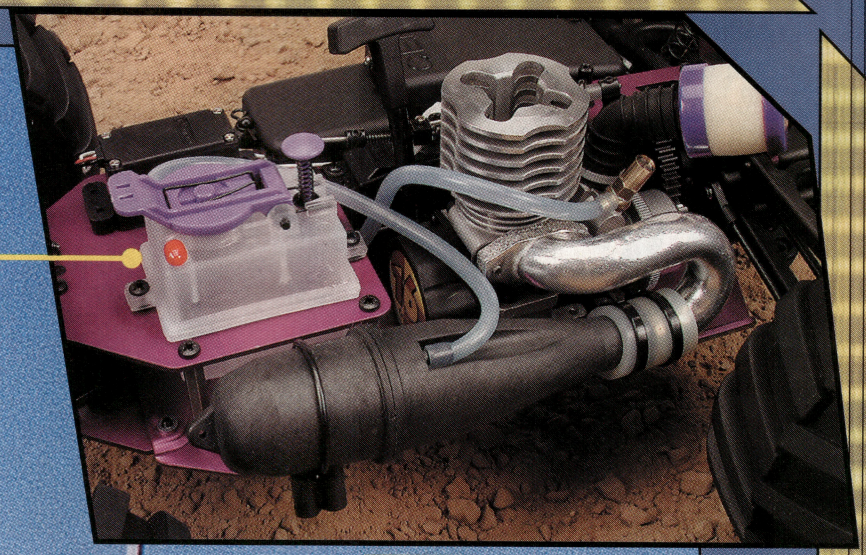












The included NT-16 pull-start .16 engine is a trooper! It started up on the second tug on the starter, and never faltered during our testing. It puts out an impressive amount of power for a stock engine.

Things you'll need

- CA (super glue) for tires
- Eight AA batteries for the radio, and four AA batteries for the receiver pack
- Glow engine fuel
- Glow igniter

LIVING UP TO ITS ODD NAME

PRO-LINE FACTORY TOUR*

Presented by HI-TORQUE'S R/C CAR — THE RADIO CONTROL CAR MAGAZINE

In conjuction with The Dirt

Location:
Pro-Line, 201 W. Lincoln St., Banning, CA 92220

For More Info:
Email customerservice@pro-lineracing.com
call Pro-line (909) 849-9781 or check us out online @ www.pro-lineracing.com

Electric Off-Road Challenge
August 17-19, 2001
@ Pro-Line, Banning, CA

SPECIAL FEATURES
Best of Show Contest (Concourse)
Raffling off Cool Pro-Line Product
(1 free Raffle Ticket Per Entry)

SCHEDULE
August 17th 12pm to 6pm - Open Practice
August 18th 7 to 8am - Open Practice
9am - 3 Rounds of Qualifying
August 19th 7 to 8am - Open Practice
9am - 1 Round of Qualifying
and Main Events

ENTRY FEE
Entries limited to 200
$40 Each Class
$35 each additional class
Initial Entry receives 1 free T-Shirt and Raffle Ticket (If postmarked by July 27th)

Rules
R.O.A.R. Rules Apply
R.O.A.R. Membership Required (Available day of the race)
Best 2 of 4 low point qualifying rounds



Driver: _____
Address: _____
City: _____
State: _____
Zip: _____
Phone: _____
E-mail: _____

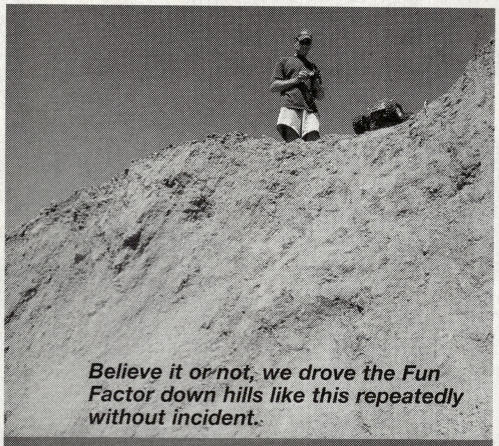
_____	2WD Stock (Intermediate)	Feq. 1st ____ 2nd ____ 3rd ____
_____	2WD Stock (Expert)	Feq. 1st ____ 2nd ____ 3rd ____
_____	Truck Stock (Intermediate)	Feq. 1st ____ 2nd ____ 3rd ____
_____	Truck Stock (Expert)	Feq. 1st ____ 2nd ____ 3rd ____
_____	2WD Modified	Feq. 1st ____ 2nd ____ 3rd ____
_____	Truck Modified	Feq. 1st ____ 2nd ____ 3rd ____
_____	4WD Modified	Feq. 1st ____ 2nd ____ 3rd ____

Make checks payable to:
Pro-Line, P.O. Box 456, Beaumont, CA 92223

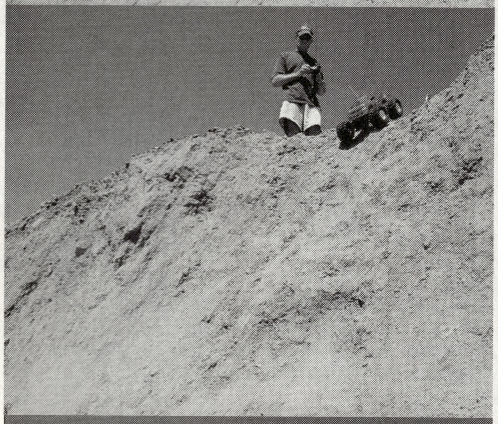
*The name of the race, Pro-Line Factory Tour, does not imply an actual tour of Pro-Line's manufacturing facility.

PRO-LINE PRO-LINE PRO

CEN Fun Factor MT



Believe it or not, we drove the Fun Factor down hills like this repeatedly without incident.











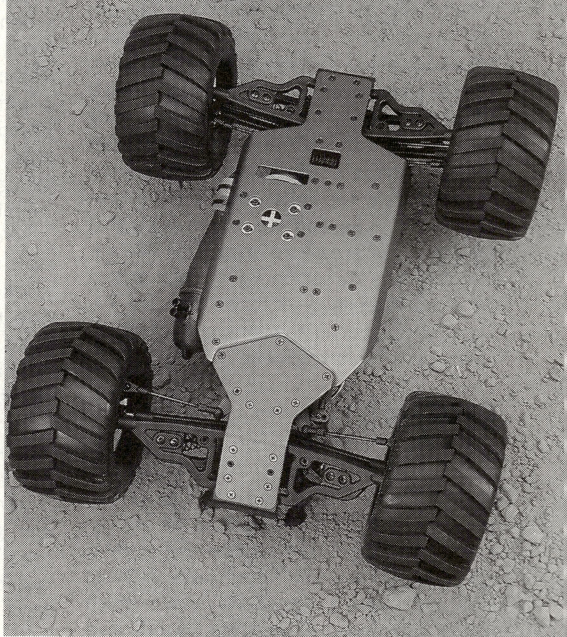
FEATURES AT A GLANCE

● The Fun Factor MT looks ready to take on the 1/10-scale ready-to-run monster truck crowd. Here's how it stacks up against the rest of the crowd.

CHASSIS

When you open the box, you're greeted with a healthy dose of purple! Now we've seen ready-to-runs come with purple-anodized parts that look a little cheesy—you know, the really shiny, bright purple anodizing that just screams "cheap, cheap!" like a pet-store special. The Fun Factor, on the other hand, has that deep purple (throw in your own freedom rock joke here) that gives the truck a highly professional look. The two-piece lower aluminum chassis is quite rigid (the front chassis piece which holds the suspension components can be removed easily via four screws on the top and three on the bottom). The entire bottom of the chassis is completely countersunk—no screw heads to snag on the ground! Additionally, the chassis has raised edges which add rigidity to the piece. Complementing the purple main chassis is a purple-

The underside of the chassis is completely countersunk—screw heads won't easily snag on the ground with this setup.



CEN Fun Factor MT

anodized aluminum upper tray that houses the steering servo and fuel tank, a rear upper brace, and anodized aluminum shock towers (with multiple shock mounting location holes to choose from). From a purely aesthetic point of view, the truck looks quite good!

Running length-wise on the chassis (opposite the engine) is a sealed plastic radio box that houses the radio receiver, and a four-cell battery holder. Built into the radio box is the on/off switch—a nice touch!

DRIVETRAIN

The Fun Factor has full-time 4WD thanks to its rugged, reliable shaft-driven drivetrain. At each end of the truck you'll find a gearbox that houses a durable, planetary-style gear differential. Power gets to the drivetrain through the typical, proven arrangement—a metal clutchbell engages a plastic spur gear that is mated to the steel main driveshaft. Getting the power to the wheels from each gearbox is a set of universals (front and rear). All in all, a hassle-free setup that gets the job done very efficiently.

One thing we feel that is important to mention is to go over the screws in the drivetrain and make sure they are tight—most importantly, the grub screws in all drive cups, the engine mounting screws, and any metal-to-metal screw contacts. There is a small amount of Loctite used during assembly, but just to make sure, you should re-apply some more. This way, nothing will loosen up on you and you should enjoy many trouble-free hours of fun!

SUSPENSION

The truck comes with an excellent suspension design—double wishbone suspension arms both front and rear with an adjustable pillow-ball setup on each corner. Also at each corner you'll find plastic/metal adjustable oil-filled shocks. The only thing that we noticed on the entire truck that we foresee as a potential weakness are the front and rear toe links—they seem a little on the thin side, and we can imagine that they'll be quite easy to snap. Our recommendation is to set up your truck with a set of titanium links—it may cost you a few extra bucks, but in the long run it will be well worth the investment.

ENGINE

Here's where the Fun Factor really shines—the included NT-16 pull-start .16 engine has plenty of power. The NT-16 comes with not only the typical idle adjustment and high-speed needle, but a low-speed needle as well! Most "sport" engines only come with a high-speed needle which makes tuning more user-friendly, but also limits the "tunability" factor greatly. A plastic tuned pipe is included and helps extract every ounce of power possible.

One area we feel needs to be addressed, though, is found in the engine tuning "pamphlet." On the included sheet of paper, it says that the *"carburetor is already prepared in standard at factory, and not required to adjust, nor perform break-in when starting engine."* Uh, this is where we disagree. While everyone and their mother has their own ideas on how to properly break-in a glow engine, most agree that it's a wise idea to do it—at least it won't hurt to do so. We've seen too many people get their brand-new car and burn up the engine after a few tanks because they wanted more power quickly and leaned it out too early before it was properly broken in. Do yourself and your engine a favor—at the very least, run it fat for a few tanks (make sure plenty of bluish smoke is exiting the pipe), and don't give it full throttle until you've gone through those first few tanks. Your engine will thank you for it!

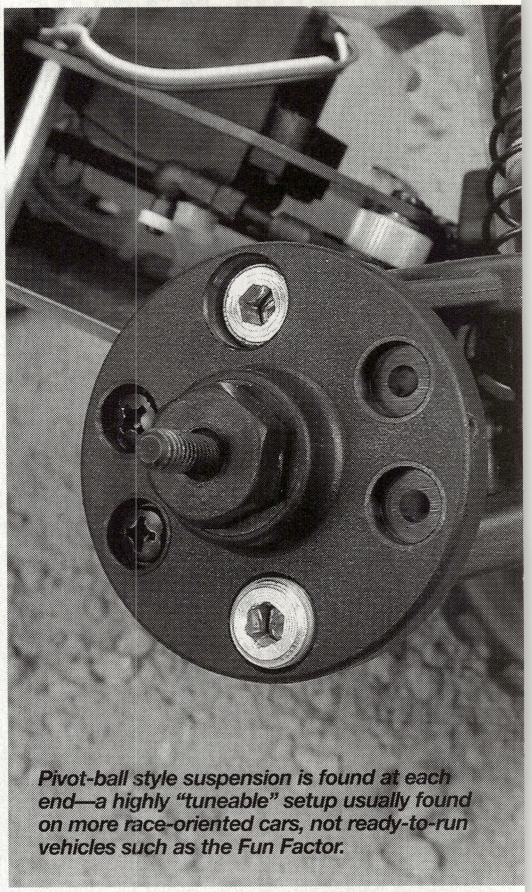
RADIO GEAR

Included with the FF MT is CEN's Mirage III AM radio. It's actually a quite good entry-level radio. It comes with adjustable throttle, steering, and dual-rate trims, servo reversing for both throttle and steering, a selectable trigger proportion switch (50/50, or 70/30), a rubber grip steering wheel (feels just like a touring car tire, as a matter of fact), and it is quite comfortable to hold. All things considered, a good radio to be included with the package.

BODY SET

Have we told you how lazy we are when it comes time to finishing bodies. Well, we are. Luckily for us, the FF MT comes equipped with a pre-painted, pre-trimmed, and best of all, pre-decaled body, complete with mounting holes! Not only that, but the decals are all put on straight—a feat that not many of our staff members can accomplish…

We do recommend that you cut out a hole in the front windshield (along with a small hole in the rear windshield) to allow cooling air to get in and over the cylinder head to help keep things running cool. In addition, after awhile we found that the decals began peeling at the edges. Make sure you keep an eye on them and attend to them if they start to peel off. Hitting the edges of the peeling decal with a hair-dryer for a few seconds might rejuvenate the glue and help it stick longer. And what's up with the Rhino on the side of the truck? That's the name they should have picked all along! ●



Pivot-ball style suspension is found at each end—a highly "tuneable" setup usually found on more race-oriented cars, not ready-to-run vehicles such as the Fun Factor.

SPECIFICATIONS

Type	4WD nitro-powered monster truck
Scale	1/10
Retail price	$480
Average street price	$299.99
Length	16in./407mm
Width	13.9in./354mm
Wheelbase	10.75in./274mm
Track	10.5in./267mm
Weight (RTR)	6lbs,4oz.

TRANSMISSION

Type	Shaft Drive 4WD
Differentials	Enclosed gear differentials
Driveshafts	Universals
Bearings	Bushings/bearings

SUSPENSION

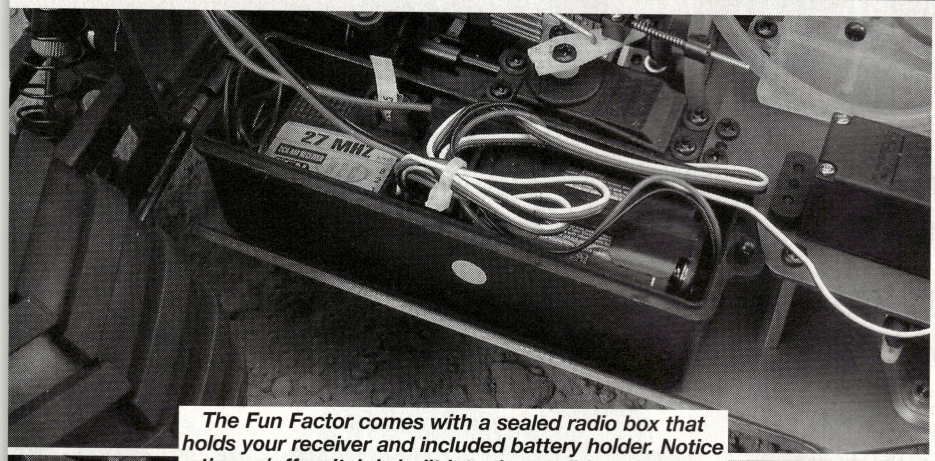
Type	Oil-filled coil over
Material	Plastic/Steel

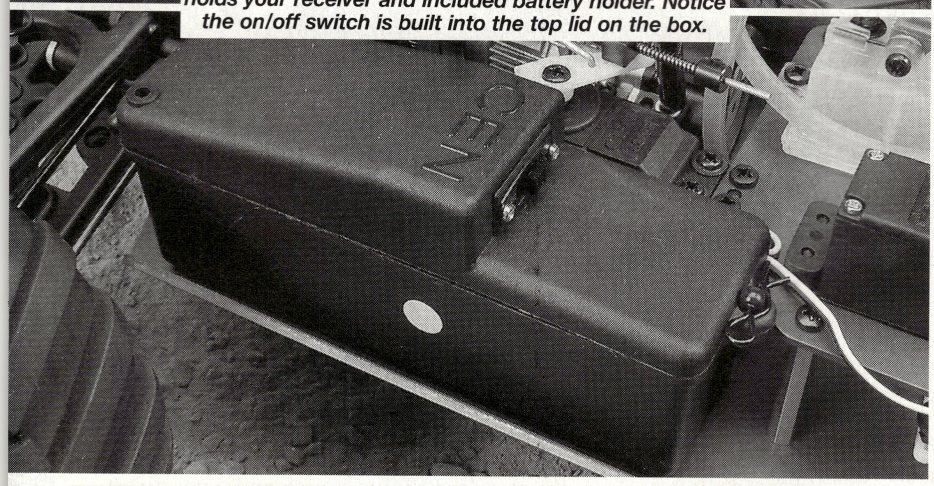
Front end

Caster	Non-adjustable
Camber	Adjustable
Toe	Adjustable
Down-travel	Non-adjustable

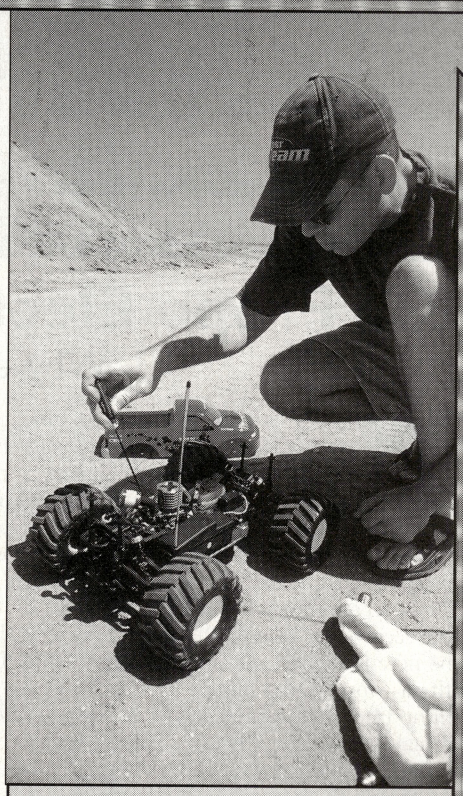
Rear end

Anti-squat	Non-adjustable
Camber	Adjustable
Toe	Adjustable
Down-travel	Non-adjustable
Shocks	Spring dampers
Springs	Kit
Wheels	One-piece white plastic
Tires	Monster truck tires
Insert	None
Body	Monster truck style





The Fun Factor comes with a sealed radio box that holds your receiver and included battery holder. Notice the on/off switch is built into the top lid on the box.



PERFORMANCE

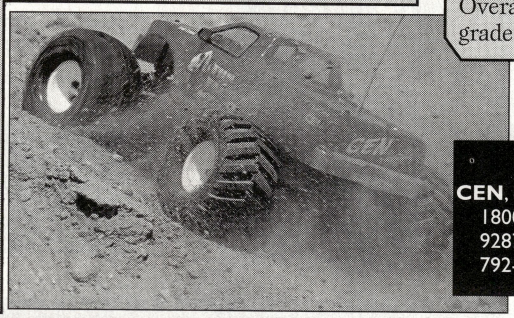
The Fun Factor's engine cranked over with only two tugs on the starter—we had a good feeling right from the beginning with this engine! We let the Fun Factor idle through a tank and a half of fuel with a rich carb setting, and then set out to do some serious bashing. Since there is a ton of local construction going on around our area, we sneaked into a deserted housing development on a Sunday afternoon for a thorough bashing of the FF. With lots of 20-foot-plus tall hills and lots of bumps and jumps, we set to it.

Jumping—The Fun Factor MT feels quite stable in flight. A situation it found itself in plenty of times throughout our test session. Not once did we encounter any problems, even when coming down hard on one wheel. The thin toe-adjustment links we previously thought would be a problem ended up being a non-factor—they didn't even bend. One thing we would fix is to swap out the stock shock oil for some heavier silicone oil (35wt. or 40wt.) to help keep he truck from bouncing as much.

Acceleration—The .16-size engine that comes with the FF is plenty powerful. Once thoroughly broken-in, there's plenty of power to move the nearly seven-pound truck. Of course, having a low-speed needle on the carb helped us to squeeze every ounce of power from the NT-16 without causing a meltdown. The composite tuned-pipe also gets credit for providing unrestrictive breathing.

Handling—The FF's paddle-style tires really only worked well on pavement, very loose dirt and grass. On harder-packed dirt, the truck had a difficult time gaining traction. If you like wild spins and four-wheel drifts, you'll like the stock tires. If you want to take advantage of the engine's impressive power, you'll need stickier, softer tires.

Durability—The Fun Factor proved quite rugged during our test. The only exception was when the spur gear had migrated on its shaft until it no longer engaged the drive pin. When this happened, the FF ceased all movement! We were able to press the gear back onto its pin and resume testing. We called CEN about this and they told us that they have already redesigned the gear area to prevent this problem. Otherwise, this is a well-made and durable truck. Around the R/C Car office, we have affectionately dubbed the Fun Factor as the "Mini T-Maxx."



THE GOOD

- Awesome build quality.
- Beefy construction—the overall design looks to withstand quite a bit of long-term abuse.
- The included NT-16 is quite the little powerhouse. It's easy to tune, and we've found it to be very reliable.
- We love ready-to-run. The FF MT is assembled well, comes with good radio gear, and the finished body is very welcome in our books.

THE BAD

- The front and rear toe links are a little on the thin side for our liking. With tires that big bouncing around, people are bound to snap them.

THE VERDICT

Get past the funny name, and you'll find that you've come across a great truck. The Fun Factor MT is a high-quality, highly-adjustable, fun to drive machine. Beginners and long-time enthusiasts alike will get a big kick out of this truck. The engine ran like a clock, and we had a blast driving it over the roughest terrain. Overall, this machine gets a very solid grade from us—we give it an A. ◆

SOURCES

CEN, distributed by Genka Trading Corp., 1800 E. Miraloma Ave., #F, Placentia, CA 92870 • phone (714) 792-1923; fax (714) 792-1968

KO Propo Electrical Switch

By Frank Masi

Why every gas racer needs one of these!

When I first started racing gas cars, everybody told me not to run a switch. They said that if my car was bumped hard enough during a race, the switch could be turned off and my car would run out of control. They also told me that sometimes the rather flimsy switches provided with radios could have contact problems. So what did my racing buddies suggest? They recommended that I plug the battery directly to the receiver or receiver harness. This way, there would be no chance of losing power to the radio. I listened to them—for about a month, but then I got so sick of fumbling underneath my car's body, fingers probing for the female connector, that I decided to throw caution to the wind and go back to using a switch.

Here's the part where I tell you that this was the biggest mistake of my life, and that I lost several thousand dollars in R/C equipment, maimed innocent bystanders and became the subject of several out-of-control R/C lawsuits. I'd by lying if I did. The truth is that I've never had one of my gas cars run amok because of a faulty switch. Oh, I've had some runaways, but the problem was always a cracked crystal, a frayed wire or that old standby: somebody else was on my frequency.

Why then, in a review where you're expecting me to hype-up KO Propo's gas-car switch, am I telling you that a regular old switch has worked just fine for me? It's because I've been lucky, and most of my radio equipment is usually new. But I've seen gas cars run out of control because of switch failure, and besides this, somewhere deep in the back of my mind, I know that it could happen to me, too! And I also want to tell you that if you race a gas car, or even just play around with one, this little KO Propo electronic switch will be the best investment you ever made—and it's pretty darned cheap considering the amount of money it could save!



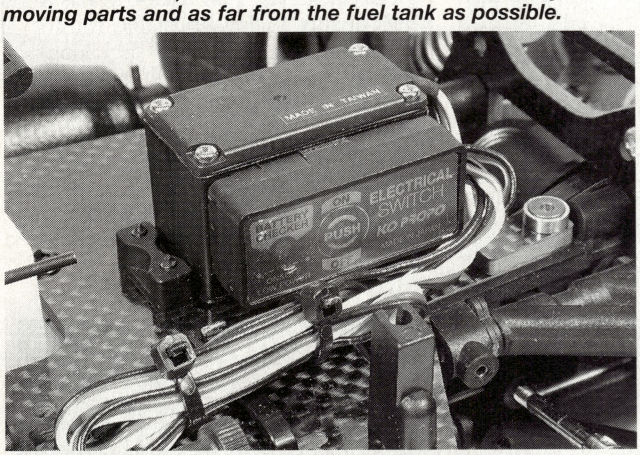
Scarcely larger than the typical sliding power switch, the KO Propo Electrical Switch can't be accidentally turned off, either by you, an overzealous turn marshal, or from a bad crash. A built-in battery checker monitors the state of the on-board battery to let you know when it's time to recharge.

Measuring just 1.5 x 0.5 x .38 inches, the Electrical Switch replaces the standard sliding switch and plugs directly into the receiver. Your battery pack plugs into the Switch's input lead, while a third lead, which ends in a male connector, is used as a charging jack—no need to unplug the unit from the receiver to charge the battery. On the face of the unit is a "soft switch" button. To turn on your car, you depress the button for approximately one second (this brief period is another failsafe against the switch being accidentally bumped). Repeat the step to turn the car off.

Besides the fact that you'll never have to worry about a faulty switch again, KO has thrown in a great battery-checker feature as a bonus. A small LED on the Switch glows red when the unit is on, and blinks rapidly should the pack's voltage drop below 4.3v, alerting you that it's time to charge. The only thing to watch out for is that the Switch consumes power even when turned off. Although this minimal consumption (5mA/6v) is scarcely noticeable, you should always give your pack a charge before running your car.

Small enough to fit in any size gas car and cheap enough so that even a casual hobbyist can justify its cost, we can't think of a single reason not to give KO Propo's Electrical Switch the strongest possible recommendation. Think of it as a cheap insurance policy for your gas car or truck. ◆

The Electrical switch can be attached using double-sided tape (as shown here), or by using the case's rubber-isolated grommets (they've been removed in this photo). As with any electronic device, the Switch should be mounted away from moving parts and as far from the fuel tank as possible.



KO Propo Electrical Switch

Part no.: 60224
Price: $38 (retail)/$32-33 (street price)

SOURCES

KO Propo USA, Inc., 1602 S. Western Ave, Suite 308, Gardena, CA 90247 • (310) 532-9355; fax (310) 532-9354.

Performance, Value, and Selection — that's the DuraTrax battery advantage.



Whether you're running for fun, or racing to win, there's a DuraTrax pack that's right for you.

Get the most out of your electric cars and trucks — no matter what your aspirations and budget are — with the quality and affordability of DuraTrax batteries. As a leader in R/C racing, DuraTrax delivers what today's driver demands... high performance, at a competitive price. So do yourself — and your models — a favor, and check out the lineup of DuraTrax sport and racing power sources today!



PIRANHA

Piranha Packs are ideal for sport applications!

- Piranha 1500mAh SCX batteries are DuraTrax's most economically-priced, and available in 6-cell and 7-cell, flat and hump configurations.
- Piranha 1800mAh SCX packs feature 17% more capacity, for even longer run-times, and come in 6-cell and 7-cell flat and 7-cell hump configurations.



SANYO®

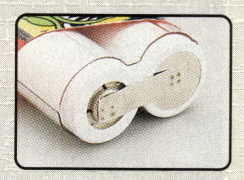
Powerful Sanyo cells make these the perfect packs for sport and racing!

- You'll experience higher average voltage for faster speeds AND extended run-times when you upgrade to the proven technology of Sanyo batteries.
- Choose from 1500, 1700, 2000 or 2400mAh capacities, for maximum performance at a super price.

All DuraTrax battery packs come with these exceptional construction features:

Quad-Welding —

Four spot welds on each connection increase durability and maximize power transfer throughout.



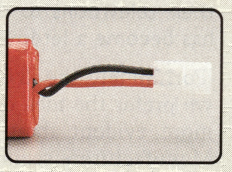
Shotgun Tubes —

DuraTrax cells are encased in lightweight, synthetic-reinforced tubes that lessen stress on welds better than conventional cardboard sleeves.



Super-Flex Wire —

14-gauge, 200+ strand silicone-insulated wire provides optimum current flow, flexibility and thermal protection.





Panasonic®

Panasonic 3000mAh Nickel-Metal Hydride (NiMH) batteries — the ultimate in R/C racing packs!

- The new standard in competition cells, with a higher energy density comparted to NiCds, for **much** longer run-times and higher average voltage in the same sub-C size cell.
- Great for endurance racing, and legal for ROAR events.
- Environmentally friendly, so there's no recycling worries.
- Available in 6-cell and 7-cell flat packs, and 7-cell hump packs.

NOTE: PEAK CHARGING WILL REQUIRE A SPECIFIC NiMH CHARGER.

For the location of the dealer nearest you, please call 1-800-682-8948, and mention code number 2933U.

Distributed Exclusively Through GREAT PLANES MODEL DISTRIBUTORS COMPANY, P.O. BOX 9021, CHAMPAIGN, IL 61826-9021

© Copyright 2000 — 3075100

DURATRAX
THE LEADER IN AWESOME R/C™
www.duratrax.com

LRP Quantum ESCs Is smaller better?



We live in a world in which bigger is better, right? Automakers have steadily increased the sizes of their trucks and SUVs, while electronics firms are upsizing their televisions to the point that going to the movie theater has become a letdown.

Fortunately, the R/C industry hasn't subscribed to this theory; we prefer the idea of "smaller is better," and nowhere is this more evident than with electronic speed controls (ESCs). Manufacturers seem to be in competition to produce smaller and more feature-laden units, with little if any sacrifice in performance and efficiency. What used to be the size of an average steering servo now takes up no more than a quarter's size of chassis space.

The incredible shrinking speed controls

If there is a race to make the smallest ESC, then LRP can be declared the winner with the release of its Quantum series, which packs the performance of its previous line of full-size ESCs into less than half the space. A technological breakthrough? Without a doubt. Will the Quantum series make larger ESCs obsolete? Time will tell, but our hunch is that micro-ESCs are taking over.

LRP designed the Quantums as an entire series of speed controls, ranging from the top-of-the-line Quantum Competition down through the Quantum Pro Reverse, Super Reverse and just plain old Quantum Reverse (although how can any reversing ESC this small be considered plain?). The Quantum Competition boasts the smallest case size (28.3 x 25.4 x 14.4mm), while the reversing models share a slightly (or should that be scarcely) larger case (26 x 26 x 15.7mm).

Quantum Competition: programmable powerhouse

The Competition model is at the top of the Quantum series. It is a forward and brake-only ESC that is for use with motors over five turns, and can handle a momentary load of 235 amps. These specs alone are enough to impress us, but considering the size of the Quantum, this type of load-handling is incredible. This performance is owed to new transistors that LRP claims provide 2/3 less internal resistance (an ultra-low 0.00045ohm, according to LRP). This makes the Quantum one of the most efficient ESCs available at any size.

Previous LRP ESCs have had programmable features, but they were relegated to one of several pre-made profiles. The Quantum offers three distinct programming modes that offer many more possible performance possibilities.

■ **Punch Control.** This is LRP's D.E.M.S





The Quantums are the world's smallest competition ESCs. Although LRP states that the Quantums don't require external power capacitors, they are recommended for use with very low-turn motors. LRP sells a "Worlds Option Bag" (part no. 82820) that contains heat sinks and power capacitors.

specs

	Competition	Pro Reverse	Super Reverse	Reverse
No. of cells	4-7	4-7	4-7	4-7
Internal resistance (Ohm)	0.00045	0.00175	0.0023	0.0038
Momentary load (1 sec.)	235A	120A	90A	70A
Brief load (30 sec.)	120A	70A	55A	45A
Continuous load (5 min.)	80A	50A	35A	30A
Motor limit (turns)	Over 5	Over 7	13-16	16-36
Receiver voltage	5.8V	5V	5V	5V
Max. receiver current (30 sec.)	2.8A	2A	2A	2A
Continuous receiver current (5 min.)	1.4A	1.2A	1.2A	1.2A
Operating frequency (Hz)	3140	2500	2300	2100
Reverse	No	Yes	Yes	Yes
Automatic Start	Yes	No	No	No
Weight (grams)	17.5	17.5	17.5	17.5
Case size (mm)	28.3x25.4x14.4	26x26x15.7	26x26x15.7	26x26x15.7
Programmable	Yes	No	No	No

(Digital Engine Management System), which allows you to set the rate of the vehicle's acceleration depending on the type of motor used and the amount of available traction. There are five steps to the Punch Control feature, ranging from mild (for slippery tracks or when using very hot modified motors) to mega-punch (when you want the quickest acceleration possible, such as when using a stock motor). The D.E.M.S. feature actually is broken down into five performance "maps", which LRP describes as the following:

1) LRP team profile for low-grip tracks
2) LRP team off-road program
3) LRP team program for high-bite tracks
4) LRP team touring car program
5) LRP team stock racing program for maximum punch

■ **Initial Brakes**. This feature lets you set the initial strength of the brakes using a value of zero (for linear brake action, i.e., braking that's directly proportionate to your throttle/brake trigger movement) up to five (for braking that's progressive). Softer, or more progressive initial braking, will provide more precise control when braking on slippery surfaces, or for when braking hard from very high speeds.

