MINI-ME R/C: HPI MICRO RS4 TEST!

WPS
34486

HI-TORQUE'S

R/C CAR

THE RADIO CONTROL CAR MAGAZINE

NOVEMBER 2001

SPECIAL TECH SECTION

ALL ABOUT ONE-WAYS
PAINT-LESS BODIES
CRYSTAL-FREE RADIOS
STRONGER CHASSIS



DAVE JUN'S TA04 PRO! WIN page 106

Team Losi
XXX-S
Who's laughing now?

ISSN 1097-0711

$4.50 CANADA $5.50

Attn. retailer: Please display until Nov. 1

www.rc-car.com

Associated Team Built GT



Tamiya TA04-R—Carbon-fiber fantasy



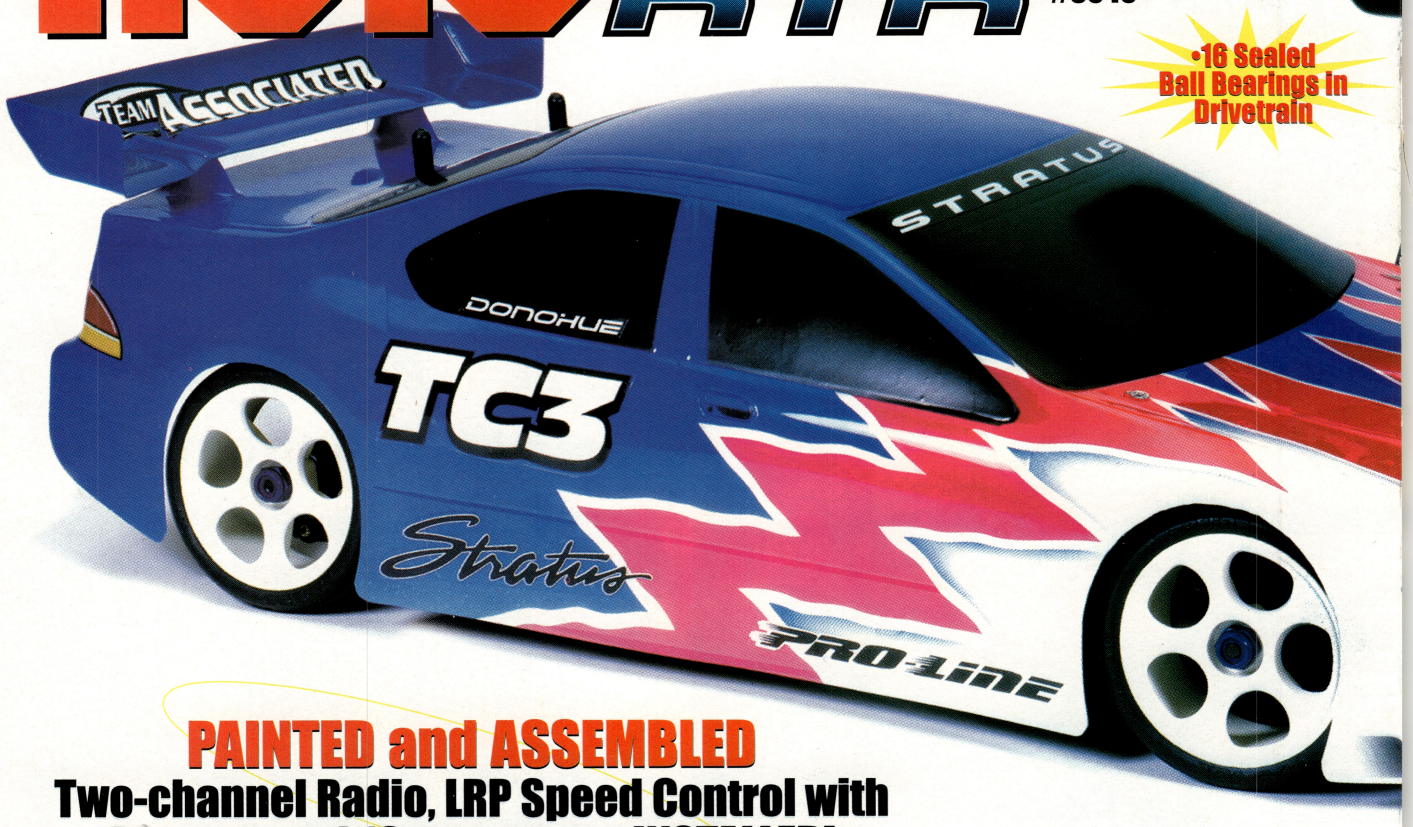


RACE-PROVEN... READY-TO-RUN...

RC10 TC3 RTR

#3040

•16 Sealed Ball Bearings In Drivetrain



PAINTED and ASSEMBLED

Two-channel Radio, LRP Speed Control with Reverse and 19-turn motor INSTALLED!



•Composite bodied VCS Shocks

•Pro-Line Tires and Wheels

•Adjustable Aluminum Motor Mount w/heatsink

•Powerful 19-Turn open-endbell motor

•Genuine LRP Digital Speed Control w/ reverse

•Steering servo and Receiver installed

•ATAC™ Steering System: Associated True Ackerman Concept

•Hollow Composite "Floating" Drive Shaft

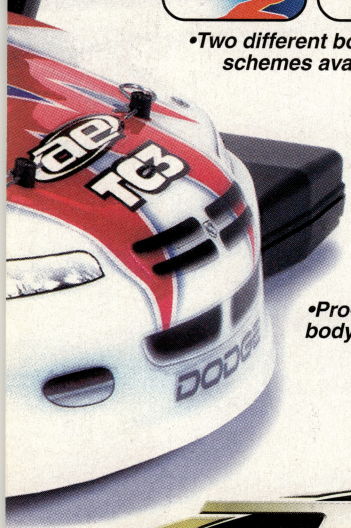
•Adjustable Caster, Camber, Toe-in, and kickup



•High-quality 2-channel wheel radio system



•Two different body color schemes available



•Pro-Line Stratus body, painted and trimmed

WWW.AEINTERACTIVE.COM

InterActive

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

R/C CAR
THE RADIO CONTROL CAR MAGAZINE
November 2001, VOLUME 4, NO. 11

On the cover: Is Team Losi's new XXX-S touring car the one to beat? Photo by John Howell.

On this page: First turn racing action from the R/C Car/Hot Rod Hobbies Off-Road Shootout. Photo by Frank Masi.

TEST DRIVES



26 Team Losi XXX-S
Living the single life



34 Tamiya TA04-R HKS Racing Altezza
Carbon cruiser



56 Team Associated Team Built RC10GT
Add another acronym to your vocabulary: ARTR (almost ready to run)



94 Tamiya Lancia 037 Rally
The Golden age of rally racing returns!

FEATURES



40 How One-Ways Work
Free-wheeling can be faster, but only when the time is right!



44 Pre-Painted Bodies
Making paint a thing of the past!



47 Novak XXTra Synthesized Receiver
Kiss those expensive crystals goodbye!



50 Plastic Fantastic: Molded Chassis vs. Graphite Plate
Which is better?



52 Hopping up the Tyco Jeremy McGrath X-Treme Cycle
Putting more control in radio controlled



66 Pro-file: Scott Hughes
From racer to representative



68 Pro-file: David Katz
The man who helped Traxxas re-define R/C!



72 ROAR On-Road Nationals
Things heat up in Northern California



82 First Test HPI Micro RS4
Just the right size



86 R/C Car/Hot Rod Hobbies Off-Road Shootout
Off-Road fun in SoCal



100 Jason Jaeckel's Racer Maxx
Is this the most radical racer yet?

R/C Car Magazine (ISSN 1097-0711, Canada GST 12500#9266RT), CPC. PUB MAIL #40024492, November 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 add $12 additional postage for one year, $24 for two years. Foreign add $15 additional postage for one year, $30 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.

DEPARTMENTS



8 Drivers Standpoint
State of the gas truck union



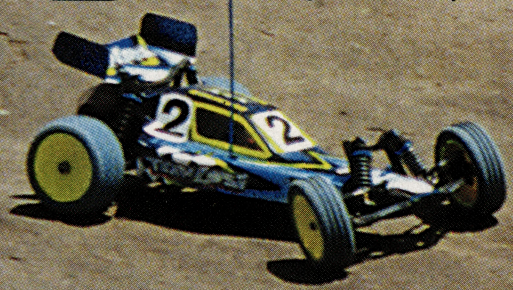
11 Up Front
New, Readers' Projects, and The Detail Shop



23 Feedback
Readers write



113 Vintage R/C
Looking back at Kyoso's Honda CRX



Is it a coincidence that every ROAR Off-Road Electric National champ in the last two years raced on Losi tires?



NOPE.

Whether spec'd for events or picked by personal preference. Team Losi racing tires are always the choice of champions.

Team Losi
ENGINEERING WINS
www.teamlosi.com

© 2001 Team Losi, a division of Horizon Hobby, Inc.

HI-TORQUE'S 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
BETH BOWMAN RIDGWAY
JACKIE CLEVELAND
ALMA MARTÍNEZ de DICSÖ

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

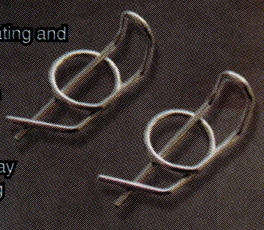
Any change of address or subscription problems please contact us by e-mail: *corinne@hi-torque.com* or call (800) 767-0345.

NITRO EQUIPMENT

Team Orion

NITRO CLIPS

osing body clips is not only irritating and xpensive, but also downright mbarrassing! Nitro Clips, eveloped to handle the rigors of itro racing, feature a locking evice that keeps both clip and ody secure. It's finally time to say oodbye to lost clips and flapping alligator" bodies.
1812 stainless 6 pc. $2.00





SHOCK SLEDGE OIL

Team Orion's constant viscosity shock oil consumes heat without breaking down even under the harshest conditions. Whether you are filling 1/12 micro shocks or T-Maxx behemoths, precision damping is maintained throughout the duration of your session.

NITRO SPEED CLEAN

Keep your nitro vehicles clean with Team Orion's new Nitro Speed Clean. Formulated for thorough, quick, and residue free cleaning of both engine and chassis components, Nitro Speed Clean prevents maintenance problems so more time is spent on the track and less time spent in the pits.
41705 $6.00



RECEIVER PACKS

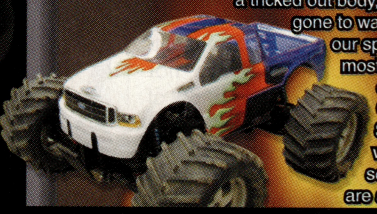
Team Orion's all new Pro 1100 receiver battery packs feature a massive 1100 mah capacity and configurations for the most popular nitro cars on the market today. All Pro 1100 receiver battery packs are assembled with the latest edition nickel metal hydride cells and are fitted with a universal connector with industry leading 20 gauge wire.



44202	20 Weight	$2.00
44204	25 Weight	$2.00
44206	30 Weight	$2.00
44208	35 Weight	$2.00
44210	40 Weight	$2.00
44212	45 Weight	$2.00
44214	50 Weight	$2.00
44216	55 Weight	$2.00
44218	60 Weight	$2.00
44220	65 Weight	$2.00
44222	70 Weight	$2.00
44224	75 Weight	$2.00
44226	80 Weight	$2.00

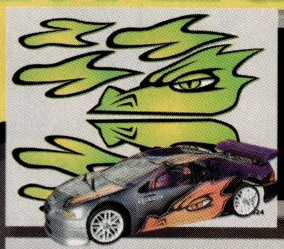
PAINTED BODIES

Don't hit the track with a nasty paint job. After all, without a tricked out body, all your trick parts have gone to waste! Painting bodies is our specialty so if you want the most vibrant colors and cleanest lines, buy Team Orion painted bodies. Several T-Maxx bodies as well as the most popular sedan and off-road bodies are available.



INTERNAL GRAPHIC SETS

Thunder Designs Internal Graphics Sets are the best way to get the custom painted look at a fraction of the price of a custom painted body. Painting great looking bodies is now so easy that the one color quickie has become obsolete! Eight current designs with 28 different color combinations are currently offered with more on the way.



DRAGON

Green	59024
Red	59025
Orange	59030
Blue	59031



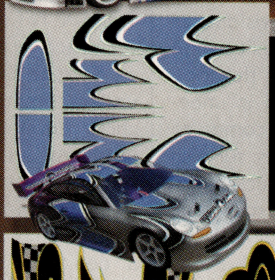
LIGHTSPEED

yellow	59000
Blue	59001
Flo. green	59002
Red	59003
Orange	59004



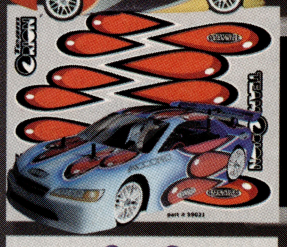
FEAR FACTOR

Red+Yellow	59026
Orange+Grey	59027
Blue	59034
Green+Yellow	59035



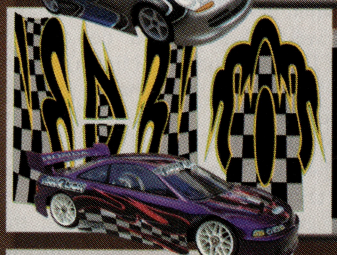
SPEED STREAKS

Blue	59005
Purple	59006
Flo. orange	59007
Flo. green	59008
Flo. red	59009



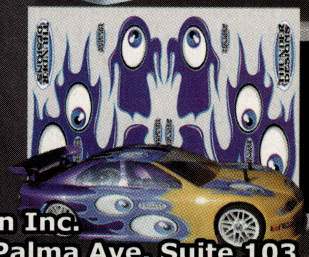
BUBBLES

Blue	59020
Red	59021
Green	59028
Yellow	59029



MAIN EVENT

Gold	59010
Red	59011
Flo. blue	59012
Purple	59013
Flo. green	59014



EYEBALL

Blue	59022
Lava	59023
Green	59032
Orange	59033



SPITFIRE

Red & Blue	59015
Red, Blue & Baby Blue	59016
Silver & Blue	59017
Purple & Blue	59018
Flo. Red & Blue	59019

Team Orion Inc.
22601 La Palma Ave. Suite 103
Yorba Linda Ca 92887
Phone: 714-694-2812 Fax: 714-694-2815

For more info on these or other Orion products go to
www.team-orion.com

[Drivers' Stand]

State of the gas truck union

"If you follow off-road racing, as I do, then you'll have noticed that electric off-road has, shall I say, lost some ground to nitro trucks.

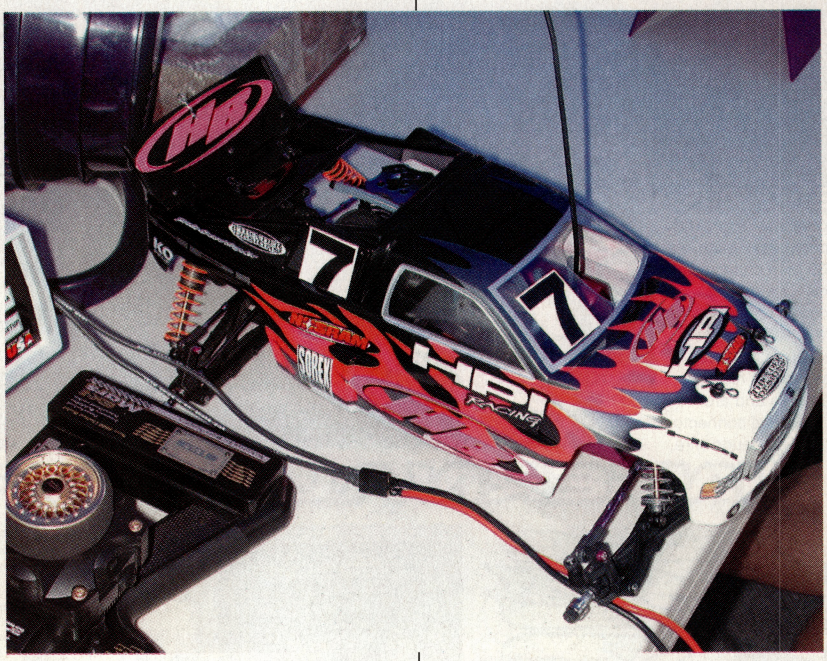
BY FRANK MASI

I would go as far as to say that nitro has taken a bit of share from electric, while at the same time, it has brought a significant number of newcomers, attracted by the sound and smells of nitro, into racing.

So it was with a great sense of warmth that I sat trackside, watching the action at the Annual Hot Rod Hobbies/*R/C Car* Off-Road Shootout, as I counted not one, not two, not three, but four different brands of nitro truck. It used be that all you'd see was Associated GTs—and for a long time, that's all there was—but now, other manufacturers have finally figured out that there's money to be made in the nitro truck wars. The competition is really heating up, so I thought you'd all enjoy this little update.

Team Associated RC10GT. This is the truck that really started the massive expansion of the gas truck class. Although considered long-in-the-tooth by some (much of its basic design dates back to '93), continual updates, including major chassis and suspension revisions, as well as unsurpassed durability, have kept the GT at the top of the food chain. Although Associated is unbelievably secretive when it comes to new products, one can only surmise that ideas for an all-new truck exists somewhere in Chief Designer Cliff Lett's hard drive. When it will be released and what it will look like is anyone's guess, but if I had to guess, I'd say that we can expect to see something new by the Fall of '02.

Team Losi Triple-X NT. This truck proves that when Gil Losi, Jr. puts his mind to a task, nothing is impossible, including mounting the first real challenge to Associated's dominance of the nitro truck class. On track, the NT seems to have the measure of the GT in most categories, and with each race, the Losi team gains valuable experience in the intricacies of nitro. Aside from a few early glitches, such as incorrectly manufactured diff washers, the NT has proven that it can go the distance when it comes to grueling A-main events. The Triple-X NT will only get better with each race, as new setups are learned.



Kyosho Ultima ST Type R. Don't underestimate Kyosho. It's serious about developing competitive off-road machines, and is obviously willing to spend money to achieve its goal. With a strong team of drivers, including Greg Degani, Andy Smolnik and Jeremy Kortz, a dedicated team manager (Manabu Mizota) and plenty of resources, Kyosho hasn't merely thrown a product out on the U.S. market with its fingers crossed. The Ultima gas trucks look better each time I see them race. Gone are the bits from other manufacturers, or the one-off parts; the Ultimas are now all-Kyosho, and have never looked faster. At the Shootout, both Degani and Kortz consistently turned some of the quickest laps. Only minor durability issues remain, but rest assured, just as Kyosho has perfected its 1/8-scale cars, it will make the Ultima as bulletproof as it is fast

HPI and Mugen Seiki. I was as surprised as anyone to see touring car world champ Atsushi Hara at the Off-Road Shootout. But there he was, along with HPI owner Tatsuro Watanabe, with a hopped-up version of the company's Nitro Rush. Now the big question is this: will HPI come out with a race version of the Rush, or was it merely doing recon for the design of a purpose-built race truck? We photographed Hara's chassis, but Mr. Watanabe kindly asked that we not published them, as there were obviously some prototype parts he didn't want shown. The good news is that the truck was fast enough to be in the top ten up until the final round of qualifying. Hara eventually was bumped to the B-Main.

Yes, our friends at Mugen Seiki are working on a nitro truck. Aside from a rumor that it will use a 1/8-scale-style gear diff (which can be filled with silicone fluid), there's not much else to tell. Mugen has a great deal of nitro off-road experience, so look for some startling innovations. ◆

LYNX 3D



The Optional Spectra 75 MHz Frequency Synthesizer Module is just like having thirty perfectly tuned modules for the Lynx 3D.

Removable Module

Large LCD Screen

3-Channel FM Transmitter

Advanced Programming
- Ten Model Memory
- Dual Rate Steering
- Anti-Lock Braking
- Exponential Rates
- ATL Braking
- End Point Adjustment (EPA)

Idle-Up
great for nitro and gas cars

Auto Dual Rate Steering
adjust high and low speed steering rates separately

Digital Trims

DSC
(Direct Servo Control)

Right or Left Handed Grip

Rechargeable Nicads
(not offered with sport version)

2 YEAR WARRANTY



Once you try the **DCX Dual Conversion, 3 Channel FM Receiver** you'll never use anything else! Absolutely the best surface receiver on the market, the DCX filters the transmitter signal TWICE for glitch free reception and extended range. And you don't have to own a Lynx 3D - it's available in a version that will work with any FM transmitter.

#24227* 27MHz Universal,
#24275* 75MHz Hitec/Fut,
#24375* 75MHz Air'T/JR/KO

* HITEC dual conversion crystal required.

TRIPLE PLAY

The powerful and affordable Lynx 3D is available in 3 different configurations to satisfy your budget and racing requirements.

Sport System
75MHz part# 123754
- Lynx 3D with "dry" battery box
- HFS-03MC 3-Channel Single Conversion FM Receiver

Standard System
27MHz part# 123271 – 75MHz part# 123751.
- Lynx 3D with Nicads and Charger
- DCX 3-Channel Dual Conversion Receiver

Pro System
75MHz part# 123753
- Lynx 3D with Nicads and Charger
- DCX 3-Channel Dual Conversion Receiver with 4 Crystals
- Spectra 75 MHz Frequency Synthesizer Module *(never buy another transmitter crystal again!!)*

hitec Racing

HitecRCD, Inc.
Phone (858) 748-6948
12115 Paine St.
Poway, CA 92064

www.hitecrcd.com

NOVAK

NEW FROM NOVAK

MILLENNIUM PRO CHARGER



The Millennium Charger recently turned Pro! This new version of the charger has the same incredible features of the original Millennium and much more, including a built-in Pit Wizard!

- 3 charge modes: Ni-Cd linear, Ni-Cd Reverse Pulse, and Ni-MH2 (for all sizes of Ni-MH cells)
- Novak-developed Ni-MH2 mode utilizes a highly accurate charge algorithm that eliminates possibility of false peaking
- Built-in Pit Wizard software for ESC programmability
- Delayed Charge Countdown Timer (up to 6 hours)
- Fully protected, and now fuse-protected input (two 15-amp fuses and 1 spare fuse)
- Memory for 5 custom charge profiles to be stored and named
- Will not overcharge or overheat batteries
- New and easier user interface
- Future upgradability
- Various user-selectable alarm sounds to choose from
- User name can be entered and stored

IONIC AC/DC CHARGER



The new IONIC AC/DC Charger has all the features you need for user-friendly, yet efficient charging—just plug it in and you're ready to charge!

- 0.5, 1.0, 4.0A constant linear charge
- Universal 100-240V AC input voltage
- Dual mode: Ni-Cd, Ni-MH
- Thermal & Output protected
- Built-in fan
- User-friendly interface with easy-to-read LEDs
- Battery Conditioning
- Reverse Input Voltage Protected

BRUSHLESS MOTOR SYSTEM



Novak's Brushless Motor System is almost here, which means the R/C car hobby will never be the same—it's going to be BETTER! Here's what you can expect from our new Brushless Motor System:

- Motor Dimensions: 2.04" x 1.41" Ø (Std. car motor size)
- Higher efficiency than brushed motors
- More power output than brushed motor
- No brushes or commutator to wear out (think of the savings!)
- No motor rebuilding necessary (think of the extra free time)
- ESC with both forward-only & reverse capabilities

XXTRA SYNTHESIZED FM RECEIVER



Dialing in your car has never been easier than with the new XXTRA Synthesized FM Receiver. With NO EXTRA RECEIVER CRYSTALS TO CARRY, life is a little more hassle-free.

- Small and lightweight synthesized FM receiver
- Convenient frequency selection switch (no crystals to change)
- Ultra narrow-band ceramic filter for 10 KHz channel spacing
- Available on all legal bands
- Compatible with all popular radio systems

Visit us at:

WWW.TEAMNOVAK.COM

NOVAK ELECTRONICS, INC.
18910 Teller Avenue
Irvine, CA 92612
TEL: 949.833.8873
FAX: 949.833.1631

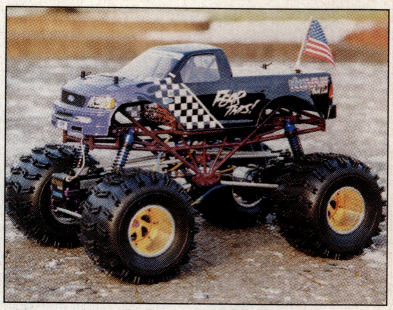
UP FRONT



R/C CAR
THE RADIO CONTROL CAR MAGAZINE

UP FRONT

RC11



READERS' RIGS (PAGE 12)



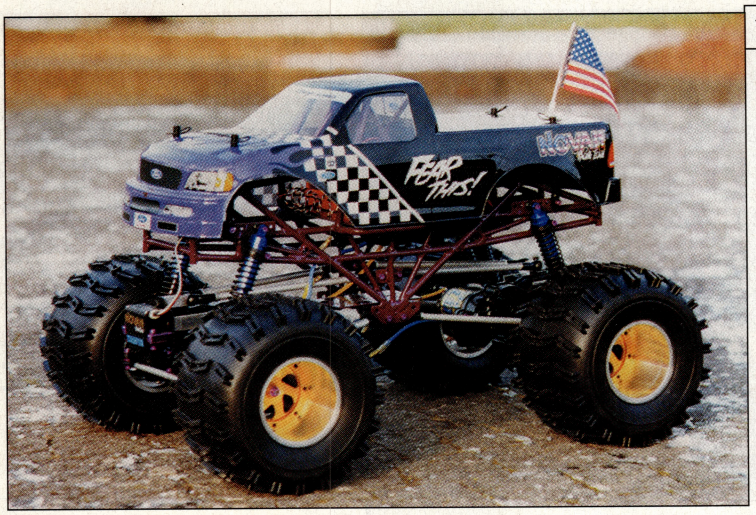
NEWS (PAGE 14)



DETAIL SHOP (PAGE 20)

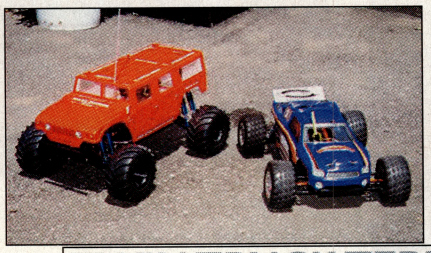
[Readers' Projects]

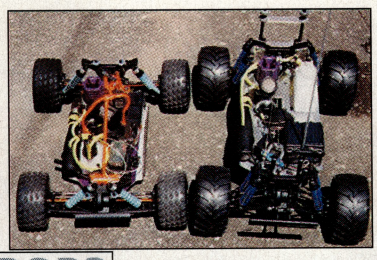
Welcome to *R/C Car's* Readers' Projects. We receive many impressive "home-built" reader projects each month, so we decided to showcase some of them in each issue. How about you? Got a lot of pride in your ride? Snap some pics and send 'em to us here at *R/C Car* Readers' Projects, 25233 Anza Drive, 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!

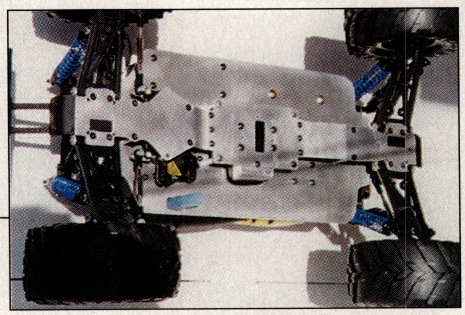


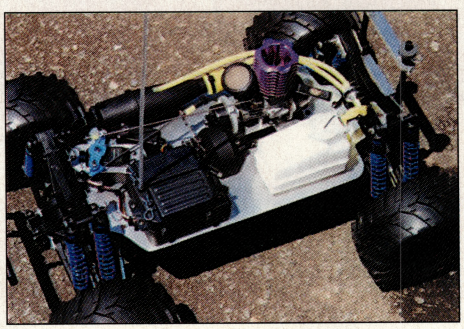
TOP CLOD

This awesome monster truck comes to us all the way from Biedendopf, Germany. The truck's owner, Andreas Bartussek, began with a Tamiya Clod Buster, to which he added a New Era chassis and long-wheelbase kit, which add both looks and additional stability to the Tamiya truck. To improve damping, Andreas then installed a set of shocks from a Kyosho MP-6 nitro buggy. The looks and durability of Andreas' truck have also been improved through the use of aluminum and titanium screws, plus a host of carbon-fiber parts (the servo mount, receiver plate and rear-steering lock plate) that were handmade by Andreas. For power, this Clod uses a pair of LRP 18-turn motors and a Novak Super Rooster ESC. The body is a Pro-Line F-150, painted by Andreas himself. Nice truck!









TWIN TRUCK TERRORS

These two trucks are the works of Massimo Di Marco of Montreal, Quebec. The first truck is an HPI Nitro MT, for which Massimo fabricated an aluminum plate to protect the chassis and to reduce flex. He also built a roll cage from 3/16-inch aluminum tubing, and made a custom shock tower and brace from aluminum after breaking several of the stock towers.

The second truck, as Massimo describes it, is a T-Maxx clone built using parts from another HPI Nitro MT truck. He made a mock-up chassis out of wood, which placed the gearbox and driveshafts below the chassis as does the T-Maxx. Once satisfied, the wooden pattern was transferred to aluminum for the finished product. Massimo also wanted eight shocks, just like the T-Maxx, so he installed a second rear shock tower to the front, and made a plastic mount for the front arms. Originally, the truck was powered by a stock HPI .15FE, however Massimo installed a Thunder Tiger .21 and tuned pipe that he found on eBay. The T-Maxx-clone rolls on HPI deep-dish wheels shod with Pro-Line Masher 2000 tires, which raise the ride height of the truck. Massimo estimates that he has invested over 100 hours into this project. It looks well worth the effort.

Maxx Truck by Traxxas...

Traxxas Corporation and Novak Electronics, Inc. have joined forces to bring you the most powerful Ready-To-Run electric monster truck ever, the Traxxas E-Maxx.™



Shift on the Fly...

from your transmitter! Select low gear for monster climbing muscle, then power shift to high gear for unbeatable top speed.

RTR READY TO RUN

E-MAXX

Maxx Power by Novak.™

TRAXXAS®

What do you get when you put 14+ volts of power to twin 550 motors in a T-Maxx class monster truck? In a word, it's brutal. The E-Maxx with its new high voltage EVX speed control packs a punch that knocks out just about anything that stands in its path. Jumping, climbing, or backyard bashing, nothing belts out the torque like an E-Maxx. Shift into second from your transmitter and you've got 25+ MPH speed on tap, more than 2-times faster than most other electric monster trucks its size. The E-Maxx even out accelerates many nitro trucks! Hit the brakes and the E-Maxx stops on a dime thanks to the EVX's Smart Braking™ technology. It's all fully assembled and Ready-To-Run with a hot painted body. E-Maxx is in a class by itself. See it at your local hobby dealer!

- Shift on the fly 2-speed transmission that shifts up or down, on demand, from your transmitter.
- Twin Titan™ fan-cooled 550 motors, powered by dual battery packs,* punch out brutal 14 volt wheelies.
- New EVX electronic speed control with forward, reverse, & brakes!
- T-Maxx proven 4-wheel drive system with hardened steel ring and pinions, slipper clutch, and full ball bearings.
- The E-Maxx uses the same drive, climb, & jump-over-anything suspension as the T-Maxx, delivering over 3½ inches of super-plush travel with 8 oil-filled shocks.
- E-Maxx is the most powerful monster truck you can buy!