■ **Automatic Brake**. This is another name for our old friend drag brake, which, as you would guess, is used to provide a small amount of brake when the throttle is in its neutral position. Drag brake primarily aids in steering by transferring more weight to the front tires whenever you release the throttle-particularly useful on very high-bite or tight tracks, or when you just can't seem to exorcise that pesky understeer from your chassis. The Quantum allows you to set the Automatic Brake strength from between 0 (no drag brake) to 5 (the strongest setting).

More Quantum features

In addition to its programming versatility, the Quantum Competition offers several additional features that increase its user-friendliness as well as bolster its appeal to serious racers.

■ **Automatic Start.** Want to make sure you get the holeshot? Hold your transmitter's trigger in the brake position for five seconds and the Quantum will enter its Automatic Start mode, in which the response time between neutral and full-throttle is temporarily shortened. Once underway, the Quantum returns automatically to its previous programming.

■ **"Works" default setting.** Should you become lost while programming your Quantum, all you need to do is turn on your transmitter and hold the Quantum's Set button as you move its switch to the "on" position. This resets the Quantum to its factory setting (Punch Control 2, Initial Brake 2 and no Automatic Brake).

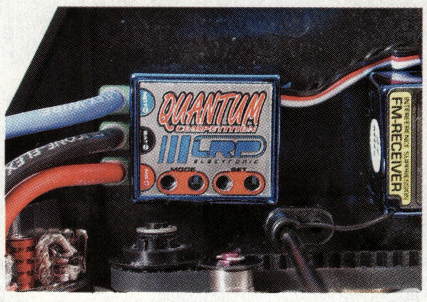
■ The Quantum operates at 3140Hz. This value can't be changed; however, according to LRP, this is the best overall frequency, and provides a good blending of efficiency, punch and smoothness.

■ The Quantums are the first LRP speed controls to offer external solder points for the power wires. The Competition comes with 13-gauge silicone wire already attached.

■ The Competition can operate with as few as four cells without the need for a separate battery pack. This, combined with its small size, makes the Quantum Competition perfect for four-cell 1/12 scale racing.

Quantum Reverse: Ready for Race or Play

The reversing Quantum models are available in three flavors—Pro, Super and Reverse. The only significant differences between each model are internal resistance, maximum load capacity and operating frequencies. Oh yes, and don't forget price! The Pro is obviously the most expensive, followed by the Super and the Reverse. But by far the most significant feature of the reversing Quantums is the ability to transform them from forward/reverse operation to forward/brake. Why is this important? If you ever plan to race, you should know that most rules prohibit the use of reverse. And although we think this rule is kind of dumb (as long as you don't back into oncoming traffic), it is enforced at most tracks. So instead of being black-flagged and having your race day ruined, your Quantum will abide by the rules. When race day is over, simply switch back to reverse for play time! ◆



We tested the Quantum Competition in HPI's new RS4 Pro 3. Rated for motors as low as 5-turns, the Competition handled our Team Orion 9-turn motor without complaint. The brakes were strong and fade free as well.



HPI RACING

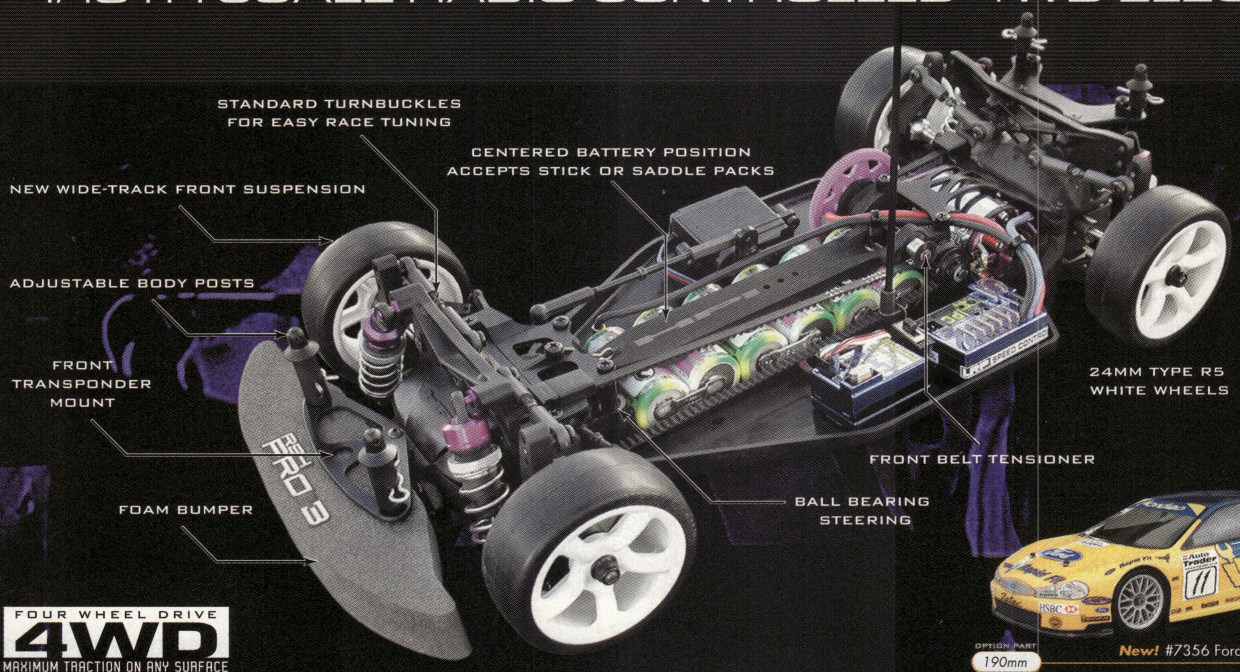
THE EVOLUTION OF HIGH PERFORMANCE R/C TOURING

----------> RS4 ----------> RS4 Pro ------

RS4 PRO

THIRD GENERATIO

1/10TH SCALE RADIO CONTROLLED 4WD ELECTRIC P



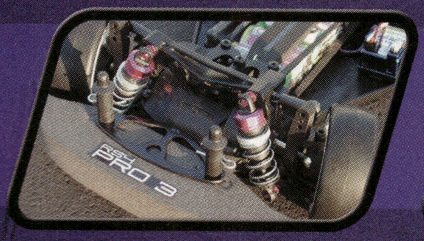
FOUR WHEEL DRIVE
4WD
MAXIMUM TRACTION ON ANY SURFACE

OPTION PART
190mm

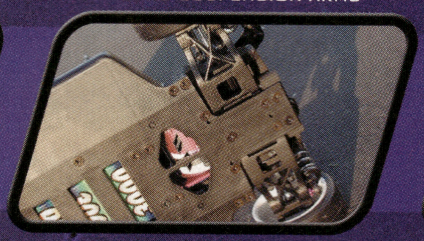
New! #7356 Ford Mondeo BTCC

© 2001, HPI Racing

THREADED COMPOSITE SHOCKS



LONG SUSPENSION ARMS

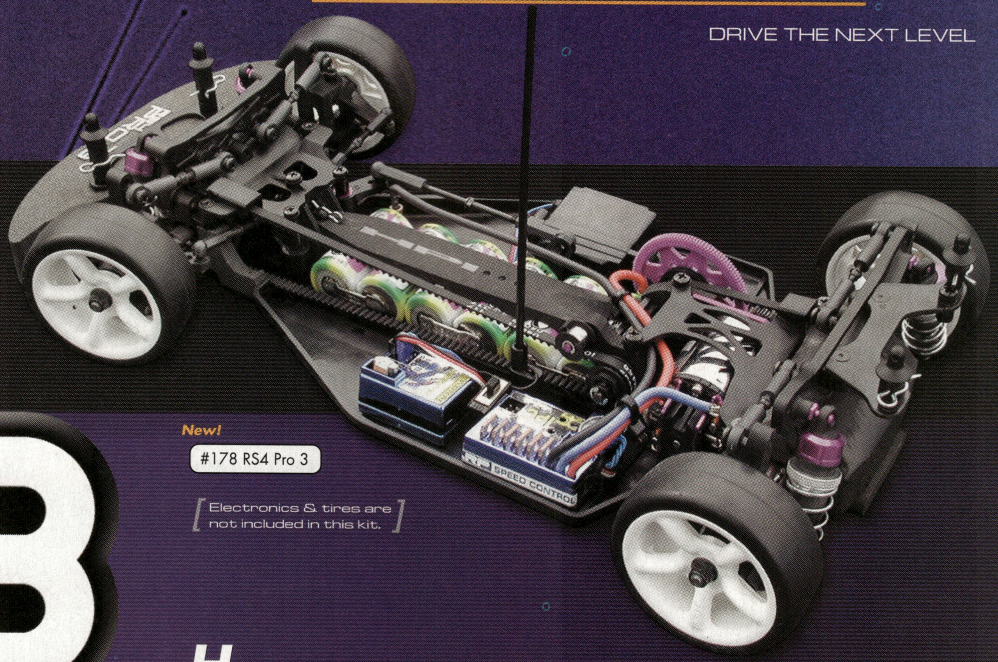


ALL-NEW SUSPENSION GEOMETRY



------> RS4 Pro 2 ----------> RS4 Pro 3

DRIVE THE NEXT LEVEL



New!

#178 RS4 Pro 3

[Electronics & tires are not included in this kit.]

3

n PRO

WERED RACE CAR

How do you improve on one of the fastest touring cars in the world? You take world-class race experience and combine it with the latest in CAD design. The all-new RS4 Pro 3 has extremely long suspension arms to deliver improved handling and a wide variety of simple set-up options. The new composite chassis delivers improved dampening, reduced radio interference, and reduced parts count to help keep the Pro 3 price low. The Pro 3 features a central battery mounting position with near-perfect weight distribution for higher corner speeds & fast changes of direction.

Graphite composite diffs and new short CVD's are standard, providing a significant reduction in rotating mass over the Pro 2. Lightweight composite, true bore, low friction threaded shocks maximize wheel control under all conditions and lower overall car weight & center of gravity significantly. Faster throttle response and improved efficiency are the welcome benefits. Everywhere you look on the car there have been technological advances to bring you the best performance and value in the electric competition touring car class. Give the new RS4 Pro 3 a try.

Included!



COMPLETE SET OF BALL BEARINGS

COMPOSITE DIFFERENTIALS

The RS4 Pro 3 comes with no body so racers can choose a 190mm body to suit their driving style and track conditions.



OPTION PART 190mm

New! #7357 Mercedes-Benz CLK DTM 2000

HPI RACING

Visit us @ www.hpiracing.com

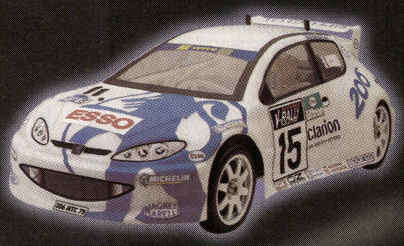
15321 Barranca Parkway Irvine, CA 92618 Ph: 949.753.1099 Fax: 949.753.1098



Super Combo
TS4n SPORT
$289.99
EB4 and TS4n:
1/10 Scale Nitro Powered 4WD Touring Car
Ready-to-Roar with Engine, Radio, and Painted Body
Dodge Viper
Mercedes Benz
• Body is Precut, Trimmed & Painted
• Pistol Grip Radio is Included & Installed
• Powerful PRO-15 Pull Start Engine Included & Installed
• Starting Accessories Included
The TS4n Super Combo comes with either the Viper or Mercedes body. Seven other painted bodies are available separately.
TTR 6181-F TS4n Mercedes Super Combo
TTR 6186-F TS4n Viper Super Combo
PD1101 Alfa Romeo
Wheelbase: 265 mm
Front Track Width: 200 mm
Rear Track Width: 200 mm
Weight (dry): 1660 grams
Max RPM!
EVO COMPETITION ENGINES
No. 9470 EVO-21RL
2,500~31,000 Practical RPM
2.1/29,000 Output (BHP/RPM)
No. 9471 EVO-21RS
3.000~40,000
2.1/31,000
No. 9460 EVO-12 (P)
2,500~31,000 Practical RPM
0.8/30,000 Output (BHP/RPM)
No. 9464 EVO-12
2,500~31,000
0.9/30,000
No. 9461 EVO-12X (P)
2,500~31,000 Practical RPM
0.8/30,000 Output (BHP/RPM)
No. 9465 EVO-12X
2,500~31,000
0.9/30,000
New Race Engines
Radio Included and Installed
Starting Accessories Included

Ready to Roar!

Thunder Tiger TEAM INTERNATIONAL



PD1071 Peugeot 206



PD1095 Honda Accord



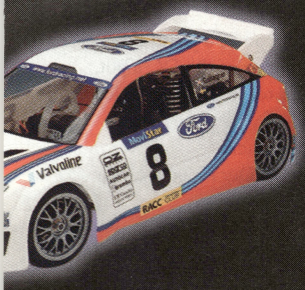
PD1068 Subaru Impreza



PD1097 Volvo S-40



PD1091 Dodge Stratus



PD1065 Ford Focus

acehobby.com

TTR 6201-F
EB4 Super Combo

- Body is Precut, Trimmed & Painted
- Hitec Lynx Sport Radio is Included & Installed
- High Torque Steering Servo HS-605 Installed
- Powerful PRO-21 Pull Start Engine Included & Installed
- Starting Accessories Included

Super Combo EB4

1/8th Scale Nitro Powered 4WD Racing Buggy

Ready-to-Roar with Engine, Radio, and Painted Body

Wheelbase:	Adj from 324 mm to 329 mm
Front Track Width:	Adj from 260 mm to 268 mm
Rear Track Width:	261 mm
Front Caster:	Adj from 18°-25°
Rear Toe-In:	3 Settings, 2°, 1.5° and 1°
Front Kick-Up:	5°
Rear Anti-Dive:	2°
Weight (dry):	3300 grams

$499.99

For a retailer, visit http://acehobby.com/sources or call (660)584-7121
Distributed exclusively by Ace Hobby Distributors, Inc. 116 W. 19th ST, Higginsville, MO 64037

R/C CAR Buyer's Guide AC/DC

AC/DC chargers are very versatile—you can use them off the beaten track when using a 12-volt power supply (usually running off your car battery), and they are ultra-easy to use at home by just plugging them into the wall! We've assembled all the latest and greatest chargers on the market for your perusal, from entry-level units all the way to high-end race-oriented systems.

DuraTrax

Piranha CX-10

Part #DTXP4011
Price: $24.99



Features

The most basic charger in the DuraTrax lineup.

- 15-minute dial type charger with red LED to determine when the unit is trickle charging.
- Has fused overload protection at the AC circuit and reverse polarity protection at the DC input.
- Automatically moves to 35-75mAh trickle charge after a fast charge.
- Can charge 6 or 7-cell battery packs.
- Comes with spare fuse and a DuraTrax five-year warranty.

Piranha CX-15

Part #DTXP4020
Price: $32.99

Features

The CX-15 shares the same features as the CX-10, but in addition it has—

- Built in DC amp meter.
- Switchable between charging and discharging—this allows you to cycle your battery packs, which will help extend their life.



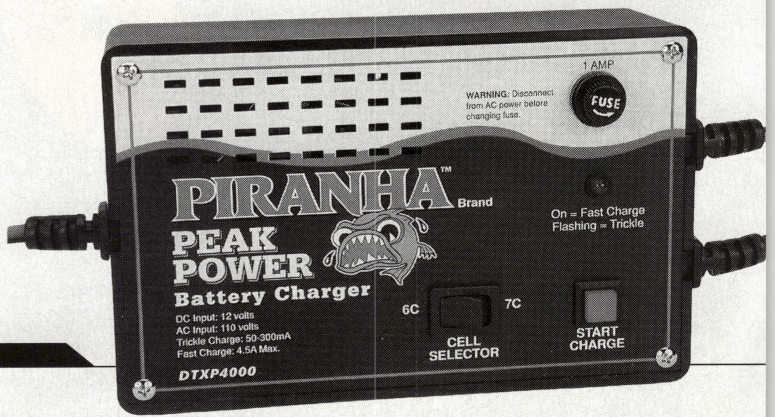
Piranha Peak Power

Part #DTXP4000
Price: $34.99

Features

Entry-level peak charger.

- Pushbutton control starts the charging operation.
- To protect the battery and charger, fast charge stops if charge time exceeds 45 minutes or battery voltage exceeds 1.75v per cell.
- LED on charger faceplate glows during fast charge, flashes during trickle, or dims if unit short circuits or reverse polarity condition occurs as the charger terminates all functions.
- Automatically moves to 50-300mA trickle charge after fast charge.
- The unit has a special "filtering system" that provides maximum charger efficiency that helps avoid "false peaks."



Chargers

From budget to top-of-the line!



Intellipeak Pulse

Part #DTXP4100
Price: $54.99

Features

- "Negative Delta V" peak detection for NiCads and NiMHs.
- Built-in Artificial Intelligence to eliminate false peaks.
- Auto-identifies the quantity of cells being charged.
- Output: 4-7 cells on DC, 4-8 cells on AC.
- Adjustable fast charge current of 0.5-4.0 amps AC, 0.5-6.5 amps DC.
- 100mA trickle charge.
- 1-amp fixed discharge rate.
- Cycle functions: Select a single discharge/charge cycle for periodic pack conditioning (discharges cells to 1.05v per cell), or continuous "auto-repeat" cycles for batteries that have developed a memory, or for breaking in a new pack.
- Four multi-function, high intensity LED indicators. Status light glows during charge and flashes when nearing peak.
- Audible mode select tone signals for easy set-up.
- Reverse polarity and fused overload protection.
- Capable of charging transmitter batteries.
- One Year Warranty

Intellipeak Mini Pulse

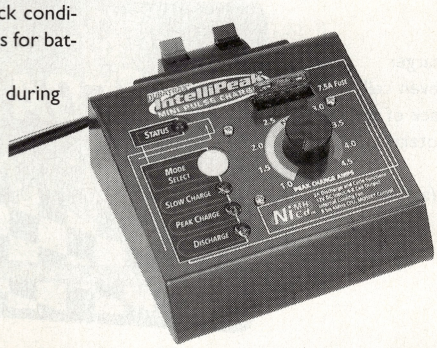
Part #DTXP4110
Price: $64.99

Features

The Mini Pulse shares similar features with the Pulse unit, but here is where they differ—

- Incredibly small peak charger
- Incredibly small, detachable, 12-volt 7-amp AC power supply with built-in cooling fan for at-home use.
- Adjustable fast charge current of 1.0-4.5 amps.
- 2-amp fixed discharge rate.
- One built-in miniature fan keeps the charger cool, increasing efficiency and lifespan.
- Reverse polarity and 7.5A fused overload protection.
- One Year Warranty



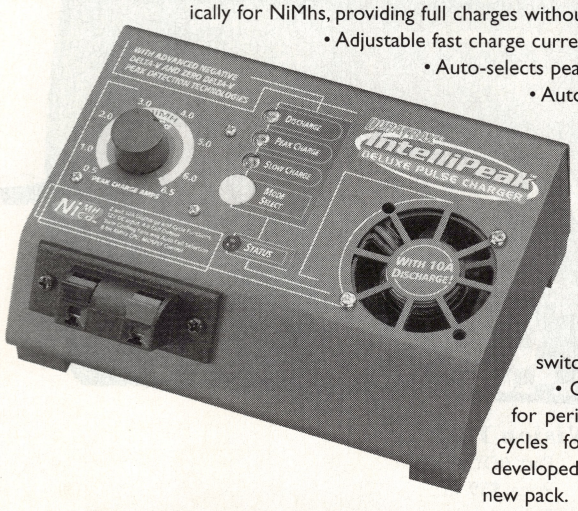


Intellipeak Deluxe Pulse

Part #DTXP4120
Price: $74.99

Features

- "Negative Delta V" peak detection for NiCads, plus advanced "Zero Delta V" peak detection technology specifically for NiMhs, providing full charges without overcharging.
- Adjustable fast charge current of 0.5-6.5 amps.
- Auto-selects peak detection method by identifying cell chemistry.
- Auto-identifies the quantity of cells being charged.
- Incredibly small, detachable, 12-volt 7-amp AC power supply with built-in cooling fan for at-home use.
- Output: 4-7 cells on DC, 4-8 cells on AC.
- Adjustable fast charge current of 0.5-6.5 amps.
- Pulsed fast charge, with 8-bit pulse width modulated current control output.
- 100mA trickle charge.
- 10 and 2-amp fixed discharge rates, selectable by switch.
- Cycle functions: Select a single discharge/charge cycle for periodic pack conditioning, or continuous "auto-repeat" cycles for reviving batteries that have developed a memory, or for breaking in a new pack.
- Four multi-function, high intensity LED indicators. Status light glows during charge and flashes when nearing peak.
- Audible mode select tone signals for easy set-up.
- Twin built-in miniature fans keep the charger cool, increasing efficiency and lifespan.
- Reverse polarity and overload protection.
- Capable of charging transmitter batteries
- One Year Warranty



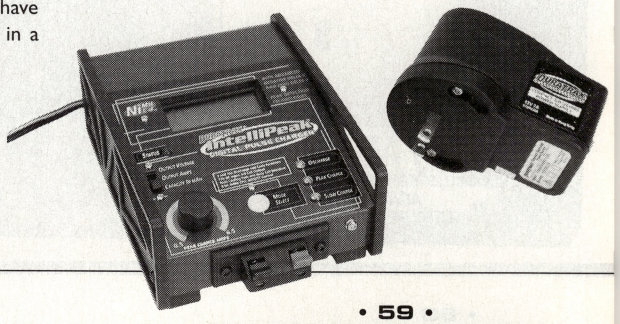
Intellipeak Digital Pulse

Part #DTXP4130
Price: $99.99

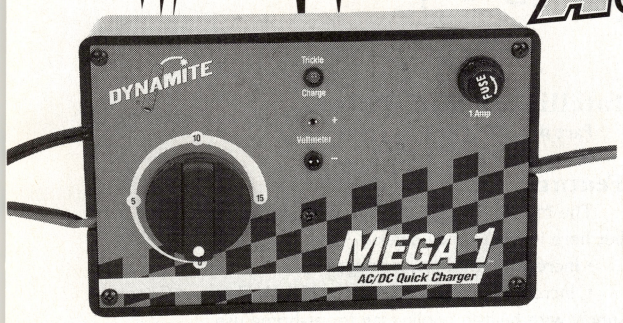
Features

The Digital Pulse has all the features of the Deluxe Pulse with the addition of—

- Multi-function LCD, with selectable switch for viewing charge amps, charge voltage, or battery capacity in milliamps.
- Discharge voltage cutoff: 2.6 volts



AC/DC Chargers



Dynamite

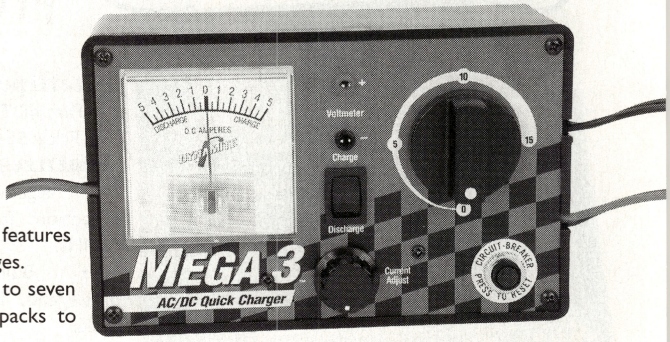
Mega 1

Part #DYN4010
Price: $41.95

Features

The Mega 1 is Dynamite's entry-level unit with a 15-minute timer dial.

- 4-amp charge rate
- Automatic trickle charger
- Can charge six or seven cells
- Voltmeter jack on back of unit
- Reverse polarity protected via fuse
- 5-year warranty (as on all Dynamite chargers)



Mega 3

Part #DYN4030
Price: $59.95

Features

The Mega 3 shares the same case as the 1 and 2, but features some significant changes.

- Can charge four to seven cells (from receiver packs to 4800mAh packs).
- Has a 0-5 adjustable amp charge rate
- Circuit breaker reverse polarity protection—no need to replace a fuse.



Mega Peak

Part #DYN4035
Price: $59.95

Features

- Peak detection charger.
- Can charge four or five cell receiver packs and six and seven cell standard packs
- 1 or 4-amp charge rate.
- Push-button technology
- Automatic trickle charge
- A fan mounted to the case provides additional cooling.
- Reverse polarity protected via fuse

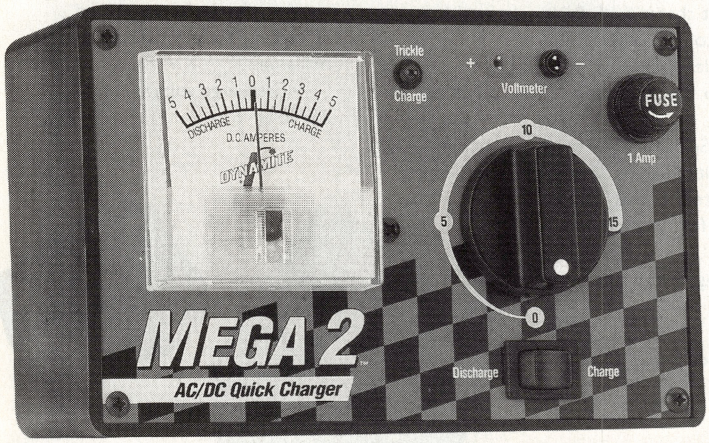
Mega 2

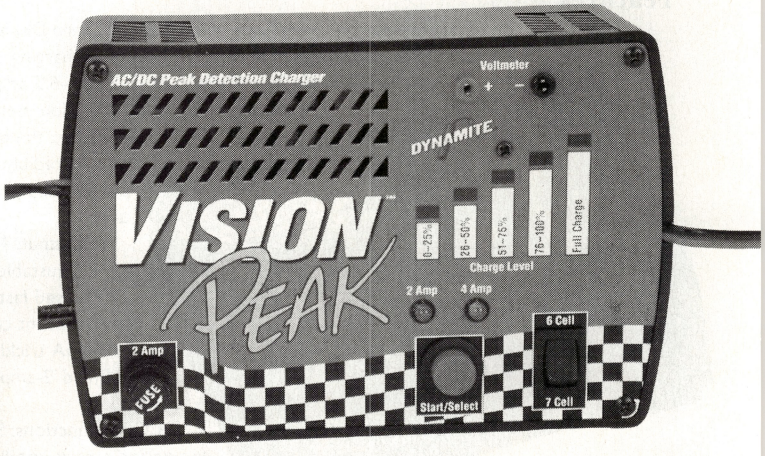
Part #DYN4020
Price: $49.95

Features

The Mega 2 is very similar to the Mega 1 with the following differences.

- An analog meter shows charge and discharge current rates.
- Has a timed discharge feature.





Vision Peak

Part #DYN4045
Price: $59.95
Features

- Peak detection charger.
- 2 or 4-amp charge rate.
- Push-button technology
- Automatic trickle charge
- The charger shows you battery charge status through five LED indicators—a very unique feature.

Integy

16x3v2.5

Part #E2012v25
Price: $89.99

Features

•Six charge/discharge profiles are available; repeak, "coldstart," NiMh charge, 4-amp discharge, memory eraser, and partial charge (adds approximately 800mAh into the pack for when you want to store your packs for awhile without damaging them).

- Integy's VESC pulse charge technology
- Discharge and charge cycle
- Can charge transmitter and receiver packs
- INDI Multitasking full charge detection algorithm (peak charge detection)
- Minus Delta Voltage full charge termination method
- Automatic Voltage Threshold 0mV-70mV
- Up to 4 amps conditioning discharge current
- .5 to 4.5 amps adjustable charging current



MRC



Super Brain 819

Part #RB819
Price: $37.99

Features

- Can charge 6 or 7 cell packs
- Peak detection charger
- No timers, or buttons—just plug in battery and it begins to charge until it peaks and shuts off.
- Charger stays cool even with non-stop use—no need to wait in between packs for the unit to cool down.
- Smooth Power Flex Control (SPFC) charges the battery smoothly and efficiently

Super Brain 959

Part #RB959
Price: $65.98

Features

- Can charge 3 to 8 cell AA and Sub-C packs plus 1.2v single cells for Ni-Starters
- Delta Peak detection charger with MicroPeak Technology
- Seven charge currents: .5A, 1.0A, 1.5A, 3.0A, 3.5A, 4.0A, 4.5A.
- Six voltage threshold settings: 5mV, 10mV, 20mV, 30mV, 40mV, and 50mV.
- LCD displays voltage, current, time, battery status, and peak setting.
- Digital signal processing (DSP) filters out noise and improves voltge accuracy.
- Easy operation—just plug and charge.
- Charges NiCd and NiMh batteries.



FMA

Versapulse

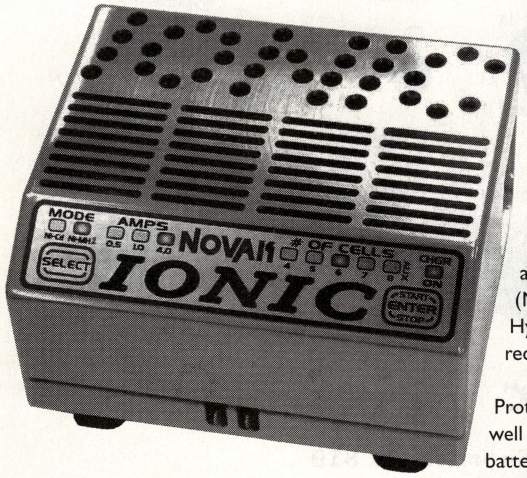
Part #FC600
Price: $54.95



Features

- Delta peak detection charger.
- Can charge four to ten cell packs using AC input, or four to seven cells using 12v DC input
- Adjustable amp charge rate from .5 through 5.5 amps
- Push-button technology
- Automatic trickle charge
- Internal cooling fan and heatsink.
- Reverse polarity protected via fuse

R/C CAR Buyer's Guide AC/DC Chargers



Novak

Ionic
Part #4475
Price: $239

Features

- 4, 5, 6, and 7-cell charging capabilities
- Constant current linear charge of 0.5, 1.0, or 4.0 amps.
- Features an easy-to-use two-button interface, allows users access to two charge modes: Ni-Cd (Nickel Cadmium) and Ni-MH2 (Nickel Metal Hydride). The Ni-MH2 mode will also charge NiMh receiver packs.
- Battery Conditioning and Reverse Input Voltage Protection (two built-in features) prevent damage to, as well as ensure the appropriate charge mode is applied to battery packs. The Battery Conditioning mode utilizes a new proprietary charging algorithm developed by Novak Engineers to provide the most effective charge for all sizes of both NiCd and NiMH cells without overcharging. Reverse Input Voltage Protection determines if your battery pack has sufficient input voltage to charge the number of cells you've selected.
- Built-in fan
- Thermal protection
- Full output protection

Orion

AC/DC 48

Part #30500
Price: $200

Features

- Delta peak charger with automatic cutoff circuitry
- Charges 4 to 8 cells
- Adjustable current of 0.5 amps to 6.5 amps
- Features low current discharge and cycling modes
- Reverse polarity protected



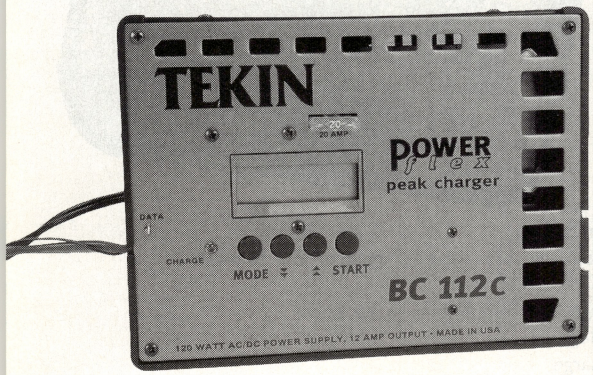
Tekin

BC112c

Part #4112
Price: $310.00

Features

- Tekin's top-of-the-line charger in AC/DC style—can charge between 1 and 12 cells.
- Three charge modes—P (peak), P2 (re-peak), and CS (coldstart)
- Power-Flex process lowers the internal resistance of your cells, giving more voltage and current flow under heavy loads. Power-Flex works by applying a specially timed negative discharge pulse to the batteries while charging. This "burps" the cells, to reduce internal pressure, so they take better charge. The circuit also improves plate crystal structure and prevents undesirable memory build-up. With the increased active surface area, cells have lowered resistance, and deliver noticeably more acceleration and power, longer.
- Digital readout of Volts, Amps, Time, Charge Capacity, and Peak Volts.
- 0-10 Amps Fast Charge and 0-500 Ma Trickle charge.
- Cool running 33KHz switching operation.
- Built-in 24 volt-10 Amp power supply.



SOURCES

DuraTrax, distributed by Great Planes Model Distributors, P.O. Box 9021, Champaign, IL 61826-9021; Phone: (217) 398-6300
Dynamite, distributed by Horizon Hobby Distributors Inc., 4105 Fieldstone Rd., Champaign, IL 61821; Phone: (217) 355-9511
FMA Direct, 9607 Dr. Perry Rd., #109, Ijamsville, MD; Phone (800) 343-2934; (301) 831-8987
Integy Inc., 1140 Centre Dr #E, City of Industry CA 91789; Phone (800)-627-2713/Fax (909)-444-2767
MRC, 80 Newfield Ave., P.O. Box 6312, Edison, NJ 08818; Phone (732) 225-2100
Novak, 18910 Teller Avenue, Irvine, CA 92612; Phone: (949) 833-8873/Fax: (949) 833-1631
Team Orion Inc., 22601 La Palma, Suite 103, Yorba Linda, CA 92887; Phone (714) 694 2812/Fax (714) 694 2815
Tekin Electronics, 940 Calle Negocio, San Clemente, CA 92673; Fax (949) 498-6339

File Edit Mailbox Message Transfer Special Window Help 4:14 PM

Hard Drive

Race Secrets

COOL RACER, FRIDAY, GOT SPEED?

GOT SPEED?

From: COOL RACER (fastguy@gotspeed.com)
To: JOE RACER (joeyr@racenut.com)

YO JOEY,

Bro, at the next club race, get ready to see how it's done. I got the new "SPEED SERIES" body from DEANS. That's right they're finally here!!!

Here's the view I'll be seeing during the race. You'll see it in the pits. Sorry dude, I didn't get a shot of your view, you know THE BACK OF MY TRUCK!

Gotta charge bro – Gotta make room on the shelf for this weekend's trophy.

Later,
Cool Racer



deans

W. S. Deans Co. 10875 Portal Dr., Los Alamitos, CA 90720
tel 714-828-6494 fax 714-828-6252
www.wsdeans.com • deansco@earthlink.net

Trash

PROJECT SR-MAXX

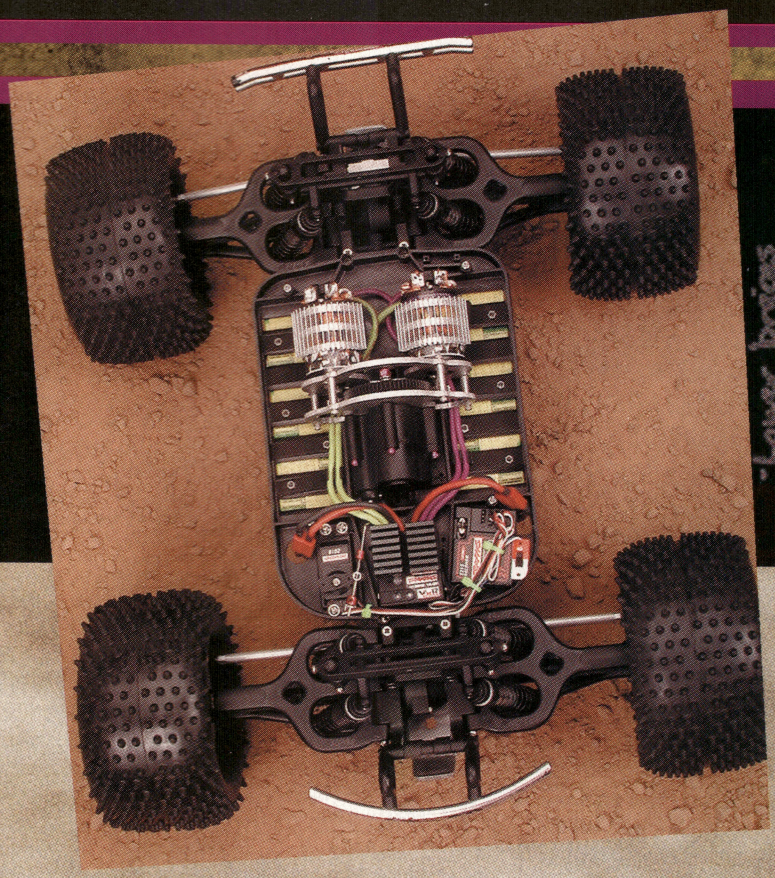
Creating the total race-ready E-Maxx!

It seems that Jason Jaeckel's project E-Maxx trucks are becoming "regulars" here at *R/C Car*. Last month we showed you his awe-inspiring S-II—a purple anodized custom-made monster that turned heads wherever it went.

This month we're bringing you Jason's full-race E-Maxx which coincidentally also happens to be heavily modified! While it may not be as flashy-looking as his other creations, remember; this truck's sole purpose in life is to get around a race track as quickly as possible. With these mods made, Jason feels that this is the most competitive E-Maxx out there right now—let's see what he's done to his machine.



• The most obvious modification is the new motor configuration. To begin with, Jason moved the transmission up towards the front by one hole which would allow for more room towards the back of the chassis. All he needed to do was grind away a little excess chassis material in front of the tranny to allow it to fit properly. His next step was to flip the motors around, facing towards the rear of the truck. To accomplish this, Jason acquired some extra 3mm thick skidplate material from Scot at Rockhoundz! with which he made a cus-





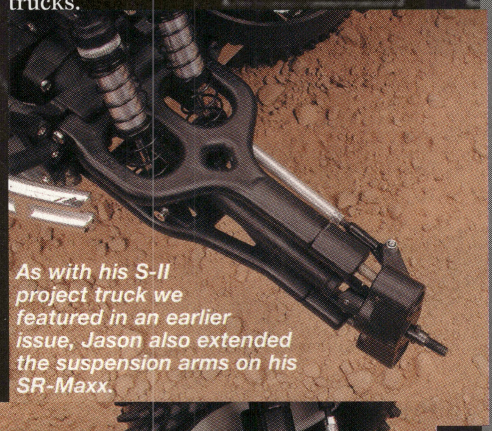
With a wider stance (and a little extra horsepower), the SR-Maxx flies over jumps!

tom two-piece motor-mount. With the motors flipped around backwards, the transmission was now spinning backwards as well. Initially, Jason was going to reverse the polarity of the motors, but instead he opted to flip the diffs around to get them going in the proper direction. "I just removed the diffs and I turned the ring (with the two pegs on it) 180 degrees and I reinstalled them," adds Jason. "It only takes a few minutes, and I don't see any reason why it shouldn't accelerate properly." We've since driven Jason's truck and have noticed no loss in acceleration with this mod in place.

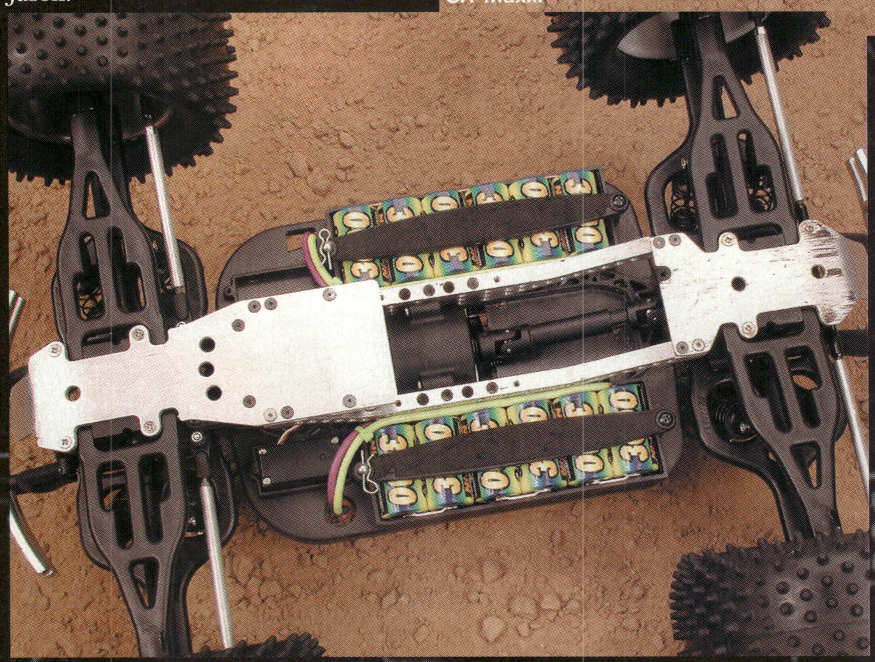
Speaking of acceleration, for power Jason chose to run two Trinity Monster Maxx 17-turn single 550-size mod motors (hand-wound Pro versions). The motors are equipped with aluminum heatsinks to help keep them running cooler. Final gearing (with stock gears) is set at 15/66.

• The next most noteworthy change while looking at the chassis is that the batteries have been moved from their stock location on top of the chassis and are now placed underneath the chassis. Jason took another stock chassis and cut away the battery boxes, complete with battery straps, and then placed them directly underneath the chassis on his project truck. To hold the new battery box in place, Jason used assorted nuts and bolts to secure it to the chassis. Twelve 3000 cells from Ballistic Batteries provide the juice for his truck. As for battery protection, Jason felt it wasn't really an issue. "The battery strap itself offers plenty of protection. The straps are level with the lower braces, so they don't protrude out from under the truck. But, it would be simple to make a full aluminum cover the runs the length of the batteries to protect them if you plan on doing some serious bashing. I'm happy with the current setup, so I'll stop here," adds Jason.

• As you look at the chassis, one thing you might not notice immediately is that the steering servo seems to be missing. Well, it's not, it just happens to be repositioned. The steering servo is mounted underneath the chassis and is placed between the lower braces just in front of the tranny. Not only does this free up room on top of the chassis; the positioning of the steering servo underneath the chassis also helps lower the truck's center of gravity slightly. Jason does this mod on all his E-Maxx project trucks.



As with his S-II project truck we featured in an earlier issue, Jason also extended the suspension arms on his SR-Maxx.

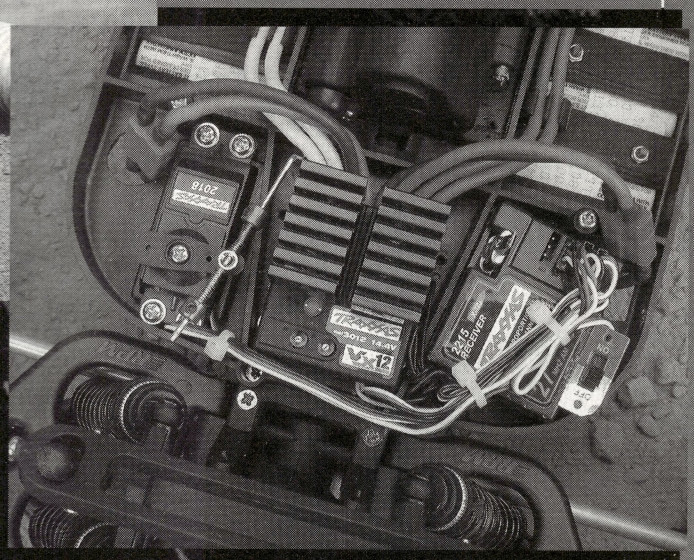




Rockhoundz! supplied Jason with the custom-made skidplates, while Rix Gear made the chassis braces.

This view is from underneath the chassis where the batteries are nestled.





To make room for the rearward facing motors, Jason had to mount his speed control in front of the chassis.

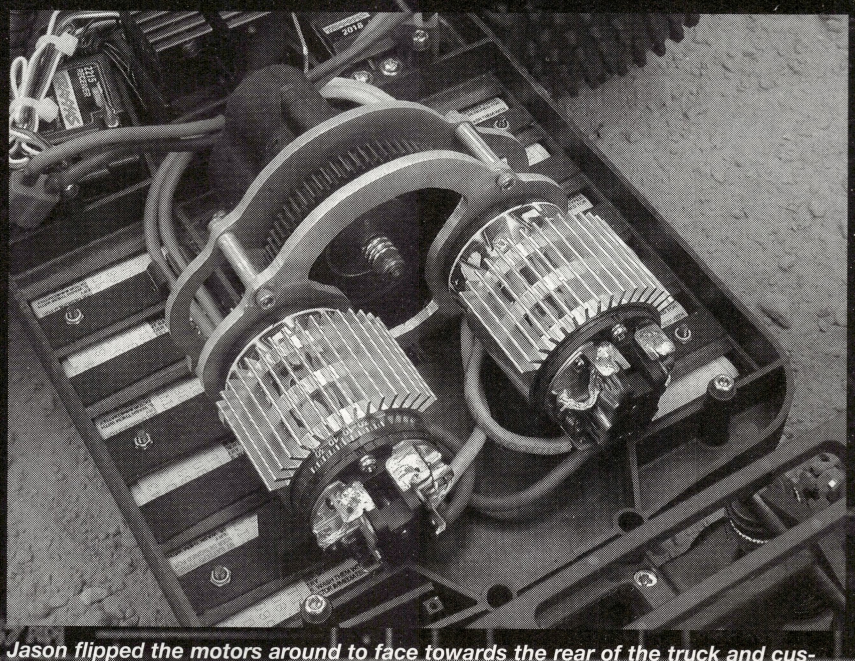
• In addition, another mod that Jason brought over from another truck project was to widen the truck's stance. As with the S-II we showed you last month, Jason used two sets of RPM's black A-arms. He cut three-quarters of an inch off the ends off one full set then went to the hardware store and bought some threaded steel rod that was the same diameter as the ball studs for the spindles. He then cut eight one inch pieces and threaded one half inch of the rod into the arms. He then put the other one-quarter inch into the cut off pieces. CA was used around the joints to keep them from turning. In the end Jason had extended the width a total of one and a half inches. As for the turnbuckles, Jason custom made them out of aluminum rod. He cut them to the length he needed, threaded the ends, and installed some 1/8-scale ball ends with custom cut threaded rod in between. With the extended width, Jason also needed to extend the driveshafts. He took some extra differential output shafts and cut them down to the proper length.

• Scot from Rockhoundz! provided the 3mm thick 6061 T6 aluminum skidplates for Jason's project truck. In addition, Rix Gear also provided the alloy chassis braces.

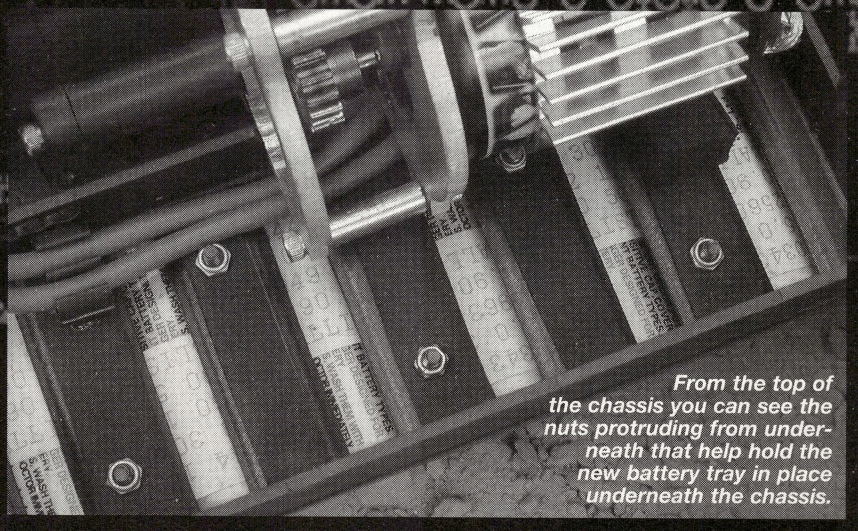
• You'll notice that the electronics have also been repositioned—the ESC is now at the front of the chassis as is the receiver (neither item would fit in the rear of the chassis with the motors positioned backwards).

• Jason finished off the truck by adding a complete set of Robinson Racing shock bodies filled with 80wt. oil with 2-hole Traxxas pistons.

So there you have it—we've seen a wild looking nitro-to-electric conversion, a dual-tranny, full show-quality truck, and now a complete re-engineered race monster from Jason. We have a feeling, though, that this isn't the last we've seen from him. ◆



Jason flipped the motors around to face towards the rear of the truck and custom made a new motor mount out of excess 3mm skidplate material provided by Scot over at Rockhoundz!.

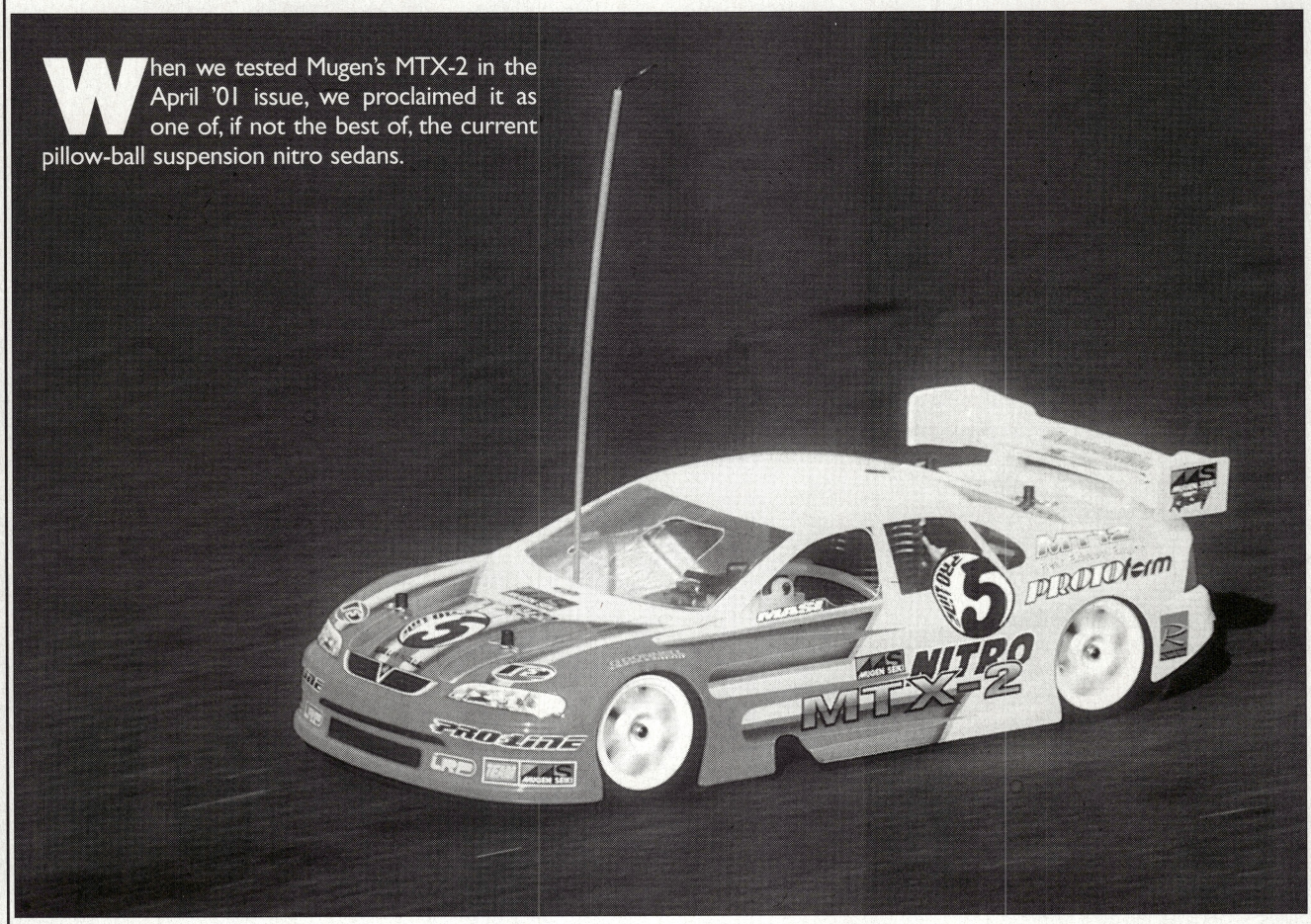


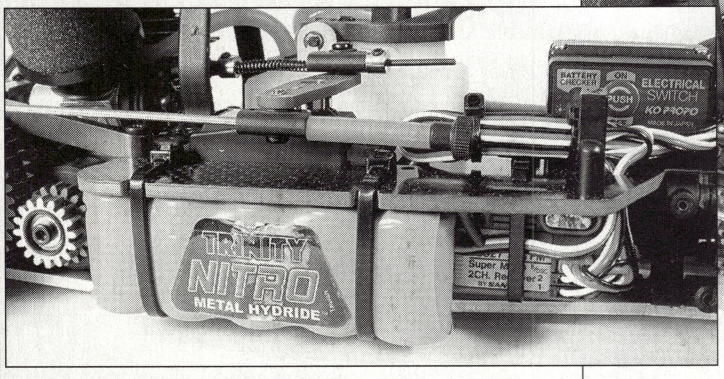
From the top of the chassis you can see the nuts protruding from underneath that help hold the new battery tray in place underneath the chassis.

PROJECT MUGEN MTX-2

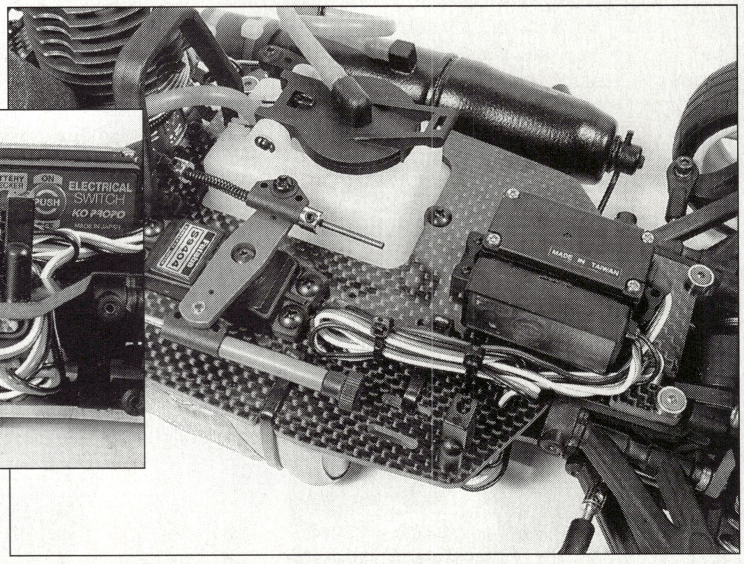
Goin' graphite with Penguin r/c!

When we tested Mugen's MTX-2 in the April '01 issue, we proclaimed it as one of, if not the best of, the current pillow-ball suspension nitro sedans.





Underneath the top deck, the Trinity Nitro Metal Hydride battery pack is held securely in place by a pair of tie-straps. The best news is that it's now possible to make easy crystal changes; the old deck made this impossible.



Penguin's graphite top deck improves side-to-side chassis rigidity while lowering the car's CG. Note the tiny roller that prevents the front belt from skipping should it become stretched.

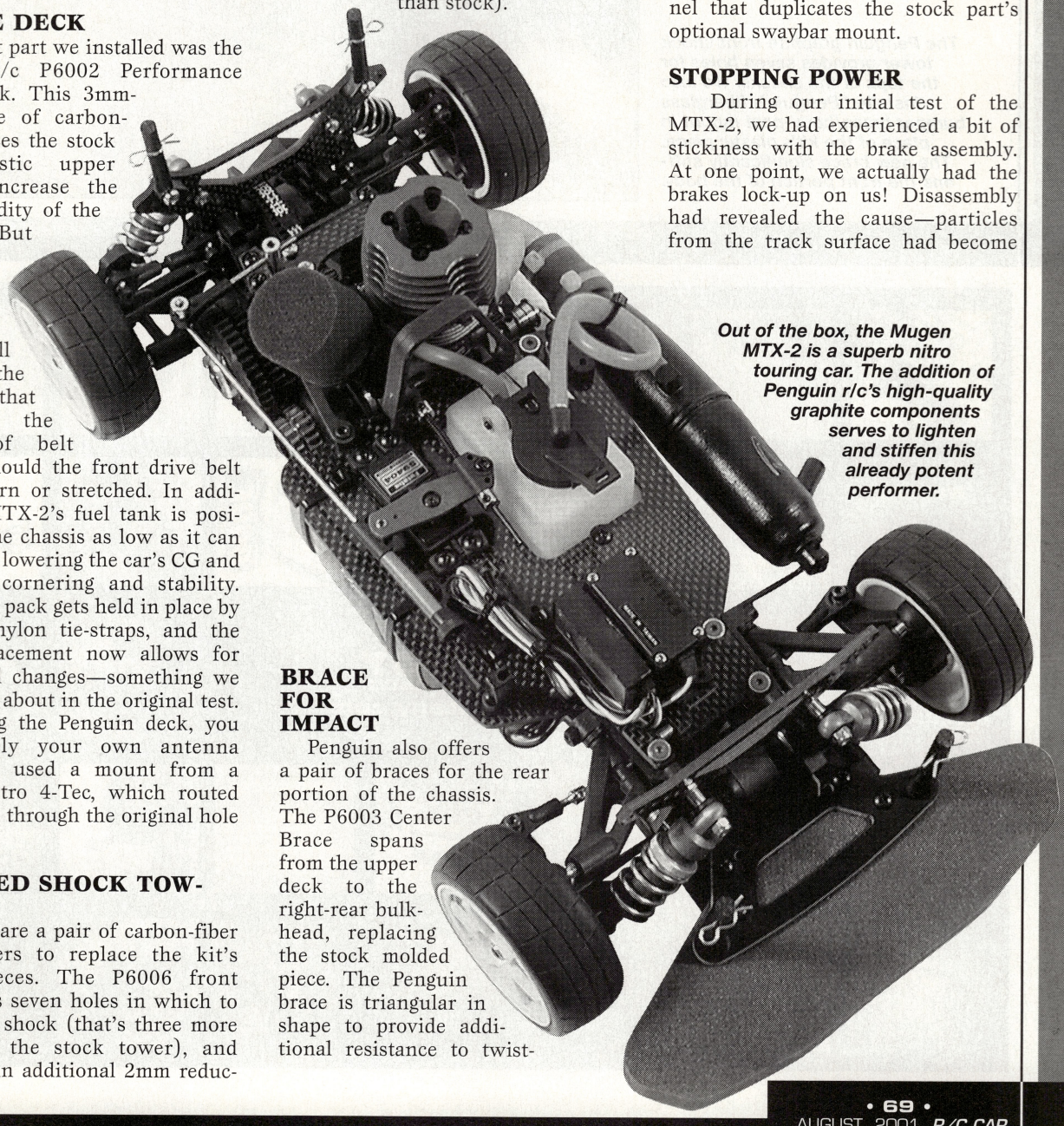
We described the car as fully equipped from the box, a needs-nothing racer with everything from a two-speed transmission to threaded alloy shocks. We still stand by that proclamation; however, we should add there's not one car in the world that couldn't be improved upon, even if slightly. Case in point: Penguin r/c's brand-new array of carbon-fiber parts for the MTX-2. Penguin owner Brion Sohn doesn't just make replacement parts that fit well; he tries to add a little something extra to each piece, be it increased stiffness, a reduction in weight or an extra set of shock-mounting holes. The Penguin parts have both form and function.

HIT THE DECK

The first part we installed was the Penguin r/c P6002 Performance Upper Deck. This 3mm-thick piece of carbon-fiber replaces the stock molded-plastic upper deck to increase the overall rigidity of the chassis. But that's not all: the Penguin deck features a small roller for the front belt that eliminates the chances of belt skipping should the front drive belt become worn or stretched. In addition, the MTX-2's fuel tank is positioned in the chassis as low as it can possibly go, lowering the car's CG and improving cornering and stability. The battery pack gets held in place by a pair of nylon tie-straps, and the receiver placement now allows for easy crystal changes—something we complained about in the original test. When using the Penguin deck, you must supply your own antenna mount. We used a mount from a Traxxas Nitro 4-Tec, which routed the antenna through the original hole in the body.

IMPROVED SHOCK TOWERS

Next up are a pair of carbon-fiber shock towers to replace the kit's molded pieces. The P6006 front tower offers seven holes in which to attach each shock (that's three more holes than the stock tower), and allows for an additional 2mm reduction of the car's caster angle. The P6007 rear tower offers eight shock holes versus the stock piece's four holes, and provides three additional positions for the upper camber-link. The additional holes let you stand the stocks more upright, which allows the use of softer springs. The stock towers place the shocks at quite a steep angle, requiring the use of very stiff springs. We also noticed a benefit not listed in Penguin's press-release: the rear tower raised the body mounts closer to where they meet the rear window, allowing for the use of shorter mounts with less flex. Both towers are made from Penguin's M3.0 graphite for excellent stiffness (better than stock).



Out of the box, the Mugen MTX-2 is a superb nitro touring car. The addition of Penguin r/c's high-quality graphite components serves to lighten and stiffen this already potent performer.

BRACE FOR IMPACT

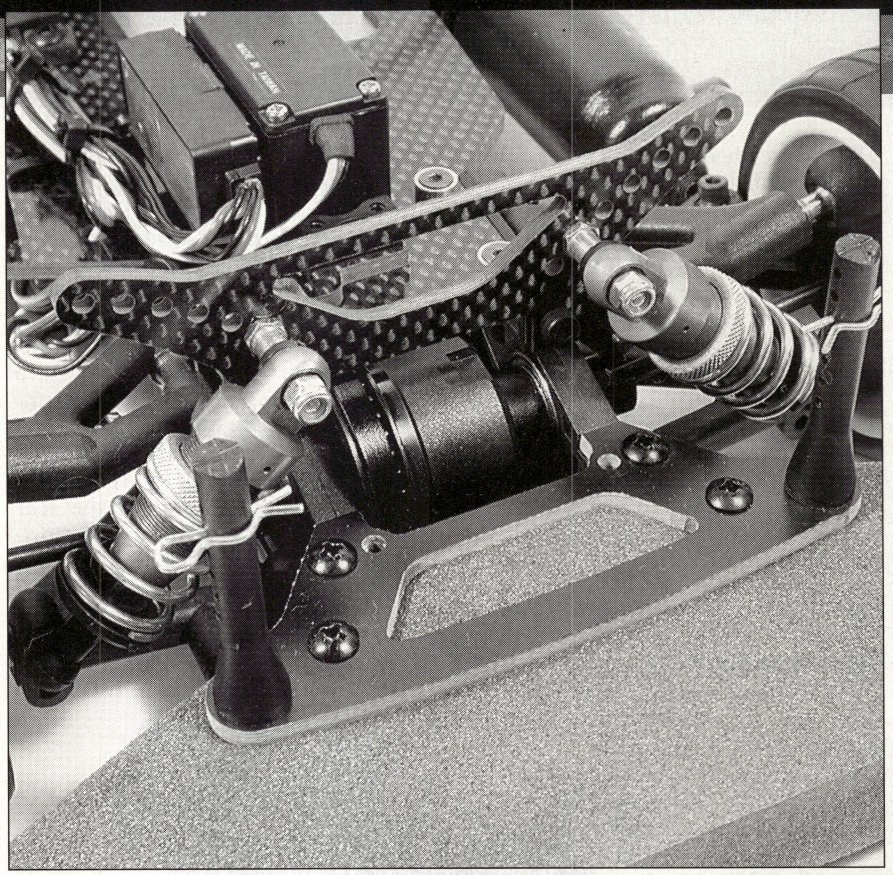
Penguin also offers a pair of braces for the rear portion of the chassis. The P6003 Center Brace spans from the upper deck to the right-rear bulkhead, replacing the stock molded piece. The Penguin brace is triangular in shape to provide additional resistance to twisting. Unfortunately, we were unable to install the brace to our MTX-2 because of clearance problems with the carburetor. A slight amount of material would need to be removed from the Penguin brace to make it fit. We opted to use Mugen's alloy brace instead.