Total Customer Support
1-888-TRAXXAS
Support@Traxxas.com
www.readytorun.org



EVX ELECTRONIC SPEED CONTROL

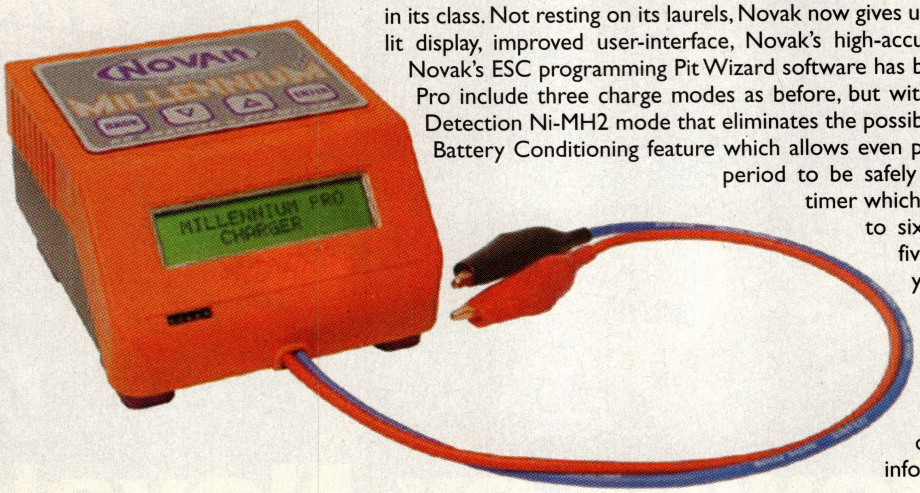
EVX POWER by NOVAK RACING ELECTRONICS

The incredible engineering and innovation of the Traxxas E-Maxx deserves nothing less than an electronic speed control designed and manufactured by the leader in RC electronics, Novak Electronics! For years, you've seen the world's best drivers depend on Novak brand electronic speed controls to win championships, and now you can have the same dependability, hi-tech performance, and efficient power in the Ready-To-Run E-Maxx. The new EVX electronic speed control was designed and manufactured by Novak Electronics, just for the E-Maxx. This 14-volt, forward/ reverse, microprocessor-controlled powerhouse drives E-Maxx's twin 550 motors with ease. Plus, the E-Maxx now has brakes controlled by Novak's sophisticated Smart Braking™ technology. The Traxxas EVX has all the great features you would expect from a speed control built by Novak including programmable functions, thermal protection, gold plated connectors, Novak's exclusive One-Touch Set-Up,™ and incredibly low resistance for more speed and longer run times.

*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. 2001. Call, write, or fax for your nearest hobby shop and for our latest catalog. Specifications subject to change. T-Maxx® and Ready-To-Run® are a registered trademarks of Traxxas Corporation. Novak and the Novak logo are ©2001 Novak Electronics, Inc., One Touch Set-Up™ and Smart Braking™ are trademarks of Novak Electronics, Inc. *Batteries not included.*

www.TRAXXAS.com

ANOTHER NEW MILLENNIUM (TIMES FLIES, EH?)



Since its release, Novak's Millennium charger has set the standard for performance and features in its class. Not resting on its laurels, Novak now gives us the Millennium Pro, with a larger back-lit display, improved user-interface, Novak's high-accuracy charge monitoring and, get this, Novak's ESC programming Pit Wizard software has been built in! Features of the Millennium Pro include three charge modes as before, but with an improved, Novak-developed Triple Detection Ni-MH2 mode that eliminates the possibility of false peaks. There is also Novak's Battery Conditioning feature which allows even packs that have been shorted for a long period to be safely charged, a delayed charge countdown timer which allows you to auto-start the charger up to six hours later, and memory storage for five custom charge settings. In addition, you can choose from various alarm sounds, and even enter and store your name for easy identification.

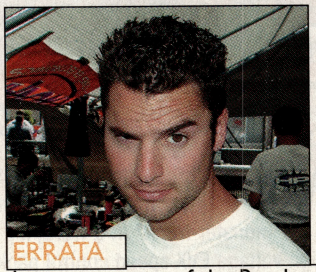
The Millennium Pro (44410) retails for $265 and will be available in September. Contact your Novak dealer or phone (949) 833-8873 for additional information.

MAXIMUM OVERDRIVE



If you're new to R/C, or looking for your first off-roader, then DuraTrax has just the truck. The new Overdrive ST RTR has everything you need for dirt-flinging fun, including the added traction of full-time 4WD with DuraTrax's all-new Double-Shift 2SR transmission, with two forward gears and two reverse gears for twice the speed (shifting is controlled by a third transmitter channel). Powered by a new Velocity .17 nitro engine with ABC construction and a racing-style two-needle carb, the Overdrive comes fully assembled with a pre-painted body and a three-channel pistol-grip radio system already installed. Add to this a steel disc brake for fast stops, steel turnbuckle linkage for quick tuning and a large 100cc fuel tank for longer run times, and you've got one tough off-roader that's as easy to use as it is fast. Comes with handy instructional videotape for first-time R/Cers.

For more information on the Overdrive ST, contact your DuraTrax dealer or phone (217) 398-6300 for more information.



ERRATA

In our coverage of the Reedy Touring Car Race of Champions (Sept.), we listed that HPI's Atsushi Hara finished second in the Invitational class while Chris Tossolini placed third. Well, that's not the case—Chris finished second overall while Atsushi finished third! Our apologies to Chris and Yokomo for the error.

TECH TIP

Many cars and trucks use machine-thread 4-40 screws that are threaded into plastic parts. If you accidentally over-tighten these screws, or your vehicle suffers a major crash, the plastic parts into which these types of screws thread can become stripped. Normally, you would have to replace the plastic parts to maintain the strength of the assembly, but there is a cheaper fix: purchase 3mm metric screws of the same length and type, e.g., button head, flat head, and install them in place of the 4-40 screws. The 3mm screws will fit in the stock holes, but because they are slightly larger, they will "grab" the plastic and remain tight.

The Finest Silicone Rubber Products for R/C Models!

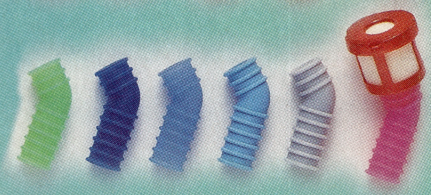
GS™ Racing

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





Ultimate Molded Silicone Exhaust Couplers
- Pure 40 Shore A silicone rubber • Excellent heat-resistance
- 2 sizes:12 mm ID.; 15 mm ID. • 2 pcs./pkg. w/tie wraps
- 12 colors -- FG/FY/FP/FO/FR/BL/PR/YL/GR/TBL/SBL/RD
- Part No.: GSCCMS10; GSCCMS8



Ultimate Molded Silicone Air Filter Adapters
- Pure 60 Shore A silicone rubber • Excellent heat-resistance
- 2 sizes • 2 pcs./pkg. w/tie wraps
- 12 colors -- FG/FY/FP/FO/FR/BL/PR/YL/GR/TBL/SBL/RD
- Part No./Size: GSCA10--1/10 scale; GSCA8--1/8 scale





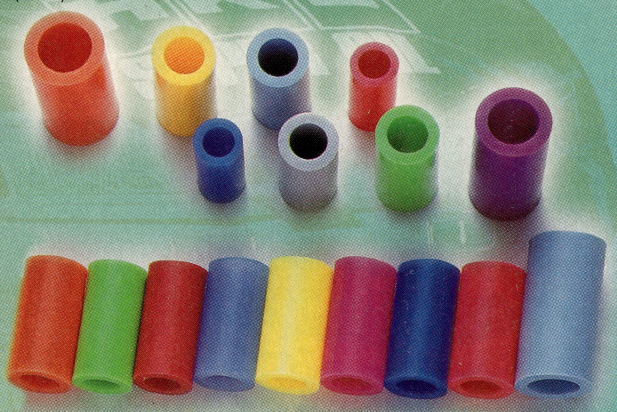


Ultimate Reinforced Silicone Exhaust Couplers
- Pure 70 Shore A silicone rubber w/Dacron Polyester Braid
- Excellent high-pressure & heat-resistance
- 3 sizes : 13.5X21.5 mm, 15X23 mm, 20X29 mm
- 2 lengths w/tie wraps: 45 mm (2 pcs./pkg.); 6 in.(1 pc./pkg.)
- 12 colors -- FG/FY/FP/FO/FR/BL/PR/YL/GR/TBL/SBL/RD
- Part No./Size: GSC13545R (45 mm); GSC15045R (45 mm)
  GSC1356R (6"); GSC1506R (6")
  GSC20055R(55 mm)

Ultimate Silicone Exhaust Deflectors
- Pure 60 Shore A silicone rubber
- Excellent heat-resistance w/45˚bend designing
- 3 sizes • 2 pcs./pkg. w/tie wraps
- 12 colors -- FG/FY/FP/FO/FR/BL/PR/YL/GR/TBL/SBL/RD
- Part No./Size: GSCP12--(S); GSCP21--(M); GSCP35--(L)

Silicone Exhaust Gasket
- Pure 60 Shore A high-strength silicone rubber
- Excellent tear & heat-resistance • 2 sizes • 2 pcs./pkg.
- 9 colors -- FG/FY/FP/FO/FR/BL/PR/YL/TBL
- Part No./Size: GSCE15--(S); GSCE21--(L)





J-shape Silicone Exhaust Couplers
- Pure 60 Shore A high-strength silicone rubber
- Excellent heat-resistance • 2 sizes • 1 pc./pkg.
- Special J-shape design provides high impact-resistance
- 9 colors -- FG/FY/FP/FO/FR/BL/PR/YL/TBL
- Part No./Size: GSCMA15--(S); GSCMA21--(L)

Ultimate Silicone Exhaust Couplers
- Pure 70 Shore A silicone rubber • Excellent heat-resistance
- 4 sizes: 12X18 mm, 13.5X21.5 mm, 15X23 mm, 19X28 mm
- 2 lengths w/tie wraps: 45 mm (2 pcs./pkg.); 6 in.(1 pc./pkg.)
- 12 colors -- FG/FY/FP/FO/FR/BL/PR/YL/GR/TBL/SBL/RD
- Part No./Size: GSC1206 (6"); GSC12040 (40 mm); GSC19055 (55 mm)
  GSC13545 (45 mm); GSC15045 (45 mm); GSC1506 (6")

HORIZON HOBBY

Distributed Exclusively by Horizon Hobby, Inc.
4105 Fieldstone Road, Champaign, IL 61822
www.horizonhobby.com
Tel 877-504-0233

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

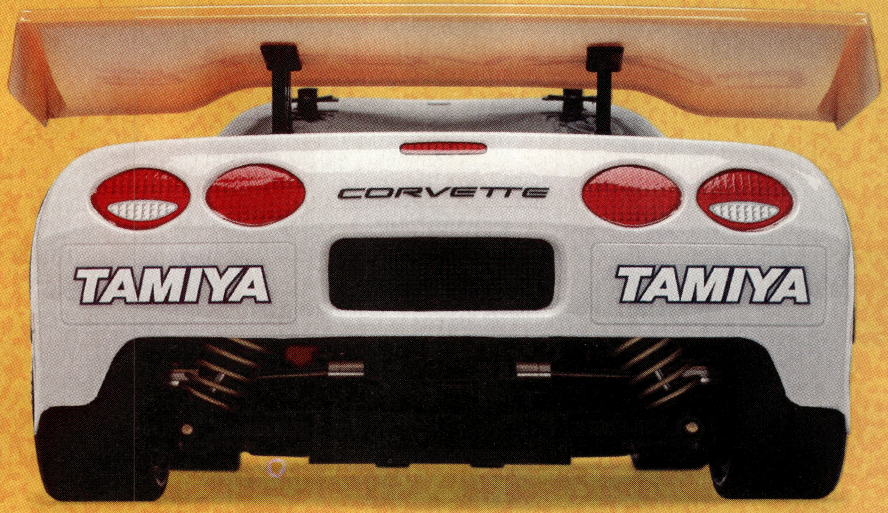
© 2001 General Silicones

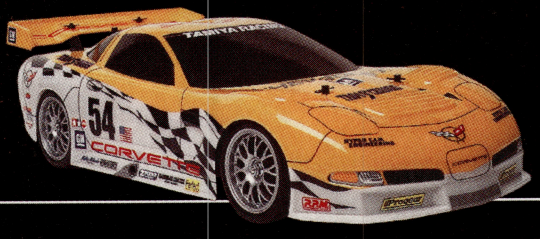
Colors: FG=Fluorescent Green; FY=Fluorescent Yellow; FP=Fluorescent Pink; FO=Fluorescent Orange; FR=Fluorescent Red; BL=Blue; PR=Purple; YL=Yellow; GR=Gray; TBL=Translucent Blue; SBL=Sky Blue; RD=Red

CORVETTE

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



ONE WILD RAM

Looking for a powerful monster truck? How about one that has reverse? Okay, you want an on-board electric starter, too? I know which truck you're thinking about, but we've got a surprise: this one's made by Kyosho! That's right, the new Wild Dodge Ram, based on the proven Kyosho QRC chassis, features a host of new updates that boost performance and fun. Take, for instance, the truck's new, larger Kyosho GS15R engine (opposed to the smaller .10 engine of the original QRCs), which puts out significantly more ponies than before. Also, the Ram comes with Kyosho's new Touch Starter: plug a six-cell NiCad battery into the starter's jack and hit the button—no glow igniters or pull-starters needed! The Ram comes equipped with Kyosho's innovative QRC (Quick Reverse Clutch) transmission, which allows the truck to be shifted into reverse when the going gets tough (or you get stuck!). Also included are full ball-bearings, full-time 4WD and large oil-filled shocks. Check out the Wild Dodge Ram at your Kyosho dealer, or phone (217) 398-6300 for more information.

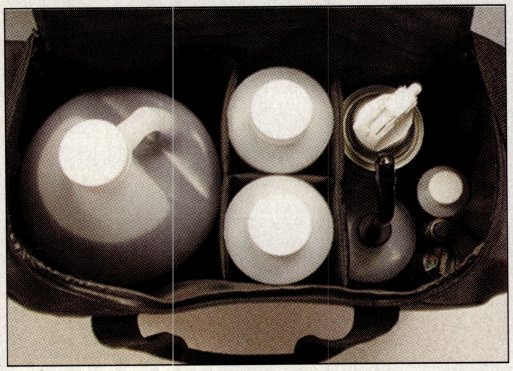
DESIGNER LUGGAGE FOR YOUR GEAR

Look at all that R/C stuff that you haul to the track week in and week out. How dirty, disgusting and disorganized! Trinity has a couple of new items that will surely help you get organized and look cool. First is the new Nitro Hauler bag, which is designed to carry the fuel and accessories you need for your gas car. Inside are compartments to hold one gallon plus two quarts of fuel, and there's room for your nitro cleaner, glow-igniter, plug wrench and fuel bottle. Built-in handles and a shoulder strap make carrying even easier.

Also from Trinity is the Tool Pouch, a canvas holder for all your essential tools. The pouch can hold up to 10 Allen drivers or nut drivers, has peg-board holes with grommets for added convenience, and comes screened with the Trinity logo.

The Nitro Hauler (RC8109) retails for $24.99, and the Tool Pouch (RC9035) is just $3.99. For more information, see your Trinity dealer or phone (732) 635-1600.











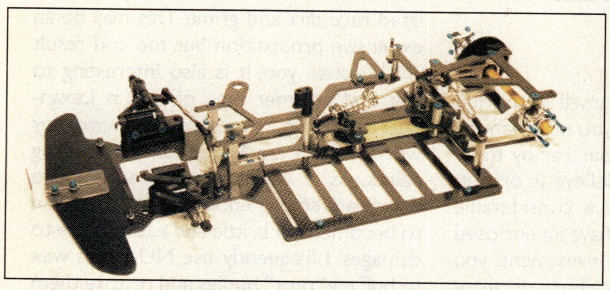
KYOSHO ON A WINNING STREAK

Kyosho's U.S. race team is on a hot streak lately in both gas and electric; just check out these results:

■ At the 2001 Watermelon Classic in South Carolina, from a field of over 300 entrants, Kyosho drivers took the top spots in all four classes they entered. "King" Richard Saxton won 1/8-scale with his MP-7.5, Greg Degani won gas truck with his Ultima ST, and Andy Smolnik won both stock and mod buggy driving an Ultima RB.

■ At the 2001 Manufacturers Nitro Challenge in Kansas City, Missouri, Andy Smolnik won the 1/8-scale buggy class with his MP-7.5 by nearly two laps over second place. In gas truck, three of the top five drivers used Kyosho Ultima STs, with Greg Degani finishing second overall.

■ Most recently, Kyosho drivers dominated the prestigious Kyosho Gas Off-Road Challenge on one of the roughest tracks in Detroit, Michigan. In 1/8-scale buggy, TQ Mark Pavidis dominated the 45-minute A-main event, with teammates Greg Degani and Jimmy Babcock finishing in second and third. All three drivers used Kyosho MP-7.5 buggies (seven of the top ten cars were Kyoshos). In gas truck, Kyosho driver Jeremy Kortz TQ'd and won the A-main after a hard-fought battle with Associated drivers Richard Saxton and Jared Tebo.



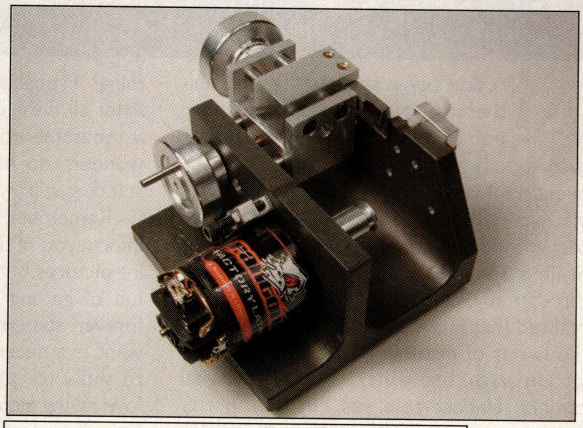
WHO'S YOUR DADDY?

New from Pro Parts is "The Daddy," one of the most adjustable cars on the on-road oval racing category. The Daddy offers an adjustable rear T-bar that allows the car's rear roll-center to be placed right where you need it. The chassis is made from 0.1-inch woven carbon-fiber for strength and consistency. The remaining carbon-fiber parts, e.g. the rear pod assembly and chassis braces, are made from 0.8-inch material. The car also comes with adjustable front servo mounts, a built-in transponder mount, a super-strong front bumper with adjustable body brace, and an adjustable battery tray for precise setting of the car's weight distribution. Associated VCS shocks are used for the side and center damping of the rear pod, while Associated Dynamic Strut suspension is used up front. The car also comes with an IRS rear axle assembly, light weight aluminum rear pods, aluminum screws and titanium turnbuckles. The Daddy comes fully assembled, and can also be purchased as a conversion kit if you already own a 10L.

For more information, contact Pro Parts at (303) 460-1227.

A SERVO'S BEST FRIEND

Hitec's new digital servos are among the best in the world, but to truly appreciate the technology and performance of these tiny powerhouses, you need Hitec's new digital servo programmer. This unit comes in a sturdy aluminum case and will allow you to program several aspects of your Hitec digital servo's performance, such as transit time and travel. In addition, the programmer functions as a servo tester for all types and brands of servo. Simply plug in your servo and the tester will gauge its performance. The programmer/tester (HFP-10) retails for $135. Contact your Hitec dealer or phone (858) 748-6948 for more information.



FANTOM'S MOTOR MACHINE

A lathe is a lathe, right? Wrong! Check out the new Factory Lathe from Fantom Racing. The Factory Lathe is the first to utilize a unique one-piece, hard-coated base unit for improved precision. This, along with dowel-pin slides instead of dovetail guides virtually eliminates the need for periodic adjustments to maintain accuracy. And with oil-impregnated bushings supporting each slide, the lathe is nearly maintenance-free. Fantom has also chosen hardened V-groove armature supports, which they feel provide superior accuracy in comparison to bearing supports. The complete lathe comes with a high-quality Carter diamond tool bit installed, an assembled four-cell power pack, cutting oil, switch accessories and a deluxe hard-shell case. Fantom also offers the lathe and its accessories separately.

For more information, contact your Fantom dealer or phone (616) 649-9583.

Putting it in pictures (R/C Amateur Photography)

By Ian Aquino



No, don't even start asking. I am neither a professional photographer nor an aspiring one. Heck, I'm not even exactly sure why I chose the topic of photography for this article in the first place, considering I do not have the proper background or credibility in this field. To make a long story short, I was browsing through my computer files one day and realized that I have taken, not hundreds, but thousands of pictures of my own R/C collection with my trusty 3-year-old digital camera! Unbelievable, yes, but I am pretty sure that a lot of R/C enthusiasts catalog their works in pictures the same way I do.

Wondering now why I am writing about this? You can say that this is a moment of reminiscing while at the same time still trying to comprehend the seemingly endless amount of fun labor that went into the creation of such miniature rolling works of art. Looking back at the countless photographs I have taken in the past years, I thought that a few of them might be worth a second glance. Even though some cars may look as plain and simple as a beat-up daily driver, any R/C hobbyists can easily attest that the time and effort allotted in building any R/C vehicle is just incredible. And what's the best way to preserve one's masterpiece other than obtaining and maintaining the real thing? Probably it's only through pictures. After all, if the old saying "a picture is worth a thousand words" holds true, these small wonders do have a lot to say even while standing still.

Remember, I am not here to educate nor inform you of the technical aspects in shooting pictures, but rather to share with you the fun of getting your one-of-a-kind R/C car forever stamped on paper. Basically, all we want is a decent print of our pride and joy to show to people. It just happened that I love taking pictures of R/C cars, and with my little gained experience, I will try and share with you what I have found to be effective techniques and what to avoid in this world of amateur R/C photography. In the end, I might be able to convince you that photographing R/C vehicles is a fulfilling additional hobby aside from the usual "run-my-car-once-in-a-while" deal.

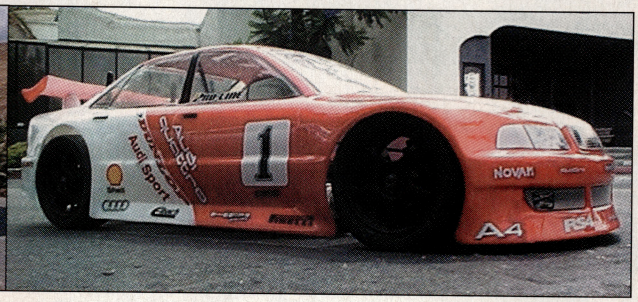
Preparing your subject

Before you immerse yourself in this fun world of R/C photography, you may want to take the time to prepare your car by thoroughly cleaning the body. Believe it or not, even display bodies collect a considerable amount of dust. Unless you have an enclosed glass case protecting your investment, you are not totally free from the chore of cleaning your car! For a thorough body cleansing, regular bathroom soap and water will work perfectly fine (unless you used custom decals that deteriorate in contact with water). The only thing I can suggest is to avoid harsh detergent soaps, as these can act as abrasives, which easily spoil the shiny finish of polycarbonate bodies. Most of the time, a single body "bath" using regular soap will do the job.

If you run your body and just happened to acquire the ever-famous yet unattractive "black" smudges around the bumper area, you may want to try specially formulated Lexan body cleaners. Several companies currently offer solvents that can instantly recondition the look of your trashed-up sedan close to its original state. Personally, I prefer to use polymer car wax to remove my accumulated race dirt and grime. This may be an expensive proposition but the end result will surprise you. It is also interesting to add that polymer type of wax is Lexan-safe; therefore, you shouldn't have any worries from cracking bodies or peeling paints. As a warning, some automotive waxes are strong enough to cause Lexan to become very brittle and easily prone to damages. I frequently use NU Finish wax to buff my "race" bodies and restore them







to almost-new condition. Unfortunately, Lexan deformation from hard crashes will still show after rubbing the substance down, but at least the dents are as spotless as you can ever have them.

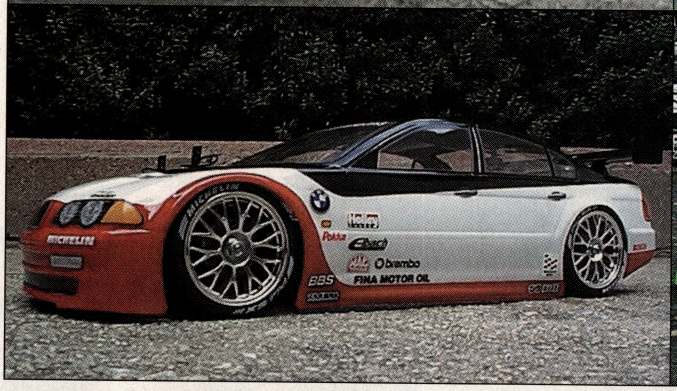
Impromptu photo shoot

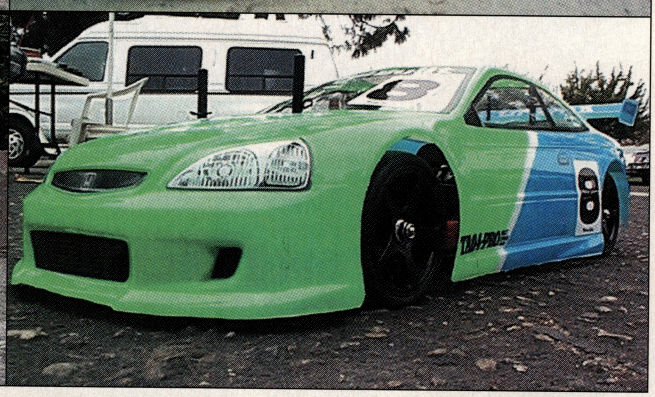
Now that you are ready to start taking pictures of your vehicles, the next logical step would be to find a nice spot to hold your impromptu photo shoot. Again, you do not need special equipment, lighting or even a decked-out studio to produce decent quality pictures. Your backyard, front yard, and even the surrounding public streets in your neighborhood can act as your makeshift outdoor"studio". Blend your vehicle in one of these natural settings and behold the realistic impression you can capture. There is just something about having people think that these miniatures are the real things. With photography, there's certainly no limitation in closing the gap between an R/C replica and a 1:1 car.

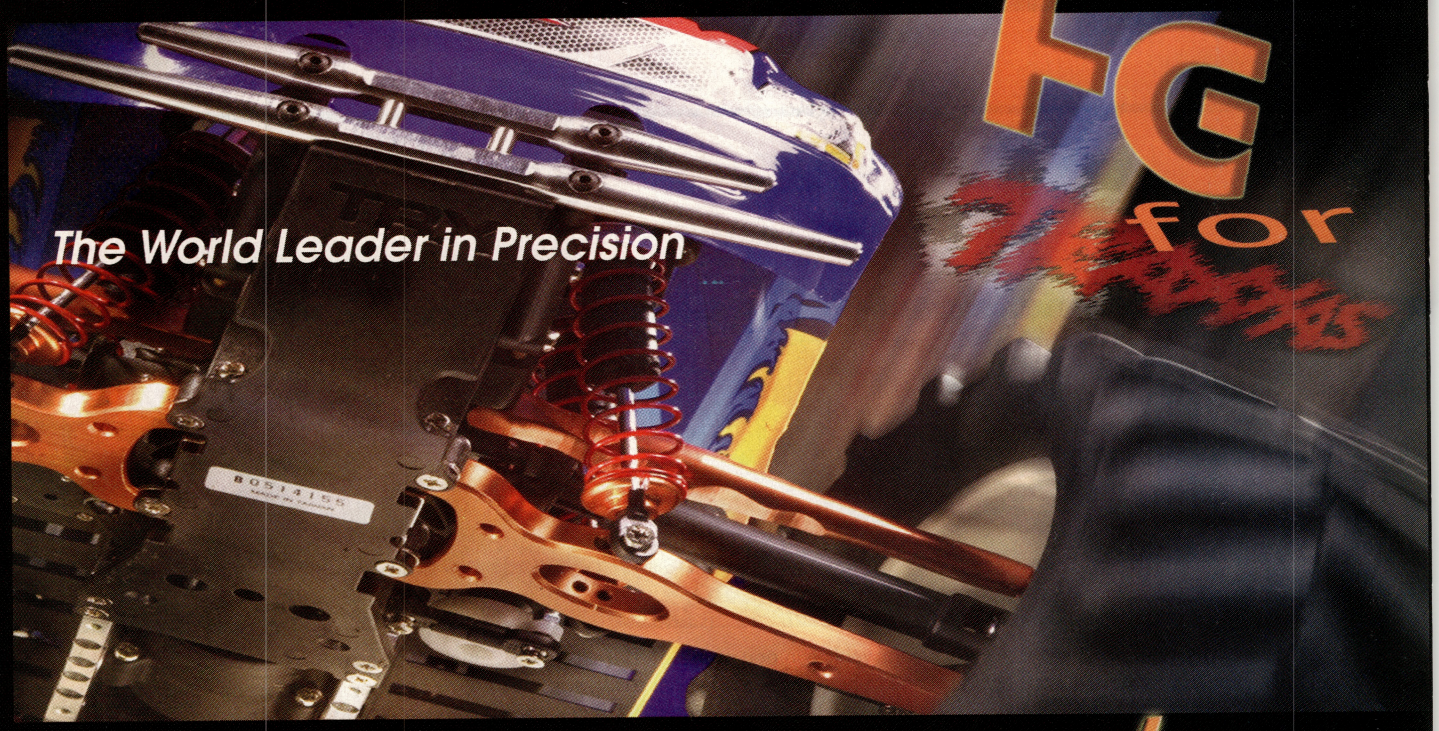
A word of advice; capturing images of R/C cars can be an addicting venture. I have been caught red-handed firing away on my digital camera for countless hours. But, really, there is nothing wrong with being trigger-happy. Come to think of it, the best photos are often obtained from a series of shots of the same subject. And this is where the convenience of modern technology comes into play. Digital cameras can take hundreds to thousands of photos (saves a lot of money versus using film in the long run) and add to this the plummeting prices of personal computers, and you've got one fine investment! But don't get me wrong, although I highly endorse digital cameras for their convenience, a basic 35mm camera or even a disposable one will work well in most R/C applications—it's just much easier with a digital camera, in my opinion! So for those looking to squeeze more fun out of this hobby, why not try R/C photography? This is yet another engaging way of enjoying this ever-growing pastime. Who knows, the pictures you take may even end up in magazines like the one you are holding. ◆



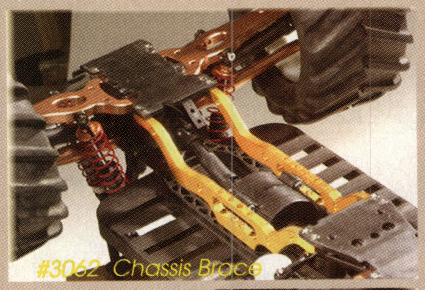




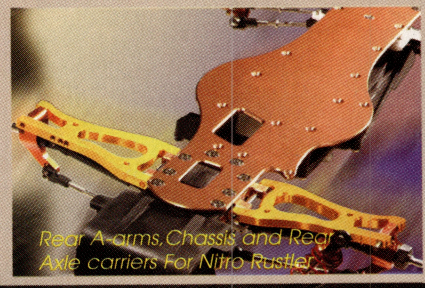





#3460 Ultimat A-arms set


#3062 Chassis Brace


Front A-arms, Front CasterBlocks,Steering arms And Front Body Mount For Nitro Rustler


Rear A-arms,Chassis and Rear Axle carriers For Nitro Rustler

MAXX-ed out !

Parts for T-Maxx and E-Maxx

#3460	Ultimat A -arm set Includes 2 Lower and 2 upper arms	$79.95
#4170	Front Bumper	$49.95
#4172	Rear Bumper	$49.95
#3062	Chassis Brace Ladder bars	$59.95 / Pair
#3063	Center HG Skid Plate	$19.95
#3064	Front Skid Plate	$34.95
#3065	Rear Skid Plate	$34.95
#3060	T-Maxx Machined Chassis	$59.95
#3070	E-Maxx Ultimate Chassis	$194.95
#5212	Spring Clamps	$9.95
#8224	Titanium Hinge Pin Set	$34.95
#8460	T-Maxx / E-Maxx Alloy Wheels	$149.95 / pair

Parts for Nirto Rustler / Nitro Stampede

3450	Front A-arms	$39.95 / Pr.
3452	Rear A-arms	$39.95 / pair.
4150	Front Castor Blocks	$39.95 / pr.
4152	Front Steering Arms	$39.95 /pr.
2360	Rear Axle Carriers	$39.95 /pr.
2250	Rear A-arm mounts	$29.95 /pr
2150	Rear bulkhead	$49.95
8110	Wheel Hexes	$19.95 / 4pc.
3050	Nitro Rustler Ultimate Chassis	$59.95
4350	Nitro Rust. front body mounts	$9.95 / pr

Available in fine stores worldwide and via Direct Order

www.1hg.com

The ultimate line of precision components for Traxxas T-Maxx / E-Maxx

100 % CNC machined

Solid aerospace Alloy
Unbeatable strength and durability
Incredible engineering and design
Anodized Orange, yes .... Orange !!