Penguin's P6004 Rear Bulkhead/Brake Support, however, installed without any trouble whatsoever. This particular piece replaces the molded brace that spans between the left and right side rear-bulkheads and offers much more support against flex while providing a more stable mount for the brake assembly. Penguin's attention to detail is evident by the milled channel that duplicates the stock part's optional swaybar mount.

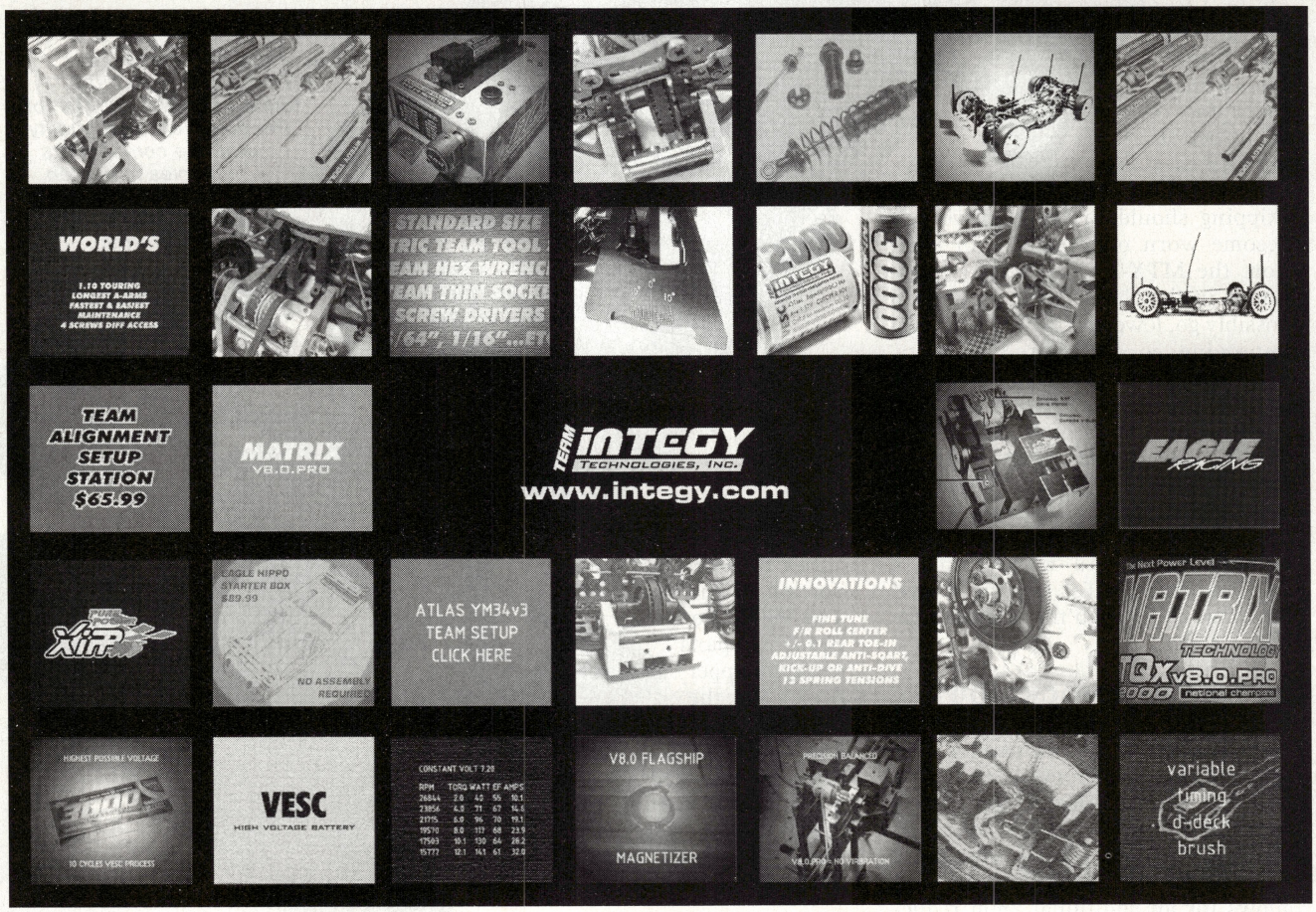
STOPPING POWER

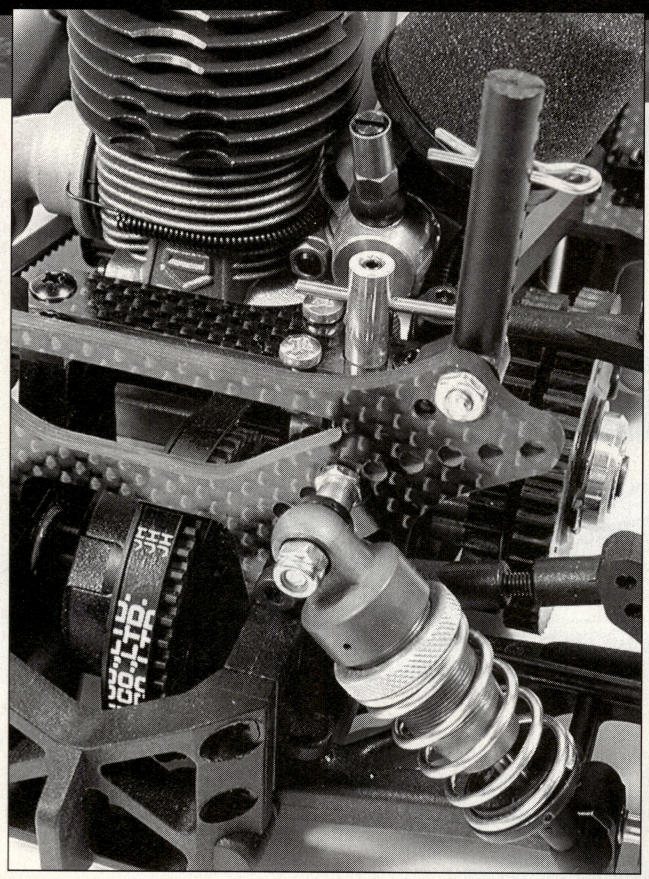
During our initial test of the MTX-2, we had experienced a bit of stickiness with the brake assembly. At one point, we actually had the brakes lock-up on us! Disassembly had revealed the cause—particles from the track surface had become

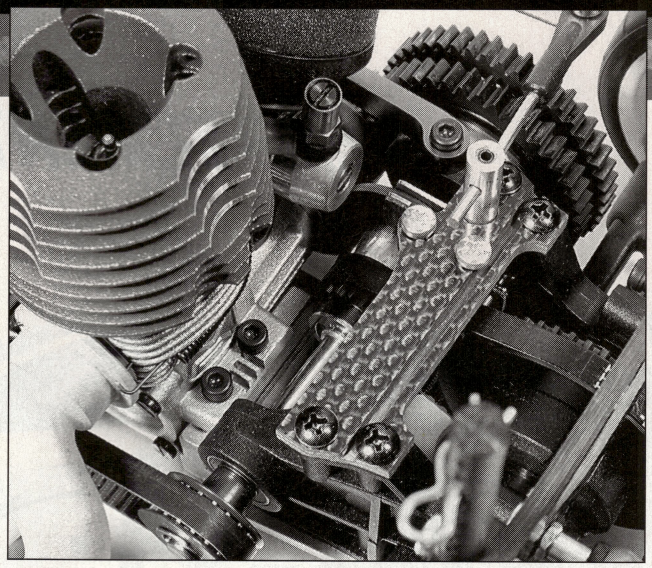
lodged between the brake disk and its pads. Once we cleaned the assembly, the brakes were back to normal. However, we were very eager to try Penguin's P6000 Performance graphite brake disk, which has a textured surface to help it seat to the pads more quickly, similar to how serrated brushes are used in electric motors to speed break-in. The Penguin disk is designed to work against the steel pads themselves, so you'll have to remove the stock setup's fiber pads. ◆



The Penguin graphite front shock tower provides seven holes for the tops of the shocks. We also installed Penguin's fiberglass bumper brace/body-post mount in place of the kit's plastic piece. The new brace significantly stiffens the front portion of the body.







This graphite rear brace from Penguin stiffens the rear bulkhead assembly and strengthens the area where the brake shaft protrudes, providing more consistent braking.

The Penguin rear shock tower offers eight holes for the shocks, and raises the body mounts to provide more rigidity and less body flex.

SOURCES

Mugen Seiki Racing Ltd., 20914 Bake Pkwy., Suite 106, Lake Forest, CA 92630 • (949) 707-5607; fax (949) 707-5614

Penguin r/c, 1230-P N. Jefferson St., Anaheim, CA 92807 • phone (714) 630-9015; fax (714) 630-6250

BRACE YOURSELF!

with all the T-Maxx/E-Maxx Essentials

Ballistic Stupidity Servo Skids

Leaders in Servo Skid Technology (SST)

- front skids
- rear skids
- center skids
- chassis braces
- wheelie bars

Keep your eyes on us... more stuff coming soon!



BALLISTIC STUPIDITY

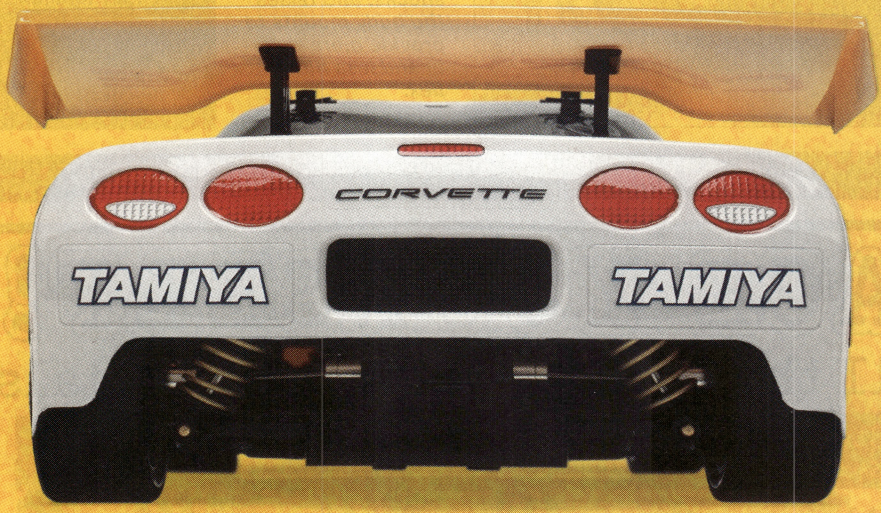
Get your Ballistic Stupidity products at www.hobbyshopnj.com
Proud supporters of www.joiseymaxx.com
Dealer & distributor inquiries welcome

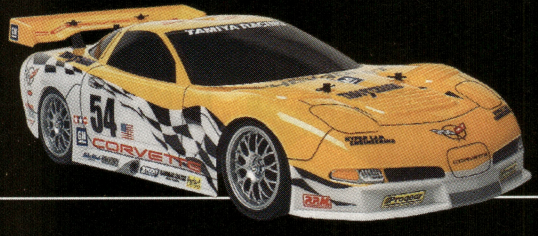
www.ballisticstupidity.com

YOUR CHOICE OF SEVEN COLORS

EXCITEMENT AT 600HP







1/10 RC CORVETTE™ C5-R™

with TA04 Sport chassis **kit number 58272**



Tamiya recaptures the thrill of racing with the Chevrolet™ Corvette™ C5-R(tm), one of the most respected and awe-inspiring race cars of the last 25 years. Featuring the TA04 Sport chassis – based on the belt-driven TA04 chassis – this bad boy comes tricked out with full ball bearings, metal turn buckles, and oil-filled dampers. The front and rear drive train uses bevel gear differentials, guaranteeing outstanding performance at an entry level price. And to top it all off, the body is pre-cut, pre-stickered, and pre-painted using an innovative printing process. The aerodynamic body is set off by the stunning yellow and white color scheme, right down to the thrilling checkered flag side streamer. Bring the thrill of RC racing home with the Chevrolet™ Corvette™ C5-R(tm). Flex your muscle and buy yours today. Visit us at www.tamiya.com for more information on how you can own the road.

© 2001 Tamiya America, Inc. 2 Orion Aliso Viejo, CA 92656 1-800-TAMIYA-A

TAMIYA

R/C CAR Buyer's Guide T/E-Maxx

Without a doubt, Traxxas' T-Maxx and E-Maxx have created a flood of aftermarket goodies the likes of which hasn't been seen in years! We've seen a vast amount of aftermarket wheels, tires, chassis, suspension parts, aluminum this, titanium that... For 'Maxx owners, it's been a little overwhelming—in a good way, though! Well, we're here to add to the onslaught. We figured that our readers can't get enough of the 'Maxx, so we decided to bombard you with our 'Maxx Body Buyer's Guide. Adding a new body to your 'Maxx can really compliment the monster you've just purchased—after all, that's the thing people see first, isn't it?



Pro-Line
50's Panel Truck



Pro-Line
Ford F-350



Pro-Line
Peterbilt Big Rig

Pro-Line Racing

Without a doubt, Pro-Line Racing is making some of the most stunning-looking T-Maxx and E-Maxx bodies out there. From current to classic-style full-size pick-ups and SUVs, to wild-looking Humm-Vees, and even a few sedan-style monsters, Pro-Line has it all!

Part #3096-00 2000 Ford F-350—$26.00
Part #3099-00 2001 Ford Excursion SUV—$28.00 (includes long rear body posts)
Part #3100-00 2001 Chevy Silverado CrewCab—$26.00
Part #3104-00 Humm-Vee Urban—$28.00
Part #3105-00 Humm-Vee Militia—$30.00 (includes long rear body posts)
Part #3106-00 Early 50's Chevy Pickup—$26.00
Part #3107-00 Early 50's Chevy Panel Truck—$28.00 (includes long rear body posts)
Part #3103-00 Chrysler PT Cruiser MAXX—$23.00
Part #3091-00 ML430 MAXX—$23.00
Part #3111-00 Peterbilt Big Rig—$26.00



Pro-Line
50's Chevy Truck

Bodies



Pro-Line
Ford Excursion



Pro-Line
Chevy Silverado



Pro-Line
PT Cruiser MAXX



Pro-Line
Humm-Vee Urban



Pro-Line
Humm-Vee Militia



Pro-Line
ML430 MAXX

T/E-Maxx Bodies



BoLink
'56 Ford



BoLink
Explorer Sport Trac





Parma
Dodge RAM



Parma
Chevy Silverado

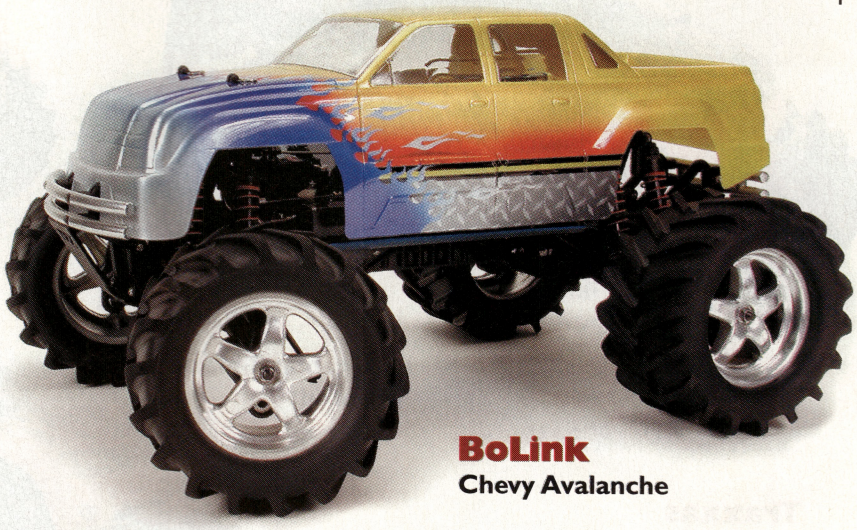


Parma
Ford F-350

BoLink

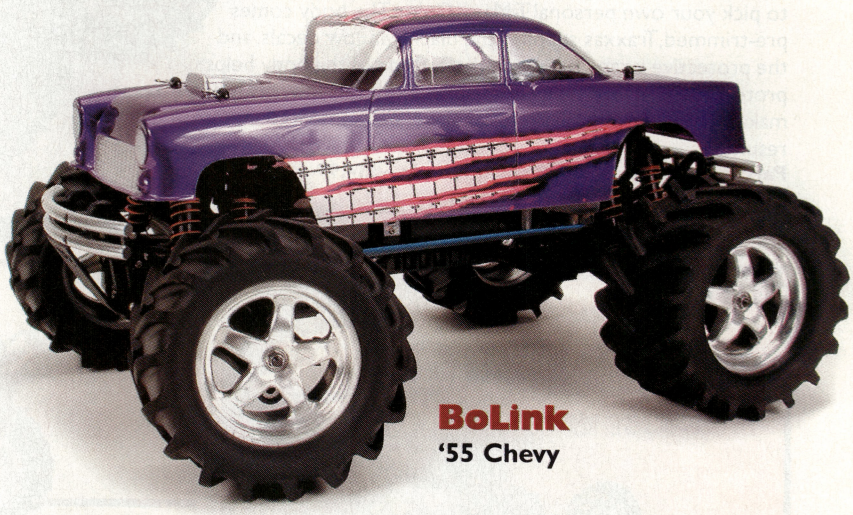
BoLink offers a unique blend of old and new Traxxas T-Maxx bodies. Each body set comes with dimples for correct body mount location and includes all the window masks.

Part #BL-2231 '56 Ford Pickup—$19.95
Part #BL-2223 '55 Chevy 2-Door—$19.95
Part #BL-2224 Explorer Sport Trac—$19.95
Part #BL-2232 Chevy Avalanche—$19.95



BoLink
Chevy Avalanche





BoLink
'55 Chevy

Parma

Parma has been making bodies for R/C cars for quite some time. They have an extensive line of bodies that fit the T-Maxx and E-Maxx (many other Parma monster truck bodies in their line fit both trucks, so check with them on availability). Parma's bodies come with full body decal sets as well as window masks to make painting easier.

Part #10135 Clear Dodge Ram Extended Cab (E-Maxx)—$23.99
Part #10135p Painted Dodge Ram Extended Cab (E-Maxx)—$41.99
Part #10158 Clear Dodge Ram Extended Cab (T-Maxx)—$23.99
Part #10158p Painted Dodge Ram Extended Cab (T-Maxx)—$41.99
Part #10155 Clear Toyota Tundra (E-Maxx)—$23.99
Part #10155p Painted Toyota Tundra (E-Maxx)—$41.99
Part #10156 Clear Toyota Tundra (T-Maxx)—$23.99
Part #10156p Painted Toyota Tundra (T-Maxx)—$41.99
Part #10140 Clear Chevy Silverado Extended Cab (T-Maxx only)—$23.99
Part #10140p Painted Chevy Silverado Extended Cab (T-Maxx only)—$41.99
Part #10139 Clear Ford F-350 Extended Cab (T-Maxx only)—$23.99
Part #10139p Painted Ford F-350 Extended Cab (T-Maxx only)—$41.99



Parma
Toyota Tundra



Traxxas
ProGraphix T-Maxx
(Painted)



Traxxas
ProGraphix E-Maxx
(Painted)



Traxxas
ProGraphix T-Maxx
(Unpainted)

Traxxas

Brand new from Traxxas is this ProGraphix Custom body. The body is painted with the flame graphics and fades, however the overall color is left clear allowing you to pick your own personal T-Maxx Color. The body comes pre-trimmed, Traxxas supplies the black window decals, and the protective wrap coating on the outside of the body helps protect the body from any over-spray. With this new body set, Traxxas makes it incredible easily to achieve awesome-looking, pro-quality results.

Part # 4911x ProGraphix custom body—$34.99

WHEN
FAST AND COOL
JUST ISN'T GOOD ENOUGH

CVEC Power System for on road speed and power control



NEW
Custom Performance Headers/Manifolds Exhaust Couplers Exhaust Deflectors

The Number "1" Selling Performance Exhaust In America

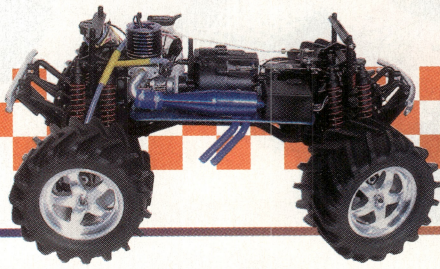
CVEC Incorporated

380 - E. North Wickham Road, Melbourne, FL, 32935

1 800-529-1919

321 757-3999 • Fax: 321 757-9377

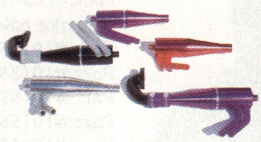
www.cvecrc.com



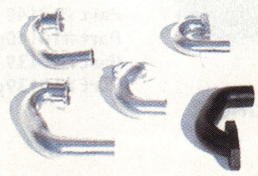


Colored CVEC's:
Z 120 Side Exhaust, For 1/10 th Scale.

Z 170 Side Exhaust, For 1/8 th Scale.
Starting at $57.95



CVEC with Deflectors:
Z 120 and Z 170 can take advantage of the new colored silicone deflectors.
$8.47 set



Manifolds:
CVEC now offers a line of manifolds and silicone couplers to meet your needs.
Starting at $14.95

- Faster Acceleration
- More Torque
- Longer Run Time
- Increase Top Speed as Much as 25%
- Cool Engine Temperatures
- Stable Fuel Tank Pressure
- Easy Installation

T/E-Maxx Bodies



Atomik
F-350

Atomik R/C

New to the R/C industry, Atomik R/C creates their bodies a little differently than the rest. The pre-painted bodies made by Atomik actually undergo a very advanced silk-screening process so each one produced is just like the one before it. At this time, Atomik has two bodies to choose from, with more on the way. Currently you can get a pre-painted Ford F-350, or clear Lexan F-350.

Part #103-001 F-350 Painted Body—$24.99
Part #104-001 F-350 Clear Body—$17.99

SOURCES

Atomik R/C, 2363 Teller Rd., Suite 104, Newbury Park, CA 91320 • Phone (805) 499-7003
BoLink, 420 Hosea Rd., Lawrenceville, GA 30245 • Phone (770) 963-0252
Parma, 13927 Progress Parkway, North Royalton, OH 44133 • Phone (440) 237-8649
Pro-Line, P.O. Box 456, Beaumont, CA 92223 • Phone (909) 849-9781
Traxxas, 12150 Shiloh Road, Dallas, TX 75228 • Phone (800) 323-0069

Forget The Hype, Get The Power

ROAR National & Regional Champions

nuclearpower

- Actual IR
- True 5000 sec Runout
- .90V Cut Off
- 30 Amp Discharge
- Custom Zapped
- Cycled Four Times
- Temp Controlled



www.competition-rc.com
Competition R/C Imports
10236 152nd St. Surrey, British Columbia, CANADA V3R-6N7
604-930-8080, Fax 604-930-7883
Dealer Inquires Welcome

nuclearpower

TEST DRIVE

Kyosho Ultima RB Racing Sports

Considering that 1/10-scale off-road is virtually non-existent in Japan, we find it interesting that the most aggressive player in the U.S. off-road market is a Japanese company! Kyosho introduced its Ultima series in the Fall of '99, and has invested substantially in the development of its racing effort.

Things you'll need

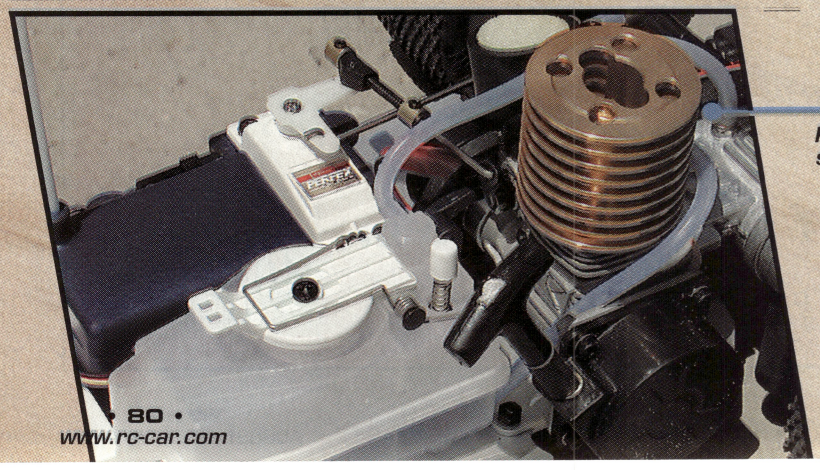
Nitro Ultima RB
- Glow fuel and fuel bottle
- Glow-plug igniter
- 12 AA batteries
- CA glue for tires

Electric Ultima RB
- 8 AA batteries
- CA glue for tires

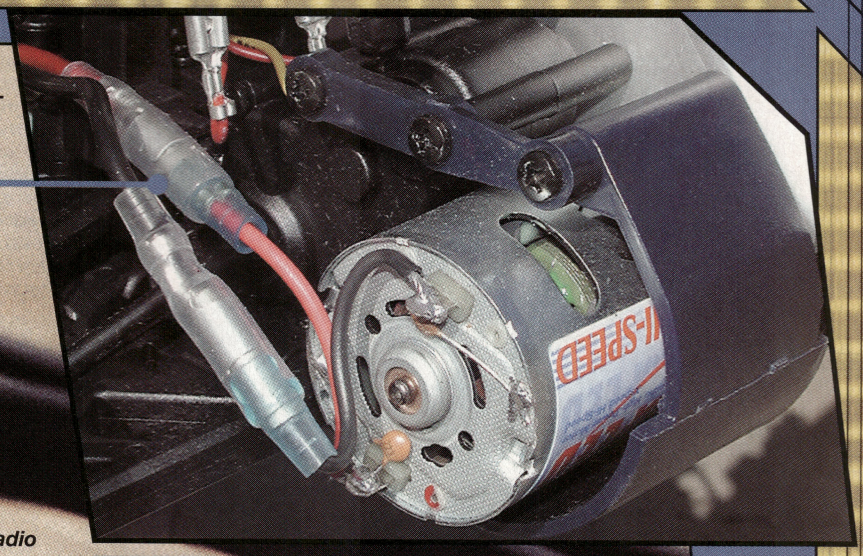
NITRO OR ELECTRIC: PICK YOUR FLAVOR!



The Ultima GP's battery pack is protected in this molded box located over the rear bumper. O-rings are used to keep the box closed.

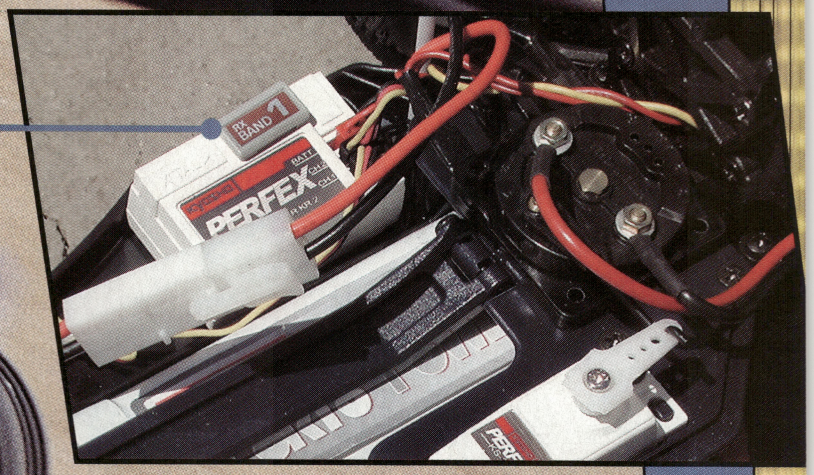


Power from the Kyosho .15-size engine is decent, which makes the GP version substantially quicker than its electric brother.

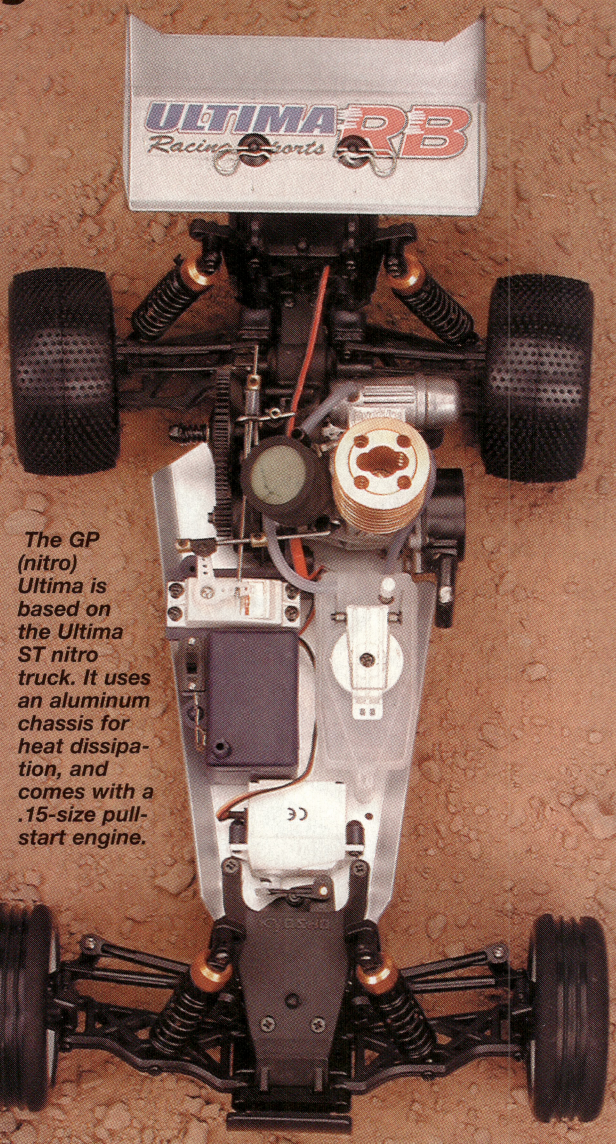


The included 20-turn motor is pretty fast for a sealed-endbell 540, but it makes the EP significantly underpowered compared to the GP. A competition-style stock motor would even things out a bit.

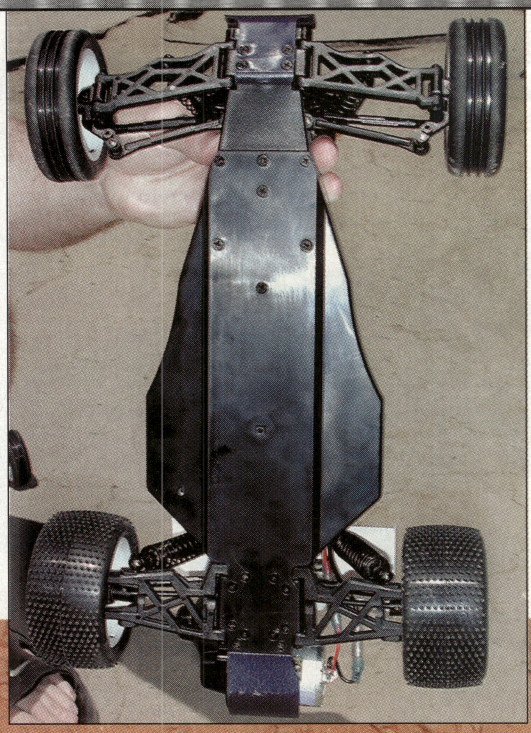
The pre-installed Kyosho Perfex radio gear worked well during our test. Although we'd prefer an electronic speed control, we were able to get around the track quite well using the three-step mechanical unit.



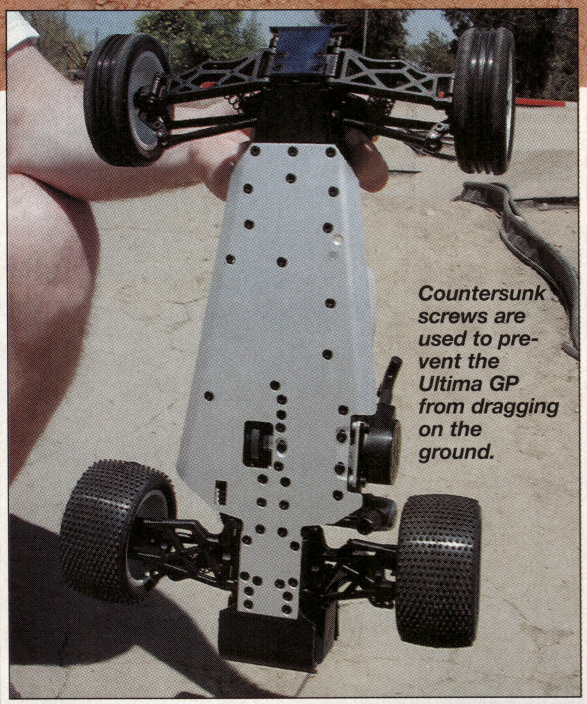
Kyosho Ultima RB



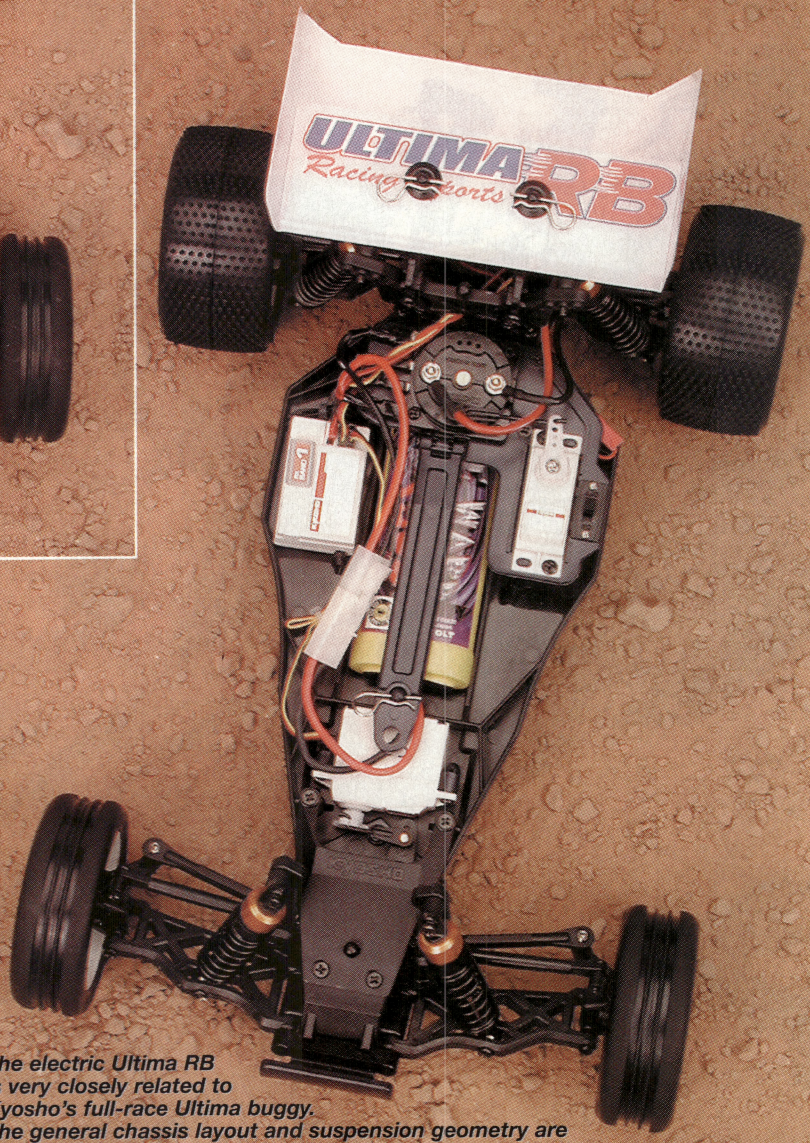
The GP (nitro) Ultima is based on the Ultima ST nitro truck. It uses an aluminum chassis for heat dissipation, and comes with a .15-size pull-start engine.



The EP buggy's chassis is molded from a rather flexible nylon material. Countersunk screws, plus raised side pods keep the chassis from dragging.



Countersunk screws are used to prevent the Ultima GP from dragging on the ground.



The electric Ultima RB is very closely related to Kyosho's full-race Ultima buggy. The general chassis layout and suspension geometry are very similar.

Specifications

Type.....2WD nitro/electric-powered off-road buggies
Scale.....1/10
Price.....$219.99/169.99 (EP)
$299.99/259.99 (GP)

Length.....15.4 in./390mm
Width.....9.8 in./350mm
Wheelbase.....10.6 in./270mm
Weight (RTR).....3.6 lb.

TRANSMISSION

Type.....sealed three-gear
Differentials.....four-gear bevel
Driveshafts.....steel dogbones/steel axles
Bearings.....bronze bushings/ball bearings in gearbox

SUSPENSION

Type.....independent lower A-arm w/fixed-length upper link
Material.....molded nylon
Shocks.....plastic oil-filled dampers
Springs.....medium black

Wheels.....six-spoke white nylon
Tires.....Kyosho mini-pins (R), four-ribs (F)
Inserts.....none
Body.....Ultima RB buggy

Nitro RB

Engine.....Kyosho GX-15 pull-start
Exhaust.....airplane-style muffler
Clutch.....two-shoe w/spring

Electric RB

Motor.....20-turn Kyosho X-Speed
Speed Control.....3-step fwd. w/reverse
Battery.....1400mAh

Along the way, Kyosho has wisely introduced sport-level, ready-to-run versions of its racing trucks to accommodate backyard bashers who want to play, but hate to build. Now, Kyosho gives us a similar version of its Ultima RB racing buggy, but with an interesting twist: you get a choice of electric or nitro power!

Kyosho Makes It Easy

With the exception of hard-core racers, most people would rather run their new vehicle than spend several hours mired in tedious construction. Kyosho is one of the few manufacturers to realize this, and that's why its Ultima RB Racing Sports come as RTRs. When you open their boxes, you'll see that both the EP and GP Ultimas are completely assembled, and have Kyosho's Perfex pistol-grip radio system already installed. And if you hate to paint, you'll love the Ultimas' buggy bodies, which have already been sprayed (the EP body is white, and the GP is silver) and trimmed. So what do you need to do to get the Ultimas running? Not much; just install eight AA batteries in the transmitter (the GP requires four additional batteries to power its servos), stick some of the supplied decals on to the body, and glue the tires. If you opt for the GP buggy, you'll need to perform a short engine break-in.

FEATURES

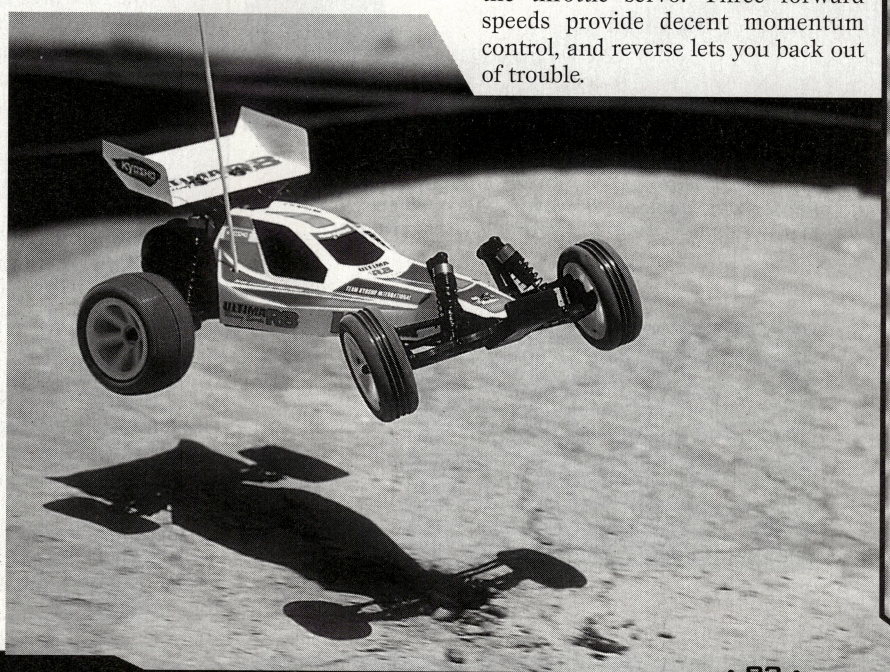
■ **Chassis**—The benefit to designing an entire series of vehicles at one time is parts' compatibility. The Ultimas are modular, which is to say that most of their parts are interchangeable. The main difference between the EP and GP versions is the chassis. The EP uses a molded nylon tub-style chassis, while the GP has a stamped aluminum chassis that serves to draw heat from the engine.

■ **Suspension**—The suspensions of the EP and GP Ultima buggies are identical. In fact, the rear suspension as well as the entire nose of each car is interchangeable. The long-arm suspension and its geometry have been borrowed from the full-race Ultima RB, so we already know that the Racing Sport buggies should be good handlers. Kyosho replaced the adjustable suspension links found on the race buggy with one-piece, fixed-length molded links to simplify tuning. To our eye, the Racing Sports' wheel camber and toe-in look just right; about two-degrees of negative camber at each wheel and a slight amount of front wheel toe-in for improved stability. Large-volume plastic oil-filled shocks provide added control for each corner of the car. The shocks come filled with oil, but it's so thin it's almost impossible to tell that it's there. We recommend changing to a thicker silicone fluid such as 35-40wt. Doing this will make the car much more stable through the bumps, and will keep the car better planted in the turns.

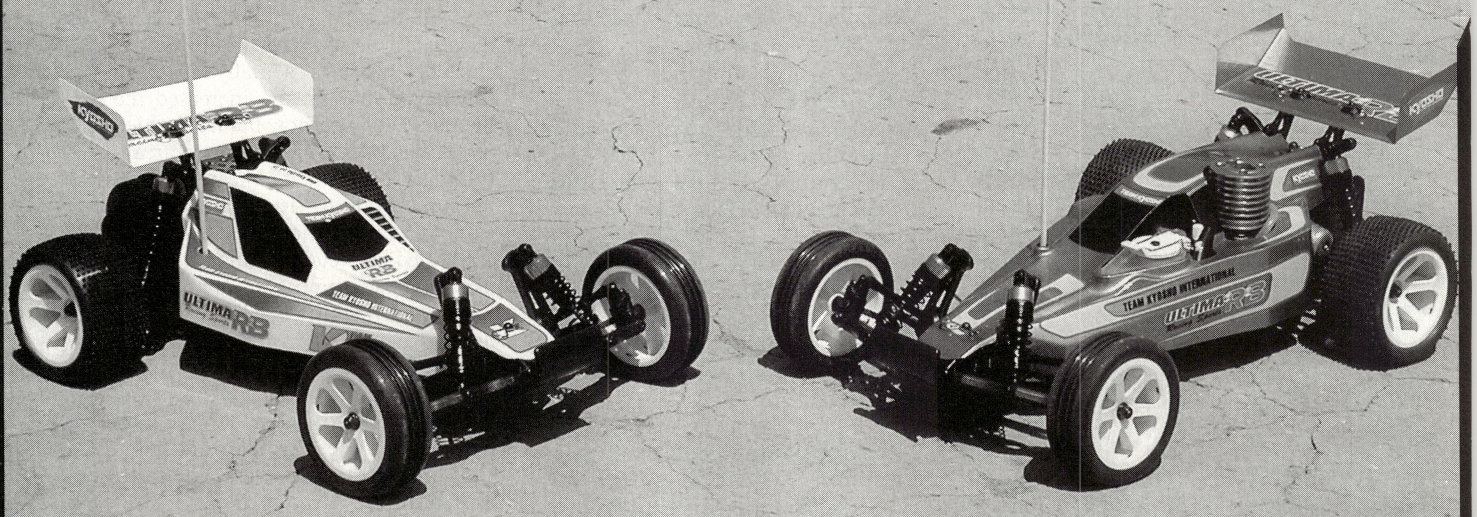
■ **Transmission**—Early sport-level kits used to come without a single ball bearing, but manufacturers have learned (the hard way) that the cheaper bushings actually sped up transmission wear and increased the likelihood of gearbox failure (which usually had to be fixed under warranty). In the long run, it's cheaper for the manufacturer to include bearings from the start. Although each wheel is supported by metal bushings, a pair of ball bearings supports each of the three gears within the Ultima Racing Sports' transmissions. A goof-proof gear differential replaces the more complex ball diff found in the racing Ultima, and both the EP and GP buggies come equipped with an adjustable slipper clutch to improve traction and extend the life of the gearbox.

■ **Powerplants**—The nitro-powered GP buggy comes with a Kyosho GX-15 pull-start engine. For easy tuning, the engine is equipped with a single-needle, rotary-style carb, and for no-fuss starts a pull-starter is standard. A restrictive airplane-style muffler routes the spent gases down to the bottom of the chassis. Owing to the configuration of the chassis and the form-fitting buggy body, it would be difficult to fit a more free-flowing exhaust system.

The electric buggy comes with a fixed-endbell 20-turn stock motor. Now don't get all excited about the comparatively low-turn motor; a good 27-turn competition stock motor will smoke it! But at least Kyosho gives you a decent kit motor. For throttle control, Kyosho's tried-and-true rotary-style mechanical unit sits atop a large molded shelf that also holds the throttle servo. Three forward speeds provide decent momentum control, and reverse lets you back out of trouble.



Kyosho Ultima RB



Pick your flavor: Kyosho gives you the choice of nitro power (right) or electric power with its new Ultima RB Racing Sports.



The electric buggy comes complete with a 1400MAh Kyosho battery pack and plug-in AC wall charger. It's nice that the charger was included; however, unless you don't mind the 10-hour charge time, get yourself a fast charger.

SOURCES

Kyosho, distributed by Great Planes Model Distributors, P.O. Box 9021, Champaign, IL 61826-9021; Phone: (217) 398-6300

Traxxas, 12150 Shiloh Road, Dallas, TX 75228 • Phone (800) 323-0069

Trinity Products, Inc., 36 Meridian Rd., Edison, NJ 08820 • (732) 635-1600; fax (732) 635-1640

PERFORMANCE

Location: Hot Rod Hobbies, Saugus, CA.

Conditons: Hard-packed dirt surface, several large jumps.

Look, we know that the Ultima Racing Sports aren't really intended for racing, but the vehicles on which they're based are. In this light, we felt that we should test both buggies on an actual off-road track. This, we believed, would provide the best gauge of their performance.

Out of the box, the Ultimas are severely under-damped. There's shock oil in there, but we sure as heck couldn't feel it. In particular, the back of the cars bounce all over the place, and slap hard when landing from even the smallest jump. We opened the shocks, dumped the oil (it was there after all!) and filled them with the thickest oil we had on hand, which was 40wt. With the stock pistons, 60wt. oil would have been best.

The rear tires are actually pretty good. They are "fuzzy" type tires molded from a fairly soft rubber. Unfortunately, they don't have foam inserts. You can buy inserts at any hobby shop for around $3-4, and we recommend that you do so. We tried the tires both with and without inserts, and found that they made a huge difference.

With these changes, we set out to turn some hot laps. Our preference by far of the two Ultimas is the nitro version. In stock trim, it's much faster than the electric buggy and has more spank to get over the larger jumps. Both cars felt very well planted, and we were actually surprised by the amount of traction provided by the kit tires. Steering was pretty good, although we noticed that the GP's steering had more travel in one direction than the other—a problem we were unable to fix.

Could these Ultimas be raced? In stock form, no. You could enter the beginner or sportsman class, where just getting around the track without crashing would net a top-three finish guaranteed, but for actual competition, you'd have to do some shock tuning, install a stronger servo (and an ESC in the electric buggy), and probably add bearings to the wheels. But for fun running, for which these buggies are intended, we rate the Ultima Racing Sports highly.

www.acehobby.com

Hot Rod Hobbies
hours; mon-fri 11a.m. to 7p.m. sat and sun 10 a.m. to 6 p.m. (661) 255-2404 www.hotrodhobbies.com
RACE SCHEDULE:
Tuesday-offroad @ 7 p.m.
Friday-dirt oval @ 8 p.m.
Saturday-offroad @ 2 p.m.
UPCOMING EVENTS:
T/E-MAXX Shootout
June 16, 2001
Hot Rod Hobbies Dirt Oval Shootout
May 12, 2001
Hot Rod Hobbies/RC CAR Magazine
4th Annual Offroad Shootout
July 13-15, 2001
WE NOW SHIP NATIONWIDE!
For more info on the store or upcoming events contact;
Jimmy Babcock (661) 255-2404 Jimmy@hotrodhobbies.com

THE GREAT EIGHT... ON LINE!
www.dirtwheelsmag.com
www.motocrossactionmag.com
www.dirtbikemagazine.com
www.mbaction.com
www.4wheelatv.com
www.motocrossjournalmag.com
www.rc-car.com
www.bmxplusmag.com

YOUR RACE HERE!
• Race promoters only!
• Advertise your upcoming race in R/C CAR (for hundreds of thousands to see) for a "very special promoters rate!"
• Must be at least 1/2pg, black & white.
• Maximum run in 3 issues per year.
• We can even help you create your ad!
Call Brian for details—
Ask for the special "promoters price"
1-800-767-0345

TEAM LOSI TECH-TALK

Tech Tips #8

Perhaps the most overlooked tuning item on all Team Losi models is the slipper on the transmission. Every top team driver keeps a 1/4" nut-driver in hit pocket so he can make final adjustments before the start of a race. What makes this most attractive is that it only takes a second and it's free! We all know that as a race day goes on, the track surface dries out, gets hard, blue grooves, or slicks up well. Maximum performance and ease of driving can be easily improved by working with the slipper. This does not mean that you can overlook the obvious things such as shock damping or springs or similar necessities. Keeping the slipper adjusted will help you drive more comfortably through the ever-changing track conditions-it will not overcome a poorly set up chassis.

The dual disk type slipper, used on Team Losi vehicles, offers a great deal of adjustment. Don't be afraid to use this feature as you fine tune. Electric vehicles are considerably different from the nitro-powered trucks. The slipper is connected directly to the motor through the pinion and spur gear. Electric motors make maximum torque almost immediately; however, the torque diminishes as the motor gets hot and the batteries lose their charge. Electric races are also only 4 to 5 minutes long, while most Fuel powered events are 7 to 30 minutes long. Nitro trucks also have a centrifugal clutch between the engine and the slipper that can potentially absorb torque and impact. When initially adjusting the slipper for your particular model, follow the kit instructions. You should be able to safely go up to one turn in as well as one turn out from this setting. Make all your adjustments in 1/4 turn increments. The nitro trucks seem to be happy between 5-1/2 turns to 4-1/2 turns out.

Before you do any slipper adjusting, you should first check to make sure that the differential is NOT slipping. First follow the kit instructions for adjusting the diff. Use a Sharpie marker and put a line on the outer pressure plate extending from the inside hub to the outer edge. Now hold both rear tires or push the rear tires firmly to the ground and punch the throttle briefly. You should see the spur gear spin but the pressure plate should not move. This should be easy to observe by watching the line on the pressure plate. If you see the line spin, the diff is too loose and needs to be tightened. You may also need to loosen the slipper slightly, having approached the lock up point. Keep in mind that as you tighten the slipper you may start slipping the diff, which is bad. Always keep the diff adjusted to avoid slippage.

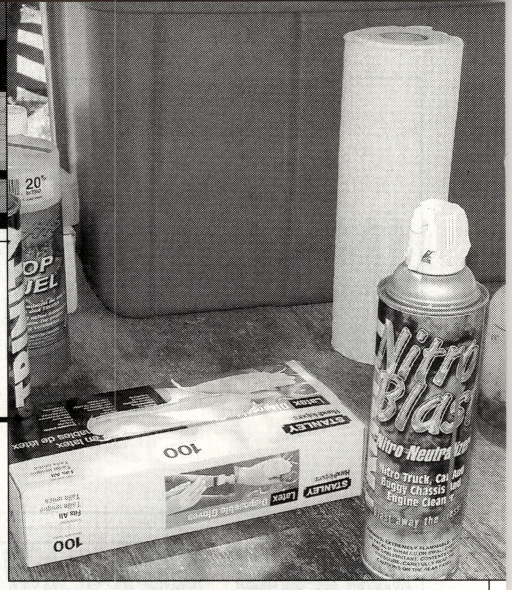
So now you know why and how to adjust the slipper. The "when" is the easy part. If the track is flat, smooth, and has good grip you will want to run the slipper a little tighter. If the track gets rutty, has big jumps, or becomes dusty or slick, you will want to try loosening it up a little. It all comes down to personal preference. Don't be misled into thinking that if you run the slipper a little loose you will give up acceleration. The opposite can be true if you run it too tight, as you will spin the rear tires and not have control. Finding the sweet spot where you are comfortable is the key. If you're not sure of which way to go, get out your 1/4" nut driver and try going a little looser. Typically you will find that it is easier to drive with the slipper a little on the loose side than if it were too tight. With practice and experience you will find that you will be able to find your comport zone with one or two adjustments.

ADVERTISEMENT

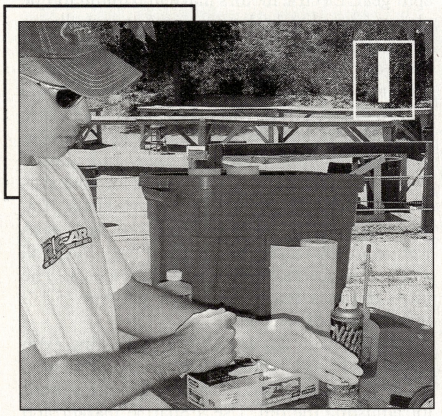
Easy Breathing

How to Clean your Air Filter

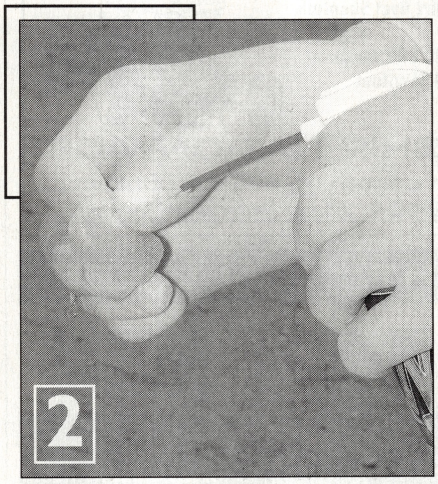
A clean air filter is as essential to your nitro engine's performance as having fuel in the fuel tank. A dirty or clogged filter will significantly restrict your engine's breathing ability. And since air is a vital part of what makes an engine function, less air means decreased power! How can you tell if it's time to clean your filter? Well, if it's a foam-type filter, all you have to do is take a look. If you see a lot of dirt on the element, chances are that very little air is being allowed inside the engine. If you have a paper-type filter, you'll be able to tell when it's become too dirty when your engine seems to become more rich and starts to respond sluggishly. As a general rule, you should clean your filter after every two or three runs or more frequently if you run your vehicle in extremely dusty conditions. Here's how we do it. ◆



Here's what you'll need: a spray solvent (we prefer Trinity's Nitro Blast because it's best at removing deep grime and old filter oil, plus it dries quickly), some paper towels, latex examination gloves (available at hardware stores) and foam air-filter oil.



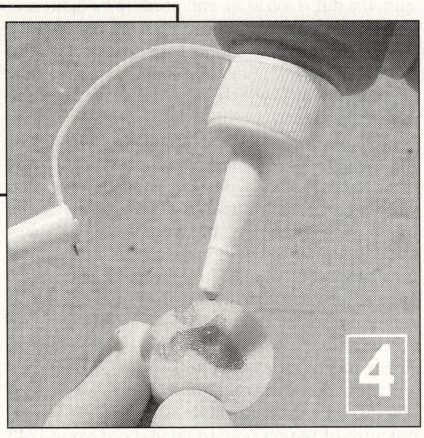
Even if they make you feel like Doctor Giggles, force yourself to wear protective gloves when working with any solvent. Saving a couple of dollars and a few seconds isn't worth the long-term damage that can occur from exposure to solvents.



Remove the foam elements from the filter assembly, and spray it thoroughly with solvent. Squeeze the element frequently to help dislodge stuck particles and make them flow out with the excess solvent.



Before you oil and reinstall the elements, they must be dried thoroughly. For this, squeezing them between paper towels will speed things up.



Once the elements are dry, place a few drops of foam filter oil on each element. Avoid the temptation to soak the foam; a little oil goes a long way. Work the oil into the foam until the entire element is wet. Remove excess filter oil with a paper towel.



Before reinstalling the elements, spray the filter housing with solvent. Why put a clean element back inside a dirty filter?



Now you're done! Look out, because your engine is going to make more power. If you haven't cleaned your filter in a while, you may need to re-adjust the carb settings.



DRIVE ON-LINE ANYTIME!

The NEW *R/C CAR* Magazine website has been created just for you! *R/C CAR* Magazine's new website offers the latest in driving tips, how-to's, and more, and it's there for you 24/7!!!

Read the latest car tests, talk to the staff, or find out what's in the current issue and more!

You can click through and order back issues to complete your collection or research that car you want to buy.

See a sampling of the hottest photos in the Photo Gallery section and even subscribe on line.

If you like R/C CAR, check out ALL of Hi-Torque's other websites at hi-torque.com; mbaction.com; dirtbikemagazine.com; dirtwheelsmag.com; motocrossjournalmag.com; bmxplusmag.com; 4wheelatv.com; and motocrossactionmag.com today!



www.rc-car.com

Team Orion/Thunder Design Internal Graphics Sets

By Dennis Rotim



The pre-cut decals are easy to apply, and stick quite well to the Lexan.



Even though the decals are pre-cut, contributor Dennis Rotim prefers to cut them out along the edges.



Press the decals firmly in place and go over them to make sure there are no air bubbles. If you do have air bubbles, try heating the decal with a hairdryer, then smooth out the bubbles.

Painting an R/C body may be over-whelming to those with little experience.

In the June issue I went through some simple steps showing how to create a good-looking body. However easy it may have seemed, once you picked up the airbrush and started to paint, your hopes of painting a nice looking body may have turned completely around. To make it easier for the newcomers, Thunder Wessels, of Thunder Designs over at Team Orion, has introduced a line of internal graphics. For those of you who don't know, Thunder paints many bodies for the top pros. These new decal sets of his allow you to apply a graphic on the inside of a body and paint right over it. This new innovation allows you to paint a body in no time at all, and provides you with a professional looking finished body. With eight different decal sets, in a variety of colors, your car will certainly stand out from the rest.

Preparation and application of the decals is a snap

1. As you may know from the last article, make sure that you wash the body. It will allow both the decals and the paint to stick better.

2. Next, roughly cut out the different designs and think about where you want to place them. You would not want to start applying the decals before you know they will actually fit.

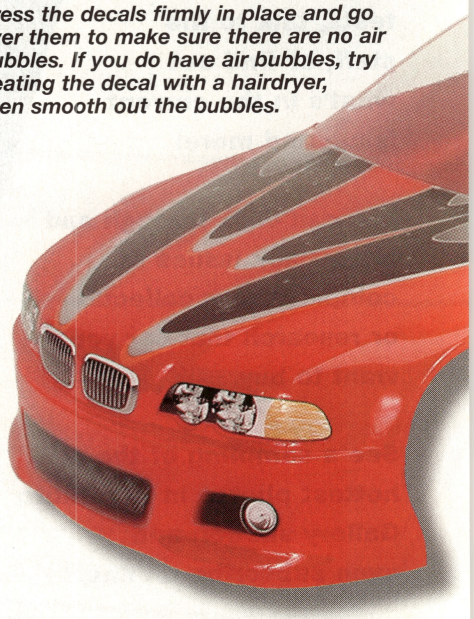
3. Then peel the decal from the sheet, and apply it to the body. I recommend that your hands be thoroughly clean when doing this. If you leave a fingerprint on the decal it will remain there permanently. Better yet, you could leave about half of the backing on the decal, therefore allowing you to move it around easier.

4. After the decal is applied, press it down firmly to get out any bubbles, and so the paint does not seep under it. To make this job easier, use a hair dryer to heat up the decal, making it more pliable.

5. Now it's time to spray the paint. Make sure that you apply thin coats, and allow each coat to dry sufficiently.

6. After applying the paint, simply cut out the body and you're ready to roll.

Overall, I think that the Thunder Designs internal decals are very well designed and are beneficial to everyone. Thunder himself includes a sheet with step-by-step instructions on how to use the decals. He also provides examples to help in designing that perfect body. The application of the decals is very easy and does not involve much skill. The end result when using the decals is amazing. After painting both bodies, I found no leaks and hardly any bubbles. The performance, or shall we say durability, of the finished body is also amazing. At the time I did not have access to a car to test the









Here you can see the finished decals from underneath, above, and from the side before the painting process.



Check out the finished product. Not bad-looking for about 20 minutes worth of work!



Once the decals are in place, you can begin spraying the body with a single can of paint and end up with a professional-looking paint job without all the technical airbrushing!

body, so I slammed it around at home. Hitting a body against a steel chair may at times crack the paint; however, the Thunder decals stood up to the test. I would have to give these decals two thumbs up for their quality and performance. ◆

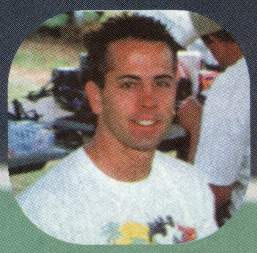
For more information, contact Thunder Designs, distributed by, Team Orion Inc., 22601 La Palma, Suite 103, Yorba Linda, CA 92887; Phone (714) 694 2812/Fax (714) 694 2815.

Available Decal Sets

Part #59015 Spitfire Body Decal—Red/Blue
Part #59016 Spitfire Body Decal—Baby Blue/Red
Part #59017 Spitfire Body Decal—Silver/Blue
Part #59018 Spitfire Body Decal—Purple/Blue
Part #59019 Spitfire Body Decal— Fluorescent Red/Blue
Part #59005 Speed Streak Body Decal—Blue
Part #59006 Speed Streak Body Decal—Purple
Part #59007 Speed Streak Body Decal—Fluorescent Orange
Part #59008 Speed Streak Body Decal—Fluorescent Green
Part #59009 Speed Streak Body Decal—Fluorescent Red
Part #59010 Main Event Body Decal—Gold Pin
Part #59011 Main Event Body Decal—Red Pin
Part #59012 Main Event Body Decal—Fluorescent Blue Pin
Part #59013 Main Event Body Decal—Fluorescent Purple Pin
Part #59014 Main Event Body Decal—Fluorescent Green Pin
Part #59000 Lightspeed Body Decal—Yellow
Part #59001 Lightspeed Body Decal—Blue
Part #59002 Lightspeed Body Decal—Fluorescent Green
Part #59003 Lightspeed Body Decal—Red
Part #59004 Lightspeed Body Decal—Orange
Part #59020 Bubbles Body Decal—Blue
Part #59021 Bubbles Body Decal—Red
Part #59022 Eyeball Body Decal—Blue
Part #59023 Eyeball Body Decal—Lava
Part #59024 Dragon Body Decal—Green
Part #59025 Dragon Body Decal—Red
Part #59026 Fear Factor Body Decal—Red & Yellow
Part #59027 Fear Factor Body Decal—Orange & Gray

subscribe

AND WIN EASTON'S TC3!



One year (12 issues) only $19.98

>>> Save $34

>>> When you subscribe to the #1 R/C magazine you'll be automatically entered to win Billy Easton's Factory Team TC3 touring car featuring a Reedy Ti modified motor, Reedy/Sanyo 3000MAh Zapper and an LRP Quantum speed control.

FACTORY Team

>>> Call Toll Free:
1-800-767-0345

R/C CAR
THE #1 RADIO CONTROL CAR MAGAZINE

www.rc-car.com

>>> Subscribe now for only $19.98 and be entered to win these prizes!