Order Toll Free
1-877-439-1390

HG/ Hammad Ghuman Inc.
6 Tower Heights
Albany NY 12211
Sales : 518-782-9255
Fax : 518-782-9256
www.1hg.com

Comming soon.....
T-Maxx / E-Maxx
Alloy Wheels!

HG

E-mail your letters direct to the editors! You can get ahold of Frank Masi at evaone@pacbell.net or Doogie at doogie@hi-torque.com. 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.

TAMING THE STORM

I just purchased a GS Racing Storm 1/8-scale buggy, and I'd like to able to tune the engine so I can get the best performance out of it. I have gone through the break-in period. Do you have any suggestions as how to go about doing so, or any literature on tuning tips? Please be very specific in your explanation. Thanks for your help.

Edward Mennillo
via *rc-car.com*

If you've already broken-in the engine (correctly), and it runs well and is dependable, then the first thing to do is to check its top-speed performance. The carb's high-speed needle should be set first. Once the engine is warmed up, make several high-end passes on your track's longest straight-away. How does the engine sound? Does it scream at high speed or does it burble? Adjust the high-end needle so that the engine reaches maximum rpm down the straight, yet still emits a trail of bluish smoke from the exhaust (this indicates that the engine's not too lean). Once you're satisfied that the engine is making sufficient power at high rpm, it's time to set the low-end needle. A good way to check this setting is to drive the car at high speed for a lap, then pull over and let the engine idle. If the engine idles a bit high, then drops down, the low-end needle is too rich. Lean the low-end needle a little at a time until the engine drops immediately to the proper idle.

HOW TO GET SPONSORED

I was wondering, how hard is it to get sponsored? I have an Associated RC10GT. Do you guys have any openings? Thanks.

Brad Stewart
via *rc-car.com*

Brad, it's pretty hard to get sponsored. First, you have to win a lot of races in your area. Then, you have to travel to some of the bigger races such as the ROAR nationals to get noticed. Once you get picked up by a sponsor, you must continue to do well and represent yourself and the companies that sponsor you to the best of your abilities. So it's important that you not only be fast, but speak well and have a good attitude. Sorry, we don't sponsor any drivers except our little band of test misfits.



TWEAKED ALPHA

Hi, Gurus! I bought a Kyosho PureTen Alpha GP. It's great, but I noticed that at high speed, the car turns much better to the left than to the right. I tried it at slower speeds, and the car steers equally in both directions. Also, during high speed left turns, my car's back tires skid out, but during right turns, it's fine. Is this something to do with the weights on the left and right sides of the car? Please help.

Rico
via *rc-car.com*

You hit the nail on the head, Rico. The answer to your problem lies in the car's weight balance at each wheel. When a car suffers from inconsistent steering, this generally indicates that the chassis is tweaked, meaning that the weight distribution is unequal between the left and right wheels. An easy and inexpensive way to check and set tweak is to mark the front and rear of the car's underside at dead-center. Place the car in ready-to-run form on a flat and level surface. Using the tip of a hobby knife, lift one end of the car from the center mark until the tires are an inch off the surface. Slowly lower the car while watching the tires. Do they touch the ground at the same time, or does one side touch before the other? Ideally, both tires should touch at the same time. If not, the car is tweaked.

MORE IMPORT BODIES

I was reading the May 2001 issue of *R/C Car*. I saw the Honda Civic Type R and the Ford Focus with deep wheel wells; I was wondering what company makes them and if they have a web site.

Kevin
via *rc-car.com*

Kevin, both of those bodies are available from HPI. You can reach them at (949) 753-1099 or you can visit their website on-line at www.hpiracing.com. Try your local hobby shop first, as most shops have a good supply of HPI kits and accessories.

HIGH VOLTAGE R/C

I am about to buy a speed control, and I noticed that some work with six to 10-cell batteries. Since I don't race, what keeps me from building a 10-cell battery (12 volt) and using it in my truck or 4WD off-road car? Normally I use six and seven-cell batteries. Does a 10-cell battery affect what motor I can use? Any suggestions?

Kirk Brown
via *rc-car.com*

There's nothing wrong with building a 10-cell battery; look at the Traxxas E-Maxx, which runs on 12 cells (two six-cell packs in parallel). If you notice, the E-Maxx is designed to use a pair of very high-turn

(more strands of wire on the armature poles) motors. If you were to use that kind of voltage with a standard 05-sized motor (such as a 12-turn modified), the rpm would be substantially higher than with a regular six-cell, lower voltage battery. To make this type of power system driveable, you would have to gear the motor down (smaller pinion, larger spur) as much as possible. Also, using higher voltage with standard motors will greatly reduce the life of the motor. Just look at all those "insane speed run" cars, which use 20 or more cells; they go through a motor with each run!

PILLOW BALL: A NEW SPORT?

I was curious; how do you adjust pillow ball suspension? I'm getting a new R/C kit and it has this type of suspension, and I want to know how to adjust it before I get it. Thank you for your input.

Erik Namewitheld
via *rc-car.com*

The most important things to remember when setting pillow-ball suspension is that you must ensure that the left and right sides are of equal length in relation to the chassis' center. It's also imperative that the pillow balls be allowed to pivot freely, so you have to make sure that the retaining screws (the big setscrews) aren't too tight, yet aren't so loose that they permit excessive play. For more information, see our article on this subject in the April '01 issue.

WRONG MINI-Z PHOTO

On page 48 in the September '01 issue (Kyosho Mini-Z Buyer's Guide), what is the picture of number 17? It says that this photo goes with part number MZW012, but it's not. Do you know what the picture is?

Ryan Gertner
via *rc-car.com*

Good catch, Ryan! The photo on page 48 is actually of a 1/10-scale Kyosho touring car sway-bar set. The Mini-Z set consists of two plastic braces (one soft and one hard to adjust the anti-roll characteristics), a gold-aluminum bar and a plastic mount (plus hardware). The part numbers listed in our Mini-Z guide are Kyosho numbers. For the United States, you can also use the Hobbico numbers (Hobbico is Kyosho's U.S. distributor). The number for the Front Stabilizer Set is LXXH13. You will also need Kyosho's KYOC5411 springs to install the stabilizer.◆



AIRTRONICS®

LIMITED

Edition Back Light

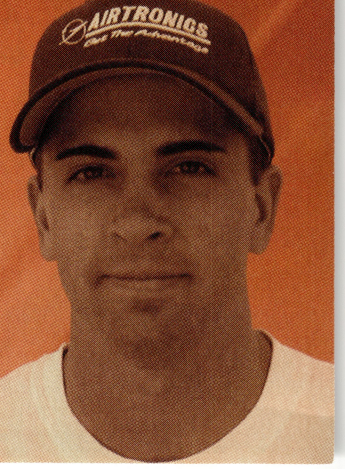
M8

27 and 75MHz
TX and Module

Optional 1100 mAh
NiCd Battery
P# 95051



at-ti-tube (at'i-tood', -tyood') n. 1. A position of the body or manner of carrying oneself, indicative of a mood or condition.



Airtronics and Team Associated's Driver

Billy Easton

www.Airtronics.net

Airtronics Inc. 1185 Stanford Court Anaheim, CA 92805 Ph: 714-978-1895 Fax: 714-978-1540



Team Losi XXX-S

In 1993, Joel Johnson top-qualified at the IFMAR Off-Road World Championships in England driving an all-new Team Losi Double-X buggy. In 1999, Team Losi drivers swept the ROAR Off-Road Nationals, with nine of the top ten spots going to the all-new Triple-X buggy. Now, in 2001, Team Losi has added another entry to the record books: in its first outing as a production car, the new XXX-S touring sedan finished one-two at the prestigious ROAR On-Road Nationals.

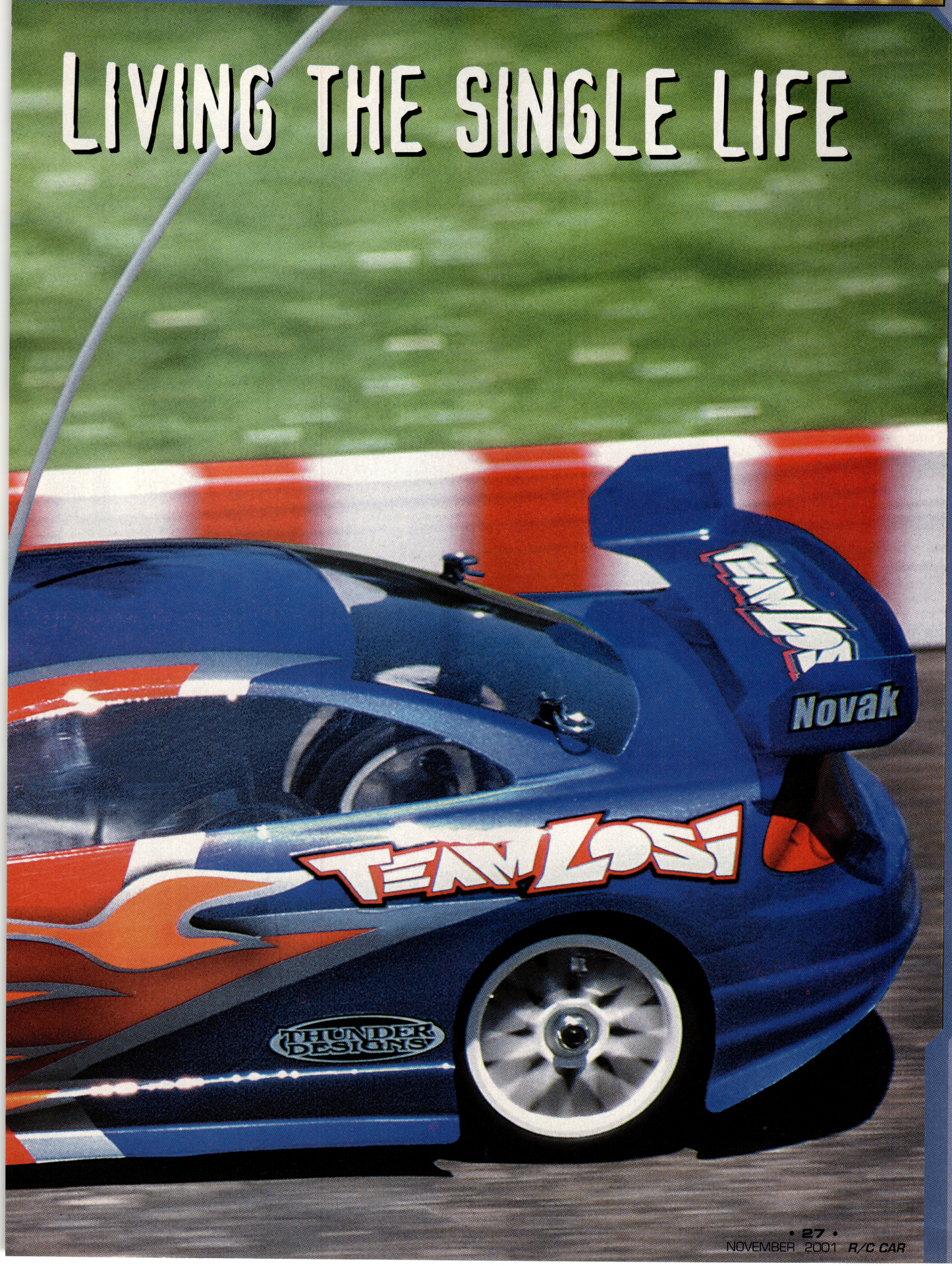
Credit for these accomplishments must go not only to the drivers, but to the Team Losi engineering staff, headed by Gil Losi, Jr. In the case the XXX-S, a car that many criticized for its unique single-belt drivetrain, we're sure that victory tastes very, very sweet for Losi. Those who decried the car's radical design with harsh words such as "It'll never work" must feel quite humble by now.



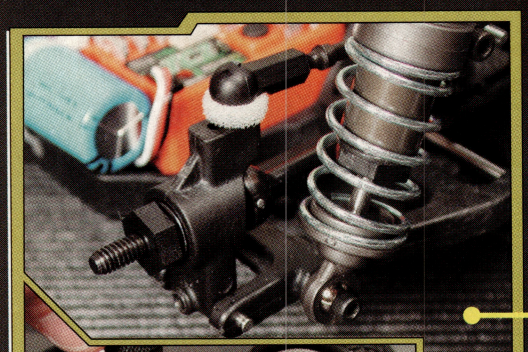
TEST EQUIPMENT

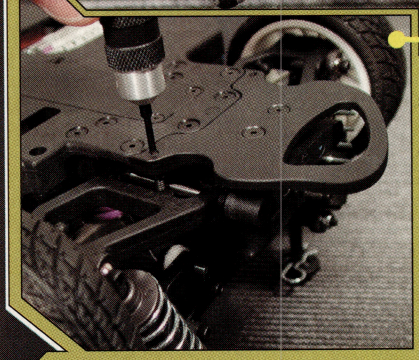
- Futaba 3PJS PCM transmitter
- Novak XX-Tra synthesized receiver (75MHz)
- Novak Cyclone TC2 programmable ESC
- Team Orion Chrome Touring 10-turn double mod motor
- Team Orion V-Max Plus Sanyo 3000MAh Team pack
- Futaba S9450 Digital servo
- Paint by Thunder Wessels

LIVING THE SINGLE LIFE

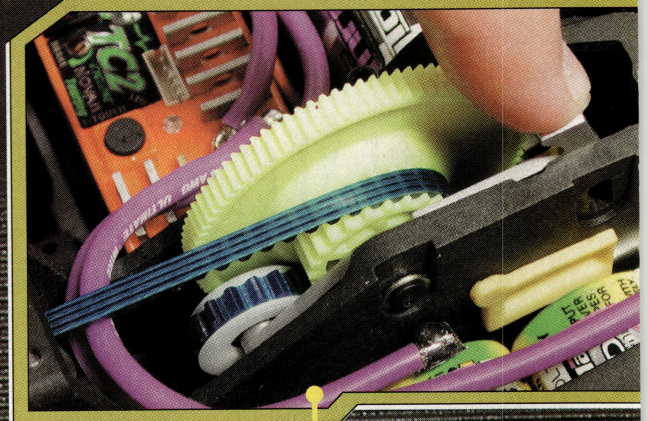


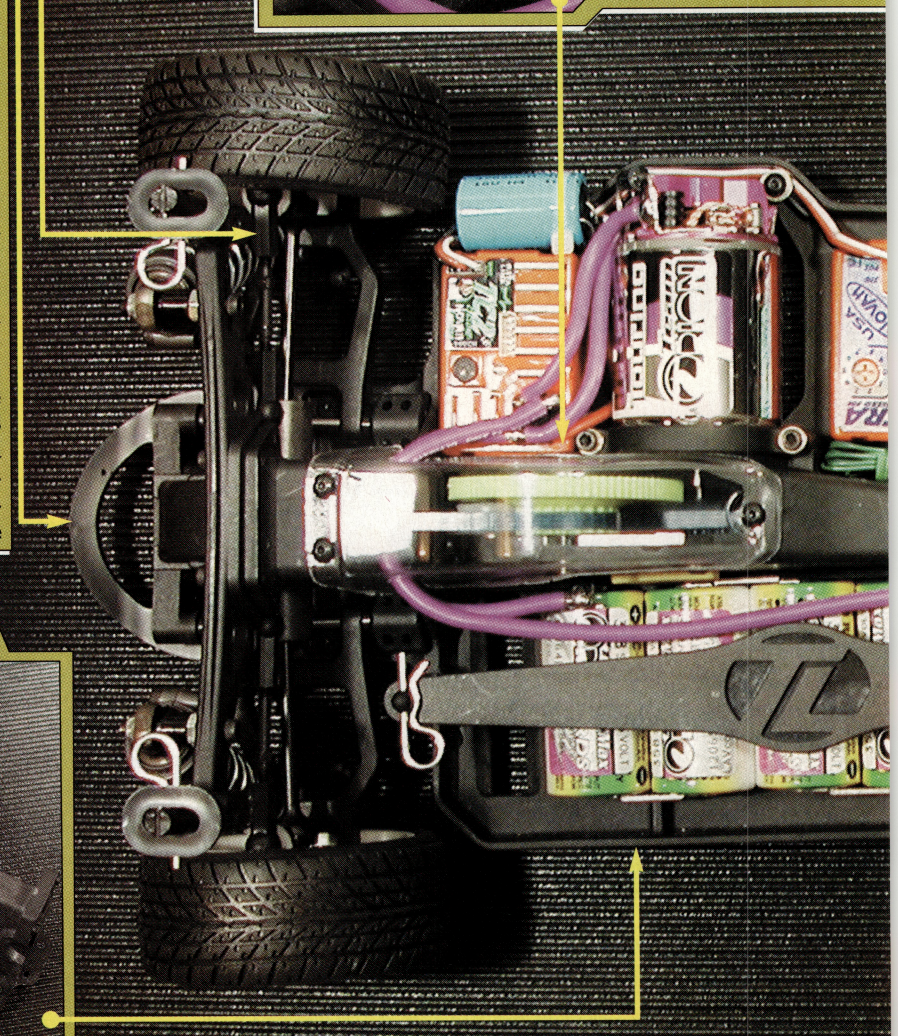
Team Losi XXX-S

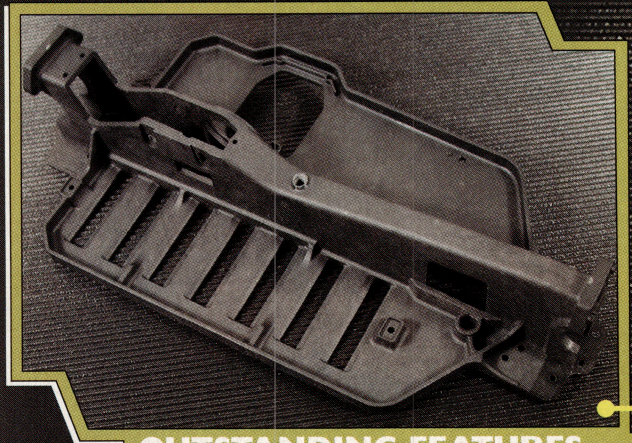




Losi has adopted a rear hub carrier that's similar to the one used by Kyosho on its touring sedans and off-road vehicles. Rather than having a hub that offers several holes in which to attach the upper link, the XXX-S' hubs have two holes into which a ball-stud is threaded. Switching between the two holes and adding washers to raise the ball-stud's height provides a greater degree of fine adjustment to the car's roll-center. Up front, a similar arrangement is used on the spindle carriers, except that the ball-stud also serves as the spindle pivot. As with most modern sedans, the XXX-S allows for precise setting of each arm's droop via a setscrew. Losi's setscrews are accessed from the bottom of the car, which makes setting droop less convenient than if the setscrews could be reached while the car was on the included droop gauge.







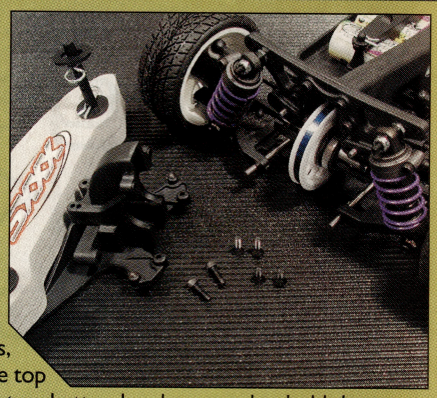
OUTSTANDING FEATURES

When the XXX-S box is first opened, your attention is immediately grabbed by the large, molded chassis (partially because it's the only item not sealed in a plastic bag!). Clearly, this chassis is the result of months of testing, hours of CAD work and tens of thousands of dollars in tooling costs. Essentially, the XXX-S chassis is a molded-composite tub with a large central "tunnel" which houses the drivetrain. Similar to the backbone on modern Corvettes, the tunnel runs the length of the chassis and serves double duty as belt enclosure and as a stiffening backbone.

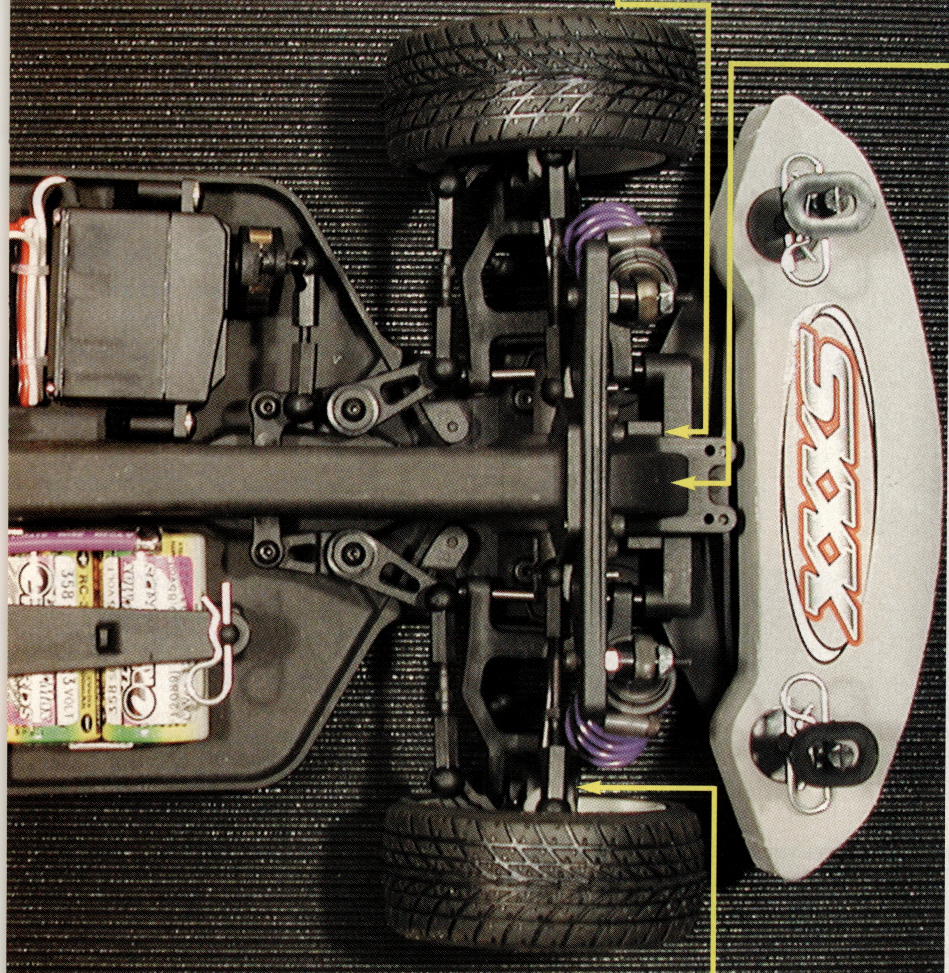
To the right side of the chassis are seven molded slots into which the battery pack is placed. The extra slot allows the cells to be positioned towards the front of the car for more steering, or toward the rear for greater traction. What's nice about molded chassis such as this is that there's no tedious grinding and filing of the slots needed; it's all been incorporated into the mold. The left portion of the chassis provides ample space for the electronics, with a large cutout beneath the motor to provide cooling. The ESC is mounted to the rear of the chassis, behind the motor, and Losi has engineered a clever channel which routes the ESC lead safely to the receiver, which is placed directly in front of the motor.

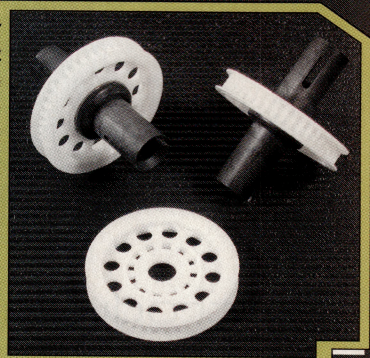
Once the drivetrain has been assembled, the bottom of the tunnel is sealed using a molded cover. As the diffs and the rest of the drivetrain parts can be easily serviced through the top of the chassis, the only time you'll need to remove the tunnel cover is when it's time to change belts. According to Losi, belts should easily last a season or two before needing replacement.

When building the drivetrain, we realized just how clever these Losi guys are. A long, single blue belt runs from the one end of the car to the other, connecting the front ball diff to the rear one. Just aft of the motor, the belt wraps around a one-piece spur-gear/pulley, then through another pulley that's mounted on a pivoting aluminum arm. This second pulley routes the belt in an S-shape, which increases the amount of belt "wrap", i.e., how much contact the belt has with the pulleys, to prevent the belt from skipping under load. The aluminum arm on which the second pulley is mounted allows for the precise setting of the belt's tension. In addition, the arm can be loosened sufficiently to allow enough belt-slack for the diffs to be removed from their cases.



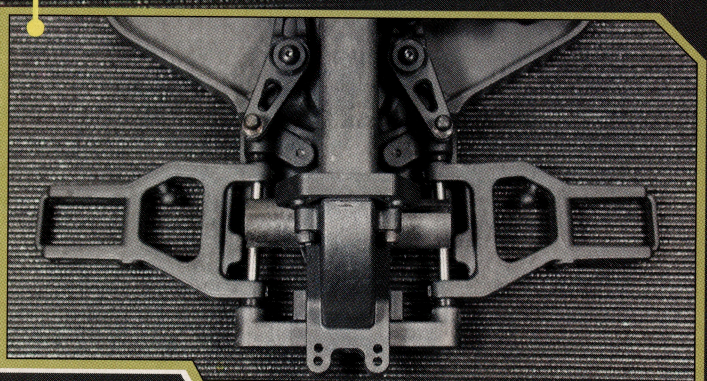
When it comes time to make changes to the diffs, or to perform drivetrain maintenance, life couldn't be simpler. Six screws are all that stand between the completed XXX-S and having a ball diff in your hand. With the front or rear bulkheads removed, all you have to do is swing the belt's tensioner pulley so that there's enough slack in the belt to permit the diffs to slide out. And when you want to change spur gears, just remove the Lexan cover from the top of the chassis tunnel and remove the two button-head screws that hold the spur-gear shaft. The gear can then be pulled right out. Not to slam on the Street Weapon's sealed drivetrain, but working on the XXX-S is a dream by comparison.





Another feature that didn't escape us was the sheer diameter of the belt pulleys; both those used for the ball diffs as well as those used for the gear- and counter-pulleys. The larger the pulley diameter, the less the belt must curve, and this means that the belt can handle higher loads with a looser tension. The result? Greater efficiency and quicker acceleration. And speaking of efficiency and response: the XXX-S' ball diffs are among the lightest we've seen, with molded-composite outdrive cups and ultra-light molded pulleys. Losi also provides a smaller, 41-tooth diff pulley (the stock ones have 42 teeth) that can be used to over- or -under drive the front wheels, depending on track conditions. If the smaller pulley is installed on the rear diff, the front wheels will be underdriven, giving more authority to the rear tires and increasing steering. If installed to the front, the smaller pulley will cause the front wheels to be overdriven, which will reduce steering response and make the car easier to drive. This ability is made all the more easy by the XXX-S' single-belt design, which allows for easy setting of belt tension without having to swap belts or reducing efficiency through the use of additional tensioners.

The XXX-S' four-wheel independent suspension is about as adjustable as they come, with long, molded composite arms (that have sway-bar links already molded-in) and Losi's hard-anodized aluminum shocks at all corners. Separate mounts for the lower-arms' hingepins provide for adjustment of front kickup and rear anti-squat angle (from between 0, 2 and 4 degrees). Both the front and rear arms can be spaced backward or forward on their hingepins, which alters not only the car's wheelbase, but the relationship between the outer hubs and the diff outdrives. Spacing the front arms forward increases stability. Spacing them rearward will quicken steering response. Sliding the rear arms to the back of the car reduces forward bite and slows the car's initial steering, while moving them forward will have the opposite effects.



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

Team Losi XXX-S

REPORT CARD

Test location: Ventura Roadrunners, Camarillo, CA.

Track type: Asphalt roadcourse. Surface clean and sprayed with traction additive

Low-speed steering: A

To be as fair as possible to Losi, we did try the blue-compound kit tires first, but as we had anticipated, they were not up to the task of handling a 10-turn mod motor on a technical asphalt roadcourse. We tried a number of different tire/insert combinations, settling on Yokomo ZR-138G tires with firm inserts. Fortunately, Losi provides 12mm hubs in addition to the stock 9mm ones so that other brands of wheels can be used.

With the right tires, the XXX-S felt utterly planted in the turns. We experimented with the battery position, but kept going to the forward position as the car always felt more stable. With the exception of one corner, which followed a high-speed straight, we rarely needed to use brakes, as the XXX-S has plenty of low-speed steering.

High-speed steering: A

So much of a touring car's performance is based on tires. Once we had the right ones mounted, the true capabilities of the XXX-S became apparent. Steering response at higher speeds was as good as it had been in the slower turns. There wasn't one time that we felt the XXX-S push. We ended up tightening the front diff slightly to slow the overall steering response, and this essentially eliminated any hint of oversteer.

The XXX-S also shined through bumpy turns. Some other touring car's we've tested have been thrown off course on this track's bumpy S-section, but the XXX-S soaked up the bumps without any course deviation. The grip this car generates is confidence-inspiring.

Acceleration: B+

To gauge acceleration, we pitted the XXX-S against a 10-turn powered, fully optioned and tuned Street Weapon. Off the line, the XXX-S pulled the SW by about five feet. Once at speed, both cars seemed even. Out of the turns, the XXX-S pulls hard and straight, without even the slightest hint of tweak.

Braking: B

The first time we ran the XXX-S and applied brakes, we thought we had broken the car! You see, the drive belt clicks under hard braking; the looser the belt, the more it clicks. According to Losi, this is normal and should have no ill effect on the belt or pulleys. We tightened the belt slightly to reduce the clicking. To eliminate the clicking completely, the belt would have to be set too tightly, so don't bother. Although the car braked hard and straight, there was something about that noise that caused us to avoid hard braking at all costs (maybe this will make us smoother drivers?).

Straight-line tracking: A

Fantastic! As good as anything we've ever tested. The XXX-S goes where you point it.

Adjustability: A

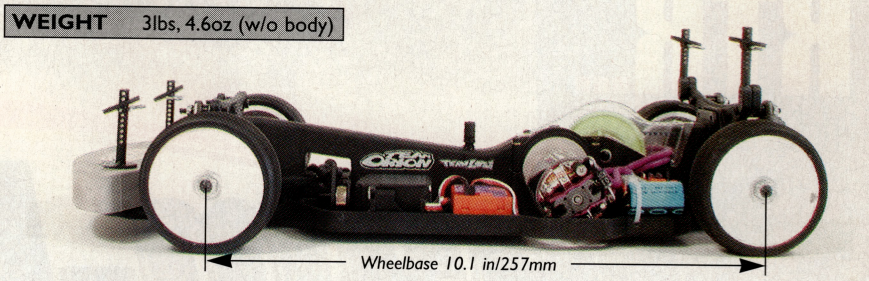
Anything that you'd want to adjust on a touring car can be set on the XXX-S. We even experimented with front-arm spacing, but ended up preferring the stock setting (spaced in the middle) as this made the car easier to drive. We awarded extra points for the additional diff pulley, which over- or under-drives the front wheels.

Durability: A

Losi's extensive experience with molding high-tech composites, combined with its knowledge of drive belts equals a very rugged touring car. Despite several crashes (although none of them were exceptionally brutal), nothing broke on our XXX-S during the entire test.



WEIGHT 3lbs, 4.6oz (w/o body)



SPECS

TYPE	4WD Belt Driven Sedan
SCALE	1/10
PRICE	Available at $219.99 (approximate "street" price)
CHASSIS	
Type	Tub-style with central belt tunnel
Material	Molded composite
SUSPENSION	
Type	Lower A-arm with adjustable upper link
Damping	Aluminum oil-filled shocks
TRANSMISSION	
Type	Single belt drive 4WD
Driveshafts	MIP CVD driveshafts
Bearings	Shielded ball bearings

FINAL SCORE

Highs: An exceptionally simple and effective single-belt design that's so, so easy to work on. Tons of tuning options are available, but the stock setup felt about perfect to us. As always, the Losi instruction manual is flawless, and has a huge tuning section that all XXX-S owners should memorize!

Lows: We would like to see the car come with better tires and wheels—that's our preference. Although Losi claims it's harmless, the belt-skipping under hard braking is disconcerting. The setscrews that control suspension droop thread into the soft-plastic bumpers, which flex and distort from the pressure of the shock springs.