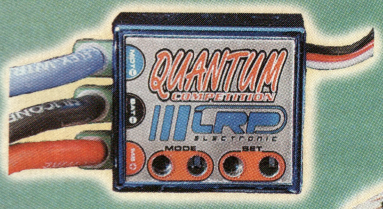
Reedy Ti modified motor





Reedy RC3000 Zapper

LRP Quantum Speed Control





Factory Team TC3

Call Toll Free: 1-800-767-0345

OFFICIAL SWEEPSTAKES RULES: No purchase necessary. To enter sweepstakes subscribe with this coupon or hand-print, in block letters, the words "*R/C Car/Team Associated* Sweepstakes," your name, address, daytime phone number and age on a standard 3"x5" postcard. Mail to *R/C Car/Team Associated* Sweepstakes P.O. Box 958, Valencia, CA 91380-9058. Enter as often as you like. Entries must be mailed individually and received no later than October 1, 2001. Non-subscription or non-renewal entries sent in the postage-paid envelope will be disqualified. Entry process is expressly designed for the conversion of the United States. No mechanically reproduced entries will be accepted. Sponsors not responsible for lost, illegible, incomplete, mutilated, postage-due or misdirected entries. All entries become the property of Hi-Torque Publications, Inc. None can be acknowledged or returned. The winner will be determined in a random drawing to be held October 15, 2001. Winner will be notified by mail no later than November 1, 2001. Sweepstakes limited to continental U.S. and Canadian residents age 18 or older as of October 1, 2001. Judges' decisions will be final. The odds of winning will be determined by the number of entries received. Sweepstakes subject to local, state and federal laws and is void where prohibited. It is the sole responsibility of the winner(s) to pay any/all setup/preparation/shipping charges, taxes, license and registration fees. No substitute prizes will be given, nor will cash equivalents be paid. All winners must execute separate statements of eligibility, publicity and a liability release form for Hi-Torque & Team Associated. In accepting a prize, the winner grants Hi-Torque Inc., and Team Associated the right to publicize and promote his/her photograph and name. Employees of Hi-Torque & Team Associated and their families are not eligible for the sweepstakes. (Regular one-year subscription $19.98, two-year subscription $36.95).U.S. and Canadian residents expect delivery of the first issue in 6-8 weeks. International orders please allow up to 14-16 weeks delivery of the first issue or submit a payment of $120 per year to receive the magazine by first class air-mail.

R/C CAR
THE #1 RADIO CONTROL CAR MAGAZINE



ae

LRP ELECTRONIC

REEDY Modifieds

R/C Car & TEAM ASSOCIATED SWEEPSTAKES!

❑ Please start/renew my subscription for **1 year (12 issues)** and automatically enter me to win the sweepstakes.

❑ U.S. Resident $19.98
❑ Non-U.S. Resident $28.98

ALL CANADIAN AND OTHER FOREIGN USE INTERNATIONAL MONEY ORDERS PAYABLE IN U.S. FUNDS ONLY.

❑ Please start/renew my subscription for **2 years (24 issues)** and automatically enter me to win the sweepstakes.

❑ U.S. Resident $36.95
❑ Non-U.S. Resident $54.95

ALL CANADIAN AND OTHER FOREIGN USE INTERNATIONAL MONEY ORDERS PAYABLE IN U.S. FUNDS ONLY.

❑ No. I don't wish to save money and subscribe, but I'd like to enter the sweepstakes anyway. I understand that I have to send this coupon in my own envelope!

Make check or money order payable to *R/C Car* and mail to *R/C Car/Team Associated Sweepstakes* P.O. Box 958, Valencia, CA 91380-9058.
DO NOT SEND CASH!

Name _____

Address _____

City _____

State _____ Zip _____

Telephone ( ) _____

e-mail: _____

I certify that I am (or will be) at least 18 years of age as of August 1, 2001* (or have a parent** or legal guardian** sign below to qualify for sweepstakes)

Signature _____

Date _____

*Entrants must be at least 18 years of age as of August 1, 2001, to qualify for sweepstakes.
**If parent or legal guardian is signing, please state relationship to subscriber

_____

Amount Enclosed or charge my credit card.*

$ _____

❑ VISA ❑ MasterCard ❑ Discover ❑ American Express

Card # _____

Exp. Date _____

Signature _____

* All credit cards will be billed by Hi-Torque Magazines

RCTMA

2001 ROAR

Racing action at "The Dirt"

Story and photos by John Howell

This year's ROAR Off-Road Gas Nationals found its way out to sunny Southern California. The Dirt, one of the premier 1/8-scale tracks in the country, hosted the event over the weekend of May 4th, 5th, and 6th, and with 213 total entries, the racing action was as intense as it's ever been! One interesting aspect of the race was the mix of old-school gas racing veterans versus the fresh new faces on the gas racing scene. It seems that gas racing is becoming more popular than ever, which is evident when you walked around the pits. Teams are coming out in full force, yet luckily the level of fun still remains high. Usually at big National events, there is a general "uptight" attitude, but it was notably absent at the Gas Nats. So who reigned supreme? Check it out...



From here you get a feeling of just how big the track truly is—and the backside of the track is cropped out of the picture too!





Kyosho's Chad Bradley preps his 1/8-scale buggy before the third round of qualifying on Saturday. Chad would end up third on the grid for the A-main and a whole lot higher up at the end of the 45-minute long A-main.

A-main Action

Both the 1/10-scale Gas Truck A-main and the 1/8-scale Buggy A-main were 45 minutes long, and each race featured some of the closest, back-and-forth racing action seen in years. In addition, there were a few surprises along the way...

1/8-Scale Buggy

During the warm-up session, second-place qualifier Brian Kinwald got a little loose going over the doubles and came down hard. The crash-landing broke his steering servo, and his pit crew raced his car back to the pits for a fast servo change. With only seconds left before the start of the race, his pit crew miraculously got his car out to the line just in time for the race. At the tone, TQ Greg Degani jumped out to an early lead and was closely followed by Chad Bradley, with Billy Easton in third and Jeremy Kortz in fourth. The top four began pulling away from the rest of the pack, and for the longest time, close to 30 laps to be exact, Degani held the lead over the rest of the pack. At the 30-lap mark, Degani came in for a pit stop, but Easton had worked his way close enough by then and stayed out on track, which gave him the lead. Easton held on to the lead for the next six laps at which point Degani grabbed the lead back and held it over second place Easton for the next 17 laps. Degani's car looked awesome out on the track—it was soaking up the bumps better than most cars out there, and he was driving really smooth (as smooth as he could with the quickly deteriorating track conditions). Then disaster struck for Degani. His car flamed out and he lost a good 30 seconds because of it, which dropped him down to fourth. Degani wasn't the only one having difficulty, though—Kinwald had troubles from the very start of the warm-up and ultimately ran into re-occurring glow-plug problems that knocked him out of the race. A little while later Mark Pavidis hit a jump wrong and broke a front suspension arm and damaged his steering assembly, which also took him out of the race.

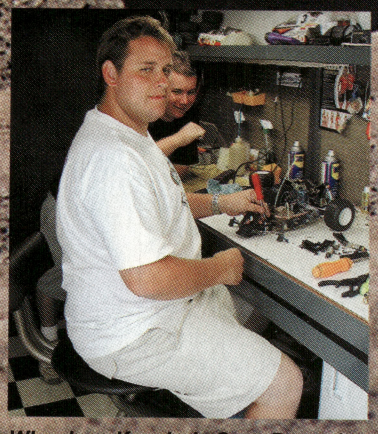
Getting back to the race up front—through Degani's flame-out misfortune, Easton inherited the lead and took off for the next few laps. His lead would be short lived, though. Soon after getting the lead, Easton was passed by a hard-charging Bradley who had been clicking off some consistently solid 26- and 27- second lap times. Until the end, Easton was kept very busy trying to keep a hard-charging Kortz at bay. Bradley kept his composure and ran from there for the next 36 laps to cruise on in for the win—the biggest win of his racing career thus far! Bradley was the only racer in the A-main to turn 95 laps in the 45-minute A-main. Finishing behind Bradley was Easton with 94 laps in 45:17.34 and Jeremy Kortz took third turning 94 laps in 45:23.84.

OFF-ROAD GAS NAT'S



Prime viewing real estate—Richard Saxton and company hanging out on top of his motorhome take in some of the racing action.

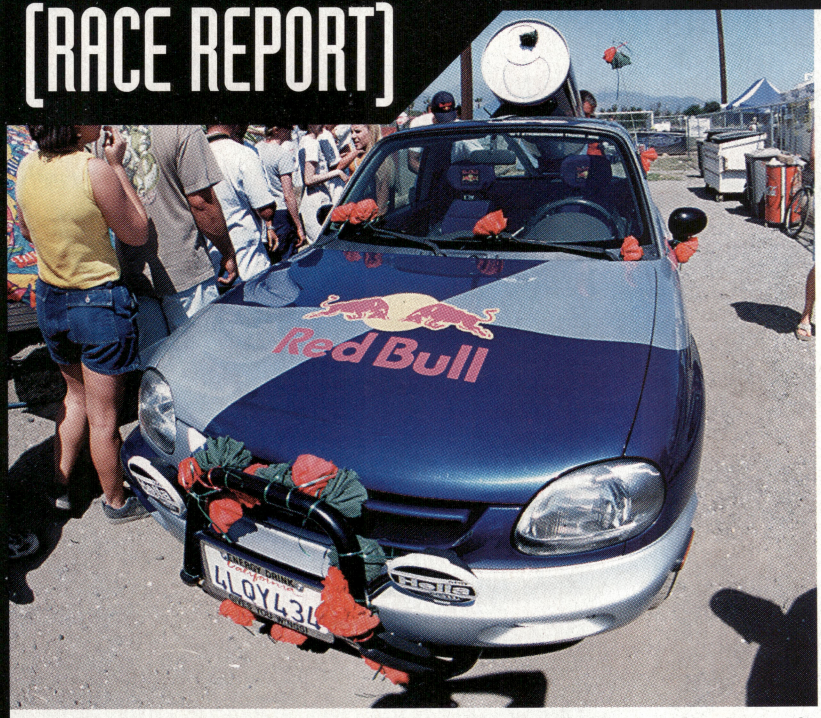




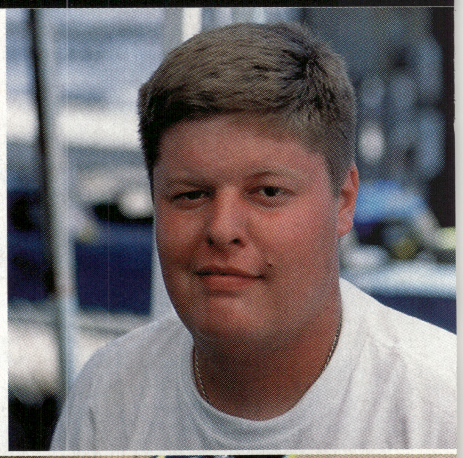
Why does Kyosho's Greg Degani look so smug? You would too if you topped the field in 1/8-scale buggy out of 104 entries!



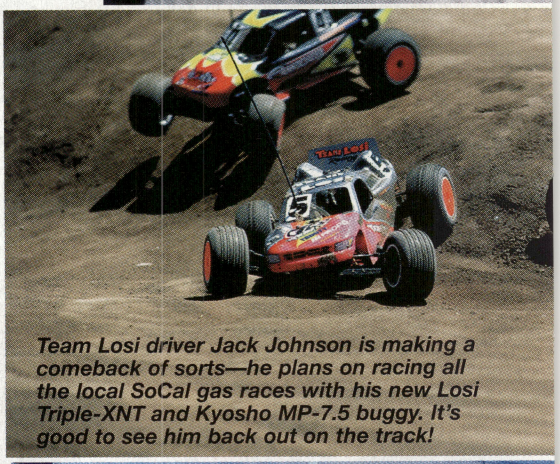
Adam Drake takes his OFNA buggy over the tabletop.



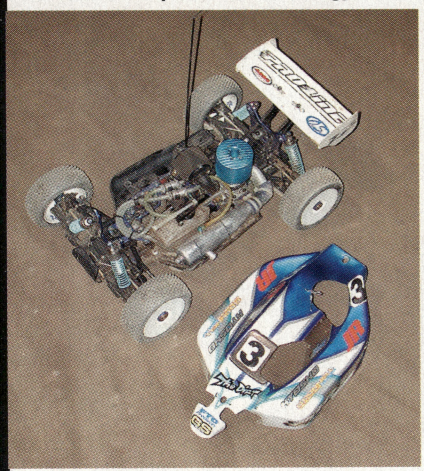
The Dirt's Joe Christensen had Red Bull stop by the race on Sunday to give out free samples of their energy drink to anyone who wanted some—good call, Joe!



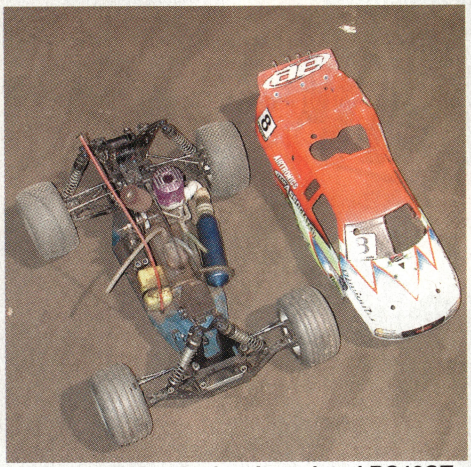
Team Losi's Adam Drake was yet another racer who had an awesome qualifying session, and an equally bad race. Adam took the TQ spot in gas truck but finished seventh in the race.



Team Losi driver Jack Johnson is making a comeback of sorts—he plans on racing all the local SoCal gas races with his new Losi Triple-XNT and Kyosho MP-7.5 buggy. It's good to see him back out on the track!



Chad Bradley's winning Kyosho MP-7.5.



Billy Easton's winning Associated RC10GT.

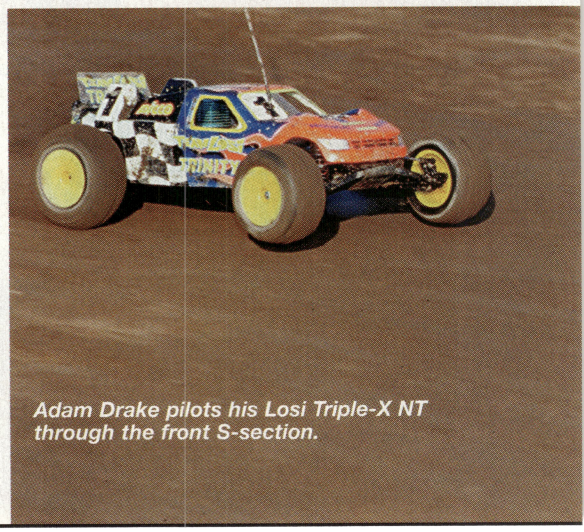


Associated teammates Scott Hughes, Billy Easton, and Mark Pavidis joke around before the start of the Gas Truck A-main...wonder if they were joking about how they were going to dominate the race.

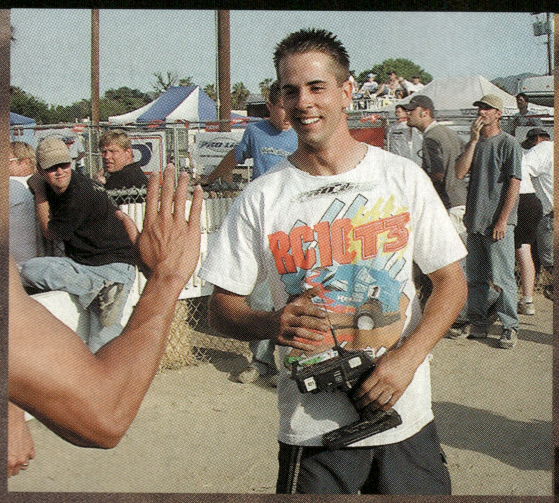
Does the 1/8 Truck class deserve a National Title?

Some would argue, "no"...

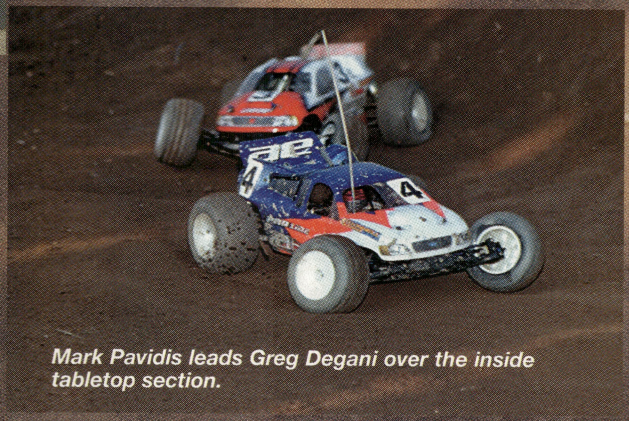
At the Nats, there were 103 1/10-scale Truck participants, and 104 1/8-scale Buggy participants. Want to know how many 1/8 Truck racers entered? Six. Now I'm not here to question those racers' desire, or slam on 1/8-scale Truck racing—the few that are into it are as dedicated to their racing as any out there. My issue is that I don't understand ROAR's decision to included them in the Nationals. With such a dismal 1/8 truck turnout, and barely enough guys to make up an exhibition race, let alone a main event, what's the point? And it's not just the Nats where this situation exists—the turnout is almost non-existent at every big gas race! In all fairness though, they don't really take up that much qualifying time, or even main time (10 minutes versus 45 for both the 1/10 truck and 1/8 buggy mains). But in the end I think it downplays the significance of having a prestigious ROAR title under your belt. You can bet that if it's around next year, I'll do my best to find a 1/8 truck and enter just so I can say I've been an A-main finalist at a ROAR National championship—as a matter of fact, I probably wouldn't even have to qualify or race and I would still be assured of finishing in the top ten, since it's almost a guarantee that less than 10 racers will probably show up. I know this will anger a few, but in my opinion, I think it's time to put the ROAR 1/8-scale Truck title out to pasture...●



Adam Drake pilots his Losi Triple-X NT through the front S-section.



Billy Easton immediately after winning the 45-minute long Gas Truck A-main. Mystery hi-five provided by Thunder Tiger's John Chang.



Mark Pavidis leads Greg Degani over the inside tabletop section.



1/10-Scale Truck

At the start of the race, Team Losi's Adam Drake jumped out to an early lead, but Kyosho team drivers Greg Degani and Jeremy Kortz jumped away from the pack and took over the lead while the rest of the pack stumbled over each other trying to establish a solid third place. Both Degani and Kortz began pulling out farther from the pack, but then disaster struck for the two Kyosho teammates—they tangled, which allowed Associated teammates Mark Pavidis and Billy Easton to catch up and pass them for first and second place respectively. Kinwald followed closely in third, and throughout the race, the three racers battled back and forth, sharing lead changes every few laps—it was ultra close, and looked like it could be anyone's race. During the battling back and forth, the three often bumped and tagged each other, but in a show of ultimate professionalism, each would pull over and allow the other to get back past clean.

As the race wore on, the track started taking its toll on the competitors. Jared Tebo, Jeremy Kortz, and Matt Francis developed problems and had to pull off the track. Top qualifier Adam Drake was also suffering from problems throughout the race, and only managed to turn 71 laps in the 45-minute main.

Back to the race up front, after a few pit stops, Mark Pavidis began distancing himself from Easton and Kinwald. At one point he had built up almost a full lap lead. It looked as if he would be unstoppable as the clock started winding down. But it would not be…as the clock kept ticking, a few bobbles from Pavidis allowed Easton to catch up and they were bumper to bumper to bumper with only a few laps left. Going over the infield double, Pavidis lost it over the jump and crashed, which allowed Easton to walk away with the win. Both drivers managed to finish on the same lap—each turned 88 laps in the 45-minute main.

While Easton and Pavidis where getting everyone's attention up front, Scott Hughes had managed to find a way past Kinwald for third place, and held the position until the end. Hughes finished the race one lap down from the leaders with a total of 87 laps in 45:05.25.

Pit Products

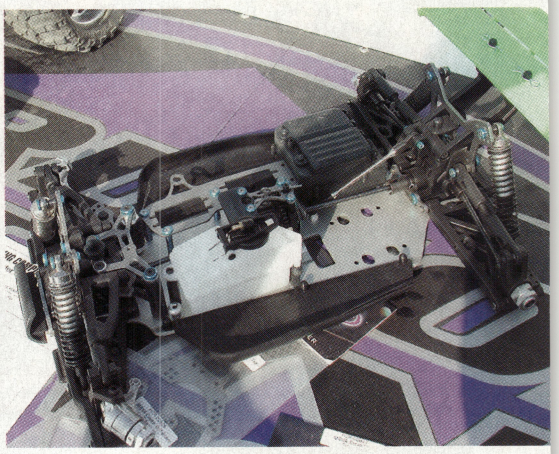
● There were quite a few new items targeted specifically for gas racers at the Nats—



• Pro-Line

Pro-Line's Scott Hughes showed me this new, yet to be named tire for 1/8 scale buggies. The tire is very similar to the old Kyosho fuzzy tire, one of the more popular tires back in the day. Scott told me that the new Pro-Line tire will be available in XTR and M2 compound. For more info, contact Pro-Line and (909) 849-9781.





• FTD

I spotted this cool-looking alloy servo "shield" on Mark Pavidis' GT. It completely protects the entire side of the throttle servo assembly—why this ingenious little item wasn't invented sooner, who knows... It's pretty cool, and will definitely protect that side of the truck in the event of a crash! For more info, call FTD at (714) 960-8035.

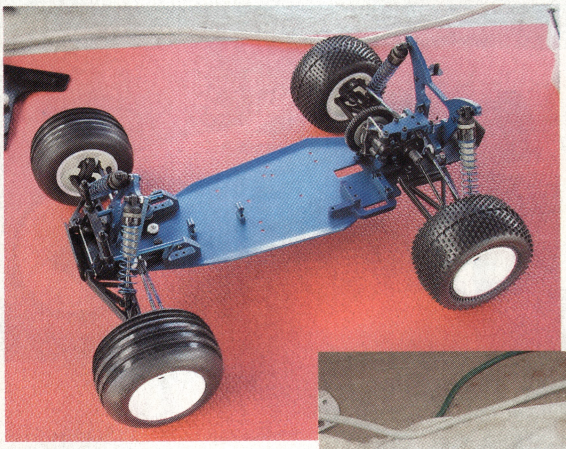
• Hardcore Racing

While relatively new to the gas racing scene, Hardcore Racing products are gaining momentum. Shown here is their new spec'ed out Kyosho MP-7.5 that features upgraded titanium shock towers, radio tray, front brace, and steering rack. Hardcore also offers the same package for the Mugen MBX-4. You can contact Hardcore Racing at (661) 294-5032.



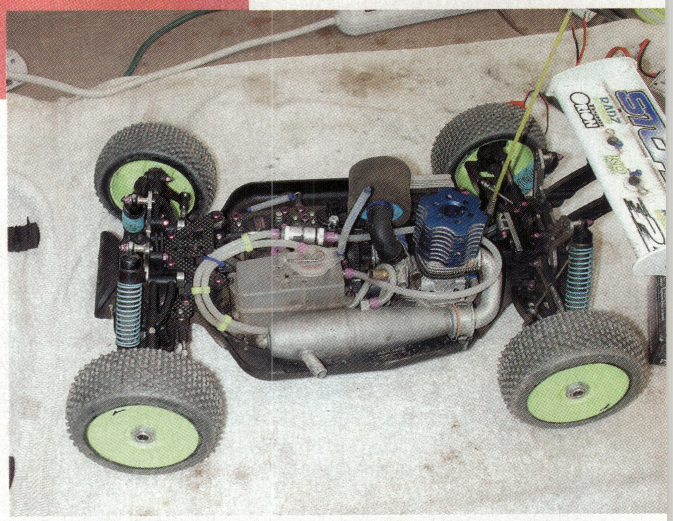
• Airtronics

I was talking to Airtronics' Bobby Tom at the race and he showed me their all new 94755Z digital servo. I was informed that the 755Z is best used for steering or throttle/brake on 1/10-scale vehicles, and should only be used as the throttle/brake servo on 1/8-scale buggies. The coreless motor servo weighs 2.04 ounces and has 81 ounces of torque with a transit speed of .11 seconds (at 60 degrees/6volts). For more info, contact Airtronics at (714) 978-1895.



• Team Kinwald/Titan Tech

This has to be one of the cleanest looking GTs I've ever seen. Available are servo mounts, a heavy-duty front tube mount, shock arm mounts, a top tranny brace, a rear bulkhead, engine mount/brace, aluminum suspension mounts, a titanium brake hex, and aluminum shock towers. The parts are all made out of the highest quality alloys, and I even noticed the parts made it over to quite a few of the team driver's trucks. For more info about these parts, you can get the info through Team Kinwald's distributor, Trinity, at (732) 635-1600.



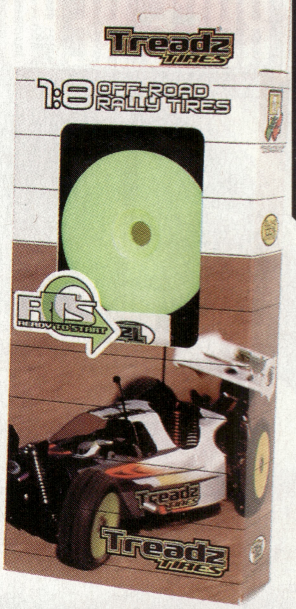
• GS Racing

GS Racing has received their final version of the Storm buggy. The car features a new chassis design, updated suspension geometry, a complete graphite package, and much, much more. Look for a future test on this car in an upcoming issue. For more info on the car, which is available through General Silicones Group Inc., you can contact them at (626) 338-3815.

• Treadz



New to the tire game is Treadz. So what's the deal? Well, behind this new line is a familiar name—Richard Saxton! Richard has been racing nitro for years and has a ton of experience behind him, especially when it comes to picking the right tires for certain track conditions. Richard has been working very hard with his tire distributor in Italy (a country well-known for producing some of the most exotic rubber compounds in the world) in an effort to come up with high-quality, race-ready 1/8-scale and 1/10-scale wheels and tires. I pulled aside a few gas racing veterans after checking out his tires and asked for their opinions. Most everyone agreed that the new tires are very high-quality and many were running them at the race on their buggies and 1/10-scale trucks.



Additionally, while I was talking to Richard about his new tires, I couldn't help but notice this aluminum wheel nut driver he was using on his 1/8-scale buggy. This billet tool has to be one of the coolest tools I've ever seen! He told me that he's thinking about going into limited production with the tool, so if you want to get your hands on one, I suggest that you get on the horn and call him right away! For more information, you can contact Treadz at (702) 407-6870. ●







The Dirt—the best place to race?

I've been to so many races in the past ten years that they start to blur together. Luckily my job (if you can call it that) has allowed me to travel all over the place to see how clubs run races, how they treat the racers, and to see what the racers generally think of the environment. Some places I've been to have been great, and some should flat-out be out of business due to sheer ignorance. Before I went to the ROAR Gas Nats, I had dropped by only briefly to check out "The Dirt" for a few hours, so I couldn't really get a feel for the place, but from just a quick visit I could tell that the racers really enjoyed themselves there. It was only after spending the weekend there for the Nats that I truly got to see what the real deal was. I can honestly say that I have never seen someone as dedicated to R/C racers having fun as much as The Dirt's president Joe Christensen. He is as enthusiastic about R/C racing as they come. I don't want this to sound too much like a testimonial, but it's so rare to see someone this eager to please people at his track that I felt it was worth mentioning—some track owners only see dollar signs, whereas Joe looks at the bigger picture and works hard to make sure everyone is having a good time! If you're into gas racing and you live in SoCal, you really owe it to yourself to pack up your gear and head out to The Dirt. It's people like Joe Christensen who deserve our 100 percent support—without enthusiasts like him, R/C racing would be far worse off. ●



The Dirt's Joe Christensen (left) presents Joshua Nelson from Phoenix, Arizona with his new Mugen MBX-R that he won during the weekend raffle.