The Verdict: If there were any leftover bad Karma from the Street Weapon, Losi has thoroughly vanquished it to the netherworld with the XXX-S. This is a car that works so well out of the box that you'll be afraid to mess with anything. And if this weren't enough, Losi has gone all-out to make the XXX-S one of the easiest cars to wrench on. As we wrote in the introduction: anyone who doubted Losi's single-belt drivetrain should drive a XXX-S—it will change their perceptions.◆

SOURCES

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

Novak Electronics, Inc., 18910 Teller Ave., Irvine, CA 92612 • (949) 833-8873; fax (949) 833-1631

Team Losi, Inc., 13848 Magnolia Ave., Chino, CA 91710 • (909) 465-9400; fax (909) 590-1496

Team Orion, 22601 LaPalma Ave., Suite 103, Yorba Linda, CA 92887 • (714) 694-2812; fax (714) 694-2815

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

Here's your chance to join the TEAM!

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

•Pro-Line Ribbed "Edge" Front tires

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

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



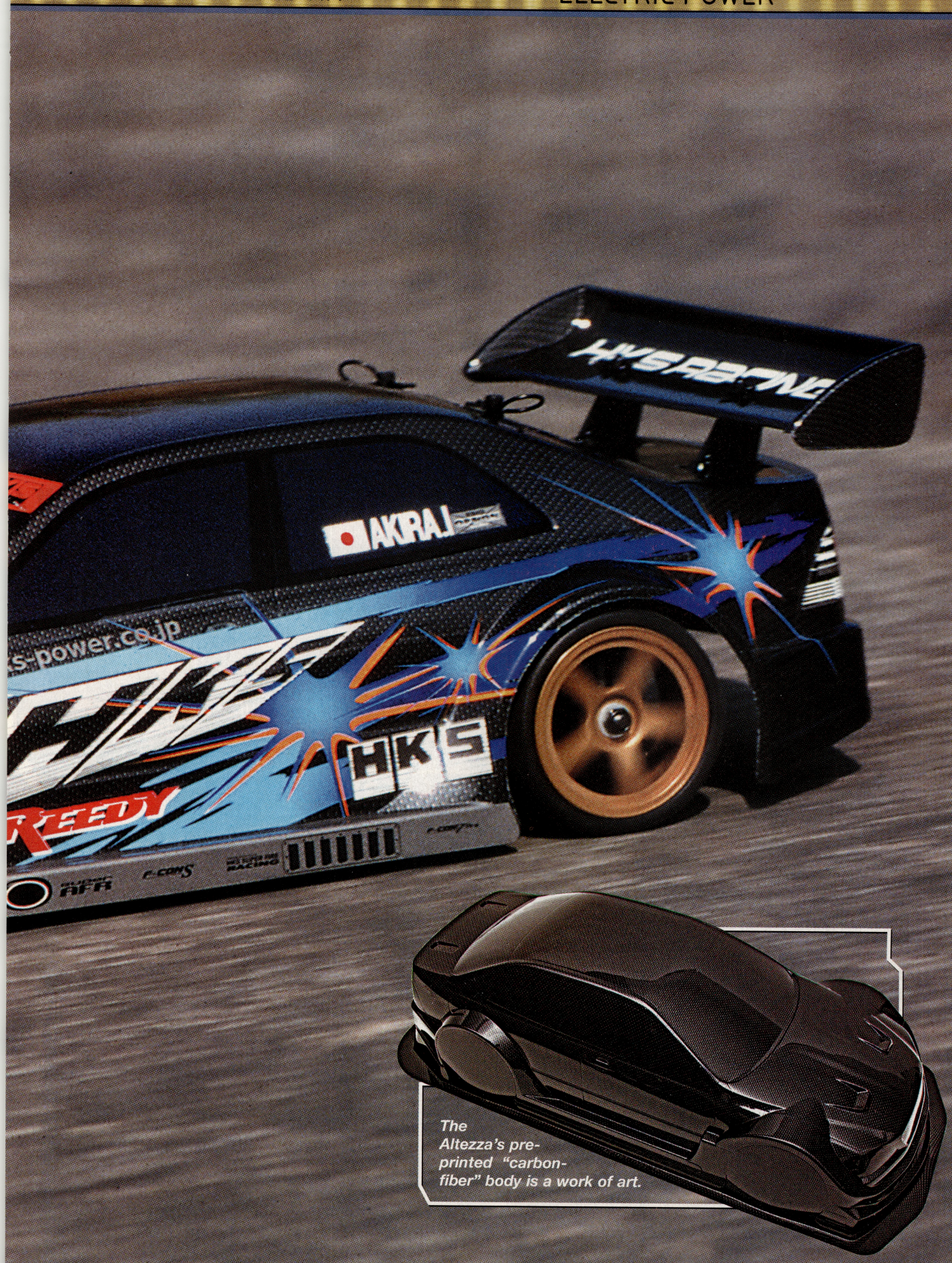
Tamiya TA04-R HKS Racing Altezza

When the new Tamiya TA04-R HKS Racing Altezza arrived at our office, we were simply awestruck by its pre-printed carbon-patterned body and wing. The full-sized race car on which this kit is based has a body comprised entirely of high-tech carbon-fiber, and Tamiya has recreated that effect in miniature with stunning results. This has to be the coolest paint job on the planet. And it was because of this incredible body that we nearly overlooked the fact that this kit is the first to include the new TA04-R racing chassis!

The TA04, introduced last year, was Tamiya's first twin-belt 4WD touring car, and was actually based on the limited production 414X prototype chassis. Initially available in Pro trim, the TA04 included a dual-deck FRP (fiber-reinforced plastic) chassis, ball bearings and front/rear ball-diffs. Subsequently, Tamiya released a sport version of the TA04, which had gear differentials, metal bushings and a molded plastic "tub" chassis. The latest version of Tamiya's top tourer is this TA04-R, which includes a host of race-oriented hop-ups which improve its performance, strength and, of course, its looks. Combined with the Altezza carbon body, the TA04-R is one serious machine!

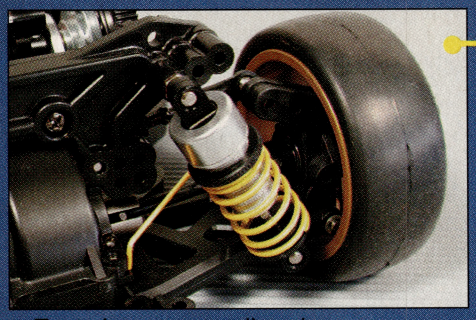


CARBON CRUISER



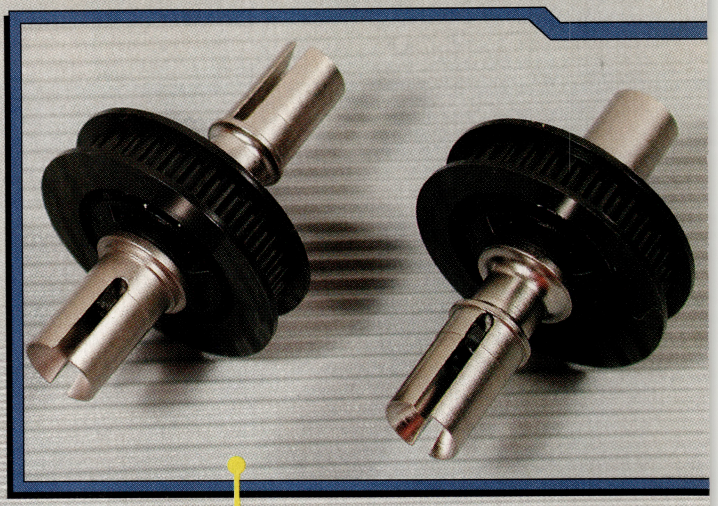
The Altezza's pre-printed "carbon-fiber" body is a work of art.

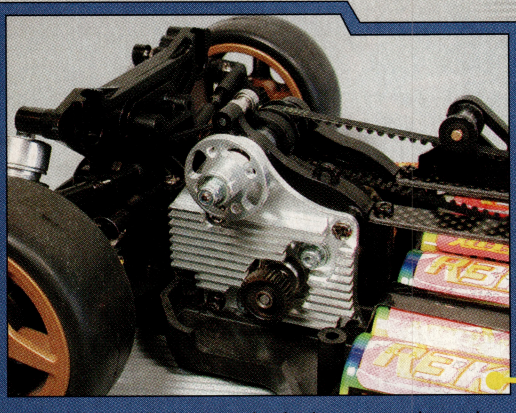
Tamiya TA04-R HKS Racing Altezza



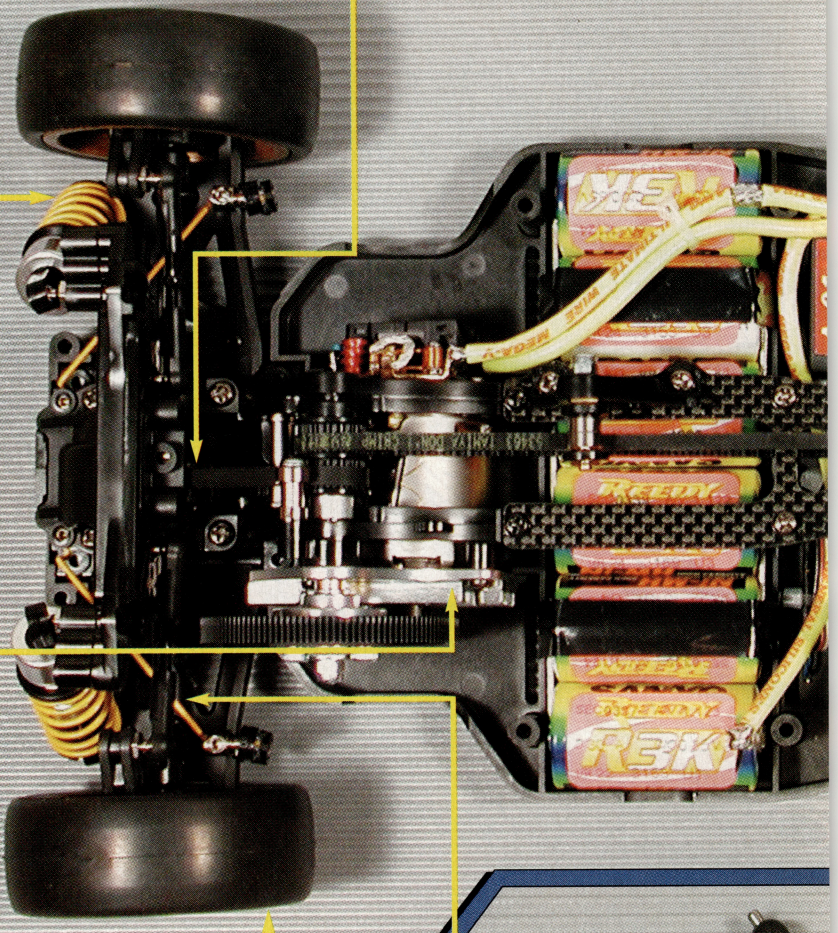
Tamiya's awesome alloy dampers grace each corner of the TA04-R. These shocks feature threaded cylinders for easy adjustment of spring pre-load, low-friction single O-ring seals with Teflon shaft guides, Teflon pistons, and rubber bladders with foam inserts to prevent inconsistent damping during fast shock compression.

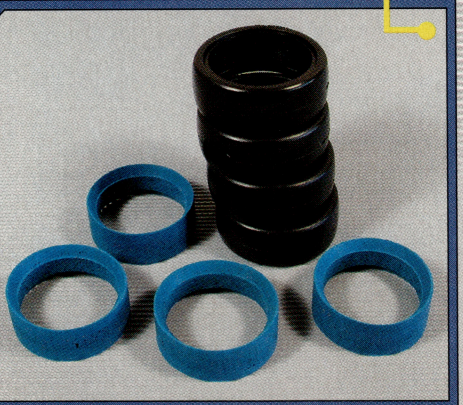
The rear suspension is equipped with new carbon-composite rear hubs that add two degrees of toe-in per wheel for greater stability when accelerating out of turns.





In place of the standard aluminum plate, the TA04-R uses a machined-aluminum motor mount to vastly improve heat dissipation and keep the motor running much cooler. Remember: cool motors make more power and run more efficiently! Tamiya has also included an aluminum hub for the spur gear (the one on the Pro and regular '04 is plastic), which in addition to being stronger and truer (less gear wobble), comes with a carbon washer that helps spread the load of the spur-gear screws to further prevent gear deformation.



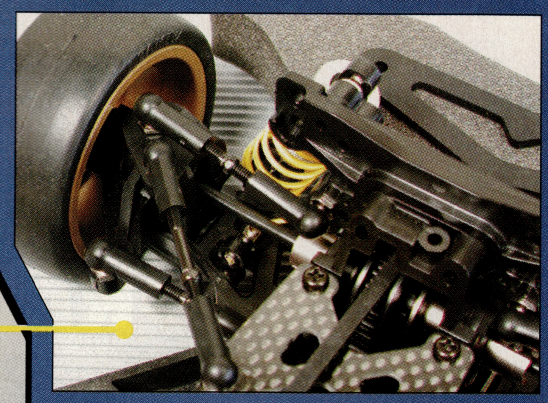


The Altezza comes with Tamiya's excellent Type B belted slick tires and firm foam inserts. The tires worked well on asphalt, and make a cool squealing noise when they break traction!

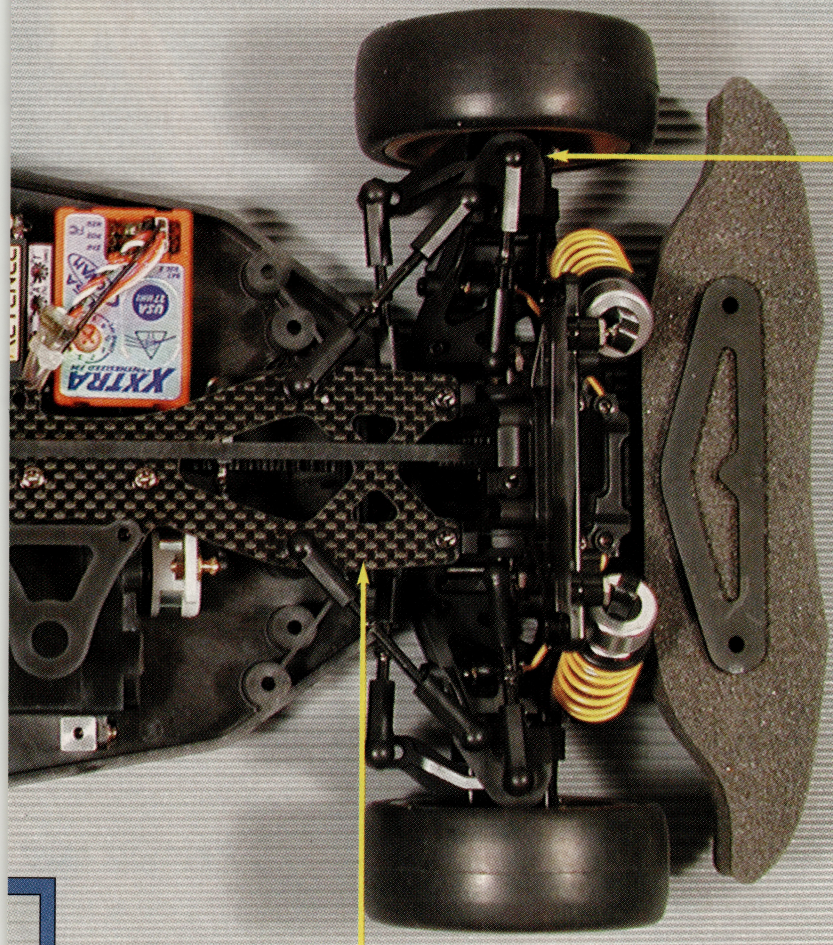


Within each molded gearbox (although "beltbox" would be a better description) resides an adjustable racing-type ball differential. These diffs improve traction and handling by providing a limited-slip effect to prevent an un-weighted tire from unloading under acceleration. The diffs also feature lightweight alloy outdrive cups, precision-steel balls and a pre-assembled thrust-bearing assembly.

To help keep the chassis flat during cornering (and thus improve corner speed), Tamiya has equipped the TA04-R with a set of its yellow sway bars for the front and rear suspensions. The bars attach to the front and rear diff housings, and then to the lower suspension arms using molded links. When one side of the suspension is pushed up, the torsion of the sway bar places similar force to the other side, reducing the rolling affect. What's neat is that Tamiya color-codes its sway bars to match the stiffness of its shock springs. In general, if you have yellow springs on your shocks, the yellow sway bars will work best. We also like the small setscrews that are used to remove excess play from the sway bars and to compensate for the various diameters of the bars.



The front hub carriers have also been revised (5-deg. caster) and are now tied to the upper chassis deck using torque rods. This setup greatly stiffens the hub carriers and prevents them from flexing. Suspension geometry now remains constant to provide handling that's much more consistent over different types of track surfaces. In addition, the TA04-R gets a full set of steel turnbuckle linkage rather than the cumbersome threaded-rod of the '04-Pro.



OUTSTANDING FEATURES

The TA04-R is based on the twin-belt 4WD TA04 Pro chassis; however, it incorporates many racing accessories and specialized parts that enhance its performance and durability.

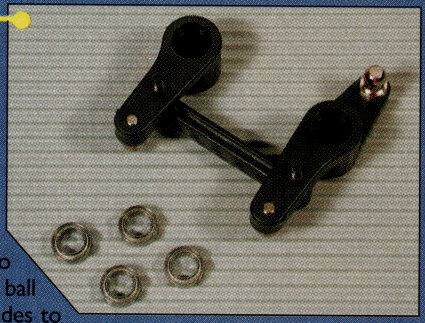
Apparently, the molded chassis of the TA04 is lighter and slightly more rigid than the TA04-Pro's FRP double-deck chassis, as the TA04-R comes with the molded-carbon tub. The chassis also provides the benefit of being keyed to the suspension pieces to keep them properly aligned at all times. There's also plenty of room for electronic gear, and the chassis accepts both stick packs and side-by-side racing packs. Topping off the chassis is an upper deck made from lightweight carbon. This not only stiffens the entire structure, but the upper deck comes equipped with a molded mount for securing a lap-counting transponder.

TEST EQUIPMENT

- Airtronics M8 transmitter
- Novak XX-Tra synthesized receiver
- KO Propo PS-2000 Fet steering servo
- Reedy Zappers 3000mAH NiMH battery pack
- Reedy Ti modified 10-turn double motor

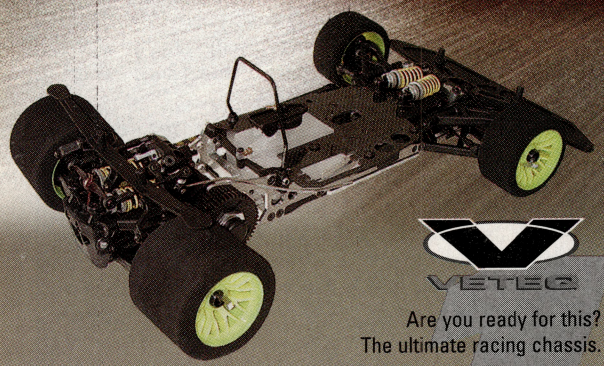
Tamiya has equipped the TA04-R with a full set of its new universal-joint driveshafts. These new shafts are CVD-style, which means that they use a single pin instead of two, and can be easily rebuilt when they've become worn or damaged.

The TA04-R comes with a full set of ball bearings (27 of them in all). If it spins, rest assured that it spins freely on ball bearings. In addition to the standard placement, e.g., the diffs and hubs, there are also two bearings within each ball diff, four that serve as guides to prevent the drive belts from skipping, and four bearings to support the steering bellcranks for smoother, slop-free operation.



WORLD CHAMPIONSHIP PERFORMANCE PRODUCTS





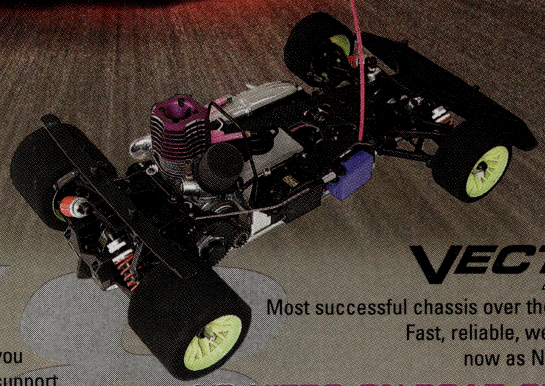
VETEQ

Are you ready for this?
The ultimate racing chassis.

ELITE 1/8 NITRO ON-ROAD CHASSIS



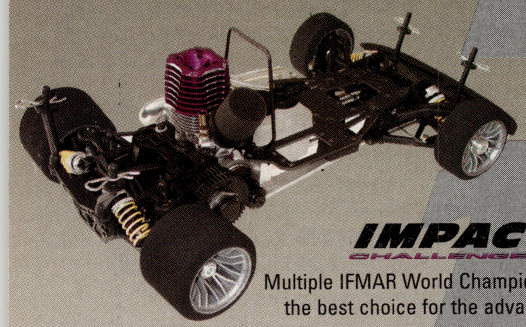
As VETEQ owner you can expect extra support, with the VIP card you can rely on super membership service!



VECTOR NT

Most successful chassis over the last 4 years. Fast, reliable, well-known and now as NT even better.

1/8 NITRO ON-ROAD CHASSIS



IMPACT M2 CHALLENGER

Multiple IFMAR World Champion, proven to be the best choice for the advanced 1/10 racer.

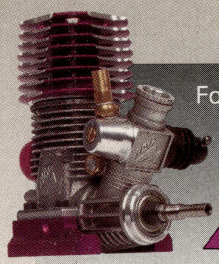
1/10 NITRO ON-ROAD CHASSIS 235mm



IMPULSE STREETSPEC

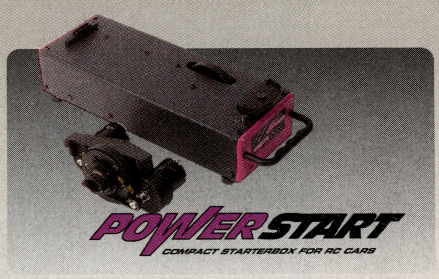
"The number-one reason we picked the IMPULSE as our Car of the Year is its evolutionary layout and the way it is already shaping the face of nitro Touring Car racing."
" RC Car Action

1/10 NITRO SEDAN 200mm



For best performance we recommend:

NOVA MEGA RACING ENGINES



POWERSTART
COMPACT STARTERBOX FOR RC CARS



myTSN.com
INITIATED BY SERPENT MOTOR SPORT

SERPENT MOTORSPORT

WWW.SERPENT.COM

Serpent USA Inc. 2830 NW 79 Ave. Miami, FL 33122 Phone (305)639-9665
Fax (305)639-9658 E-Mail info@serpent-usa.com

REPORT CARD

Test location: Ventura Roadrunners, Camarillo, CA.
Track type: Asphalt roadcourse. Surface clean and sprayed with traction additive

Low-speed steering: B+

To be perfectly honest, we had expected the Altezza to be one of those stunningly beautiful cars that had decent performance. We were wrong on one part: it's a great-looking car that worked far better than we could have imagined. Sure, we've tested the TA04 Pro, but the new '04-R chassis goes into our record book as the best-handling Tamiya sedan we've ever driven—box-stock! Low-speed steering was very good, with a slight hint of push if we came into the turns a bit too hot. Once in the turn, the Altezza felt razor-sharp. Grabbing a handful of throttle out of the turns sometimes resulted in a rear-end slide, but the Altezza's 4WD always came through and pulled the car straight.

High-speed steering: B

Normally, we have such reverence for Tamiya bodies that we only run them for photographic purposes (plus they usually take days to complete and we don't want to destroy our hard work!). But in the case of the Altezza, we decided to throw caution to the wind and risk scuffing that killer carbon body. Plus, we wanted to try out that cool rear wing!

Although a bit heavier than a typical sedan body, the Altezza's shovel-nose and huge rear wing provided tons of downforce, pinning the chassis to the track. We used the kit-supplied Type B belted slicks (with firm inserts) and found them to be very good. If we pushed the car too hard, the tires would let go with a squeal indicative of belted tires, but if we stayed below nine-tenths, the car felt absolutely planted.

Acceleration: B+

The first time we goosed the Altezza we were taken by surprise by the sheer punch of the Reedy 10-turn motor. We were following a nitro sedan through a long sweeper that led to the track's main straight. We made our move to pass the gas car mid-way on the straight, pulled full throttle and actually slammed into the rear of the other car and spun it! The '04-R was up to the task of handling all the horsepower we could bolt into it.

Braking: B

The Altezza stopped so well that we had to be careful not to scrub-off too much speed when entering turns. We all laughed aloud whenever a test driver pulled full brake at the end of the straightway, at which time the belted slicks emitted a high-pitched squeal.

Straight-line tracking: B

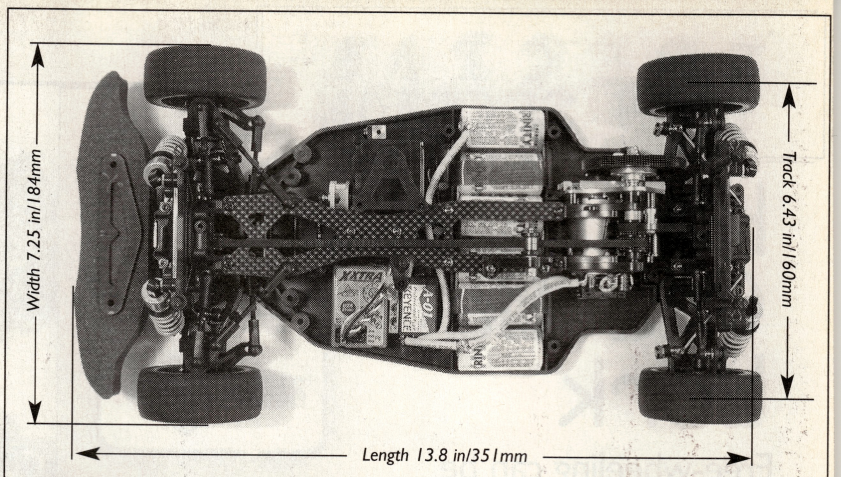
An area on concern on many previous Tamiya touring cars, however the '04R tracked straight and stayed that way throughout the test. The new TA04 bellcranks have much less slop than previous Tamiya cars. The '04-R's bearing supported bellcranks are even better.

Adjustability: B

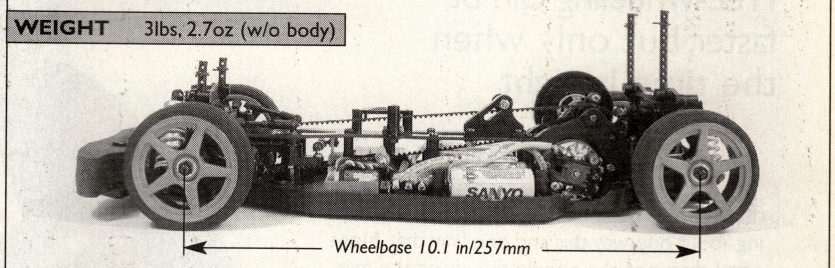
Very good. The threaded shocks make it very easy to set spring pre-load, and the suspension droop is easily adjusted by setscrews.

Durability: A

Past tests of the TA04 (in various versions) have proven this to be a durable design. Tamiya's plastic has just enough flex to prevent breakage, yet is just rigid enough not to hamper performance.



WEIGHT 3lbs, 2.7oz (w/o body)



SPECS

TYPE	1/10-scale electric touring sedan
PRICE	Available at $269.99 (approximate "street" price)
CHASSIS	
Type	Molded tub
Material	Reinforced composite plastic
SUSPENSION	
Type	Independent lower A-arms with adjustable upper camber-links
Damping	Aluminum oil-filled shocks with Teflon pistons
TRANSMISSION	
Type	Belt-driven full-time 4WD. Front and rear ball diffs
Drive shafts	Steel CVD-style universal driveshafts
Bearings	Shielded ball bearings

FINAL SCORE

Highs: That fantastic Altezza body almost overshadows the trick TA04-R racing chassis. We were all pleasantly surprised by how well the new chassis handles. The kit comes with a host of high-performance accessories such as ball diffs, belted slicks and sway-bars. We really like the way the car felt with the molded chassis.

Lows: The tub chassis places its battery holding straps directly above the positive and negative battery tabs. We hard-wire our racing cars (although we admit that a good connector is just as efficient), so we couldn't use the straps. Fortunately, the chassis already has tape slots. The front belt was too tight. We are hoping that it will stretch over time.

The Verdict: The Altezza is simply the coolest Tamiya kit we've seen in years. Not only is the included pre-printed body a work of art, but it sits atop what we feel is the best-handling Tamiya touring chassis ever released. Heck, this car is good enough to race at any level (although you'd probably want to keep the Altezza body on your display shelf). Watch out TCS series!◆

SOURCES

Airtronics, 1185 Stanford Ct., Anaheim, CA 92805 • phone (949) 978-1895; fax (949) 978-1540

KO Propo USA, Inc., 1602 S. Western Ave, Suite 308, Gardena, CA 90247 • (310) 532-935 fax (310) 532-9354

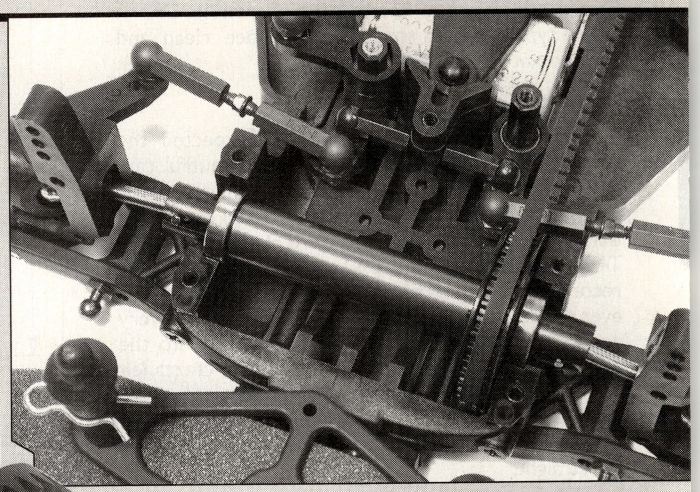
Novak Electronics, Inc., 18910 Teller Ave., Irvine, CA 92612 • (949) 833-8873; fax (949) 833-1631

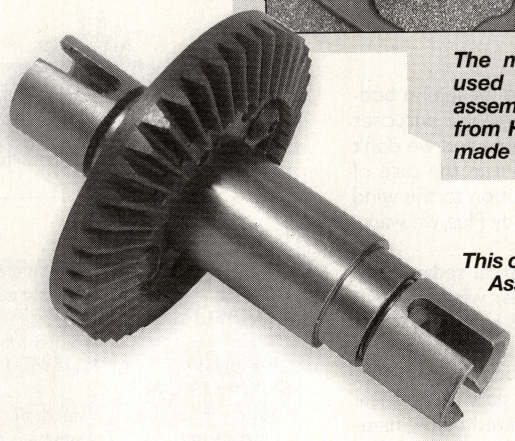
Reedy Modifieds, 3585 Cadillac Ave., Costa Mesa, CA 92626 • (714) 850-9342; (714) 850-1744 fax

Tamiya America, Inc., 2 Orion, Aliso Viejo, CA 92656-4200 • phone (949) 362-2240; fax (949) 362-2250

How One-Ways Work

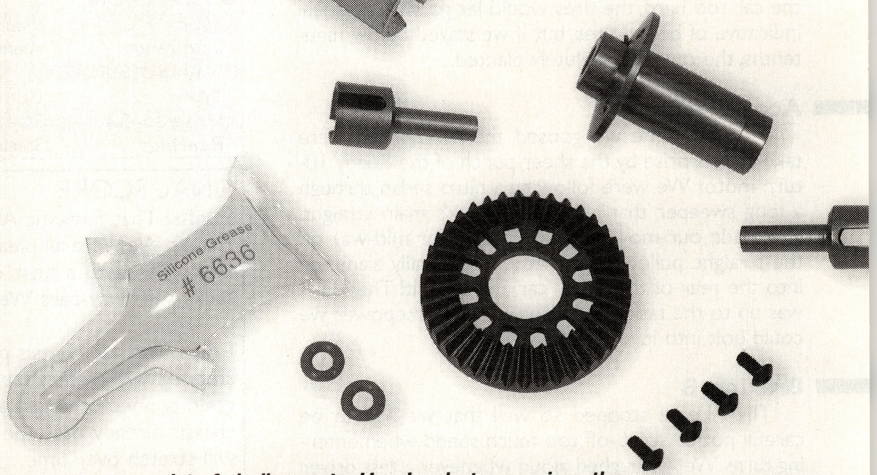
Free-wheeling can be faster, but only when the time is right





The most common type of one-way is used to replace the front differential assembly in 4WD touring sedans. This unit from HPI fits the new Pro 3 sedan and is made from durable aluminum.

This one-way is manufactured by Team Associated to fit their popular TC3 electric touring car. One-ways provide improved steering response and smoother turn-in.



Most one-ways consist of similar parts. Here's what comprises the TC3 one-way: the main one-way hub, the driveshaft cups (which allow for independent left/right free-wheeling) and the diff gear (or pulley for belt-driven cars).

Lately, as we've made our way through the pit areas at the tracks we frequent, we've been hearing a lot of racers talking about one-way this and one-way that. More often than not, the people discussing the mystical one-way parts have no idea how, or more importantly, why they work. Like any other tuning aid, there are specific conditions when a one-way drivetrain component can be beneficial, and understanding how it works is the key to its proper use.

How do they work, and what are the benefits?

The overall effect of a one-way drivetrain component is to let the front wheels coast freely—either together or independently—when off power. The magic part that allows this to happen is the one-way bearing, which is sometimes known as a clutch bearing. This type of bearing is specially designed to rotate around a shaft freely in one direction, but grab and lock onto the shaft when rotated in the other direction. Both belt- and shaft-driven cars can use a one-way differential, and belted cars can also take advantage of a one-way center pulley.

The one-way diff is kind of a misnomer, since it isn't really a differential, but goes in its place and eliminates the differential action. The output shaft on each side rides on its own one-way bearing, though both sides share a common drive pulley or drive gear. Each output shaft, hence each wheel, can free-wheel independently, but when the drive pulley is engaged, both wheels receive power equally. Both a regular diff and a one-way diff will give each front wheel an equal amount of power when going in a straight line with high traction, and both will allow the two front wheels to rotate at different speeds when turning. The main difference, however, is that when coasting or braking, the front wheels can rotate completely independently of the back wheels. One way to tell that a car has a one-way diff is to lift all four wheels in the air, then give it a quick burst of throttle immediately followed by full brakes. If the front wheels keep on spinning while the rear wheels and the belts or shaft come to a stop, then a one-way diff is in the car.

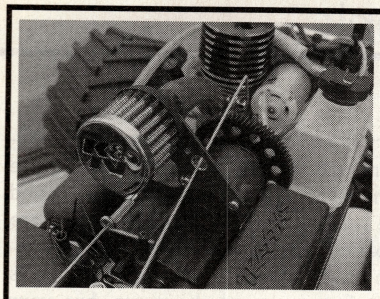
Another attribute of a one-way diff is the elimination of what we call "inner wheel unloading." For example, on a loose track with a regular diff, when getting on the throttle during a turn, the wheel with less weight on it—usually the inner wheel—ends up breaking traction and spinning, which lessens the amount of power that the outer wheel receives. This forces the back wheels to have to push the car through the turn, and this reduces steering. With the one-way diff, even if the inner wheel breaks traction, the outer wheel will always get full power because its rotation is independent of the inner wheel. The outer wheel can pull the car through the turn with more steering authority.

What's a one-way pulley?

The one-way pulley works a bit differently than the one-way diff. Instead of replacing the differential, it replaces one of the drive pulleys from either the center layshaft in a two-belt drivetrain, or the front layshaft in a three-belt drivetrain. This means that the belt, along with the diff (and wheels) are allowed to freewheel when off power. The way to tell if a one-way pulley is installed in the car is to give that burst of throttle, then brake as mentioned above.

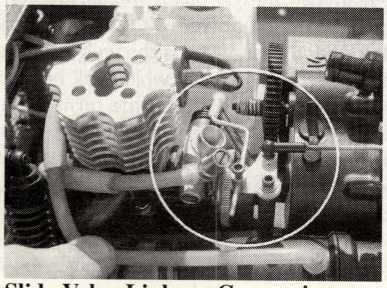
DRAGON R/C

SMOKE THE COMPETITION



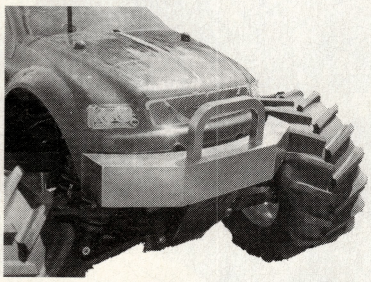
K&N Airfilter w/T-Maxx Adaptor

K&N Airfilter Performance & Reliability for Traxxas T-Maxx. *DR-170 $39.99*



Slide Valve Linkage Conversion

Converts T-Maxx Linkage for Slide Valve Carburetor *DR-160 $42.99*



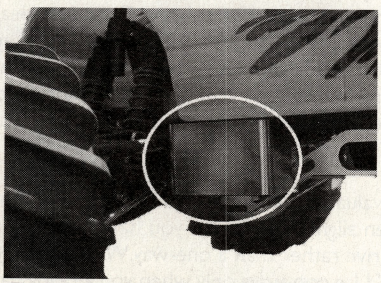
Redneck Front Bumper w/Mounts

Sturdy Aluminum Front Bumper w/ Heavy Duty Mounts for T & E Maxx *DR-110 $69.99*



Maxx Aluminum Spinner Rims

Sturdy & Functional Aluminum Directional Rims for T&E Maxx *DR-175 Set of 4 - $223.99*



Redneck Alum Servo Guard

Maximum Pertection Aluminum Servo Cover for T & E Maxx *DR-140 - $49.99*

TRAXXAS T & E Maxx

DR-100 Redneck Ladder Bars	$49.99
DR-110 Redneck Front Bumper	$69.99
DR-111 Redneck Rear Bumper	$58.99
DR-130 Hex Drive w/ O-Rings	$44.99
DR-140 Redneck Servo Guard	$49.99
DR-150 Steering Drag Link	$11.99
DR-175 Spinner Alum. Rims	$223.99

T-Maxx

DR-160 Slide Valve Linkage Kit	$42.99
DR-165 E/Z Start Conv. - O.S.	$67.99
DR-170 K&N Airfilter w/Adaptor	$39.99
DR-171 K&N Re-Charge Kit	$7.99

LOSI

DR-200 Alum Front Bulkhead (XXX)	$24.99
DR-205 Rear Body Mount (XXX)	$13.99
DR-210 Rear Wing Mount (XXX, XX4)	$33.99
DR-230 Rear Lower Shock Mt (XXXT)	$13.99
DR-240 Rear Suspension Mt (XXX-S)	$21.99

ASSOCIATED

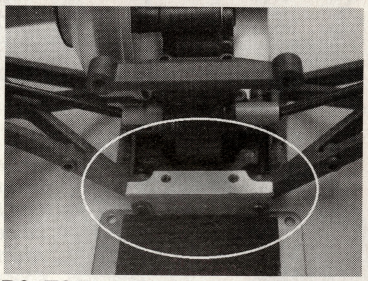
DR-300 Alum Front Bulkhead (B3, T3)	$38.99
DR-310 Front Pin Brace (B3, T3)	$11.99
DR-315 Rear Susp. Pin Brace (B3, T3)	$12.99
DR-320 Front Top Plate (B2, B3, T3)	$44.99
DR-330 Rear Lower Shock Mt (T3)	$13.99

MISCELLANEOUS

DR-500 Brush Cutter/Serrator	$75.99
DR-501 Brush Cutter/Serrator(W/Motor)	$99.99
DR-700 Wheel Align. Square (Touring)	$44.99
DR-710 M8 Wheel Adaptor(Touring Rim)	$17.99
DR-715 M8 Alum. Steering Wheel	$42.99
DR-720 Conterfeit Cell Spacer	$9.99

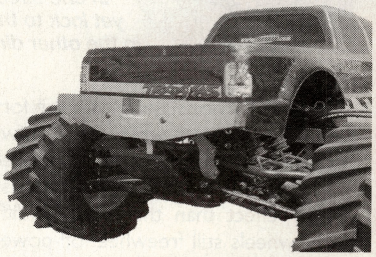
COMING SOON - 45 Minute Paint Job Kit

Distributed By
MHOR R/C Raceway
15540 E. Batavia Drive - Aurora, CO 80011
(303)343-0151, Fax (303)343-7966
dragonrc.com
questions@dragonrc.com



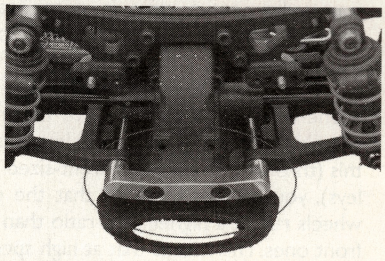
B3, T3 Rear Suspension Pin Brace

Bullet Proof Associated Rear Suspension Mounts With an Aluminum Rear Brace. *DR-315 $16.99*



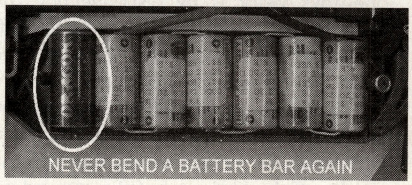
Redneck Rear Bumper w/Mounts

Sturdy Aluminum Rear Bumper w/ Heavy Duty Mounts for T & E Maxx *DR-111 $58.99*



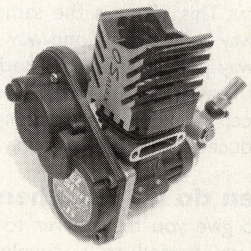
XXX-S Alum. Rear Sus. Mounts

Losi XXX-S Aluminum Rear Mount 0/4 Anti Squat *DR-240 $21.99*



Aluminum Counterfeit Cell Spacer

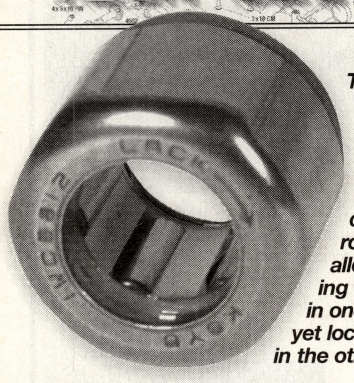
Use cell to replace the foam spacer in your vehicle *DR-720 $9.99*



O.S. - E/Z Start Conversion

Attaches Traxxas E/Z Start to O.S. .12 & .15 CV-X, CV-X Hyper & .12 CVR-X Engines *DR-165 $67.99*

How One-Ways Work



The heart of the one-way unit is this little bearing, which has specially designed rollers that allow the bearing to spin freely in one direction, yet lock to the shaft in the other direction.

If the front wheels along with the forward belt keep spinning while the rear wheels stop, then a one-way pulley is installed.

In general, the one-way pulley has a bit milder effect than the one-way diff. The front wheels still freewheel off-power, but you still have the differential action working for you, which takes away some steering. This effect is mostly felt during off-power cornering. A standard diff and one-way pulley setup may in some cases increase on-power steering over a one-way diff unit.

A trick you can do with some cars and a one-way unit is to overdrive the front wheels. If the design of the car lets you do this (through the use of different-sized pulleys), you can set it up so that the rear wheels run at a higher gear ratio than the front ones. This means that at high speeds, the front wheels will be freewheeling, effectively making the car RWD, which should increase the top speed by reducing the amount of drag from the drivetrain.

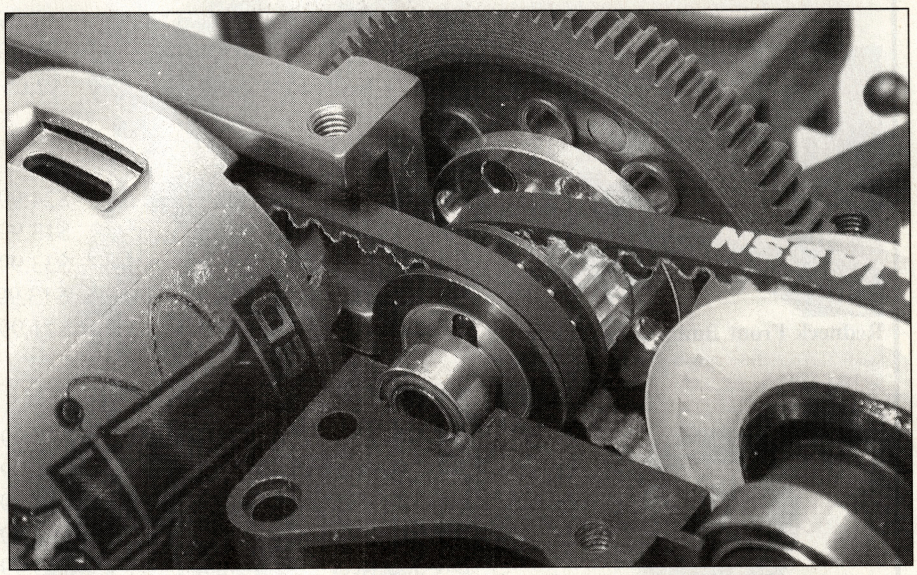
Okay, so what's bad about them?

As stated above, the main way that one-ways work is by disconnecting the front wheels from the rears when off-power. Unfortunately, this is also true when the car is braking, and this is where the trade-off occurs. When braking, the weight of the car transitions to the front, which gives us more steering. But with the weight off the back end of the car, and no front-wheel braking, the rear wheels are more prone to locking up. When that happens, you are almost guaranteed to spin the car. This effect is the same for both one-way pulleys and one-way diffs. Also, one-way pulleys have the disadvantage of being heavier than the fixed pulleys they replace, so additional rotating mass is introduced into the drivetrain.

When do we use them?

To give you the answer to this question, we turned to a couple of sedan experts for their opinions. The "Fabulous One," Barry Baker, Team Yokomo factory driver and guest announcer extraordinaire, says that when there is enough traction, and especially on flowing tracks, a one-way will be extremely helpful because of the higher cornering speeds a one-way-equipped car can handle. If the track is a little loose, then he will use a one-way pulley with a standard front diff. If the track is very loose, he'll stick with AWD, or all-wheel braking, as he puts it, because even with a one-way the car is always AWD when on the throttle (unless the front is overdriven). Under extremely loose conditions, Barry believes that one-ways might give him too much steering, which could hurt more than help. But on high-grip tracks, he will frequently run both a one-way pulley and a one-way diff in the car, which he finds makes the car easier to drive.

We also caught up with the legendary Brian Kinwald to get some of his one-way tricks. Brian finds that a one-way will give him more acceleration out of a corner and more steering into a corner, but if there are lots of slow turns, a regular diff would be easier to drive. He feels that using a one-way is always faster around the turns, but your overall times may end up slower if the car is difficult to control. As far as the differences between the one-way pulley and diff are concerned, when off-power with the one-way pulley, kinetic energy keeps the weight of the belt moving with the diff which will help to keep the car rolling through the turns more smoothly. But using steel dogbones instead of aluminum ones would do the same thing. And when using an adjustable one-way, like the clicker in his Team Losi XX-4, Brian will start off running it as loose as possible (full one-way action), and tighten it slightly bit-by-bit if he finds it has too much steering.



Some cars use one-way bearings on the center pulley-shaft either with or without the use of a front one-way unit. The double one-way setup provides even smoother cornering response. Shown here is Yokomo's MR-4TC Special.

How do you maintain a one-way?

As with any moving part, one-ways—the bearing or bearings, in particular—are prone to wear, so maintenance is very important. This is especially true for the one-ways used in nitro applications where high loads and high speeds are a given.

To clean one-ways. first brush off or blow out any exterior dirt front the unit itself. Then soak or thoroughly spray the one-way bearing with motor spray or solvent. Once it is clean, it is important to properly lubricate the one-way bearings, or they will fail prematurely. Only use grease or oil made specifically for one-ways. The special lubricants have ingredients that keep the bearing from slipping on the shaft while lubricating the parts. Your local hobby shop should be able to point you in the direction of the nearest tub or bottle.

Putting a lid on it

One-way pulleys and one-way diffs can be a very valuable tuning aid, provided your track has the right conditions. But overall, if your track is even slightly loose, and you have average driving skills, you'll probably do better with all-wheel-drive rather than a one-way. With one-ways, hard braking is "out," rolling through the turns is "in." Use one-ways only when you already have traction, and keep them clean for best performance. ◆

The first-ever, single-belt 4WD!

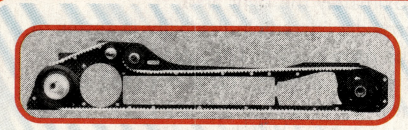
KYOSHO
THE FINEST RADIO CONTROL MODELS

KX-One
4WD Touring Car



Tires, wheels & body are not included.

Designed with a one-belt mind...



The concept of a competitive single-belt vehicle isn't new; in fact, Kyosho's KX-One has been proving its worth for over a year now.

The idea's pretty simple: instead of complicating the drive with two or even three belts, KX-One design simplies it to only one. That not only makes things far simpler mechanically, but far more efficient overall. Power losses are cut to the absolute minimum. And since one belt drives all four wheels, power reaches them simultaneously, producing uniformly fast, even response on all 4 corners. The net results: Consistent traction. Improved recovery when you come smoking out of the turns. A lighter feel to handling...and exceptionally smooth control anywhere in the speed range.

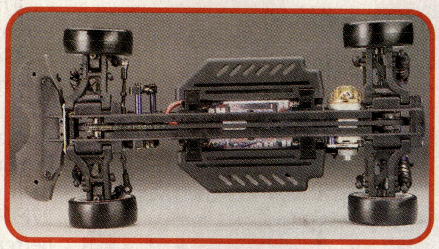
Straightforward Engineering

Larger-diameter pulleys add to single-belt efficiency, as does the automatic centering adjustment built into the updated universal shafts. The rear ball diff is based on the proven Ultima RB Type R, with a ultralight Delrin cup ring; the front one-way unit is bearing-supported and made of durable A17S Duraluminum for whipcrack speed and response.

A Balanced Approach to Handling

Like the KX-One approach to efficiency, handling is positively impacted by a wide variety of simple, subtle features. Light, rigid 2mm carbon fiber in the vertical chassis and shock mounts idealizes suspension and shock action. The battery and motor steering servo are both in-line for better balance; the motor has also been moved rearward, to improve initial steering response and overall stability. Turnbuckles, a direct servo saver, adjust plates on knuckle arms, adjustable aluminum oil shocks...they're all at your disposal, as is a full set of friction-smooth ball bearings.

Settle for second best — or go for the first single-belt from Kyosho? You can learn more about it on the web, at **www.kyosho.com**, or see it for yourself in your local hobby shop. Just call 1-800-682-8948 and mention code number 2941N for the location of the dealer nearest you.



Centerline battery and motor positions distribute weight equally to all 4 wheels. Motor weight has been moved back to improve "first-steer" response and overall stability.



A tiny valve on the shock piston allows drivers to fine-tune oil flow during compression and rebound strokes, optimizing overall stability.

Distributed Exclusively Through GREAT PLANES MODEL DISTRIBUTORS, P.O. Box 9021, Champaign, IL 61821-9021

© Copyright 2001 – 3070545

KYOC0100 • Length: 14.6 in (370mm) • **Width:** 7.4 in (190mm) • **Height:** 3 in (77mm) • **Wheelbase:** 10.2 in (260mm) • **Track (F/R):** 6.4 in (160mm) • **Ground Clearance:** 0.2 in (5mm) • **Gear Ratio:** 4.99:1 • **Weight:** 3.0 lb (1380g) • **Requires:** 2-channel radio w/1 servo, motor, ESC, 7.2V/1700-3000mAh NiCd/NiMH battery, charger, tires, wheels and 190mm body.

SPECIAL TECH SECTION

Pre-Printed Bodies

Making paint a thing of the past!



Let's face it: unless you're an artist looking to express yourself, painting clear Lexan bodies is akin to having root canal work—it's something none of us look forward to, but there's no way out of it. Or is there? As our hobby has shifted course to more user-friendly, pre-assembled kits, we have seen manufacturers strive to make it even easier to get into R/C. And this includes painting bodies.

New technology (actually, technology borrowed from the bicycle helmet industry) now makes it possible for manufacturers to include pre-printed Lexan bodies with their kits. And unlike many of the pre-painted bodies that come in RTR kits, these "pre-prints" can feature elaborate designs and varied color schemes, just as if they had been custom airbrushed by a pro!

How it's done

The difference between pre-printed and pre-painted are vast. To begin with, pre-printed bodies start as flat sheets of Lexan. The design and color of the body is then printed onto the sheet before the sheet is sent to the vacuformers to be molded. The pre-colored sheet is then heated and pulled over the body mold, and if the manufacturer has done his job correctly, the graphics and colors will all end up in approximately the right area.

As you can guess, this process provides incredible flexibility in terms of designs and color combinations, as the manufacturer need only re-enter the design program to make alterations to the graphic. This is opposed to the body painter, who must mask each new design and spray each color individually. The key to all of this lies with the designer's ability to determine how the Lexan will stretch, thin and deform as it is pulled over the mold. For this reason, it's still impossible using current technology to predict exactly where the window areas will fall, which is the reason that most pre-prints come with decals to denote windows, rather than clear areas.

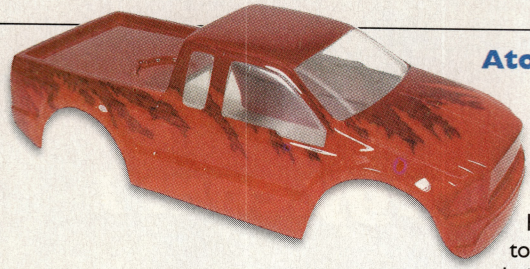
WHO'S MAKING PRE-PRINTS?

Pre-printed bodies are getting pretty popular, and we're seeing them included with more and more RTR and sport-level kits. Here's a list of companies which currently include pre-printed bodies with their kits. Most companies also sell their pre-printed bodies separately.



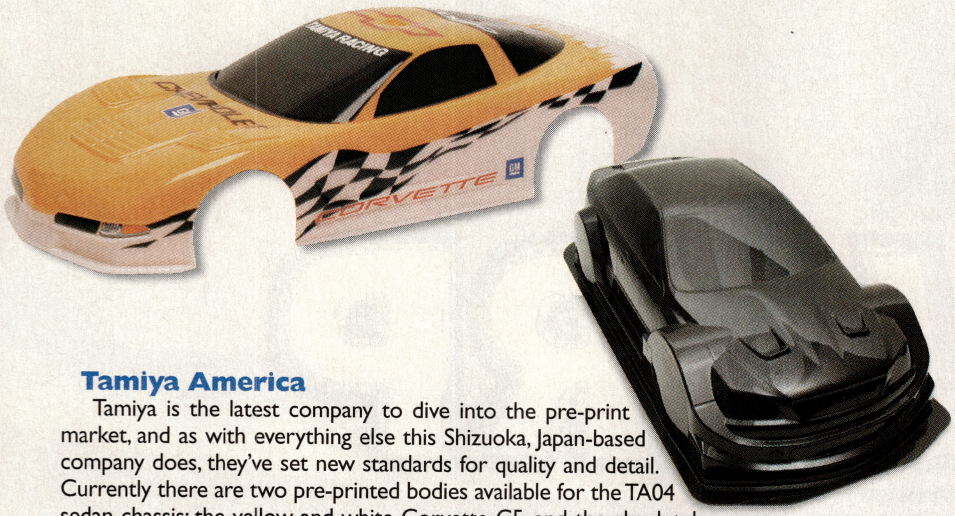
Traxxas

The king of ready-to-runs also has the most extensive line of pre-printed bodies. Traxxas' ProGraphix bodies come with all RTR and pre-assembled Traxxas kits, and some have as many as eight different colors in their designs for a custom-airbrushed look. In addition, each ProGraphix body is available with four different base paint schemes to match the color of the 27MHz frequencies used for Traxxas RTRs—way better than those goofy frequency flags! Traxxas has just released what it calls a ProGraphix Custom body for the T-Maxx. This body comes pre-printed with the flame and fade graphics, but the base color area is left clear so you can choose and paint your own. All you have to do is buy a can of suitable paint, spray the body on the inside, remove the protective film, and you've got a one-of-a-kind custom T-Maxx body.



Atomik R/C

Atomik was one of the first companies to produce pre-printed bodies. Their first offering was a beautifully sculpted replacement body for the popular Associated RC10GT. Soon after, a Ford F-350 for the Traxxas T-Maxx was added to the lineup. Atomik has an interesting solution to the window issue. They use CNC milling machines to cut out the window areas, then attach a separate piece of clear molded-Lexan to the inside of the body to cover the open window areas. Atomik bodies are each available in several designs and color combinations, and come with high-quality vinyl sticker sheets.



Tamiya America

Tamiya is the latest company to dive into the pre-print market, and as with everything else this Shizuoka, Japan-based company does, they've set new standards for quality and detail. Currently there are two pre-printed bodies available for the TA04 sedan chassis: the yellow-and-white Corvette C5, and the absolutely stunning HKS Racing Toyota Altezza, which comes pre-printed with a realistic carbon-fiber finish! Soon, a pre-printed Mercedes CLK GTR with exposed "engine" graphic will be available. All three bodies will fit other sedans as well, and are available with the car kit or without.

Team Associated/Pro-Line



Associated's first RTR kits—the RTR GT and the RTR T3 trucks—came with pre-painted bodies. The new TC3 RTR and the Team Built GT and T3 trucks come with pre-printed bodies made by Pro-Line. The TC3 body is a slightly modified version of the popular ProtoForm Dodge Stratus, and is offered in two versions of Mark Pavidis' paint scheme (either blue, red and white like Mark's, or red, yellow and white). The Team Built GT body is based on Pro-Line's F-150, while the Team Built T3's body is based on the Pro-Line Silverado. Like the TC3 RTR, the Team Built truck bodies are available in two color combinations, but this time, their scheme is that of team driver Billy Easton.

PRE-PRINTED PRO-LINE

Pro-Line and Associated have a long-standing relationship: Pro-Line provides many OEM tires and bodies used in Associated kits, and Associated's race team supports Pro-Line by using its products to gain worldwide exposure. To get the "contract" to supply bodies for the Associated RTR and Team Built line, Pro-Line had to develop its own process for creating pre-printed bodies. We've seen the finished products, and they are among the best.

With time and effort spent in the development of the pre-printing process, you can bet that Pro-Line will soon have its own lineup of pre-printed bodies, no doubt based on its most popular sedan and off-road bodies. We're sure that Pro-Line will do all it can to raise the bar in this new technology.

WILL ROAR BAN YOUR BODY?

What's the easiest way to distinguish between a pre-printed body and a painted one? By the windows: pre-prints must use stickers for windows, while painted bodies can have clear window areas. The reason for this has to do with the way in which pre-prints are made; it's nearly impossible to vacu-form a pre-printed sheet of Lexan accurately enough so that the clear window areas end up matching the window areas of the body mold.

The problem with this is that ROAR, the nation's largest race-sanctioning organization, has a rule that clearly states that all R/C models must have clear, or mildly tinted, window areas. Blacked-out windows are illegal. We spoke to ROAR President T. Rex Baldwin, and he told us that the clear window rule was made in the past, at a time when ROAR required interiors as well. He personally likes the clear window rule, as it may help a race official to perform a quick tech inspection without having to remove the body. However, T. Rex also informed us that he plans to propose a rule change beginning with the 2002 season that would allow pre-prints to compete in the novice and junior classes at all ROAR events. However, the bodies would remain illegal in the other classes.

Our staff is split on this subject. Some of us believe that the tradeoff of having stickers instead of clear window areas is well worth not having to paint, while others feel that the window stickers just don't look right. In any event, pre-printed bodies are becoming more and more popular, and the quality of the graphics is astounding. We're sure that some company will figure out how to mask out the clear window areas, but until then, we say let 'em race!

SOURCES

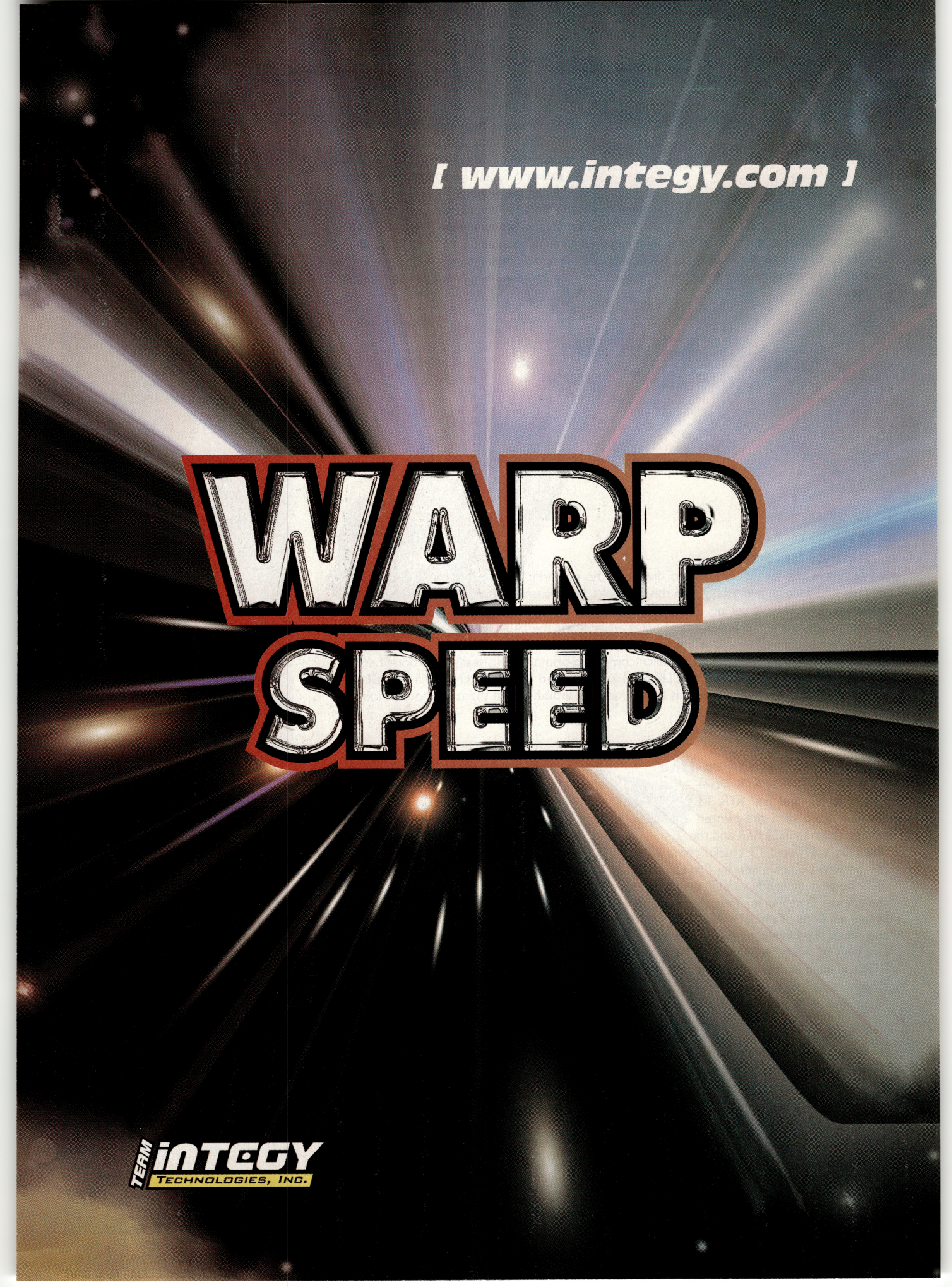
Associated Electrics, Inc., 3585 Cadillac Ave., Costa Mesa, CA 92626 • (714) 850-9342; fax (714) 850-1744

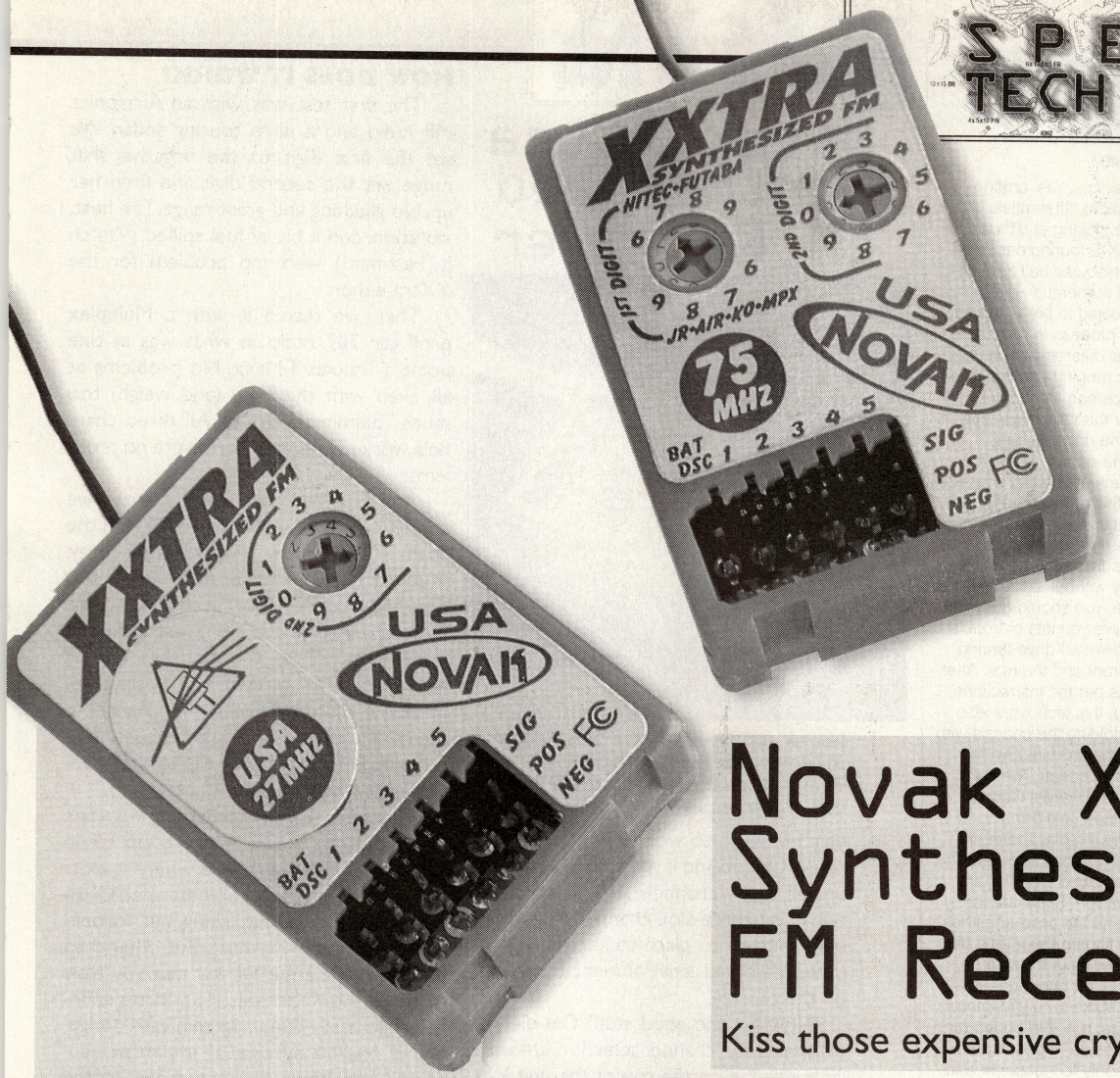
Atomik R/C, 2363 Teller, Ste. 104, Newbury Park, CA 91320 • phone (805) 499-7003; fax (805) 499-7192

Pro-Line, P.O. Box 456, Beaumont, CA 92223 • (909) 849-9781

Tamiya America, Inc., 2 Orion, Aliso Viejo, CA 92656-4200 • phone (949) 362-2240; fax (949) 362-2250

Traxxas, 12150 Shiloh Rd., Dallas, TX 75228 • phone (972) 613-3300; fax (972) 613-3599


[www.integy.com]
WARP SPEED
TEAM INTEGY
TECHNOLOGIES, INC.