Traveling in style

The latest rage at the big races is to drive to the event in a mammoth-size motorhome, or show up towing a camper/trailer. Maybe you'll even see racers cruise in with the "team" box van. The Gas Nats in Hemet was no exception. Walking through the pits, it was easy to spot who was passing the time in style—there were no less than three or four mammoth motorhomes, a good half dozen sponsored team box vans, and at least another half-dozen privateer-based custom trailers. One racer attending the race had worked out a sweet deal with the company he rented his motorhome from and managed to get it for $500 for an entire week—add up what it would take to rent a hotel for the week, and then a car to get back and forth to the track, and you can see that this was quite a bargain. Add to the fact that the guy was parked out in The Dirt's parking lot and the convenience factor goes up quite a bit! As racers walked around in the pits all hot and sweaty, this guy had a bathroom, shower, bed, kitchen area, etc. all to himself right there! All we can say is that the next race we go to, we're hitting up the boss to splurge on an *"R/C Car* Magazine" official motorhome…a good 40-plus footer with full satellite and king-sized bed would be nice…●







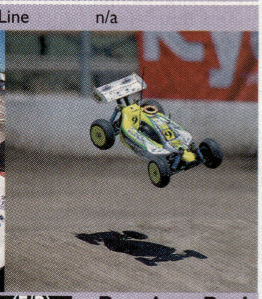


Winners Chart 1/10 Scale Truck

	Qual	Name	Chassis	Engine	Pipe	Plug	Fuel	Radio	Tires(F/R)	Receiver Pack
1	8	Billy Easton	Associated	Thunder Tiger	Associated	O'Donnell	O'Donnell 20%	Airtronics	Pro-Line	Hand-made
2	4	Mark Pavidis	Associated	O'Donnell	O'Donnell	O'Donnell	O'Donnell 20%	Airtronics	Pro-Line	Trinity
3	9	Scott Hughes	Associated	O'Donnell/Mugen	O'Donnell	O'Donnell	O'Donnell 20%	KO Propo	Pro-Line	n/a
4	5	Brian Kinwald	Losi	Trinity/Picco	Trinity	McCoy	Trinity 20%	Airtronics	Losi	Trinity
5	3	Greg Degani	Kyosho	O.S.	Kyosho	O'Donnell	O'Donnell 20%	Futaba	Pro-Line	Orion
6	6	Ryan Cavalieri	Losi	Trinity/Picco	Trinity	MC59	Trinity 20%	Airtronics	Losi	Trinity
7	1	Adam Drake	Losi	Trinity/Picco	Associated	MC59	Trinity 20%	Airtronics	Losi	Trinity
8	2	Jeremy Kortz	Kyosho	O.S.	Kyosho	O.S.	Blue Thunder 20%	JR	Pro-Line	Dynamite
9	7	Matt Francis	Losi	Trinity/Picco	Trinity	Picco	Trinity 20%	Airtronics	Losi	Trinity
10	10	Jared Tebo	Associated	O'Donnell/Mugen	O'Donnell	O'Donnell	O'Donnell 20 %	Airtronics	Pro-Line	n/a







Winners Chart 1/8 Scale Buggy

	Qual	Name	Chassis	Engine	Pipe	Plug	Fuel	Radio	Tires(F/R)	Receiver Pack
1	3	Chad Bradley	Kyosho	O.S./O'Donnell	Kyosho	O'Donnell	O'Donnell	JR	Pro-Line	Orion
2	9	Billy Easton	Thunder Tiger	RB/O'Donnell	Rex 9886	O'Donnell	O'Donnell	Airtronics	Pro-Line	Handmade
3	5	Jeremy Kortz	Kyosho	O.S.	Kyosho	O.S. A-5	Blue Thunder 30%	JR	Pro-Line	Dynamite
4	1	Greg Degani	Kyosho	O.S. V-99	Kyosho	O'Donnell 66	O'Donnell 30%	Futaba	Pro-Line	Orion
5	4	Greg Waller	Mugen	RB Concept	RB Concept	RB #8	O'Donnell 30%	Airtronics	Pro-Line	Mugen
6	6	Marty Korn	Kyosho	n/a	n/a	McCoy MC59	Byron Originals 30%	KO Propo	Pro-Line	Trinity
7	8	Adam Drake	OFNA	Picco	Picco	O.S. A-5	Trinity	Airtronics	Pro-Line	Trinity
8	7	Gene Hickerson	Kyosho	O.S.	Kyosho	McCoy	O'Donnell	KO Propo	Pro-Line	Kyosho
9	10	Mark Pavidis	Kyosho	O.S.	Kyosho	O'Donnell	O'Donnell	Airtronics	Pro-Line	Trinity
10	2	Brian Kinwald	Kyosho	O.S.	Paris	McCoy	Trinity	Pro-Line	Trinity	Airtronics Trinity

NEW Upgrades

1/10 SCALE www.NewEraModels.com
New Era Models P.O. Box 7378 Nashua, NH 03060 603-888-4453
Dealer Inquiries Invited





"CLOD" Upgrades

MCT201 Standard 4 Link Suspension	$69.95
MCT202 Long 4 Link Suspension	$79.95
MCT203 Upper 4 Link Mount	$19.50
MCT204 Steering Servo Adp. Up Front	$34.50
MCT205 Rear Steering Eliminator	$24.50
MCT207 Heavy Duty Steering Rods	$39.95
MCT302 Rear Sway Bar	$39.95
MCT301 Front Bumper	$39.95
MCT401R Shocks w / Reservoir (SALE)	$65.00
MCT402 Bearing Kit 20 piece (SALE)	$34.50
MCT403 Right Angle Body Mounts (pr.)	$ 2.95

"CLOD" Options

MCT420 Cantilever Kit (no Bearings)	$69.95
MCT421 Cantilever Kit w / Bearings	$89.95
MCT422 Kyosho Wheel Adp. (4)	$29.95
MCT423 New Era Masher Tires (pr.)	$26.95
HOT HOT HOT	
NTF111 Top Fuel Lite	$399.95
TRS301 Stampede Skid Plate/Bumper	$29.95
TRS223 Stampede Wheels Bars	$39.95
NTF151 1/8 Scale Top Fuel (for21)	$559.95
NPS152 1/8 Scale Pro Stock (for21)	$529.95
TRX103 Traxxas NitroRustler Chassis	$39.95
NTF210 SS(steel)Brake w/Fibre Pads	$ 9.95

1/10 SCALE UPGRADES







Steel Tube Chassis Only $239.95
Call for Other Upgrades



AGT103 BI-Level Chassis $79.50
AGT106 for 21 Engine $109.50



AGT101 Rear Brace $21.95
AGT102 Front Brace Tubes $ 7.95



Upper Steel Tube Chassis for OFNA Monster PIRATE $169.95



Upper Steel Tube Chassis for USA1 $169.95 Chassis only



NTF101 $499.95 less Engine & Radio



LIGHT Upper Steel Tube Chassis for T/E-MAXX $149.95 Chassis only



T/E-MAXX CNC Aluminum Upgrades

TRM320 Front Skid Plate	$21.95
TRM321 Rear Skid Plate	$19.95
TRM320SD 3.2mm Frt Skid	$24.50
TRM321SD 3.2mm Rear Skid	$24.50
TRM322 Front Bumper pr	$18.95
TRM323 Rear Bumper pr.	$18.95
TRM324 Front Bumper Supports pr.	$24.95
TRM325 Rear Bumper Supports pr.	$24.95
TRM102 Rear Sway Bar. (Requires TRM325)	$39.95
TRM305 Front Sway Bar. (Requires TRM324)	$39.95
TRM326 Lower Braces pr.	$54.95
TRM326R Racing Braces pr.	$38.50
TRM318P Front Body Mount With Solid Post and Collar	$24.50
TRM319 Rear Body Mount With Solid Post and Collar	$24.50
TRM329 Steering Drag Link	$ 9.95
TRM330 Front Bulkhead pr	$74.50
TRM331 Rear Bulkhead pr	$74.50
TRM332 Upper Arms pr	$44.50
TRM332R Racing Arms pr	$36.50
TRM333 Lower Arms pr	$49.50
TRM333R Racing Arms pr	$39.50
TRM334 Center Skid Plate	$15.00
TRM336 Frt or Rear Shock Tower	$38.00
TRM910 Roll Bar W/Brace	$39.50
TRM110 .21 Conversion	$139.95
TRM107 3.2mm Ex. Main Chassis	$59.90
TRM321EX Rear Skid	$26.50
TRM123Engine Mount for Rear Exhaust .15 or .21Pull Start	$35.00
AGT301Hi-Torque Ripple Pipe Powder Coat Blue	$29.95
AGT301W Pipe Wire Blue	$ 5.00
TRM241 Header Blue	$24.95

Call for many more T-MAXX Parts

Nitro Quake Upper Chassis & Upgrades

Mad Bison Upgrades

RC10GT RTR & Team Upgrades

HPI Nitro RUSH Upgrades

Nascar Tubular Chassis





1/4 SCALE www.NEMScaleCars.com
ROAD DRAG TRUCK



Kits Starting at $995.00 Including Gasoline Engine



Thunder Tiger TEAM INTERNATIONAL

Thunder Tiger 116 W. 19th St. Higginsville, MO, 64037 Phone (660) 584-7121, Fax (660) 584-7766 www.acerc.com

ALABAMA

Beacon Point RC Raceway, 15717 Beacon Point Dr. Tuscaloosa, AL 35406 (205) 333-8679

Dirt Road Rage, 208 3rd Ave. S.E. Cullman, AL 35055 877-435-9866 www.pyramidhobbies.com

Hobbytown USA Raceway, 4500 Schillinger Rd. N., Mobile, AL 36608, (334) 633-8446

Lagoon Park R/C Raceway, 2730 Lagoon Park Dr., Montgomery, AL 36109 (334) 272-6438

R/C Hi-Tech Raceway, 3303 Meridian St., Huntsville, AL 35811 (205) 539-1347

R/C Thunder, 1530 Schillinger Rd., Mobile, AL 36675, (334) 645-2787

ALASKA

Fairbanks R/C Club, 510 Juneau Ave., Fairbanks, AK 99701, (907) 456-5494

ARIZONA

Hobbytown Mountain Raceway, 1500 E. Cedar Ave., Cedar Hills Shopping Center, Flagstaff, AZ 86004, (520) 214-9887

Hobbytown Raceway, 13802 N. Scottsdale Rd., Scottsdale, AZ 85250 (602) 948-3946

Hobbytown Raceway, 1915 East Baseline Rd., Gilbert, AZ 95234, (602) 892-0405

Hobbytown Raceway, 1102 E. 22nd St., Tucson, AZ 85704, (520) 882-8888

Hobbytown USA, 5030 E Ray Rd., Phoenix, AZ 85044, Linda McFarland, (602) 598-5282

Kingman off-road track, 5737 Hwy. 66 Mpost 63 Kingman, AZ 86401

Kiwanis Park R/C Track, 855 S. Magnolia Ave., Yuma AZ 85364, (520) 539-7148

Scottsdale R/C Raceway, 3023 N. Scottsdale, Scottsdale, AZ 85251 (602) 945-2186

Speedway Hobbies, 2710 N. Steve's Blvd., Ste. 8 Flagstaff, AZ 86004 (520) 714-1566

ARKANSAS

Alison Offroad RC Raceway, 6320 Thibault Rd., Little Rock AR 72206 (501) 490-1227

Arkansas R/C Car Association, 101 W. 52nd St., N. Litle Rock AR 72218 (501) 753-1286

Airport Speedway, 1521 Airport Loop, Rogers, AR 72756, (501) 636-7123

Grand Slam Superspeedway, 5300 S. Zero St., Ft. Smith, AR 72703, (501) 648-1994

Hobbytown USA, 356 E. Joyce Fayetteville, AR 72703, (501) 571-3730

Sparks R/C Raceway, 7194 Greene 721 Rd., Paragould, AR 72450, (501) 239-3606

Grand Slam Hobby, 5300 South Zero, Ft. Smith, AR 72901, (501) 648-1994

CALIFORNIA

Castle Hobbies, 14918 Camden Ave., San Jose, CA 95124, (408) 377-3771

Hobby Central Raceway, 34255 PCH, Unit #107, Dana Point, CA 92629, (619) 513-0373

Hobby Central II, 13461 Community Rd., Poway, CA 92064 (619) 513-0373

Hobbytown, Parktwon Plaza Shopping Center, 1350 S. Park Victoria Dr. #21, Milpitas, CA 95035 (408) 945-6524

Hot Rod Hobbies, 25845 San Fernando Rd., Saugus, CA 91350, (661) 255-2404

Jake's Performance Hobbies, 6650 Commerce Blvd., #21 Rohnert Park, CA 94928, (707) 586-3375

Lucerme Valley Raceway, 32800 Old Woman Springs Rd., #4, Lucerne Valley, CA 92356 (760) 248-7305

MnM Hobbies, 4225 Prado Rd., Ste. 103 Corona, CA 91720, (909) 272-3545

Nor-Cal Speedway, 519 Bush St., Woodland, CA 95695 (530) 668-5678

ProCar West, Sante Fe Springs, CA m2rcracing

Race Corner of Marin, 300 Entrada Dr., Novato, CA 94949, (415) 883-0388

Race Prep Raceway, 20115 Nordhoff Chatsworth, CA 91311, (818) 709-6800

Racer's Haven, 7401 White Ln. #12 Bakersfield, CA 93309, (805) 835-0441

Ripon R/C Speedway, 701 N. Acacia Ave., Ripon, CA 95366 (209) 599-5160

Sacramento R/C Racing, 6201 27th St., Sacramento, CA 95824, (916) 454-4044

Showtime Speedway, 3709 Abbot DR., Bakersfield, CA 93312, (805) 5890493

Simi Valley Ground Pounders, 392-C - East Easy St., Simi Valley, CA 93065, (805) 584-8211

So. Cal Raceway, 19118 Brookhurst St., Huntington Beach, CA 92646, (714) 963-7484

Speedworld Raceway & Hobby, Billy Bowerdman 90 Corporation Yard Rd., Roseville, CA 95678, (916) 783-8864

Ultimate Hobbies, 2378 North Orange, CA 92865, (714) 921-0424

COLORADO

S&T Raceway, 323 Auburn Dr., Colorado Springs, CO 80909, (719) 574-2910

CONNECTICUT

Central CT Auto Racers
Davis Hobbies II, 45A Welles St., Glastonbury, CT 06033, (860) 633-3056

JP's Hobby Center & Raceway, 78 Pershing Dr., Derby, CT 06418, (203) 735-5512

K&N Speedway, West St., Stafford Springs, CT 06076 (860) 684-9896

R/C Madness, 640 Enfield St., P.O. Box 64, Enfield, CT 06082, (860) 741-6501

Xtreme Radio Control, 469 Danbury Rd., New Miford, CT 06469, (860) 354-4703

DELAWARE

Hobbystop Speedway, Rd. #4, Box 100, Rte. 13, Seaford, DE 19973, (302) 629-3944

FLORIDA

Broward County R/C Race Club, Mills Pond Park, Ft. Lauderdale, FL (954) 525-3304

Burton's R/C Raceway, 4215 Mustand Rd., Lakeland, FL 33803, (941) 665-1322

Coral Springs Roadrunners, PO Box 9632 Coral Springs, FL 33075, (954) 925-8284

Farmer's Hobby & Raceway, 5006-3 E. Broadway, Tampa, FL 33619, (813) 248-3314

Cars, Trains and Planes, 1029-4 Phillips Hwy. Jacksonville, FL 32256 904-880-9500

First Coast Speedway, 6410 Waltho Dr., Jacksonville, FL 32211, (904) 743-2161

Ft. Myers R/C Club, Lee Civic Center, Ft. Myers, FL (941) 936-1528

Frontier Race Track, 15260 N.E. 244th Ave., Salt Springs, FL 32134, (352) 685-2881

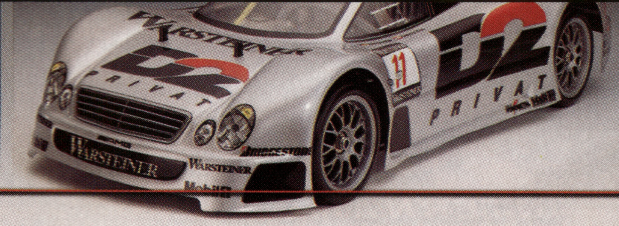
Hobbyworld Raceway, 7273 103rd St., Jacksonville, FL 32210, (904) 722-9022

Kissimmee R/C Racing, Osceola Square Mall, 3831 West Vine St., Ste/ 60, Kissimmee, FL 34741, (407) 944-4913

Means R/C Raceway, 1550 Pondell Rd., North Ft. Myers, FL 33903, (941) 772-2251

Monster Hobbies, 616 Southeast 10th St., Deerfield Beach, FL 23441, (954) 428-9118





NORRA, 3300 Santa Barbara Blvd., Naples, FL 34104, (941) 324-9021

Ocala R/C Car Club, 2610 SE 8th St., Ocala, FL 34470, (800) 324-8882

PBG Motor Park, 6351 Barbara St., Palm Beach Gardens, FL 33418, (561) 627-2608

Pro Hobbies Speedway, 715 N. Lake Pleasant Rd., Apopka, FL 33712, (407) 886-4615

Port St. Lucia Racing, 3626 SW Rivera St., Port St., Lucie, FL 34953 (561) 336-8711

Randy's RC Raceway, 7744 Glenwood St., Clermont, FL 34711, (352) 242-0557

River City R/C Club, 9711 Sharing Cros Dr., Jacksonville, FL 32257, (904) 268-1948

Sarasota RC Speedway, 8475 Cooper Creek Blvd., University Park, FL 34201, (941) 358-7047

Speedworld-RC, 600 S. Yonge St., Ste. 107, Ormond Beach, FL 32174, (904) 271-6240

Tampa Bay RC Club, PO Box 10224, St. Petersburg, FL 33733, (813) 526-0744

Tropical Racers, Tropical Park, Palmeto Expressway & SW 40 St., (Bird Road), Miami, FL

GEORGIA

Anthony's Victory Lane, 129 East Hwy. 80, Pooler, GA 31322, (912) 748-0847

Dalton Raceway, 3036 Parquet Rd., Dalton, GA 30720, (706) 226-6699

Emerald City R/C Speed, Hwy. 80 East, Dublin, GA 31027, (912) 272-3856

Hobbytown Raceway, 2301 Airport Thruway, Columbus, GA 31904, (706) 660-1793

Prime Time Hobby & Craft, 432 S. Wall St., Calhoun, GA 30701 706-625-9037

Racer's Edge, 1530 Hwy. 19 N., Thomaston, GA 30286

Sandy Cross Speedway, Rt. 1 Box 1071, Hwy. 51, Royston, GA 30662, (706) 245-9573

Stinger Speedway, 3769 Maysville Rd., Commerce, GA 30529, (706) 335-9044

Sugar Bowl Speedway, 5272 Nelson Brogdon Blvd., Sugar Hill, GA 30518, (770) 945-6709

HAWAII

Maui Racing Association, 230 Hana Hwy., #11, Kahului, HI 96731, (808) 873-0376

Team PRC Racing Club, 176 Mamo St., Hilo, HI 96720, (808) 935-3561

IDAHO

Almosta Ranch R.C.'s, Idaho's largest outdoor track 1732 Eldridge Ave. Twin Falls, ID 83301 208-733-8219, or 208-733-1572

Dirt Stuff Plus, 5344 N. Yellowstone Hwy., Idaho Falls, ID 83401, (208) 522-7576

ILLINOIS

Adams R/C Raceway, 7201 S. Adams, Bartonville, IL 61607, (309) 633-9300

AJ's, 10211 Keslinger Rd., DeKalb, IL 60115, (815) 756-2772

CIRCR/Precisoin RC Hobbies, 1917 2nd St. Pekin, IL 61554 1-309-347-0975

Depot Hobby Raceway, 180 S. Seminary St., Galesburg, IL 61401, (309) 342-9323

H&H Raceway, 35-12 Berkshire SDr. Crystal Lake, IL 60014 815-444-1777 http://drive.to/h_hhobbies

Hobbytown Raceway, 2103 N. Veterans Pkwy., Bloomington, IL 61701, (309) 664-4451

Leisure Hours R/C Raceway, 24121 W. Theodore, Bldg. 1, Plainfield, IL 60544, (815) 439-1477

Monee R/C Raceway, 26049 Ridgeland Ave., Monee, IL 60449 (708) 799-5597

Outlaw R/C Speedway, 1614 Broadway, Mattoon, IL 61938, (217) 234-6229

Quad Cities Raceway, 541 1st Ave., North Silvis, IL 61282, (309) 751-9663

Rector's R/C Raceway, RR3, Box 104, Albion, IL 62806, (618) 842-9379, (618) 446-3282

RMR Raceway, 19091 W. Casey Rd., Libertyville, IL 60048, Ray Rawald, (847) 549-6963

Shiloh Eagles Speedway, 308 N. Virginia AVe., Belleville, IL 62220, (618) 277-6030

SIRCAR Raceway, 1200 N. Marion, Carbondale, IL 62901, (618) 549-5885

Sport 'N' Hobby, 905 Bibbs, Jacksonville, IL 62650, (217) 254-1375

Stanton Hobby Shop, 4718 N. Milwaukee, Chicago, IL 60630, (773) 283-6446

Wep Raceway, RR #2, Box 44, Lawrenceville, IL 62439

INDIANA

Bremen Racing, 308 N. Bowen, Bremen, IN 46506, (219) 546-3807

GM Raceway, 1651 W. Franklin St., Elkhart, IN 46516, (219) 293-1827

Hardesty Raceway, 11 East Plymouth St., Hamlet, IN 46530, (219) 867-8600

Hobby Barn Raceway, 1950 Springhill, Terre Haute, IN 47802 (812) 299-5773

Hobbytown USA, 5385 E. 82nd St., Indianapolis, IN 46250, (317) 845-4106

P&T Hobbies & Raceway, RR2 (Hwy. 60), Mitchell, IN 47446, (812) 849 6666

R/C World of Indiana, 2246 West U.S. Hwy. 36, Lynn, IN 47355, (765) 874-2464

Summit Area Radio Cars, 7000 Red Haw Dr., Ft. Wayne, IN 46805, (219) 492-2271

IOWA

Hobby Haven, 7672 Hickman Rd., Des Moines, IA 50322, (515) 276-8785

HobbyTown USA, 2737 16th Ave. SW, Cedar Rapids, IA 52404, (319) 364-3289

Manly R/C Club, Box 23, Manly, IA 50456 (515) 454-2025

Outback Speedway, 403 State St., Gutherie Center, IA 50115, (515) 747-3064

Radio Control Raceway Park, 2100 First Ave. N., Ft. Dodge, IA 50501, (515) 576-3780

Wild Bill's Raceway, 901 W. Jones, Knoxville, IA 50138, (515) 842-5973

KANSAS

Hobbytown USA, 2016 W. 23rd, Lawrence, KS 66046; Kevin Decembes, (785) 865-0883

R/C Superdome and T.Q. PRO Shop, 14 E. Avenue A., Hutchinson, KS 67501 (316) 665-6633

RC Hobbies, Franum Creek, Milford Lake, KS (785) 238-1877

RCRC Raceway, 507 N. 4th Atwood, KS 67730, (795) 626-3261

KENTUCKY

Pit Stop Hobbies, 106 A Street, Benton, KY 42025, (502) 527-8216

Somerset Raceway, 188 Sycamore Dr., Bronston, KY 42518, (606) 561-4522 Halcomb@hyperaction.net

Trio Hobbies & RC, 216 Redmar Plaza, Radcliff, KY 40160, (502) 351-7547

LOUISIANA

Baton Rouge Velodrome, 7122 Perkins Rd., Baton Rouge, LA 70815, (504) 665-5616

Thunder Tiger 116 W. 19th St. Higginsville, MO, 64037 Phone (660) 584-7121, Fax (660) 584-7766 www.acerc.com

Thunder Tiger 116 W. 19th St. Higginsville, MO, 64037 Phone (660) 584-7121, Fax (660) 584-7766 www.acerc.com



Indy Speedway & Hobby, 3753 General DeGaulle Dr., New Orleans, LA 70131 (504) 367-1891

Pontchartrain Hobby Shop, 3755 Pontchartrain Dr., Slidell, LA 70458, (504) 649-1199

MAINE

Clay Bowl R/C Hobbies, P.O. Box 61, Greene, ME 04236, (207) 946-5003

R/C Speedway & Hobbies, 87 Main St., Fairfield, ME 04963, (207) 453-4588

MARYLAND

Countryside Raceway, 406 Pamela Rd., APt. C, Glen Burnie, MD 21061, (410) 761-6196

Doug's Raceway, 2935 Clain Hwy., Waldorf, MD 20601, (301) 843-6220

Hobby Town USA, 8223-11 Elliot Rd., Easton, MD 21601, (410) 820-9308

JR's Race Place, 2935 Crain Hwy., Waldorf, MD 20601, (410) 947-2766

The Track, 16806 Oakmont Ave., Gaithersburg, MD 20877, (301) 417-9630

MASSACHUSETTS

C&C Hobby & Raceway, 562 Russells Mills Rd., South Dartmouth, MA 02748, (508) 997-4131

Hi-Tech Hobbies, 1681 Broadway (Rt. 138) Raynham, MA 02767, (508) 880-5373

Megadrome Raceway, Rt. 8 Curran Hwy. North Adams, MA 01247, (413) 743-7223

MICHIGAN

Hobbytown USA, 2252 S. Main St., Ann Arbor, MI 48103, (734) 996-2444

House of Hobbies, 2863 West Shore Dr., Holland, MI 49424, (616) 786-3686

JT Superspeedway, Golden Ave., Battle Creek, MI 49015, (616) 965-0116

Larry's Performance R/C's, 43665 Utica Rd., Sterling Heights, MI 49221, (810) 997-4840

Lazer RC Speedway, 2858 N. Wilmoth Hwy., Adrian, MI 49221, (517) 263-2806

Motor City Speedway, 16025 23 Mile Rd. Macomb Twp., MI 48042 (810) 677-2311

N.M.R.C.C. Raceway, Hobby Toy, Main St., Gaylord, MI 49735, (517) 732-3963

Ovaitt's R/C Speedshop, 3920 N. U.S. 31 South Travis City, MI 49684

R&L Hobbies & Racing, 9782 Portage Rd., Portage, MI 49002, (616) 323-3686

Rodgers R/C Raceway, 7463 Ridge Rd., Britton, MI 49223, (517) 451-8301

Village R/C Raceway, Praire Ronde St., Decateur, MI 49045, (616) 423-7878

Village Hobbies, 195 N. Elm St. Hesperia, MI 49421 231-854-1374

MINNESOTA

Car Town USA, 2822 Peidmont Ave., Duluth, MN 55811, (218) 727-6248

Duey's Hobbies & R/C Raceway, 6600 Cahil Ave., Inver Grove Heights, MN 55076, (651) 450-1721

Fun City, 9100 Park Ave., Elk River, MN 55330, (612) 441-8365

Northwoods Hobby Raceway, 2638 Hwy. 25 North Brainerd, MN 56401, (218) 829-9257

Ray's Raceway Park, 105 3rd Ave. NE., Glenwood, MN 56334, (320) 634-5246

R/C Racing World, 235 Main AVe., North, Harmony MN 55939, (507) 886-5931

Southside Speedway, 2241 Marion RD., SE Rochester, MN 55904, (507) 281-3233

MISSISSIPPI

Joe McFaden Hobbies, 5531 Fox Meadow Dr., Meridian, MS 39307 (601) 483-7000

Small Cars Unlimited, 820 Cooper Rd., Jackson, MS 398212, (601) 372-FAST

MISSOURI

B&L Hobbies & Raceway, 2800 Anchor Dr., Park Hills, MO 63061, (573) 431-9444

Greentree R/C Racepark, Marshal Road, Kirkwood, MO (314) 831-2194

Ozark's R/C Raceway, PO Box 460, Willard, MO 65781, (417) 742-4376, (417) 742-7223

Real Blue Vue Speedway, 12019 E. 47th St., Kansas City, MO 64133, (816) 358-0238

Real R/C Raceway, 24204 State Rte. 58, Pleasant Hill, MO 64080

NEBRASKA

Goodyear Speedway, 4021 North 56th, Lincoln, NE 68510, (402) 464- 5172

OTWG Carpet Raceway, 55129 849th Rd., Norfolk NE 68701, (402) 644-7922

RC Motorsport Off-Road Raceway, 5600 Mass Rd., Omaha, NE 68164, (402) 593-6133

NEVADA

Bills Hobby Shop, Largest off-road track in NV 1000 N.Nells Blvd. Nellis Plaza, Las Vegas, NV 89110 (702) 531-3282

Danwsey's Indoor R/C Hobbies, 741 N. Nellis Las Vegas, NV 89110, (702) 453-RACE

NEW MEXICO

Big Boys toys, 1735 Juantabo N.E. Albq., NM 87112 (505) 298-1023

Charlie's Hobby Shop, 225 E. Idaho, Ste. # 11Las Cruces, NM 88005, (505) 541-1097

NEW YORK

Rampage R/C, 782 Rt. 9G, Hyde Park, NY 11204

NEW JERSEY

Hobby Workshop, 510 West Kings Hwy. Mt Ephraim, NJ 08059 856-931-2400

Alpine Lounge, Blackhorse Pike Turnersville, NJ

RHODE ISLAND

Tri-State R/C Raceway, 205 Hallene Rd., Warwick, RI 02886, Lenny Sosa (401) 738-4908

SOUTH CAROLINA

Carolina R/C Speedway, 4148 Calhoun Memorial Hwy., Easley, SX 29640; Craig Prahl, (864) 295-1209; *ww.carolinarc.com*

Myrtle Beach R/C Park, 5976 Grace Lane, Myrtle Beach, SC 29577 Brad Smith, (843) 234-0096

The Grove Racing Center, 939 S. Anderson Rd., Rockhill, SC 29730, Mike Durham or Don Faris, (803) 327-4121

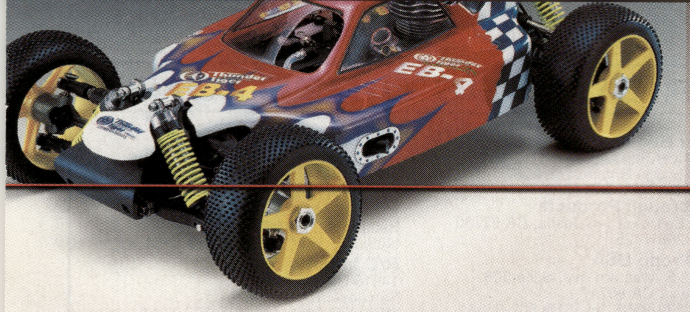
Hobbies and More, 1570 S. Main str., Darlington, SC 29532; Jerry Pollard (803) 393-0355

J&M R/C Hobbies, 5341 Dorchester Rd., Evanston Plaza, N. Charleston, SC 29418; Mike Smith (843) 552-9449

Midway Hobby and Raceway, 707 Sulphur Springs Rd., Greenville, SC 29611; Allen A. Dodson, (864) 246-6335

ORA Atomic Racing, 373 Boyd Pond Rd., Aiken, SC 29803; Bill Felak, (706) 855-0846 or (803) 642-0314

R/C Racing Connection Speedway 4375 Juniper Bay Rd. Conway, SC 29527 (843) 397-0124





SOUTH DAKOTA

Boomerans Raceway, 105 N. Main, Hartford, SD 57033; Ed Smithback (605) 528-7345

TENNESSEE

Hobby Town USA, 2000 Mallory Ln., Franklin, TN 37067; Bobby Mills, (615) 771-7441

MSA R/C Racing, Rt. 12 Box 489 F, Crossville, TN 38555; D.R. Findley (931) 456-0027

W.O.W. Raceway, 59 Luray Rd., Beech Bluff, TN 38313; Kelly Bean, (901) 427-7874; *windix60@pipeline.com*

XS Speed, 5237 Hwy. 126, Blountville, TN 37617, (423) 323-1513

Speedzone Raceway & R/C Hobbies
121 Co. Rd. 308 Sweetwater,TN 37874
423-351-0055, 423-351-0056
speedzone@usit.net; www.speedzoneraceway.com

Hobby Town USA, Commons II 8859 Town & Country Circle Knoxville, TN 37923 865-690-6423

TEXAS

215 Speedway, 1814 County Rd. 215, Abilene, TX 79602; Clyde Gardner (915) 673-2351

Big Mike's R/C Raceway, 1405 W. Cotton St. Longview, TX 75604; (903) 297-7814

Comanche Trail RC Park, City Park, Big Spring, TX 79720; Allen Nichols (915) 263-4241

Discount Hobbies, 1722A West Anderson Loop, Austin, TX 78757; Tony Bermudex, (512) 458-2324

Drycreek Raceway, 2518 I 30-W Greenville, TX 903-527-5381

Hal's Hobby Raceway, 1440 Bessember, El Paso, TX 79936; Carlos (915) 591-2213

Hobbycraft Speedway, 819 N. Main St., Corsicana, TX 75110; Keith Hoffman (903) 872-6761

HobbyTown USA, 999 E. Basse Rd., Suite 177, San Antonio, TX 78209; Joe Sena, or Clark Baisdon, (210) 829-8697

Indy R/C World, 2020 Saturn Rd., Garland, TX 75041, (972) 271-4844

Issac's Race Track, 18177 Gulf Frwy., Webster, TX 77598; Issac Ben-Ezra, (281) 488-8697

MBRC Off-Road Raceway, 204 D & E Valley Ln., Kennedale, TX 76133 (817) 292-5055

Performance Raceway,
1106C Witte Rd., Houston, TX 77055; Jorge Tabush or Terry Schmid, (713) 464-4458

VIRGINIA

Debbie's R/C World, 2200 Commerce Parkway, Virginia Beach, VA 23454, (757) 340-6681

Hobby Hangers Speedway, 14014D Sullyfield Cir., Chantilly, VA 20151; Kwang or Billy, (703) 631-8820

Olde Towne Hobby Shoppe, 9105 Center St., Manassas, VA 22110; Arnie Levine, (703) 369-1197

Roanoke Race Club 5080 Stable Rd. Roanoke, VA 24014 540-989-4529 www.roanokeraceclub.com

Shamroc Raceway, 106 Cheviot Pl., Stephens City, VA 22655; Scott Janow, (540) 869-3551

Star/Car Raceway, Debbie's R/C World, 200 Commerce Parkway, Virginia Beach, VA 23454, (757) 340-6681

The Toteyard, 6494 Toteyard Dr., Dayton, VA 22821 (540) 828-3476 *toteyard.com.home*

WASHINGTON

Alfie's, 108 South K St., Aberdeen, WA 98520; (360) 533-6638

A-Main Raceway, 14011 NE 3rd Ct., Vancouver, WA 98685; Monty Coleman, (360) 571-8404

Burien Toyota R/C, 15025 1st Ave. South, Seattle, WA 98148 Ray Meek, (800) 654-6456

Cedardale Raceway, 16733 Cedardale Rd., Mount Vernon, WA 98273; Joe Madonia, (360) 659-0072; *getchell@halcyon.com*

Four Season R/C Racing, 2941 Sleater Kinney Rd. NE Olympia, WA 98506; Gary Brown (360) 491-2430

Rain City Raceway, 3616 South Rd., Suite A3, Mukelteo, WA 98275, Debbie Cartwright (425) 438-2454 raincityraceway.com

Spokane Indoor Raceway, 6422 E. 2nd Ave., Spokane, WA 99212; Dave Mapston (509) 534-RACE

Tacoma R/C Raceway, 6305 6th Ave., Tacoma, WA 98406; Scott Brown (253) 565-1935

Ultimate R/C Raceway, 907 Cole St. #3, Enumclaw, WA 98022; Dan Dougherty, (509) 375-4995

West Coast Hobby & Raceway, 2239 Stevens Dr., Richland, WA 99352; Rick, (509) 375-4995

WEST VIRGINIA

Burr-Fab Raceway, 90 Davis St., West Union, WV 26456; Mark Travis, (304) 873-2487

Fulton's R/C Raceway, 2646 Chapline St., Wheeling, WV 26003; James Fulton (304) 233-5355

Left Turn Hobbies, 100 Saco Ln. Glen White, WV 25849; Stretch (304) 255-3930

Race Zone, Hopewell Rd., Rt. 8 Box 343A, Fairmont, WV 26554; Joe Clutter , (304) 368-1000

WVRCA R/C Club, 142 West Main, Bridgeport, WV 26330; D.W. Weed

WISCONSIN

ABC R/C Inc & Raceway, 244 W. Main St., Waukesha, WI 53186; Dick Mathiesen, (414) 542-1245

Gary's Hobby Center, 3701 Durand Ave., Racine, WI 53403; Bill Phalen, (414) 542-1245

Heart of the Valley R/C Club, 1330 Midway Rd., Menasha, WI 54952; Bill Morgan, (920) 954-1695

Hobbytown USA, 2061 South Koeller, Oshkosh, WI 54901 (920) 426-1840

Hobbytown USA-Revolution, Memorial Mall, 3347 Kohler Memorial Dr., #D2, Sheboygan, WI 53081; Kenny, (920) 452-0801

JJ's Dirt Heaven Hobby and Raceway, 6028 County Rd K, New Frankview, WI 54229; *dirtheaven@msn.com* Aaron Dufey (920) 866-9096

Mid-West Tri-Clone, 3745 Shuster, West Bend, WI 53095; Tom Holz, (414) 334-0429

Pro-Star Racing, 726 Pine St., Green Bay, WI 54301; Chuck, (920) 494-1233

RJ's/R.C., 4920 Hwy. 70W, Eagle River, WI 54521; Randy Stys, (715) 479-2541

S&N's Trackside Hobbies and Raceway, 6405 N. Green Bay Ave., Milwaukee, WI 53209; Scott Ernst, (414) 351-1910

WYOMING

Wind River R/C Racing Association, 309 N. 4th West, Riverton, WY 8250; Shannon Watts, (307) 857-0418

Xtreme Hobbies Raceway, 2724 Powder Basin, Gillette, WY 82718; Frieg Balls, (307) 682-6077

CANADA

Mid-Canada R/C Auto Racing, Hwy. 1 East Winnipeg, Manitoba CANADA R2J 4E6 (204) 231-3324 www.geocities.com/midcanadarcautoracing

ATTENTION TRACK OWNERS!