Novak XXtra Synthesized FM Receiver

Kiss those expensive crystals goodbye!

For all the technological advancements we've seen for R/C cars in the past few years, there has only been one real breakthrough item in the radio system department—Hitec's Spectra 75 synthesized transmitter frequency module. For only the price of a few crystals, the Spectra unit allowed racers to change their Tx channel by turning a couple of dials. This was a great thing, but you still had to use channel crystals in your receiver, and only Hitec and Futaba radio owners could take advantage of the Spectra.

Fast-forward to the present and Novak Electronics' release of their latest creation, the five-channel XXtra Synthesized FM receiver. Basically, they started off with their popular XXL receiver, added phase locked loop (PLL) oscillator (similar to what's in your car stereo), and added a couple of channels. What does that mean to us? Dial-A-Frequency!!! With a version to fit every radio type and about every frequency band (US 27 and 75, as well as non-US 27, 29, 40, and 41 bands) we have now come full circle. And the benefits from this Rx are something that just about every racer can take advantage of.



The 27 band XXTra has one potentiometer. To tune it to your transmitter, simply turn the dial so that it corresponds to the transmitter's crystal.

XX-TRA FEATURES

Probably the first thing you'll notice about the XXtra is the small size. The case, made of Novak's signature orange plastic, measures only 1.65x1.12x0.52 inches (42x28x13mm). Then your eye will be drawn to the irridescent label on the top of the receiver. Markings on the label include numbers around the dials used to select the channel, and the markings for the six input and output jacks. And aside from the 18-inch antenna wire coming out of the side, that sums up the physical description. No odd shapes, no fancy molding—just a matchbox-size receiver.

As mentioned above, there are six jacks on the face of the XXtra—five for ESCs and servos, and one for either a Rx battery pack or direct servo control cable. The jacks are shaped to accept Futaba, JR, Multiplex, new KO, and Airtronics "Z" plugs without modification. Older Airtronics and KO plugs will also work, but trimming and rewiring will be required. Fortunately, Novak kindly printed the wire orientation on the label, so get-

TEAM LOSI TECH-TALK

Tech Tips #9

What a difference a diff makes..... Yes, among other things, we are going to look at differentials again, except this month we are looking at diffs as used on the new Team Losi XXX-S touring car. Just like off-road cars, on-road cars also use ball type differentials. This type of diff offers numerous advantages, but they must also be allowed to break in and need to be adjusted during this process to prevent undue wear or failure. Team Losi differentials use high quality ultra hard (carbide) balls running against precision ground and polished high carbon steel drive rings. Since the balls are harder than the rings, they will quickly wear a groove into the rings. As this groove develops, the metal of the rings is compressed, creating a denser surface much like squeezing a sponge until it's solid. As this groove forms, the total amount of contact area between the surface of the ball and the rings increases dramatically. This increases the friction and allows the diff to be adjusted looser and still operate freely without slipping. So if you use the following procedure, you should get a diff that operates like this and will give you lots of trouble-free laps. On the new XXX-S all-wheel-drive touring car you have a diff at both the front and the rear. After you have assembled the diffs as per the instructions, try this break-in procedure. (Yes, this technique also works on off-road diffs). While holding the chassis with only the left side tires firmly on the ground, give the car about quarter throttle for ten seconds. The right side tires should spin freely — backwards! Repeat this process with the right side tires held firmly to ground allowing the left side tires to spin. Those diff balls are now seating into the drive rings and all of the parts that are stacked up and screwed together are settling into their permanent position. Since the tension across the diffs, the balls and the drive rings has been reduced, you will need to tighten them up a bit. Now repeat the process a second time, including tightening up the diffs afterward. OK, one more time and you should be good to go. Make sure you check the diff adjustment before the first run. If in doubt, run it a little tight, I've never seen a failed or poorly performing diff that was too tight—only too loose! In addition to this break-in procedure you will want to check and probably tighten the diffs after each of the first two or three runs. Since the XXX-S features a fully enclosed drive train, you will find that the diffs will not require service for quite a while. When they finally do, you will be pleased to see that you need only to remove six screws to access them.

Nitro racing is in full swing around the country now and it seems that with the great power handling capabilities of the new XXX-NT a lot of you have the "Tim Taylor Syndrome".....that's right, you want more horsepower! The tuned pipe included with the XXX-NT offers a broad range of tuning opportunities. Pick up a new silicone coupler (part# A-9325) and try running the pipe as long as you can get it. You will probably have to adjust the high speed needle a small amount. Do not run it up and down the street but out on the surface you will be racing on. You should see a difference in the power band, which affects the acceleration as well as the top speed, and how quickly it wants to get there. Reduce the pipe length by 1/4 to 1/2" at a time and take care to note the difference. Continue to do this until the pipe is coupled as short as possible. If the coupler is too long to butt the pipe against the exhaust manifold, cut your old coupler to fit. As the pipe is made shorter the response will change noticeably. Use a small flexible tape measure to document the length and performance characteristics as you do this. This procedure will do several things for you. Obviously, you will find the spot where that particular engine is "happy" making the most raw horsepower. More importantly, you will learn how to adjust the pipe to produce a power band that is suited to particular track conditions. Next time we are going to look at another frequently asked question, "What's the best gear ratio for electric and nitro vehicles"

ADVERTISEMENT

SPECIAL TECH SECTION

Novak XXtra Synthesized FM Receiver



Novak supplies molded plastic plugs to cover the channels not in use. This helps keep dirt and fuel spills out of the receiver.

ting any servo to work with it shouldn't be a problem. And if you don't happen to use all those channels, Novak provides two- and three-slot channel plugs that snap snugly into place to keep dust and other assorted environmental hazards on the outside.

Now for the good stuff! The dial or dials used for channel selection are easily accessible on the top of the unit. We evaluated the 75 MHz version and found two 10-position digital dials, one for each digit of the channel, on the XXtra. The left dial is marked 6 through 9 on the top of the dial, and 9 through 6 on the bottom. Basically, the upper set of numbers are used to set the channel on a positive-shift Hitec or Futaba radios, and the lower set are used for negative-shift JR, Airtronics, KO, and Multiplex transmitters. The second dial is for the second digit of the channel, and covers 0 through 9. Either a small Phillips or a small slotted screwdriver will fit in the dial for adjustment.

The accessories included with the XXtra are an instruction sheet, three motor capacitors, the two aforementioned channel plugs, two strips of servo tape, and a very small decal sheet (well, it is a small box).

SPECIFICATIONS

Dimensions	1.65" x 1.12" x 0.52" (42 x 28 x 13mm)
Weight	0.58 oz (16.33g)
Channels	5
Voltage Range	3.0 to 10.0 volts DC
Current Consumption	18.0 mA

HOW DOES IT WORK?

The first test was with an Airtronics M8 radio and a nitro touring sedan. We set the first digit to the negative shift range, set the second digit and fired her up. No glitching and great range. The heat, vibration, and a bit of fuel spilled (Watch it, Haz-mat!) were no problem for the XXtra either.

Then we tested it with a Multiplex profi car 707 radio in what was at one point a Traxxas T-Maxx. No problems at all, even with the "way (and weigh) too much" aluminum chassis. All three channels worked fine, and there were no problems.

And last, but certainly not least, we tried it out with a Hitec Lynx 3D with the Spectra 75 module in an electric buggy. True "crystal-less" operation—now this was total convenience! It didn't matter what channels were being used on the track, I had 30 to choose from, and all were only a few screwdriver twists away. Heck, I could even change my channel in the middle of my run—just because. (Just remember to move your clip to the proper peg on the frequency board.)

There is really only one thing we don't like about the XXtra: there is no strain relief for the antenna wire where it exits the case. For all the coolness the XXtra packs, this may be nitpicking, but I would feel better if it were there. But other than that tiny little gripe, we say that you have to check the XXtra out. It performs solidly, installs easily due to its thin case design, and is backed by one of the most successful and innovative companies in the R/C business. And if you are using an FM radio, the premium you will pay for the XXtra over a standard Rx will be more than made up for by the amount you *won't* be spending on Rx crystals. ◆



Adjusting the 75 band XXTra takes a little more concentration. The left pot sets the first digit of the frequency, and you must chose from the top or bottom row of numbers, based on which brand of transmitter you use. After that, choose the second digit from the right-hand pot.

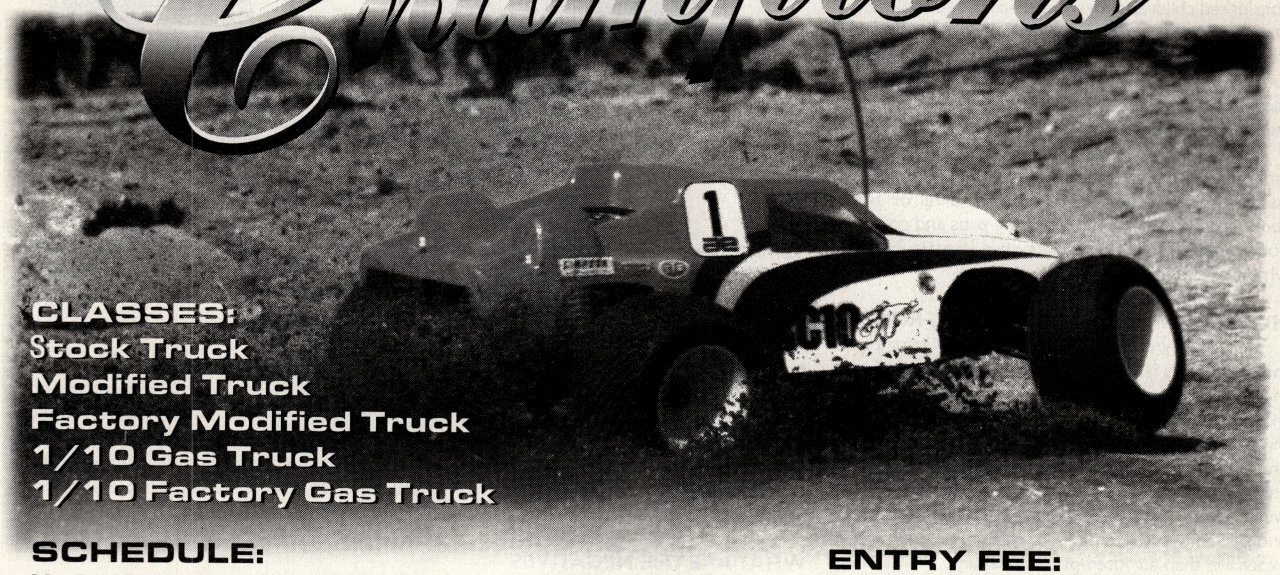
SOURCE

Novak Electronics, Inc., 18910 Teller Ave., Irvine, CA 92612 • (949) 833-8873; fax (949) 833-1631

NOV. 16-18

2001 REEDY TRUCK RACE of Champions

HOT ROD HOBBIES
25845 San Fernando Rd. #21
Saugus, CA 91350
(661) 255-2404



CLASSES:
Stock Truck
Modified Truck
Factory Modified Truck
1/10 Gas Truck
1/10 Factory Gas Truck

SCHEDULE:
Moday-Thursday: Open Practice
Friday: Practice 6-8AM, Racing at 9 AM, 2 rounds of Qualifying
Saturday: Practice 6-8AM, Racing at 9 AM, 2 rounds of Qualifying
Sunday: Practice 6-8AM, Racing at 9 AM, Main Events

ENTRY FEE:
$40 Stock (w/handout motor)
$30 Modifed / Gas Classes (first entry)
$20 Additional Modified or Gas entries

- **Free T-Shirt to all entries received before November 9**
- **Triple A-Mains for all electric classes**
- **Trophies 1st-10th in A-Mains 1st-3rd in other mains**

2001 REEDY TRUCK RACE OF CHAMPIONS

Entries limited to the first 300... send yourentry in EARLY!

NAME _____

ADDRESS _____

CITY _____ **State** _____ **Zip** _____

Phone number _____ **E-mail** _____

Classes: ☐ Stock Truck ☐ Modified Truck ☐ Factory Mod. Truck
☐ 1/10 Gas Truck ☐ 1/10 Factory Gas Truck

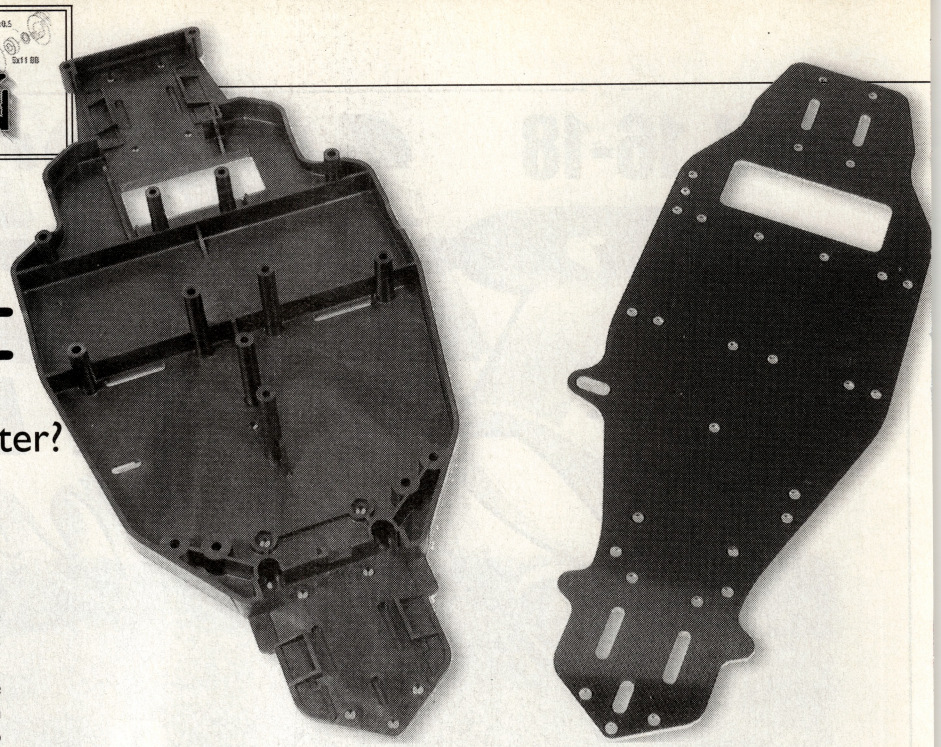
Freq.1 _____ **Freq.2** _____ **Freq.3** _____

T-Shirt Size: (circle one): L XL XXL

Mail with check to:
HOT ROD HOBBIES · 25845 San Fernando Rd. #21
Saugus, CA 91350

Plastic Fantastic

Molded chassis vs. plate chassis: which is better?



Tamiya first released its TA04 with a FRP (fiber-reinforced plastic) plate chassis (right). Soon after, they introduced a molded chassis (left) that replaces the plate and its various metal standoffs and hardware. The molded chassis keys to the suspension parts for greater strength and precision.

IN THE OLD DAYS, cars that had plastic chassis were considered children's toys. If you wanted to look serious, your car had to have an exotic plate chassis made from space-age carbon fiber, aka graphite. Times have sure changed, as most of today's highest-performance race cars and trucks use elaborately molded chassis made from plastic.

There are many reasons why manufacturers have embraced molded chassis. We spoke to Team Associated's Cliff Lett, who knows a thing or two about chassis design, to find out the pros and cons of both molded as well as plate-style chassis. Here's what we learned.

MOLDED: CHEAPER IN THE LONG RUN

Surprisingly, one of the key benefits of going to a molded chassis is expense. While the actual development costs of a molded chassis are usually far greater than those for a plate chassis, the long-run savings more than make up the difference. If a manufacturer knows how to make tooling economically, has spent enough time to develop a working prototype that won't need significant updating, and can forecast enough unit sales, a molded chassis is much less expensive than a routed-plate chassis.

Machining chassis plates from flat stock, e.g., graphite, is a costly and time-consuming process. Add to that all of the various upper decks, standoffs and hardware needed to complete the assembly, and you can see how plate chassis can raise the cost of kits. With a molded chassis, most of the car's main structure can be incorporated into one piece. Once the tooling is done, it's very inexpensive to perform the injection molding process needed to form a complete chassis.

MOLDED: BETTER PERFORMANCE

This came as kind of a shock: Cliff pointed out that with a molded chassis, a designer can actually lower the car's center-of-gravity (CG) in comparison to that of a plate-chassis. With a plate-chassis, the designer must deal with the thickness of the material—usually about 3-4mm—which limits how low things such as electronics and gearboxes can be placed. With a molded chassis, the designer can place such components lower, closer to the ground, and make up chassis strength in other areas, such as gussets or stiffening ribs.

In addition, a designer can engineer a molded chassis to strategically flex in certain ways he feels will improve performance, while a plate-style chassis is generally limited to the inherent flexibility of the material used in the plate. Plastic is also more damped than graphite, so it absorbs vibrations better. Remember the old RC10 Team Car and its aluminum tub? That car worked so well because its chassis was better damped than the graphite chassis that were available at the time.

MOLDED: LESS TWEAKING

Older plate-style designs were prone to what Cliff calls "scooching," which describes the movement of the chassis parts once assembled. Some plate-style cars could be moved so much that you could tweak them by 1/8-inch and they would remain that way! However modern plate chassis are much better. The tolerances of the parts are closer, the holes in which the fasteners go are more precise, and many of the components are keyed to one another to ensure precision. Overall, a molded chassis is still less likely to become tweaked from a collision.

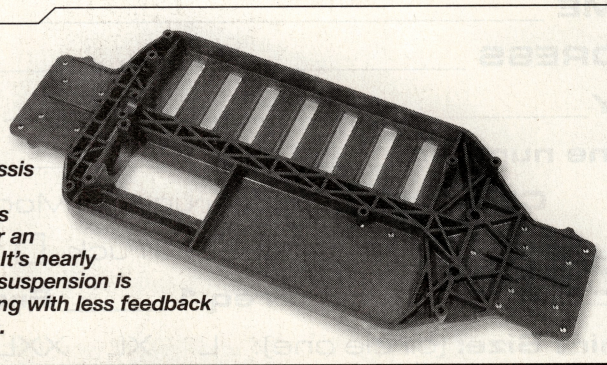
WHAT ARE THE NEGATIVES

Aside from tooling cost, and the risks involved should the part be defective, the biggest obstacles facing a designer of molded chassis are longer production times (it takes a lot longer to build a mold than to rout a plate chassis), and it's much harder to make a change to a molded part once the tool is completed.

Also, plastic can and will move with time and pressure. This is the reason that Associated added the little spring to the TC3's motor-mount clamp: people were overtightening the clamp screws, and over time, the chassis could be tweaked as a result—a conditioned worsened by motor heating. According to Cliff, there are certain applications in which plastic will never replace metal because, in his words, plastic is still just "thick goo."

MATERIAL CONSIDERATIONS

There are two types of molded-chassis materials you may be familiar with: standard composite and what we all call "graphite," which is when the standard fiberglass reinforcing fibers are replaced with carbon fibers. Overall, carbon, or graphite, holds up to heating better than standard composite, and is both lighter and stiffer. And although the impact strength of graphite might look better on paper, it's probably lower in real life due to its increased rigidity. Standard composite has more "give" to it and will probably hold up better in harder crashes. ◆



Associated's molded TC3 chassis is probably the strongest chassis ever available for an electric R/C car. It's nearly flex-free, so the suspension is able to do its thing with less feedback from the chassis.

Rally , Monster Truck , Stadium Truck , Buggy .

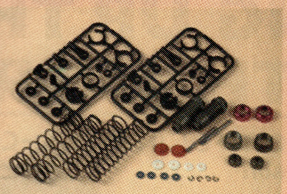
FUN FACTOR

RTR Ready To Run WITH 2 CHANNEL RADIO

P&D Fully-painted & decorated body



The long-awaited CEN off-roaders are here! The new fun factor series have all the quality features that you love in their on-road cars, such as oil filled shocks,factory trimmed, pre-painted bodies with all decals applied and the option of a durable 2WD or 4WD chassis. Add to this a hi-power .16 class engine ready-fitted,fully adjustable front and rear suspension, sealed radio box, fully anodied & countersunk chassis and you'll see that CEN have packed a whole lot of Fun in their Fun Factor series


*Alum. Shock


*Clutch Bell


*Break Disk


*Diff. Hub

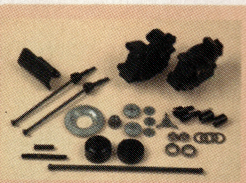

*Universal Swing Shaf

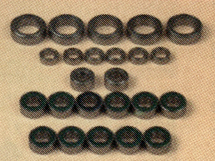



*Foam Bumper


*Engine Mount


*E Ring Hing Pin


*2WD-4WD Conversion pacl


*Full Bearing Set


*2 Speed Transmission

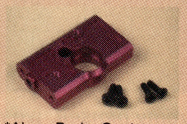

*Steel Bevel Gear *Steel Bevel Gear

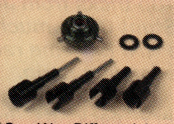
*Pinion Gear


*Steering Linkage


*Ball




*Alum. Brake Seat

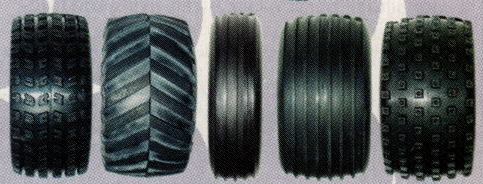

*One Way Differential


*Manifold













Totally Convertible
Stadium Truck 2 WD
Rally Smart chassis Buggy
4 WD Monster Truck

NEW





Powerful .16 engine + Racing pipe

CEN THE SMART SOLUTION ®
CEN/GTC 1800 E, Miraloma Ave., #F Placentia, CA 92870
*TEL: 1-714-792-1923 FAX: 1-714-792-1968
*E-mail: sales@cenracing.com www.cenracing.com

HOPPING UP THE TYCO JEREMY McGRATH X-TREME CYCLE

Putting more control in radio-controlled

By Tim "Lumpy" Tolleson

When I first saw the original Jeremy McGrath X-treme Cycle, I was stoked to see a bona fide, radio-controlled off-road motorcycle. That is, until I saw children playing with it. Granted, the soil was pretty loose and rocky in the pits at Motocross 338 in Southwick, Massachusetts, and the kids were novice R/C enthusiasts; but the bike was just plain squirrely. The children would right it, pin the throttle and give it a push, then the bike would go a few feet before going wildly out of control. It looked more like a game of fetch than an off-road R/C vehicle. Since then, I've seen older and more experienced enthusiasts driving the Tyco X-treme Cycle, and even they had trouble keeping Jeremy on track.

Tyco has since downsized the McGrath R/C cycle, and the new version is much more controllable and affordable, but it has lost the rear suspension of the original. This makes it more of an indoor machine, unless you have a halfpipe or empty swimming pool. The lack of rear suspension and lower ground clearance greatly reduce the smaller X-treme Cycle's effectiveness on anything rougher than carpet. So, I snagged an original version of the McGrath R/C, along with the battery and charger, to see if I could cure its pinball personality. After giving the folding battery pack its initial charge, I attempted a maiden voyage on a wooden halfpipe, shortly-cropped grass and a concrete parking lot. The bike was undriveable on the smooth wood, with the rear wheel slewing in search of traction. It was also tipsy and squirrely on concrete, but it was decent in the grass.



Using setup tricks from Jeremy himself, we made our Tyco Jeremy McGrath Exreme Stunt Cycle much more controllable and fun. We went from not being able to hit the R/C Extreme ramps (800-778-4492) to overjumping them and wheelie-ing down the landing ramp.

WHAT WOULD JEREMY DO?

To find the solution to the handling problem, I went to Jeremy's real Yamaha YZ250. The King of Supercross is very particular about how he wants his bike set up, and it's that attention to detail that has earned him 72 250cc supercross wins and seven titles. Most importantly, McGrath sets up his shock to squat for maximum traction on the starting line and maximum stability in the whoop-de-dos. The lower rear end not only improves straight-line traction, it kicks the front forks out for more stability. It occurred to me that Jeremy's R/C cycle needed the same treatment, so I jammed a stick between the swingarm and frame to restrict rear-wheel travel, and the bike instantly became controllable on the slick-wood halfpipe. It also handled much better on concrete and grass. Instead of playing fetch-the-toppled-R/C, I could actually put together motos. That is, until the rear suspension compressed and the stick fell out. Then the bike would instantly return to evil handling, saying "Fetch!"



Jeremy McGrath became the king of supercross in part because of his ability to adapt the motorcycle to his riding style. He's most particular with his shock settings; once he tested 35 shocks before he was happy!



Skip Norfolk retired when Jeremy left Honda but returned to wrench on McGrath's Mazda Yamaha YZ250 last season. McGrath vows to beat Ricky Carmichael next season.

BROOKLYN HOBBIES

3842 Flatlands Avenue Brooklyn New York 11234 Tel: (718) 951-2500

Brooklyn Hobbies is an exclusive distributor for Golden Horizons

Please check our web site for a full variety of pipes

Tornado Pipe



Revolutionary tornado pipe. Maintains bottom end torque, Yet has enough high end speed for long straight tracks! Can be used for 1/10 on and off road cars.

GH08001-S (Polished Silver)
GH08001-B (Anodized Blue)
GH08001-P (Anodized Purple)

30.00

Blaster Pipe



Looking for a pipe that makes your car fly? This is it! This pipe is for drivers striving for speed! Can be used for 1/10 on and off road cars.

GH08002-S (Polished Silver)
GH08002-B (Anodized Blue)
GH08002-P (Anodized Purple)

30.00

Tornado Pipe

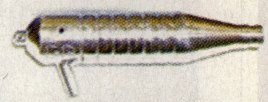


This is identical to the Tornado pipe. But with the polished rings it will make your car stand out ; more! Can be used for 1/10 on and off road.

GH08011-B
GH08011-P

30.00

Twister Pipe



Size does matter! If you have a 1/8 off-road car then this pipe is for you.

GH08101

39.99

Smokey Pipe for T-Maxx (High Torque)



With the special baffle, You will have even better torque! If you want to do wheelies, you can't ignore this pipe! Can be used for 1/10 Scale T-Maxx Trucks.

GH08013
Polished Silver, Anodized Blue, and Anodized Purple
Also avaliable in High Speed
GH08012

30.00

WE STOCK HARDCORE, POWERLINE, RC CONCEPTS HOP-UPS FOR:
MTX-2, V ONE R
HPI, TMAXX, NITRO 4 TEC

All engines in stock .12 .15 .21
Crono, Serpent Mega, REX, Mugen
RB, O.S.

WE STOCK SERPENT, MUGEN, HPI, KYOSHO, ASSOSIATED, OFNA AND ALL REPLACEMENT PARTS AS WELL AS HOP-UPS.

S12 (Super 12) Pipe



This pipe is specially designed designed for those new generation .12 engines. If you have a Nova Rossi 12, a Picco 12 or anything that has more than 1 HP, you have to have this.

GH08015-S (Polished Silver)
GH08015-B (Anodized Blue)
GH08015-P (Anodized Purple)

30.00

Vist our web site at www.brooklynhobbies.com

SPECIALS

Ball Bearing Servo
Part # RCC615
.22 Seconds
110 OZ Metal Gear
39.99

Monster Pirate
with Hyper .21 Engine
269.99
RTR Version in Stock

Narrow Universal Starter Box
w/12v large motor
69.99

Large 7AH sealed Battery
16.99

Free Charger
W/Box and Battery Purchase

KITS

Kyosho V One R
299.99
GRP Version 329.99

Mugen MTX-2
with MT 12 Engine
399.99
w/o 279.99

TC3 Factory Team
269.99
RTR Version 249.99

SERVOS

Airtronics Servo
Part # 94358
Speed .09 Seconds
Torque 200 OZ
97.99

Airtronics Servo
Part # 94357
Speed .06 Seconds
Torque 145 OZ
97.99

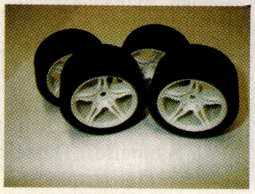
Mini Z Lighting Kit
19.99



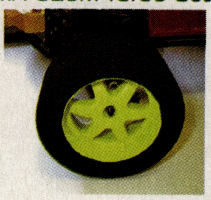
Super Nitro Foam Mounted Tires RCCSN2020...28.00 Set of 4

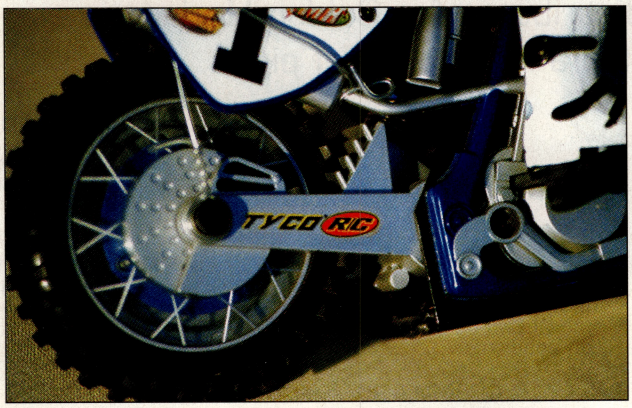


Foam Mounted Touring Car Tires
RCC4W...23.00 Set of 4



Tmaxx Foam Mounted Tires
RCCTMA-025...48.00 Set of 2





We used strips from the R/C packaging to fabricate a rear-wheel travel limiter, but you'll want to make your piece as long as possible. The magic thickness is 3mm.