Have your track added to our list in R/C CAR. Call 1-800-767-0345.

Track Name

Address

Phone

Return to: R/C CAR Track Directory, P.O. Box 958, Valencia, CA 91380-9058

Thunder Tiger 116 W. 19th St. Higginsville, MO, 64037 Phone (660) 584-7121, Fax (660) 584-7766 www.acerr.com

MANUFACTURERS & DISTRIBUTORS DIRECTORY

AAA Hobby Distributor
529 Sinclair Frontage Rd.,
Milpitas, CA 95035
(408) 719- 9414, fax (408) 719-9413

ACE Hobbies Distributing
116 W. 19th St.
Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

ACER Racing
P.O. Box 5680
Santa Monica, CA 90409-5680
(310) 775-6435, fax (310) 472-4870

Aero-Car Technology
PO Box 336
Western Springs, IL 60558
(708) 246-9027

Airtronics
1185 Stanford Ct.
Anaheim, CA 92805
(949) 978-1895, fax (949) 978-1540

Alien distributed by Bruckner Hobbies
3587 E. Tremont Ave. Bronx, NY 10465
(800) 288-8185, fax (718) 863-4002

Amadeus
One Bridge St. Suite 93
Irvington, NY 10533
(914) 591-0028

A-Main Racing distributed by Ace Hobbies
116 W. 19th St.
Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

Andy's Bodies
2028 E. Francis St.
Ontario, CA 91761
(909) 923-6155, fax (909) 923-6156

Apex
18 Crown Steel Dr. Unit 107
Malkham, Ontario L3R 9X8 CANADA

Associated Electronics
3585 Cadillac Ave.
Costa Mesa, CA 92626
(949) 850-9342 fax (949) 850-1744

Atomik Bodies
2363 Teller Suite 104
Newbury Park, CA 91320
(805) 499-7003, fax (805) 499-7192

Ballistic Batteries
P.O. Box 30344
Phoenix, AZ 85046
(602) 493-3717, fax (602) 493-5007

Bennett Equipment
900 E. 1300 S. Romney, IN 47981
(765) 538-2725, fax (765) 538-3429

Berginzoni
1015 E. Semoran Blvd. Suite 117
Casselberry, FL 32702 (407) 261-0496

Bonzai Motors
719 Gaillard St.
Glendora, CA 91740
(626) 963-0422

Boca Bearings
7040 W. Palmetto Pk.,
SE Boca, Raton, FL 33433
(800) 332-3256, fax (561) 998-0119

BoLink
420 Hosea Rd.
Lawrenceville, GA 30045
(770) 963-0252, fax (770) 963-7334

BSR
109 County Rd. 455
Killen, AL 35645
(256) 757-1564, fax (256) 757-1574

BRP
1575 Lowell Elyria, OH 44035
(440) 284-0270, fax (440) 284-0271

Byron Originals
PO Box 279 Ida Grove, IA 51445
(712) 364-3165, fax (712) 364-3901

Champion Tires
distributed by Ace Hobbies
116 w. 19th St.
Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

Cobra
657 S. 4150 W.
Salt Lake City, UT 84104
(801) 975-7724

Competition Electronics
3469 Precision Dr. Rockford, IL 61109
(815) 874-8001, fax (815) 874-8181

Deans
10875 Portal Dr.
Los Alamitos, CA 90720
(714) 828-6494, fax (714) 828-6252

Drier Racing
1015 E. Simoran Blvd. Suite 117
Casslebury, FL 32707
(407) 261-0496,
fax (407) 261-0598
www.dreirracing.homestead.com/gbusa.html

Dura Trax distributed by Great Planes
P.O. Box 815 Wauconda, IL 60084
(217) 398-6300, fax (217) 398-6300

Dynamite distributed by Horizon Hobby Distributors 4105 Fieldstone Rd.
Champaign, IL 61821
(217) 355-9511, fax (217) 352-0355

ESP
129 Elizabeth Ln. #4 Genowa City, WI 53128
(262) 279-0900

Excalibur Fuels
10912 76 Drive Peoria, AZ 85345
(602) 455-0040

Factory Works
505 N. Smith Ave. Ste. 105 Corona, CA 91720
(909) 735-5516, fax (909) 735-5642

Fantom Racing
50201 Silver St. Vicksburg, MI 49097
(616) 649-9583, fax (616) 649-9584

Fioroni distributed by Ace Hobbies
116 w. 19th St. Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

FMA Direct
9607 Dr. Perry Rd., #109
Ijamsville, MD 21754
(800) 343-2934, fax (301) 831-8987

FSR
3941 Legacy Dr. Ste. 204
Plano, TX 75023 (972) 618-7038, fax (972) 618-7637

Futaba Corp. of America
P.O. Box 19767, Irvine, CA 92723
(949) 455-9888, fax (949) 455-9899

GM Racing distributed by Horizon Hobby Distributors
4105 Fieldstone Rd. Champaign, IL 61821
(217) 355-9511 Fax (217) 352-0355

Genka Trading Corp.
1800 E. Miraloma Ave., #F Placentia, CA 92870
(714) 792- 1923, fax (714) 792-1968

GS Racing distributed by Horizon Hobby Distributors
4105 Fieldstone Rd. Champaign, IL 61821
(217) 355-9511 Fax (217) 352-0355

Golden Horizon
#311-938 Howe St. Vancouver, B.C.
CANADA V6Z 1N9 (604) 331-2526, fax (604) 331-2528

GPM distributed by Hobby Etc.
90 West Pearl St. Nashua, NH 03060
(603) 595-8549, fax (603) 595-1498

GTP
600 A Anton Blvd. Costa Mesa, CA 92626
(949) 756-1219 (949) 756-1227

Hammad Ghuman
6 Tower Heights Albany, NY 12211
(518) 782- 9255, fax (518) 458-2712

Hardcore Racing
25435 Rye Cyn. Rd. Valencia, CA 91355
(661) 294-5032, fax (661) 294-0770

Harm distributed by Lucas Racing
912 Mt. Washington Dr. Los Angeles, CA 90065

HiTec RCD
12115 Paine St. Poway, CA 92064
(858) 748-6948, fax (858) 748-1768

Hobby Tech Inc.
PO Box 861567
Los Angeles, CA 90086
(213) 680-2668

Holeshot Racing
55 Irma Rd. Brockton, MA 02401
(508) 587-0663, fax (508) 587-0663

Hot Bodies
11318 South St. Cerritos, CA 90703
(562) 468-1121

Horizon Hobby Distributors
4105 Fieldstone Rd. Champaign, IL 61821
(217) 355-9511 Fax (217) 352-0355

HPI
15321 Barranca Pky. Irvine, CA 92618
(949) 753-1099, (949) 753-1098

Hudy Special Products
Pod Brezinou 22 911 01 Trencin
912 Slovakia EUROPE 00421-831-440-179

Innoventive Technologies Inc.
16025 23 Mile Rd. Macomb Twp., MI 48042
(810) 677-2311, fax (810) 677-2312

IRS
18 Cannon Range Rd. Milmay,
NJ 08340 (609) 476-2371

Integy
1140 Centre Dr. City of Industry, CA 91789
(909) 444-2766, fax (909) 444-2767

Jamara
15901 Tobin Way Sherman Oaks, CA 91403
(818) 995-4156

Kawada
283 S.W. 41st St. Renten, WA 98055
(425) 656-0688, fax (425) 656-0690

Keyence distributed by Schumacher USA
6302 Benjamin Rd. Ste. 404
Tampa, FL 33634
(813) 889-9691 Fax (813) 889-9593

Killer Bee
130 Riverview Ave.
Woodbridge Ontario L4L 2L6
CANADA (416) 766-8233

Kimbrough Products
1322 Bell, Unit 1-C Tustin, CA 92780
(714) 258-7425

KO Propo USA
16012 S. Western Ave. Suite 308
Gardena, CA 90247
(310) 532-9355, fax (310) 532-9354

Kyosho/Great Planes
P.O. Box 9021 Champaign IL 61826
(217) 398-6300 fax (217) 398-1104

Laro distributed by Savon Hobbies
P.O. Box Box 421220 Miami, FL 33242
(305) 634-8959 fax (305) 634-3950

LRP Distributed in the USA by Associate Electronics. Wilhelm-Enssle-Str. 134, 7064 Remshalden, Germany

Lunsford Industries Inc.
2500 Three Lakes Rd. Ste A Albany, OR 97321
(541) 928-0587, fax (541) 967-5917

Maxtec
1830 West 208 Torrence, CA 90501
(310) 381-2992, fax (310) 381-2988

Medial Pro Tires
distributed by Ace Hobbies
116 W. 19th St.
Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

Motor Saver Filters
24282 McCoy Rd. Lake Forest, CA 92630
(949) 455-0201, fax (949) 455-0249

Moore's Ideal Products
830 W. Golden Grove Way Covina, CA 91722 (626) 339-9008

MIP
830 W. Golden Grove Way
Covina, CA 91722 (626) 339-9007

MRC
80 Newfield Ave. Edison, NH 08837
(732)225-6360, fax (732) 225-0091

Mugen Sieki
17971 Skypark Cir. #G Irvine, CA 92614
(949) 475-9505, fax (949) 475-9511

Multiplex
560 Library St. San Fernándo, CA 91340
(818) 838-6467, fax (818) 838-3127

New Era Models
PO Box 7378 Nashua, NH 03060
(603) 888-4453, fax (603) 888-8645

Niftech
5565 Wilson Dr. Mentor, OH 44060
(440) 257-6018, fax (440) 257- 4281

Novak Electronics
18910 Teller Ave. Irvine, CA 92618
(949) 833-8873, (949) 833-1631

Nova Rossi distributed by Savon
P.O. Box Box 421220 Miami, FL 33242
(305) 634-8959 fax (305) 634-3950

Nuova Faor
distributed by Ace Hobbies
116 W. 19th St. Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

O'Donnell Racing
10702 Hathaway Dr. #2
Santa Fe Springs, CA 90670
(310) 944-6821, fax (310) 944-9671

OFNA Racing
22600 Lambert Ste. D-1009 Lake Forest, CA 92630
(949) 586-2910

Omega distributed by Ace Hobbies
116 W. 19th St. Higgonsville, MO 64037
(660) 584-7121, fax (660) 584-7766

O.S. distributed by Great Planes
P.O. Box 815 Wauconda, IL 60084
(217) 398-6300, fax (217) 398-6300

Paris Racing
4254 Independent St. Chino, CA 91710
(909) 465-1189, fax (909) 465-0089

Paragon Racing Products
340 Industrial Blvd. Waconia, MN 55387
(612) 442-6364, fax (612) 442-6368

Parma/PSE
13927 Progress Pky. North Royalton, OH 44133
(216) 237-8650 fax (216) 237-6333

Peak Performance 23352 J Madero Rd.
Mission Viejo, CA 92691
(949) 707-4683, fax (949) 707-4684

Penguin R/C
1230-P N. Jefferson St.
Anaheim, CA 92807
(714) 630-9015, fax (714) 630-6250

Progressive Suspension
11129 G. Ave. Hesperia, CA 92345
(760) 948-4012, (760) 948-4307

Pro-Line/Jaco P.O. Box 456
Beaumont, CA 92223
(909) 849-9781 fax (909) 849-2968

Protoform Inc.
P.O. Box 456
Beau mont, CA 92223
(909) 849-9781 fax (909) 849-2968

R/C Imports
14918 Camden Ave.
San Jose, CA 95124
(408) 377-2361, fax (408) 377-2211

RCPS
18312 Gifford St.
Fountain Valley, CA 92708
(606) 727-5180

Ricambi
801 West El Camino Real #339
Mt. View, CA 94040
(408) 738-3514, fax (408) 738-3138

R n D Racing
164 Aero Camino
Goleta, CA 93117
(805) 685-444

Robinson Racing Products
4968 Meadow View Dr.
Mariposa, CA 95338
(209) 966-2465, fax (209) 966-5937

Roland DGA
15271 Barramca Prky.
Irvine, CA 92618
(949) 727-2100, fax (949) 727-2112

RPM
14978 Sierra Bonita Ln.
Chino, CA 91710
(909) 393-0366 fax (909) 393-0465

Savage Motor Sports
8700 Kugler Mill Rd.
Cincinnati, OH 54243
(513) 271-6858

Savon Hobbies
P.O. Box Box 421220
Miami, FL 33242
(305) 634-8959, fax (305) 634-3950

SEI Racing
145 N. Sierra Madre Blvd. #10
Pasadena, CA 91107
(626) 577-8004, fax (626) 577-8084

Serpent USA
2830 NW 79th Ave.
Miami, FL 33122
(305) 639-9665, fax (305) 639-9658

Schumacher USA
6302 Benjamin Rd., Ste. 404
Tampa, FL 33634
(813) 889-9691 (813) 889-9593

Speedline Disributing
7825 Beauregard Ste. 9B
Austin, TX 78745
(512) 326-8481

Tamiya America Inc.
2 Orion; Aliso Viejo, CA 92656
(800) TAMIYA-A, fax (949) 362-2250

Team Associated
3585 Cadillac Ave.
Coasta Mesa, CA 92626
(949) 850-9342, fax (949) 850-1744

Team Losi
13848 Magnolia Ave.
Chino, CA 91710
(909) 465-9400, fax (909) 590-1496

Team Orion distributed by HPI
15321 Barranca Pky.
Irvine, CA 92618
(949) 753-1099, (949) 753-1098

Tekin
940 Calle Negocio
San Clemente, CA 92673
(949) 498-9518, fax (949) 498-6339

Testor Corp.
620 Buckbee St.
Rockford, IL 61104
(815) 962-6654, fax (815) 962-7401

Thunder Tiger
distributed by ACE Hobbies (above)

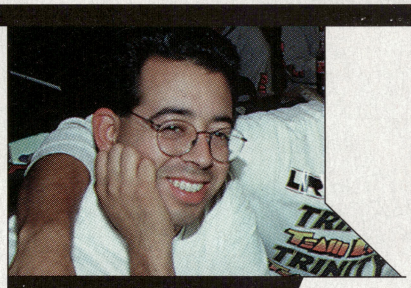
Traxxas Corp.
1210 Shiloh Rd.
#120 Dallas, TX 75228
(972) 613-3300 fax (972) 613-3599

Trinity Products Inc.
36 Meridian Rd.
Edison, NJ 08820
(732) 635-1600, fax (732) 635-1640

Yokomo
17951 Skypark Cir., Ste K
Irvine, CA 92614
(949) 252-8663, fax (949) 252-8657

World Class Batteries
13967 Umpire St.
Brighton, CO 80603
(303) 659-0707, fax (303) 659-0957

Hi-Lux Heaven



BY RICHARD TRUJILLO

I remember going to a local toy store in my area when I was about 11 years old. It was your typical toy store except for the fact that they carried Tamiya R/C car kits. In their R/C section they had a T.V. playing a Tamiya video which showed all the models Tamiya produced. It was really cool—the video showed them in action on some beach in Japan. On one part of the video they showed the Tamiya Toyota Hi-Lux. It was the most realistic R/C car I had ever seen! There were scenes driving on sand dunes, up and down rock-strewn hills and even driving through a small river with the water over the headlights! That was it, I was sold... until I found out it was $300! Needless to say, at 11 years old it was going to be tough coming up with the money.

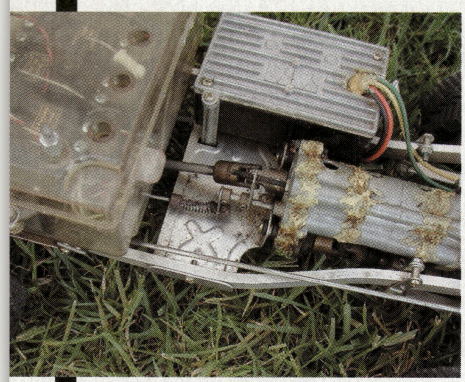


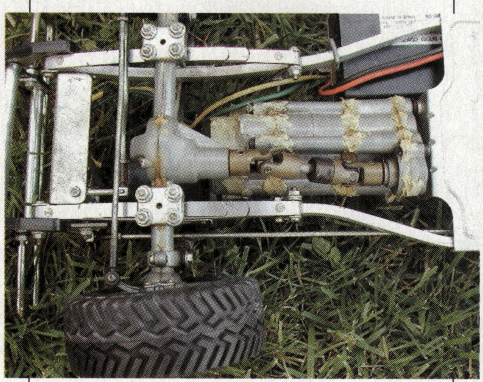
About ten years later, I was working for a hobby shop, when some guy walks into the shop and we get to talking. Somehow the Hi-Lux came into the conversation and he tells me he has one without tires and would be willing to trade it for a motor lathe...done!

Now another ten years later (yikes, I'm dating myself) I'm writing this "Vintage R/C" column for *R/C Car* and it's time to break out the Hi-Lux and restore it. I originally wanted to completely restore this to new, but when I saw the original sticker sheet selling for over $200, I decided I would repaint the original body, then completely go through the chassis and try and find some tires. I searched eBay for about 8 months when finally a full brand new set of tires for the Hi-Lux in the package went up for auction. Now, I can't reveal what I paid for them (my wife would kill me) but it was the most I have ever paid for R/C car tires!

As you can see from the pictures, it is actually in pretty good condition, but it doesn't run and has a pretty bad paint job. I'll be busting out the Easy-off oven cleaner to get the old paint off and I'll be recoating it in Tamiya Red. I'll also be taking the chassis completely apart for cleaning and polishing everything I can. I'm going to be needing a few parts replaced and for that I'll be searching my favorite web site, eBay, or going to a cool vintage Tamiya site *www.blazerfrazer.com*. Frazer's site has pictures and info on pretty much all the old Tamiya R/C cars and actually has quite a few parts and kits for sale.

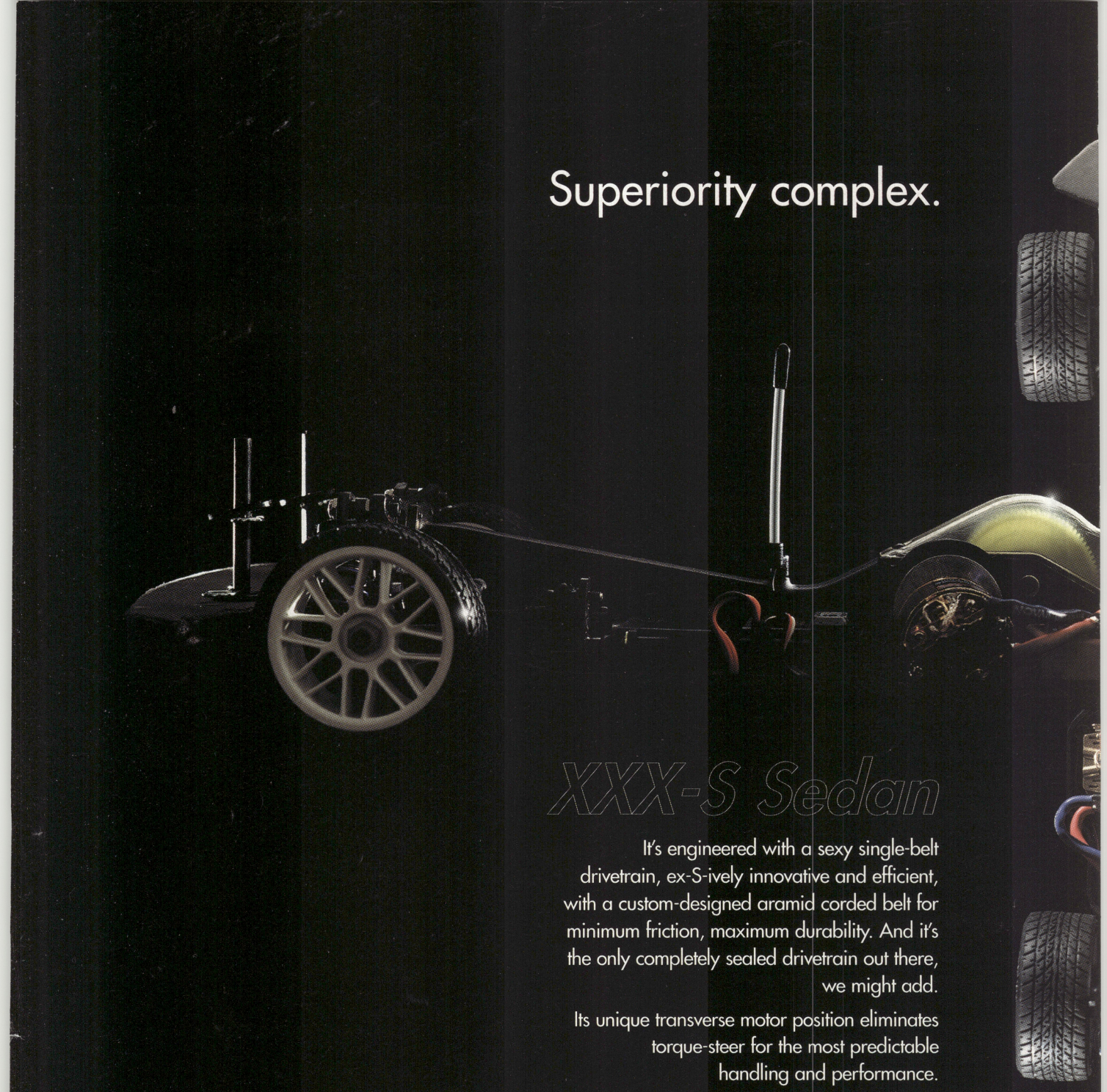
Next month I'll have an update on how the Hi-Lux is coming along as well as a feature on the old Tamiya Fox—stay tuned! ◆







Superiority complex.



XXX-S Sedan

It's engineered with a sexy single-belt drivetrain, ex-S-ively innovative and efficient, with a custom-designed aramid corded belt for minimum friction, maximum durability. And it's the only completely sealed drivetrain out there, we might add.

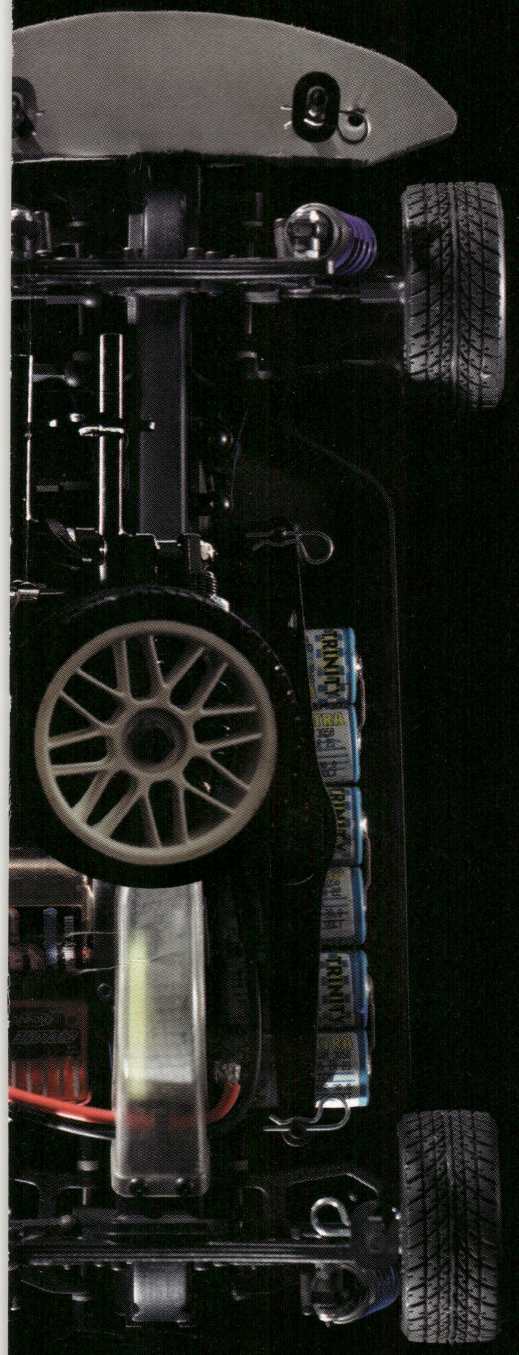
Its unique transverse motor position eliminates torque-steer for the most predictable handling and performance.

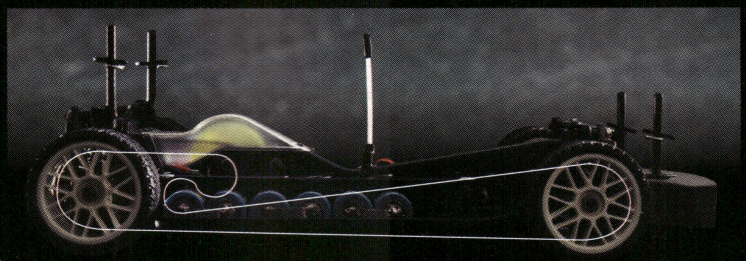
It boasts an easy-access spur gear for convenient gear changes from a wide selection of ratios, gloats over its adjustable and removable belt-tensioner arm for easy diff changes, and flaunts a list of impressive features as long as your arm.

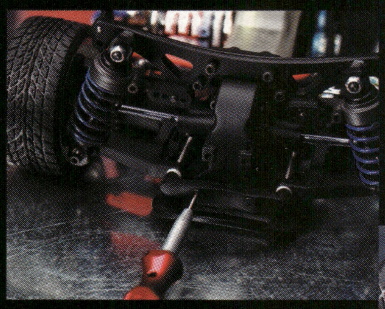
Oh yes, this baby is quite a show off.

Well, why not? It comes from a long line of exceptional racers. The brainchild of a legend, it was born to win.

And winning is good.

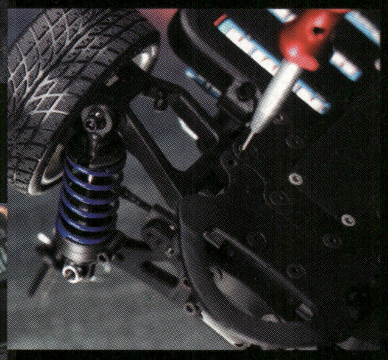


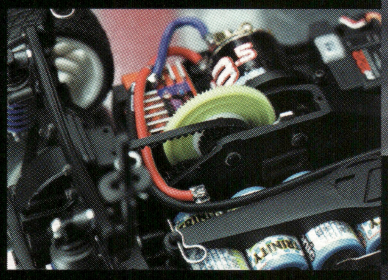




Exclusive single-belt drivetrain with large diameter diff pulleys and rugged, custom-designed aramid corded belt.

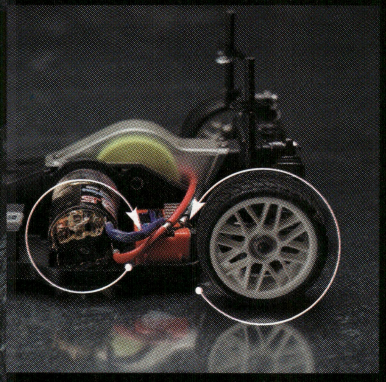
Adjustable front and rear anti-squat/pin angles.

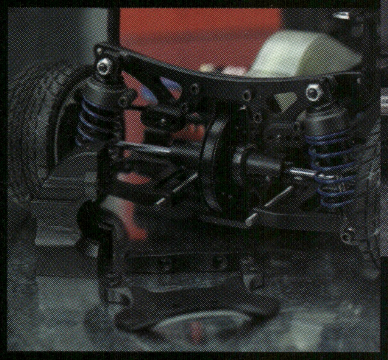




Down stop limiters on all suspension arms for precise ride height and suspension travel.

Easy-access spur gear for convenient gear changes.





Transverse motor position eliminates torque-steer for the most predictable handling & performance.

Simple six screw front and rear diff access, plus M.I.P. CVD driveshafts are the same on all four corners.

Team Losi

Lil Losi

www.teamlosi.com

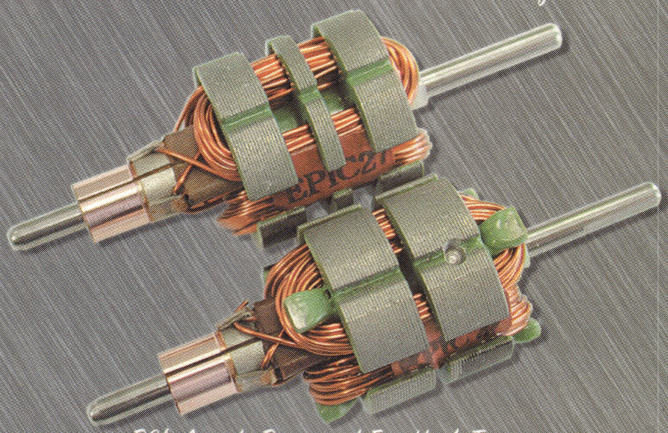
Engineering wins.

PLAY THE STOCK MARKET AND WIN!



Hi-RPM!

Unique Tapered Shafts Make Armatures Easy To Identify
Pure Copper Hardware For Ultra Low Resistance
Green Machine 3 Uses Tri-Rotor™ Arm For High RPM

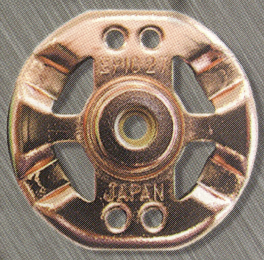




Hi-Torque!

P2k Arm Is Designed For High Torque
Armatures Tagged For Easy Identification
Flat Can Eliminates Cheaters Changing Endbell Timing





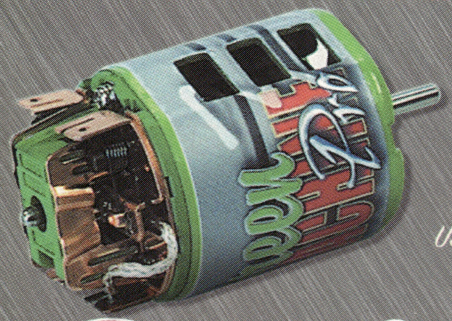


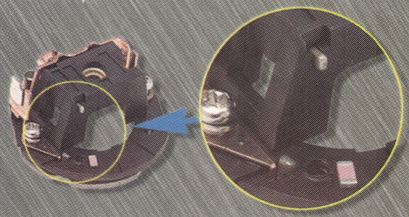
Green 3 MACHINE

P2k™



Green 3 Can Design Promotes Higher RPM
P2k Asymmetrical Can Design Increases Timing And Torque
P2k Wet Pressed Magnets, The Strongest Available
Low Resistance Reduced Surface Bushings
All Three SMC Capacitors Pre-Installed, None To Solder







Use The Green Machine 3 On Big Fast Tracks
Use P2k On Short Tight Tracks

Blue Chip Investments From

TRINITY

Originators of the Rebuildable Stock Motor®

9426 Standard
9427 Pro "Tweaked"
& Dyno Tuned

RC2116 Standard
RC2117 Pro "Tweaked"
& Dyno Tuned