THE SCIENTIFIC APPROACH

My magic stick was 3.5mm thick, but I wanted to experiment to find the best handling compromise between front-wheel and rear-wheel bias and traction. The packaging includes two black-plastic strips that hold Jeremy in place. With a pair of snips, I cut the strips into piano-key shapes, splitting each down the middle to make four identical stoppers. The nook where they'll ride is deeper on one side than the other, so the piano-key shape was necessary. I glued two 1mm strips together with Zapp-A-Dapp Shoe Goo II then glued the stack to the frame, just aft of the battery box. The two strips raised the rear end and helped handling, but not enough. The rear wheel still slid around too much, and the fork was still twitchy. So, I shoe-goo'd another strip on top of the other two. With 3mm of travel-restriction, the strips are level with the frame's through-lugs, and handling is balanced. The rear end tracks well on slick wood and rough concrete alike, although the shock spring now has serious preload on it.

There's another important benefit gained from lowering the rear end. It places the center of gravity lower, and the footpegs, so it's easier to pull Virtual Jeremy out of a doughnut or turn, so you fetch even less.

RICHARD SAXTON'S TRICKS

R/C hotshoe Richard Saxton is also a motohead, so it's no surprise that he has his own McGrath Cycle and has hopped it up considerably. Being an ace wrench, Saxton tore into the X-Treme Cycle and cut one coil off of the machine's rear shock spring. This achieves better ride-height balance than stock but actually increases spring rate.

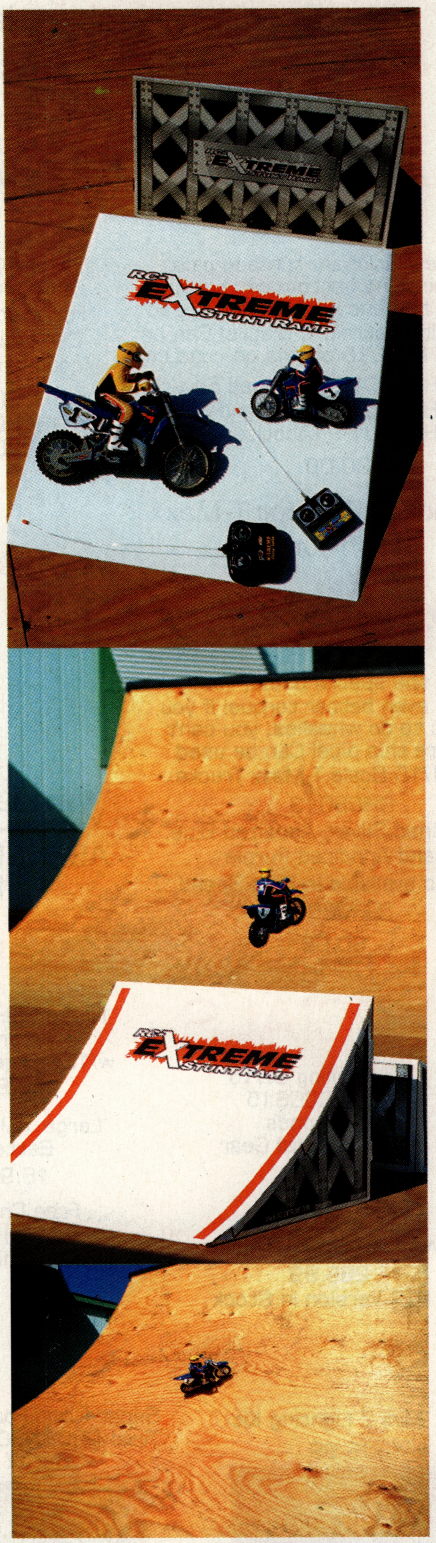
While he had the chassis apart, Saxton replaced the steering servo with a JR servo. The Tyco cycle actually has a flopper front end, in that the servo isn't connected to the fork. When you flip the radio's toggle left or right, the servo spins, and the "horn" nudges the fork assembly right or left. The thing is, it's the opposite direction from what you'd think. The way the Jeremy Cycle turns is counter-steering—the fork deflects off-line to the right, then the bike leans left and falls into a left turn. Having a faster, more powerful servo causes the bike to lean in quicker, improving response.

GOING FOR FULL TURBO

While the Jeremy radio has a turbo-drive if you push the throttle all the way forward, it's hard to tell a difference in the rough. Saxton wanted serious yank out of his McGrath machine, so he replaced the stock can with an custom wound version and made the bike a virtual rocket. Would you believe the modified motor gives the Tyco cycle a top speed of 30 mph? We're talking three times as fast as stock! Obviously, this hop-up is for expert R/C cyclists only, as it decreases run times from 30 to 45 minutes at full throttle down to six to eight minutes. Those are six or eight intense minutes, though!

WHAT ABOUT MINI-JEREMY?

Because the axle caps are swedged onto the axles, it's pretty hard for anyone but an expert R/C mechanic to get the smaller version of the Jeremy McGrath X-treme Cycle apart for modifications. I simply went to better batteries to get more performance, stealing Doogie's Ni-MH AAs out of his camera. The 3000mH batteries improved top speed and increased run times considerably. After hours of rough treatment, the bike started glitching, so I had to bend the battery tabs (inside the battery compartment) out further for a better connection. End of glitch!



With the mini Jeremy cycle using four AA batteries, your best hop-up is to replace the Energizers with 1600 mA NiMH rechargables. Then it'll run rings around that pink bunny.

FREQ-OUT!



Spectra 75

30-Channel 75mHz Frequency Synthesizer Module



Now change your transmitter's frequency without changing transmitter crystals or modules. Sound too freqy to be true?

With the Spectra 75 Frequency Synthesizer Module, the Lynx 3D Transmitter, and a handful of receiver crystals, chances are you'll never have to wait for the frequency clip again!

30 DIFFERENT MODULES, OR 1? NEXT TIME YOU RACE, DIAL INTO HITEC RACING AND BECOME A SUPER FREQ!

Spectra 75 *Just 'dial in' the channel you want, plug the Spectra module into your Lynx 3D, change the receiver crystal to match and away you go!*

Single Conversion Receiver Crystal	Part # 66875XX
Dual Conversion Receiver Crystal	Part # 66775XX
(XX is the Channel Number)	
Spectra 75 Synthesized Module	Part # 24475
Lynx 3D System with Spectra Module	Part # 123753
(with 3 FREE receiver crystals)	

Hitec RCD, Inc. • Phone (858) 748-6948
12115 Paine St. • Poway, California 92064

hitec Racing

See our complete product line on the worldwide web at: www.hitecrcd.com



Associated Team Built RC10GT

By Frank Masi

The concept is simple: take a high-end race truck kit, have it pre-built, include a pre-printed body, and sell it for less than the price of the original unassembled kit. My granddaddy always said that if something sounds too good to be true, it usually is. However, in the case of Associated's new Team Built RC10GT gas truck, there's no fine print. Associated has been very up-front in revealing how they could charge less—the truck comes with cheaper dogbones instead of MIP CVD driveshafts, and the shocks are anodized blue rather than hard-anodized. Aside from these differences, the Team Built is identical to the Team kit in every detail—except, of course, it's cheaper and has been built for you!

When I opened the large and colorful box, the first thing I noticed was the pre-printed truck body. What a looker! The body is done by Pro-Line, and it's their hot-selling Ford F-150. It comes not only painted in a "Billy Easton" style scheme, but you have a choice of either white, yellow and blue, or white, yellow and red. Of course, resting beneath the body was a fully assembled RC10GT Team chassis. I'm happy to report that upon inspection, the suspension felt just right, and the transmission and diff were smooth. Everything was just right.

ADD ANOTHER ACRONYM TO YOUR VOCABULARY: ARTR (ALMOST READY-TO-RUN)



TEST EQUIPMENT

■ Airtronics M8 transmitter. With 10-model memory and a highly understandable interface, the M8 has become the choice of racers worldwide.

■ Novak XX-Tra synthesized receiver. Novak's newest receiver does away with separate crystals for each frequency. Simply dial in the XX-Tra to whichever channel you wish.

■ Futaba S9450 digital servo. With 110 oz./in. of torque and a speed of 0.10 seconds to 60 degrees, the 9450 ensures that the Team Built's front wheels go where we want them to!

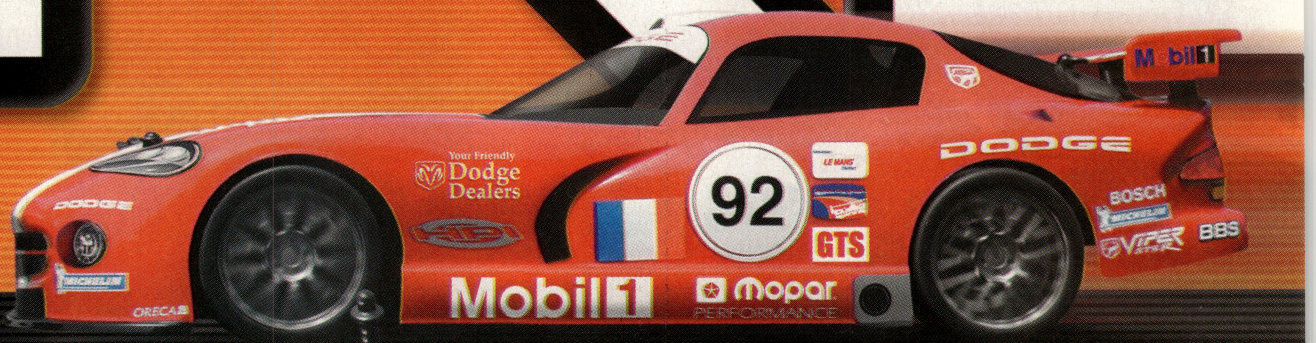
■ Airtronics 94737 servo. For throttle and brake, the smooth 737 has the perfect blending of torque and speed. Makes a great steering servo for sedans and 2WD buggies as well.

■ O.S. Engine CV-R(S) engine. The CV-R is perfect for the GT, as it is available with a short crank that bolts right to the GT's clutch-nut without cutting (just ask for the CV-R(S) model engine). And did we mention that O.S. claims a one-horsepower output rating for the CV-R?

■ Trinity Nitro Metal Hydride battery. We chose the five-cell flat configuration to keep the truck's weight as low to the ground as possible. High-capacity NiMH cells can easily handle long A-mains and provide plenty of voltage for fast servo operation.

■ Sidewinder fuel. This was our first experience with Sidewinder (made by Morgan Fuels), and we really liked it. Power was excellent and engine temperatures were lower than usual (even in the 100-degree California sun). We used 20-percent nitro content for this test with a 10-percent oil package.

MICRO RS4



- *Full-time 4WD*
- *Complete set of ball bearings*
- *Front and rear gear differentials*
- *Uses standard size electronics*
- *AA or AAA batteries*
- *15 to 40 minutes runtime*
- *Adjustable wheelbase*
- *Adjustable width*
- *Front bumper*

STANDARD SIZE ELECTRONICS

[Electronics are not included in this kit.]



THREE WHEEL STYLES ARE INCLUDED IN KIT



15 TO 40 MINUTES RUNTIME

SINGLE BELT 4WD DESIGN

ADJUSTABLE WIDTH



COMPLETE SET OF BALL BEARINGS INCLUDED



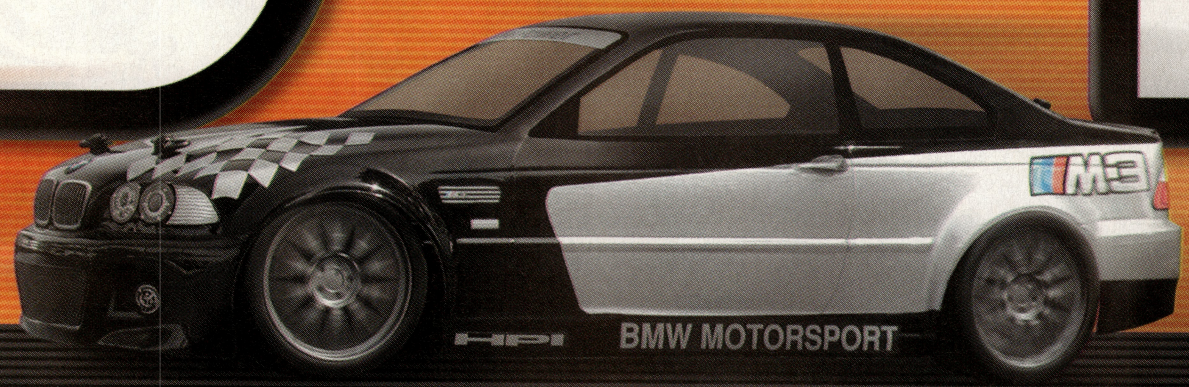
MICRO RS4
#601 Micro RS4 Kit with Dodge Viper GTS-R Body (W.B. 140mm)
#602 Micro RS4 Kit with BMW M3 Body (W.B. 150mm)
Coming soon . . . Nissan Skyline GT-R . . . and more!

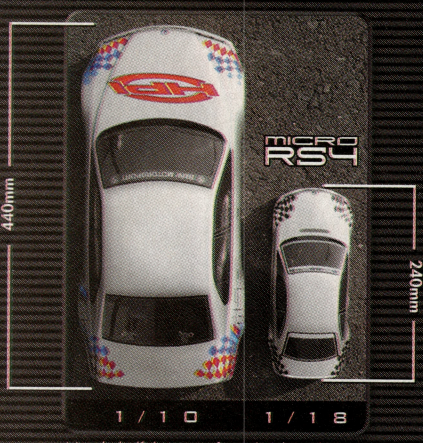
FOUR WHEEL DRIVE

4WD

MAXIMUM TRACTION ON ANY SURFA

MICRO RS4





Nearly half the size of a 1/10th scale car, but it handles just like the big cars!

1/18 SCALE 4WD

Introducing the all-new HPI Micro RS4 1/18 scale 4WD kits. The Micro RS4 uses standard sized electronics so you can have race-quality steering and throttle response. Front and rear suspension plus a 4WD system make the Micro RS4 handle great on nearly any hard surface - wood floors, concrete, clean asphalt, low-pile carpet, tile and more! Set up a small track in your garage or living room, the Micro RS4 is perfect for practicing your driving skills... it handles just like a 1/10th scale touring car and lasts almost 40 minutes on a 4 cell Ni-Cd battery pack. But don't let the long run time fool you, the Micro RS4 is fast, almost too fast if you bolt in an optional modified motor. The Micro RS4 is loaded with standard features, and we'll have a wide variety of hop-up parts and optional body styles.

Get ready for the new Micro RS4 . . . small scale, big fun!

Free vinyl decals included in kit... with simulated disk brakes!



Send $2.00 for our 48 page full-color catalog.

HPI RACING

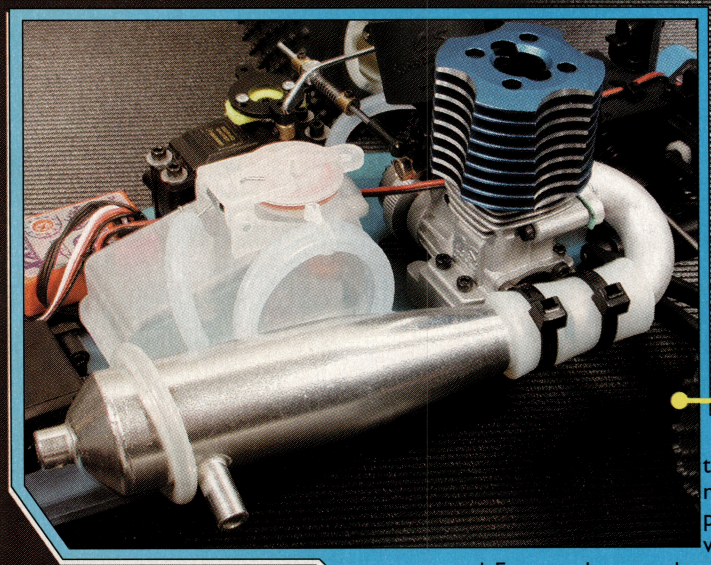
See the Micro RS4 in action at...
www.hpiracing.com

15321 Barranca Pkwy. Irvine, CA 92618 Phone: 949.753.1099 Fax: 949.753.1098

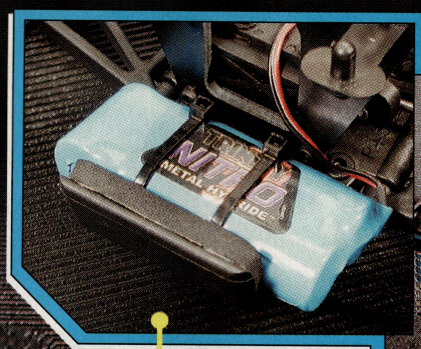
Associated Team Built RC10GT

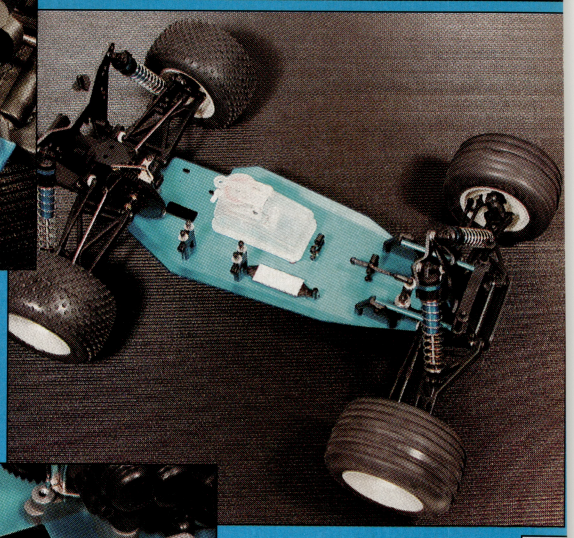


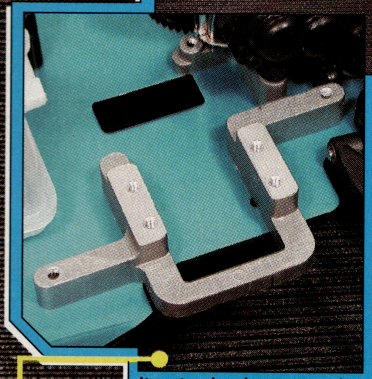
In place of the Team kit's hard-anodized gray shock bodies are the blue-anodized versions from the RTR GT. Aside from the anodizing process used, the shocks are identical in every way, and have the same smooth Teflon pistons and shaft guides that have made Associated shocks popular with racers for over 15 years. The only difference, as stated before, is that the blue bodies aren't hard-anodized, so the color will wear off both on the outside (from rubbing against the spring) and on the inside (from the movement of the shock piston). Associated has claimed that most of its customers seem to prefer the look of the blue shocks over gray, but I would definitely opt for the hard-anodized bodies once the blue ones became noticeably worn. Then again, I'm a racer.



The Team Built comes with the tuned pipe that's used on the RTR GT, not the standard Associated tuned pipe that has become hugely popular with racers for both off-road and on-road. Fear not, however, because the Team Built GT's pipe works well. The only difference seemed to be a slight reduction in low-end response, which can actually be of benefit to most drivers of overpowered gas trucks. High-end power felt good as well.

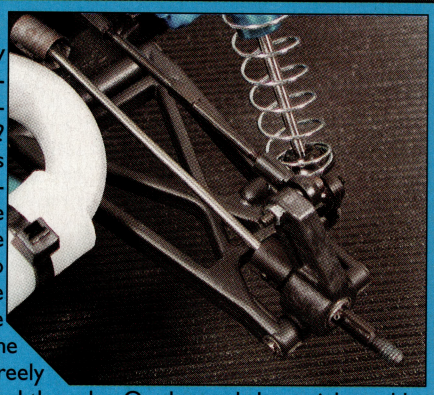






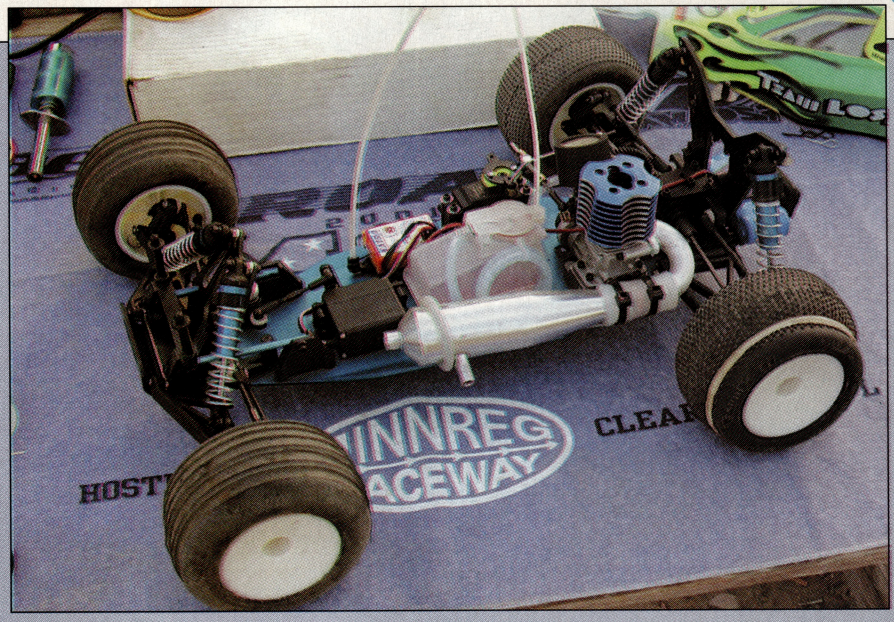
OUTSTANDING FEATURES

It's easy to confuse the Team Built GT with the RTR GT, but don't. The Team Built is a high-performance racing chassis, and until the introduction of the full-optioned Factory Team kit, the Team version was the top-of-the-line in the Associated catalogue. And as such, the Team Built has the new, longer plate-style chassis that was developed for the Factory Team GT. The longer wheelbase provided by this chassis makes the truck more stable on bumpy tracks and easier to drive with today's one-horsepower-plus .12 engines. The new one-piece aluminum engine mount is also standard, which greatly stiffens the rear portion of the chassis and helps prevent the spur gear from stripping.



Has anyone ever really proven that one driveshaft type holds an advantage over another? Common sense tells us that a universal-joint driveshaft should be more efficient because only one of its ends is permitted to slide in and out of the drive cup, whereas the dogbones that come on the Team Built slide freely between the drive cups and the axles. On the track, I certainly couldn't perceive any performance shortcomings, although I admit that I didn't install CVDs and run the truck back-to-back to compare. The only other critical data comes to us from the NADSL (the National Association of Drive Shaft Loss), in which studies show that we are six times more likely to lose a dogbone on the track than a universal shaft.

Associated Team Built RC10GT



RACING THE TEAM BUILT

FIRST RACE NIGHT: I have to be honest here: once I learned that the stock tires had no foam inserts, I didn't even bother trying them. The tires themselves, which were Pro-Line Edge fronts and Stubbie rears, felt like a harder compound such as XTR. Since the tires were already glued, I couldn't even install foams. I fitted the truck with a set of M3 Edge fronts I had lying around, and a pair of worn M3 Holeshots, which would be good to start with on the blue-grooved track.

I had received a new O.S. CV-R engine for this test, and decided to break it in during the first practice run (I know we always tell you not to do this, but we get free engines). I was very impressed with the Sidewinder fuel. This was the first time I had tried it, and I found that the engine stayed very cool throughout the first tank, even though I had tuned it to be close to race-tune right off the bat. When I pulled the truck from the track, I noticed some oil leakage around the left-rear shock. I thought it had blown a seal, but opening the shock revealed that the E-clip had come off and the piston was just floating around in the oil! After re-bleeding the shock, the only changes I made was to slightly raise the rear ride-height and reduce the rear camber, as the truck was pushing and the rear dogbones were too far below level.

The first qualifying heat was a shakedown run (that's mostly because I didn't finish well). The truck felt too loose and twitchy—I had also tightened the slipper since practice. With the exception of the ride height, I "un-did" the other changes I had made. After the run, I noticed that three of the four screws that secure the front nose-tube braces were sticking out. As it turns out, the screws had stripped out of the mounts. I also noticed this with several other 4-40 screws that were threaded into plastic parts, including the front of the nose-brace tubes and the screws that hold the rear shock tower to the bulkhead. I surmised that the people who had done the pre-assembly had over-tightened the screws.

In the second qualifier, I glued up a new set of Losi red T-2000 rear tires, which I know work well on Hot Rod's track. The weather had cooled, and I hadn't changed the carb settings. As a result, the engine was running really rich, not even cleaning out on the main straight. Ironically, I turned a much better time and qualified fourth overall for the expert gas truck A-main (out of ten trucks).

Main event: I think most of the other people were still running their "warm track" tires, so they didn't seem as fast. The Team Built felt excellent and quick (I leaned the top needle by a quarter turn to compensate for the cooler temperature). I got a good clean start and ran in second for most of the race. I even had the lead (briefly) for a few turns! At about the 10-minute mark (it was a 15-minute main), I made a couple of bobbles and dropped to third. I finished up on the lead lap, and had nearly lapped up to fourth place.

SECOND RACE NIGHT: They watered the track, and it was terrible! The dirt was still hard-packed, but the water allowed the tires to scrape off enough dirt to form a layer of loose "marbles" over the packed dirt. Everything that worked last week on the blue-groove track went out the door. Plus there were two full heats of expert gas truck.

I tried the red Losi T-2000s for the first heat, and the truck didn't work that well. My friend Doug E. Fresh watched my race and said that the Team Built GT wasn't rolling at all in the turns; it was kind of squirming and not transferring any weight to the outside tires. Back in the pits, we looked at the truck closely to find out how to fix the problem. The springs, the springs! Doug noticed that the silver springs on the GT were not, in fact, Associated's "real" silver springs, but looked instead like the ones that come in the RTR GT. We took off the springs and checked them out: they were much stiffer than even Associated's silver truck springs. No wonder the truck stayed too flat in the turns. Obviously, this stiff setup worked much better when the track was blue-grooved. When bite was low, the stiff springs had placed way too much force on the tires and overcame their traction.

We went up to the hobby shop and bought a full set of Associated's slightly softer green springs (softer than the real silvers, anyway) and a set of Pro-Line M3 Bow-Ties, which should work well on the damp, slippery track. We also re-filled the shocks with 30 wt. oil. What a huge difference these changes made. I went from being tenth in the A-main to fifth. Not bad considering that I haven't been racing that much off-road and was driving an unfamiliar truck (although all GTs do tend to drive alike).

In the main, I got a terrible start; I seem to get hammered more when I try to let everyone go! After a few laps, the field spread out and the driving became cleaner. I stayed in fifth for most of the race, then, when the third-place truck flamed-out, I moved up to fourth. On the last lap, I had moved to within 10 feet of third, but the clock ran out before I could attempt a pass. The Team Built felt very good. I couldn't put down as much power as I had wanted, but the truck had decent side-bite and the phenomenal forward traction that all GTs seem to have. I think that, given a little more time, I could definitely win with this truck.

SOURCES

Airtronics, 1185 Stanford Ct., Anaheim, CA 92805 • phone (949) 978-1895; fax (949) 978-1540

Associated Electrics, Inc., 3585 Cadillac Ave., Costa Mesa, CA 92626 • (714) 850-9342; (714) 850-1744 fax

Futaba and O.S. Engine, distributed by Great Planes Model Distributors, 2904 Research Rd., Champaign, IL 61826-9021 • phone (217) 398-6300; fax (217) 398-0008

Novak Electronics, Inc., 18910 Teller Ave., Irvine, CA 92612 • (949) 833-8873; fax (949) 833-1631

Pro-Line, P.O. Box 456, Beaumont, CA 92223 • (909) 849-9781

Sidewinder Performance Racing Fuel, produced by Morgan Fuels, P.O. Box 311201, Enterprise, AL 36331 • phone (334) 347-3525

Team Losi, Inc., 13848 Magnolia Ave., Chino, CA 91710 • (909) 465-9400; fax (909) 590-1496

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

OVERDRIVE ST™

1:10 Scale Ready-to-Run Nitro Powered 4WD Stadium Truck with Reverse



FULLY EQUIPPED FOR FAST ACTION – IN FORWARD AND REVERSE!

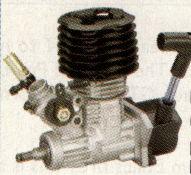
Performance counts. So does owning the element of surprise. Get more of BOTH in your next vehicle with the DuraTrax Overdrive ST 4WD – the ready-to-run, .17-size engine equipped stadium truck that also packs a 2-speed transmission with ***reverse!***

The smooth, strong Double-Shift 2SR™ transmission lets you back away from barriers and easily outmaneuver "one-way" models by just flipping a switch on the included radio transmitter. It's the crowning touch to the Overdrive ST's nitro-powered speed and realism...and the beauty of being able to just open the box, add fuel and GO!

Want to make your competition cringe? Hit 'em with the DuraTrax Overdrive ST – then back right up and do it again. For more information and the location of a dealer near you, see our website at www.duratrax.com or call 1-800-682-8948 and mention code number 2943B.

© Copyright 2001 – 3075127

OVER-THE-TOP WITH A-LIST EQUIPMENT!



VELOCITY 17™

Features ABC construction, 2-needle carburetor, recoil starter, and tuned pipe – plus a FREE video that demonstrates break-in, starting and maintenance!



DURATRAX by Futaba

3-Channel Radio System

With throttle and steering fine trims, LED battery monitor, and a third channel for shifting from forward to reverse.



Custom Body Graphics

Choose from six sizzling color combinations



Bonus Nitro Starter Pack!

Contains a 250cc bottle for easy refueling and glow starter with "C"-size alkaline battery.

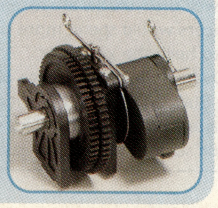
FORWARD & *REVERSE!*



A switch on the included radio transmitter lets you shift in an instant between forward and reverse gears.

Low-end speed supplies extra torque for conquering inclines... top-end kicks up the fire for fast nitro racing.

DOUBLE SHIFT™ 2-SPEED REVERSING TRANSMISSION



Made for strength and speed!

- *Rigi-Frame™ 3mm 6061 T-6 aluminum chassis*
- *CV front drive shafts*
- *Metal disk brake*
- *Rapid-Tune™ metal, hex-center turnbuckles*
- *Rapid-Tune™ oil-filled shocks*
- *Complete (20) ball bearings*
- *Tuned pipe*
- *Max-Sized™ 100cc fuel tank*
- *Special 2.2" truck tires & chrome wheels*

SPECIFICATIONS:

Length: 18 in (460mm)
Width: 12.2 in (310mm)
Height: 6.5 in (165mm)
Front/Rear Track: 9.84 in (250mm)
Requires: Fuel. Ask for DuraTrax Red Alert™ Racing Fuel!

www.duratrax.com

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

PROTECTED BY A STRESS-TECH® GUARANTEE 1 YEAR

Associated Team Built RC10GT

REPORT CARD

Test location: Hot Rod Hobbies Raceway, Saugus, CA
Track type: Hard-packed large off-road course with sculpted turns, elevation changes and large triples

Low-speed steering: B-

Like every RC10GT we've ever tested, the overall steering feel of the Team Built GT feels biased towards forward acceleration. In low speed turns, in particular, turns that follow straights, the Team Built has enough understeer that the brakes are needed to follow a tight line. This is most noticeable during very tight, 180-degree turns. When accelerating through tight turns, however, the Team Built can be steered more with its rear tires, essentially negating the inherent understeer.

High-speed steering: A

The Team Built has excellent high-speed steering. Entering a tight right-hand turn following a long, high-speed straight, the truck could be pitched perfectly, sliding right through the apex of the turn without needing brakes. This is the fastest way through such turns, but of course, it's murder on tire sidewalls!

Acceleration: B+

We've always liked Associated's two-shoe clutch setup, and we remain fans with the Team Built GT. We left the shoes in stock length, which provides the quickest engagement. This setup, combined with the awesome O.S. CV-R engine, provided class-leading acceleration. Trimming the shoes slightly will allow the engine to build more revs before the clutch engages, but we prefer the slight bog provided by the untrimmed shoes.

Braking: B+

The Team Built has the same disc-brake setup that has been used on all RC10GTs for years. We have plenty of praise for this design, as it provides good stopping power with little fade. The truck stops well and straight, although we couldn't quite get the amount of instant brake needed to drop the truck's nose when mid-air. However, this is an excellent brake arrangement.

Jumping: B+

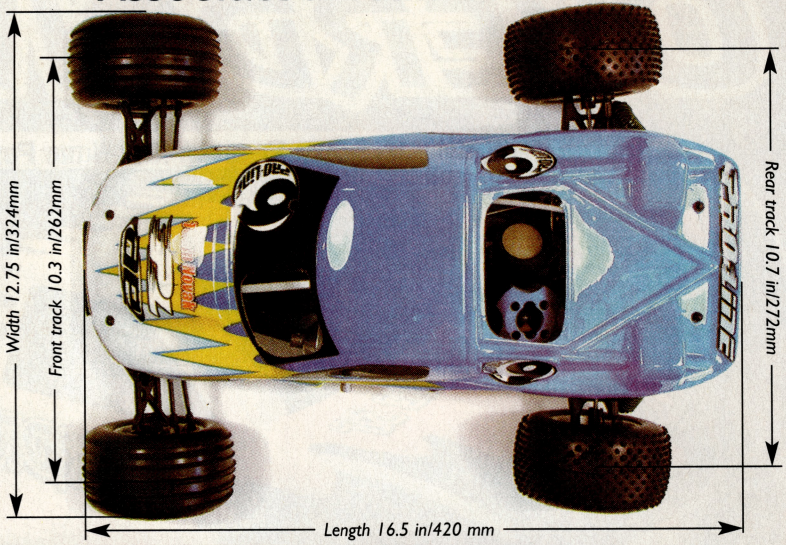
Overall, the Team Built jumps quite well. It's very stable when entering the air, and is easy to land—as long as it doesn't land too nose-down, in which case the front bumper likes to dig-in and remove divots from the soil. The truck is also very good at negotiating smaller doubles that are placed in turns, when you'll hit them as you are cornering.

Rough-track handling: B-

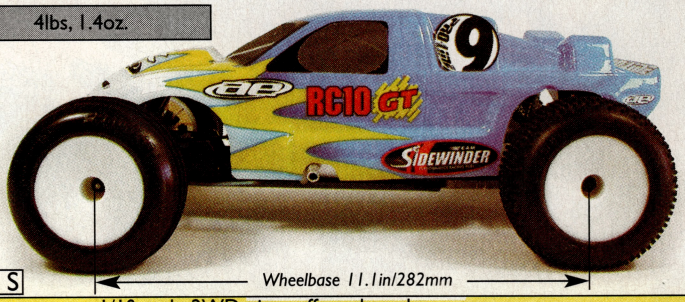
As it comes from the box, the Team Built GT is too stiff to work well on low-speed bumps and ruts, which tend to toss the truck off course. Softer springs help mellow the Team Built GT's demeanor on the rougher stuff. The stock setup does fare better on higher-speed bumps and chop.

Durability: B

We have mixed emotions here. We know from experience that Associated gas trucks are durable. However, we had several problems with the Team Built, and all of them revolved around the pre-assembly process. Essentially, many of the 4-40 machine screws that thread into plastic parts were over-torqued, which stripped the plastic. We spoke to Associated about this, and they have promised to take care of the problem. We must also mention that we never failed to complete a race with the Team Built. So once the bugs are taken care of, the Team Built is as durable as any GT. We also should mention that the transmission had been assembled and set perfectly; we never had to touch it during the entire test.



WEIGHT 4lbs, 1.4oz.



SPECS

TYPE	1/10-scale 2WD nitro off-road truck
PRICE	Available at $329.95 (retail)
CHASSIS	
Type	Plate with raised sides for added stiffness
Material	Blue-anodized aircraft-grade aluminum
SUSPENSION	
Type	Independent lower A-arms with adjustable upper camber-links
Damping	Aluminum oil-filled shocks with Teflon pistons
TRANSMISSION	
Type	Three-gear 2WD with lower ball differential
Drive shafts	Steel dogbones/axles
Bearings	Teflon/metal shielded ball bearings

FINAL SCORE

HIGHS: The pre-assembly allows the Team Built GT to hit the track much quicker than if the truck had to be assembled from a kit. The included Pro-Line body is really trick, and it's been trimmed-out for you. This is a full-race GT, so its performance and hop-up potential is nearly unlimited.

LOWS: Associated botched the Team Built's tires: this is a racing truck, yet it comes with tires that are more suited for street-running. Plus there are no foams. To fix this, Associated has told us that they will no longer pre-glue the Team Built's tires, so you will have the option of installing foam inserts. Although some racers liked the blue shocks, every racer who saw the Team Built felt that it should have universal driveshafts, not dogbones. They even said that they'd pay more for the truck if that's what it took. Our tester had some problems with stripped screws (see sidebar).

THE VERDICT: The question still remains: is the Team Built concept a good idea? In theory, yes. However, it all depends on who really buys them. The true target customers for the Team Builts—and this is straight from Associated—are people who currently own RTRs or sport-level kits and want to step up to a more race-worthy product. In this context, the Team Builts are great because the customer is eased into the building process rather than thrust into a world of tiny parts.

For racers, the value of the Team Built is less. Here's why: we don't mean to sound harsh, but 40 percent of the RC10GTs you'll see at a track aren't built as well as the Team Built GT. In particular, the transmission and suspension are most prone to building errors. But for the other 60 percent of racers, who have more faith in their own building skills, the added confidence of knowing how well their trucks are assembled outweighs the convenience of a pre-built chassis. Experienced gas racers would spend more time going through the Team Built GT, just to be "sure," than it would take to build the kit.

Overall, we liked the idea of the Team Built concept when we first heard it, and after racing the Team Built GT, we still think it's a good product that fills a void in the hobby. If you are looking to graduate from the RTR ranks, want to get into off-road racing, or have been racing electric for a year or so and want to try gas, the Team Built GT is just what you're looking for. ◆



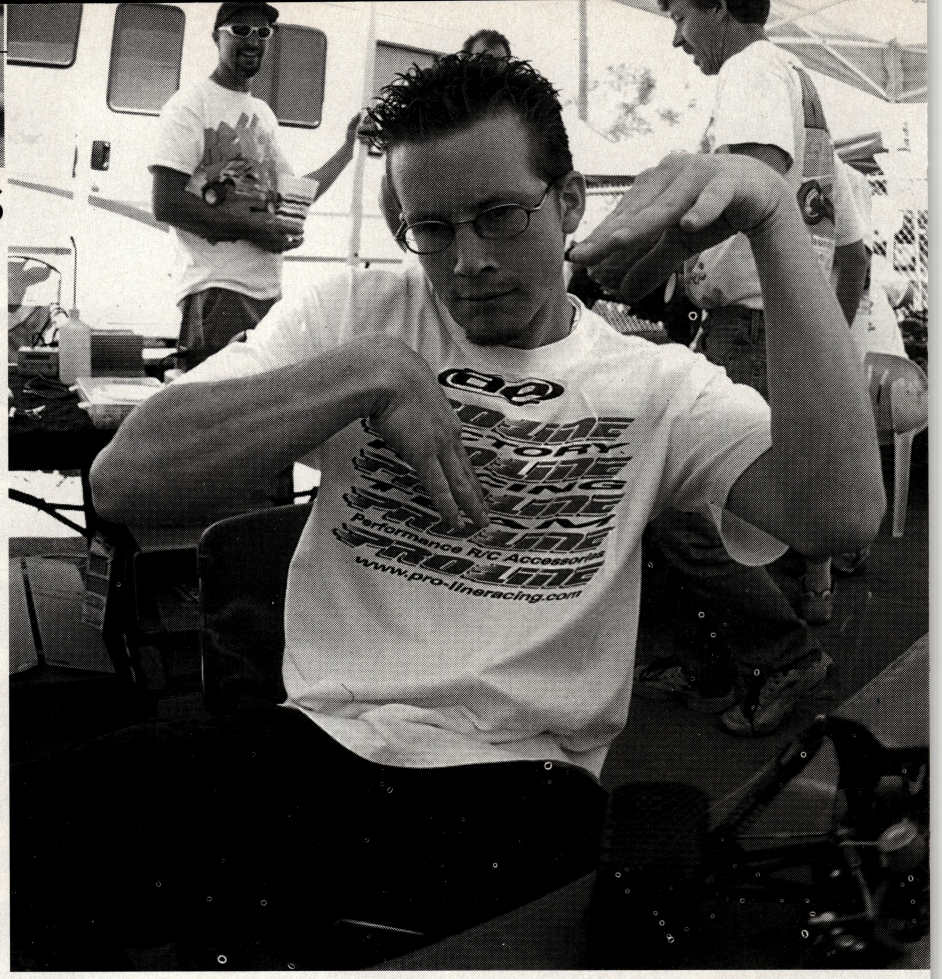
RESISTANCE IS FUTILE.

TOLL FREE
1.888.928.RACE

www.racinghardcore.com

Pro-file: Scott Hughes

From racer to representative



Those of you who haven't been following racing for that long may not know that Pro-Line's Scott Hughes is one of the original "old-school" racers. It's interesting that Scott is considered an old-timer in the sport, considering that he's only 25 years old! For many years, Scott was your typical factory racer—traveling all over the country, even the world. He regularly raced against all the top drivers, and even won a few prestigious races along the way. Well, nowadays Scott still goes to the track—sometimes to race—but each time he's there, he's there to represent Pro-Line and make sure their sponsored racers are taken care of. But that's not all Scott does—along the way, Scott went from factory racer to factory rep, better than most who take on that challenge. He's settled into a role at Pro-Line that goes beyond racer turned bag stuffer. We sat down with Scott to see how he made the transition, as well as to reflect on his racing career, in addition to talking about the current state of racing.

R/C Car: *When did you start racing?*

Scott: I started in 1989 when I was thirteen years old. I wanted a car and so my Grandmother bought me one for my birthday—actually, one of the original RC10s. It had the gold tub and first generation shock towers, and I bought a Futaba radio/speed control combo along with it. A couple of weeks later I found out about the Ranch Pit Shop and started racing. My dad and I started going three times a week. That's all I cared about—I loved it!

R/C Car: *How did you do?*

Scott: In my first race I think there were something like 18 novice buggy guys there and I finished third overall in the A-main.

R/C Car: *That's a good start!*

Scott: Yeah, not bad considering that my speed control wasn't set right—it was like an on/off switch. That's how I thought it was supposed to be, so it was just on/off, on/off all night!

R/C Car: *Who influenced you early on in your racing career?*

Scott: There were a couple of local guys who were really fast—Cliff Montgomery and Derek Lamb were the guys to beat. My goals my first few months was to try and beat those guys consistently.

R/C Car: *When were you picked up by a team?*

Scott: My first main factory sponsorship was Team Losi. It was roughly 10 months after I started—it wasn't a full factory ride; I got parts, but no travel. I ran for them for a year and afterwards I switched over to Associated.

R/C Car: *Was there a factory racer that you looked up to that you wanted to be like?*

Scott: Well, when I was at Losi, it was all the Losi guys—Kyle Reed out of them all, though, I guess. He was the most friendly, outgoing guy on the team. I also really got along well with Jack Johnson and Ron Rosetti.

R/C Car: *Racing is a lot different today than it was back then...*

Scott: Absolutely—I think racing was a lot bigger back then. The races were better attended as far as turnout, and they were also taken much more seriously.

R/C Car: *How so?*

Scott: Nowadays there are a ton of little races from coast to coast. I think that there are more actual racers now than back then, but because the racing action is more spread out, you don't see the large amount of entries like back in the day because everything has become more "regionalized." With so many events, there is no really "big" race anymore.

R/C Car: *What's your favorite class to race?*

Scott: Most people would think it would be truck, since I do pretty good in that class, but I would have to say 2WD buggy. I enjoy it the most because it is so technical—buggy is the hardest class to drive good consistently.

R/C Car: *How did you get the nickname "Squirrel"?*

Scott: [laughs] I knew that was coming! Back when I first started running for Associated,, Darren Westman called everyone Squirrel. Anyone who was younger than him was called Squirrel. For some reason it stuck with me more than anyone else. Maybe it was because we hung out more, or maybe the fun we had at the races—which we won't really go into here!

R/C Car: *What was your most memorable race?*

Scott: The latest races are probably more memorable because they just happened, but one that sticks out is the IFMAR Worlds in '93 in Basildon, England—it was out of control! There was more acts of debauchery at that race than any other! There were so many crazy things happening at our hotel, then there were even more insane things happening in London during the nights there. You were there, you know what went down!

R/C Car: *Too many things we just can't print! But what about the race when you won the ROAR truck title?*

Scott: Obviously in terms of accomplishment it was my best race, although it wasn't my most memorable—but it was the most fun, though. That race was good because I didn't put a lot of pressure on myself to really do all that well—I didn't feel I had anything to really prove anything to anyone. Throughout the year leading up to the race, I didn't really race all that much, so it was nice when I did well at the event.

R/C Car: *What's the biggest misconception about pro racing? The local guys, the ones that say "if I could only get a factory ride, my life would be so sweet!" What don't they see?*

Scott: The grass is always greener on the other side. When you go from having a hobby and then turn it into a profession, and on top of that, have a full-time job, it's like having two full-time jobs. Then you have situations where some of the in-house factory guys like me, or Mark Pavidis, think about R/C all day—it's our job—and then you're expected to go to all these races and be "on." It's very difficult.

R/C Car: *What's your take on paid drivers?*

Scott: I think it's a bad thing. Manufacturers basically have to pay these guys their salary just so they'll stay with the company. I think if it had never started, the racing scene would be different because people would still be in it because of passion versus a paycheck.

R/C Car: *Two part question—the person you like to race against the most, and the person you like to race against the least? And why?*

Scott: That's a good one—I like to race against Mark Pavidis. We go way back. For the past few years, it seems as if I've just been trying to keep up with him. He's always fast and you know he's going to be competitive.

The person I like to race against the least? Man, I don't know! I guess if I had to pick one person, it would have to be Jeremy Kortz from five years ago. I think there are a lot of racers who would agree with me, though. Now I'm going to say this about Jeremy, but I'm going to say something else at the end that you have to make sure gets in print!

Jeremy came on the scene back in the day and he was really fast. But he had an "I'm better than everyone" attitude and we got into it a few times at the track. You know, looking back, maybe it was a bit of jealousy when he excelled and won a ton of races for Losi. I remember seeing Jeremy TQ over Kinwald at a race by over eight seconds—that just doesn't happen anymore. In the long run, though, his attitude blew it for him and he was dropped. Now, here's where I need to say that over the past few years that he's gotten back into racing, he is totally a new person. We sponsor him now, and he represents himself in a whole new way!

R/C Car: *Where do you see yourself in ten years time?*

Scott: I see myself as being a big part of Pro-Line. I want to better myself and work hard at doing more, and taking on more responsibilities and growing with the company. I'm very happy there—I honestly love working at Pro-Line. I'm surrounded by a bunch of good guys. I can also see myself married with a kid down the road!

R/C Car: *Your transition from racer to your role at Pro-Line is probably one of the best examples of "racer turned worker" in the industry. What's your title there, how did you get started, and give us your overall thoughts on your transition.*

Scott: I first started out by working part-time. Jason Ruona was working there at the time and he asked around and helped get me an interview. They didn't have anything open at the time, but not long after one of their employees quit and I took his spot working four hours a day running the window mask template machine for our Lexan bodies. Since then I moved up to being in charge of packaging, then inventory control and did that for a couple of years, and then I moved up to head up our customer service department. Todd Mattson (owner of Pro-Line) was very helpful and very aware of my capabilities and I was lucky to have a boss recognize that in me. Now I'm responsible for all our inventory work, I oversee our packaging, and I also do a little R&D work. On top of that I also am responsible for our promotion work too—as our promotions coordinator, I do all the press release stuff for the magazines and our website, I send out all the samples to everyone who needs them, and I also promote our race series between us and The Dirt with Joe Christensen as well as our other electric races. It's very rewarding. Pro-Line really goes out of their way to recognize hard work—from me on down to the temps, Todd really takes care of us all and is thankful for what he has, and is thankful for his employees, and it shows.

R/C Car: *It sounds like they keep you pretty busy! In your spare time, if you have any, what other hobbies do you participate in?*

Scott: I like to jet ski whenever I have the time. I like to go to the river—I take advantage of every second that I'm there. I also love to ride my motorcycle—I just got a new Yamaha R6 and I love riding that thing. I don't have anyone to ride with, but I love going out riding just by myself! And I also try to spend as much time as I can with my girlfriend Lorinda—she's wonderful!

R/C Car: *If you could turn back the clock and pick another career, what would it be?*

Scott: I look back and I think about what if I would have done this, or what if I would have done that, and I can honestly say that I love my life how it is and wouldn't want it any other way. I couldn't ask for anything more. If I could change one thing though, I would have continued on with school—I would have liked to go to college full-time and study business management, mechanical engineering, or maybe even web design. It's something I still think about. I'm only 25, so I could do it, but I really enjoy the time that I spend now at Pro-Line and I love coming home after work and relaxing and enjoying life at the same time!



Pro-file: David Katz

The man who helped Traxxas redefine R/C!



Take a good look at this man—his company, Traxxas, has blown away the hobby industry with the ground-shaking release of their T-Maxx, and shortly after, the E-Maxx. Without a doubt, David Katz has brought excitement to the hobby in a way no other manufacturer can lay claim to. And he and his company plan on doing it again. We sat down with David and asked him how the company that started the whole ready-to-run craze has grown and changed over the years, as well as what we can expect from them in the future.

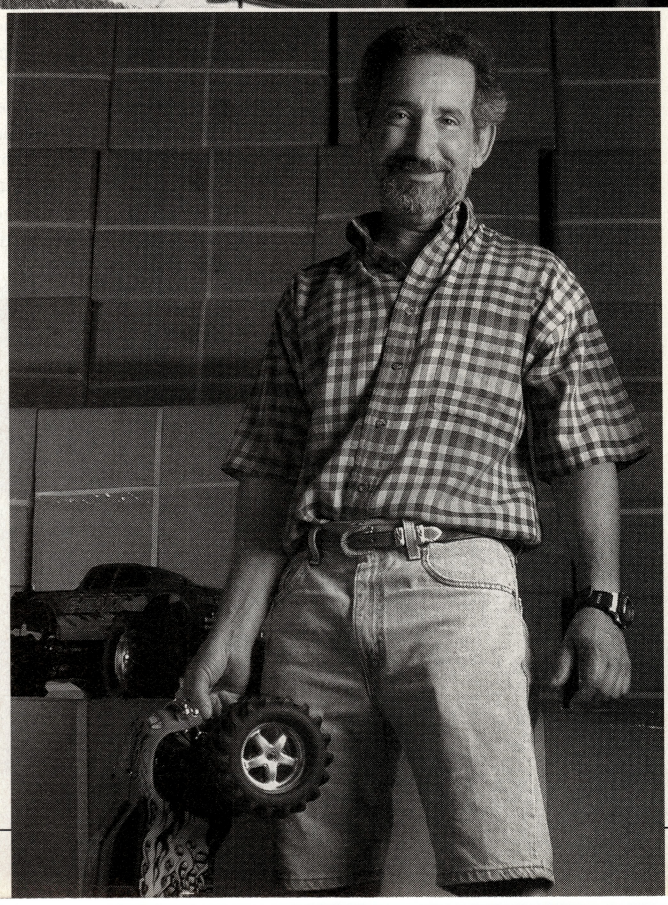
R/C Car: *What's your "official" title at Traxxas? How long ago did you start the company?*

DK: My official title is President, but I get called Mr. David a lot. I started the company in July of 1986.

R/C Car: *How have things at Traxxas changed since you've been there?*

DK: No one had networks, cell phones, internet, e-mail, voice mail, or laptops 16 years ago. Actually, we're in the same location with about seven times the square footage that we started with. We have quite a few more people and an incredible amount of talent. Miraculously, we've retained our small company atmosphere and our "get it done, do it right" attitude.

R/C Car: *Traxxas was the pioneer of ready-to-runs. How difficult was it to redirect the company's product line in this direction from your racing efforts in the early*



'90s? Initially, it must have been quite challenging having to service new clients with factory support.

DK: We actually started with ready-to-runs. Traxxas' initial mission was to create products to bridge the gap between toys and hobbies. Our goal was a fully assembled (ready to run), hobby-class kit. I was one of those guys who wanted to drive, not build. I wanted to drive hard and fast without the hours of assembly. I knew there would be others who felt the same way.

Supporting new customers was never an issue. We treat them the way we, as individuals, would expect to be treated by the best customer service in the world. Our plan was (and still is) to provide the highest level of support at whatever the cost.

R/C Car: *Tell us about the first planning meeting where the T-Maxx was brought up. Who pitched the idea first?*

DK: I guess the most important thing about first T-Maxx meeting was the name, which is reflective of the entire product. T-Maxx was the internal code for "Traxxas Maxx" confirming our intent to produce the most "Maximum" Traxxas product ever.

The concept of T-Maxx came from a group planning session. It started with the idea that conventional size and scale in the hobby industry was more tradition than a function. Our intention was to create a new size and scale that made more sense from a functional perspective. We threw out the rules and began determining what size vehicle would be the ultimate from a performance standpoint. We wanted something large enough to deal with real-world obstacles, but small enough to be fast and exciting to drive. We didn't worry about conforming to industry standards. First we conceived the optimal size and then decided that there would be no compromises. The goal was maximum performance in every respect, so we began the process of attaining our goal.

In order for it to accelerate hard and still have a high top speed, a two-speed gearbox was the only way to go. A truck that couldn't get itself out of trouble (by backing up) didn't make much sense, so we added reverse to the design criteria. Other issues like suspension damping, and travel, braking, durability, gear ratios, etc. shortly followed and were addressed appropriately.

R/C Car: *When the design of the T-Maxx was finalized, was it what you had envisioned or was it even better? Did you realize at the time that you had something special on your hands, and that you would sell as many as you have?*

DK: As the product developed, and we began testing prototypes, everyone involved knew we had something special. It was everything we had hoped for and more. Our engineering staff simply outdid themselves. We didn't realize how successful it was going to be because we had only considered the R/C industry as it existed at that point in time. We never imagined how many new enthusiasts we would bring in.

R/C Car: *What can we expect to see in the Maxx lineup in the future?*

DK: We have some incredible new concepts that you'll be seeing in the not too distant future. We also expect a steady stream of knock-offs. Fortunately, the original is protected by patents and trademarks that we will make every effort to enforce. I suggest that your readers stay tuned to our website and this magazine for hints of what's coming.

R/C Car: *Traxxas had a factory-supported race team in the early '90s, then you stopped and the company headed in another direction. What was the reason for the decision?*

DK: Racing helped to improve our products. At one time, we owned about 40 percent of the off-road racing market. Many of our products are direct derivatives of our racing. We got tired of playing the game of buying drivers and we never liked the concept of our factory guys competing unfairly with our customers. In 1994 we made a corporate decision to shift our focus away from the racing market.

Recently we sent some of our in-house guys to the *R/C Car* Magazine Maxx race. Although many of our employees race regularly, this was our first corporate participation in a race in over six years! It was done just for fun and publicity, but we still learned from it. For what it's worth, we've had several guys at the track eight hours a day for the last several weeks testing some new stuff. Racing is a great way to stress-test components.

R/C Car: *Do you ever see Traxxas getting back into the racing scene at some level?*

DK: It really depends on how the "racing scene" evolves. We are big supporters of fun and excitement. I don't believe in racing that requires lots of dollars to be competitive or the exclusion of the novice who is trying to improve his skills. All of us at Traxxas are very competitive. Our race is to be the first and the best at providing superior products and customer service for our customers.

R/C Car: *If you could change one thing about the hobby industry, what would it be?*

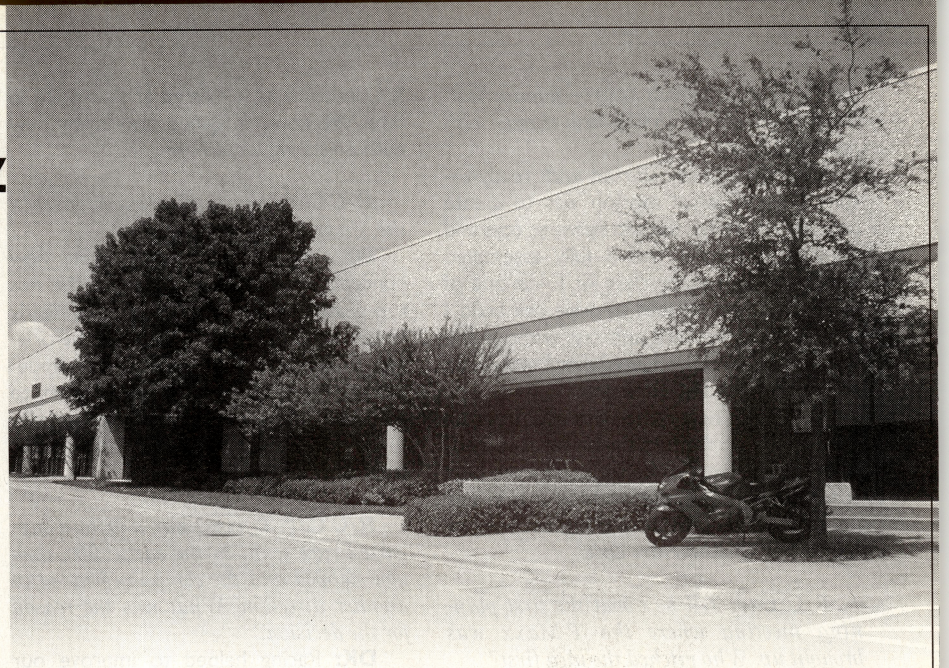
DK: I wish the hobby industry were more visible. We've got so many great things that more people should be aware of.

R/C Car: *Traxxas has one of the best dealer support systems in the industry; how difficult was it to establish a system that works? Is the Traxxas "test drive" program integral to this support system?*

DK: We think we have the best dealer



Pro-file: David Katz



and customer support in the industry. It is difficult to maintain and improve given our dramatic growth but it is a focus that we will never lose. The "test drive" program was designed to get R/C cars in the hands of potential new customers. As enthusiasts, we all know the thrill of driving. The test drive is a good way to share the experience and bring others on board.

R/C Car: *What kind of customer traffic does Traxxas receive on its website and telephone lines?*

DK: Our website has evolved beyond our wildest expectations. We see between 1-2 million hits a day. I can't say that I know exactly how many calls we handle, but I do know that our monthly phone bill could comfortably support several families.

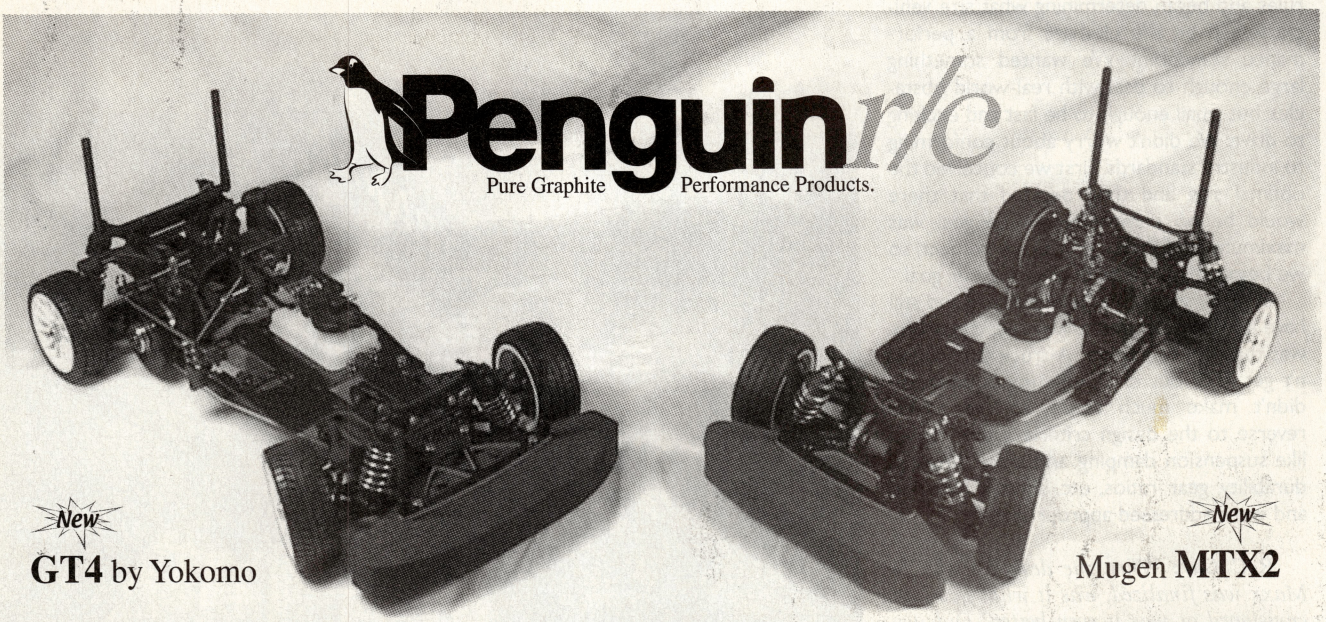
R/C Car: *How difficult was it to pull the VX-12 from the line and replace it with the new Novak designed EVX?*

DK: It's always difficult to spend money, but it's never hard to do the right thing. We blew it with the VX-12. It worked very well but it wasn't bullet-proof. It passed all of our tests with flying colors during the hot, dry Dallas summer but we never considered subjecting it to any moisture. Our intention was to make it up to our customers by giving them the best speed control possible. It was an easy decision to partner with Novak, who we feel are the best electronics people in the business.

R/C Car: *What's next for Traxxas?*

DK: More innovative products. There are so many companies that simply play follow the leader. A new body, a new suspension arm, different tires, different wheels. They only deal with what already exists and try to package it so that it has some consumer appeal. Traxxas intends to lead through engineering and innovation. We fully expect our next major product to have an impact similar to T-Maxx and E-Maxx. ◆

Penguin r/c
Pure Graphite Performance Products.



New
GT4 by Yokomo

P1710 - GT4 Performance Brake Disc **$6.99**
P1711 - GT4 Rear Bulkhead Support Brace **$6.99**
P1712 - GT4 Performance Upper Deck **$41.99**
P1713 - GT4 Front Shock Tower/Brace **$6.99**
P1714 - GT4 Rear Shock Tower/Brace **$6.99**
P1716 - GT4 Front Bumper Support **$8.99**
P1717 - GT4 Right Center Brace **$13.99**

Performance Brake Discs
are also available for the following vehicles:
Associated, HPI, Losi, Tamiya, and Traxxas.
• More Penguin r/c Products are available for other vehicles.

New
Mugen **MTX2**

$4.99 Performance Brake Disc MTX2 - *P6000*
$4.99 Front Bumper Brace MTX2 - *P6001*
$38.99 Performance Upper Deck MTX2 - *P6002*
$6.99 Graphite Center Brace MTX2 - *P6003*
$8.99 Rear Bulkhead/Brake Support MTX2 - *P6004*
$14.99 Front Shock Tower MTX2 - *P6006*
$15.99 Rear Shock Tower MTX2 - *P6007*

Penguin r/c products are available through your local hobby shop or direct.
Please call or visit our website for further product information
or to find a dealer near you that stocks our products.

1230-P N Jefferson Street Anaheim CA 92807 • 714.630.9015 • 714.630.6250FAX • http://www.penguinrc.com

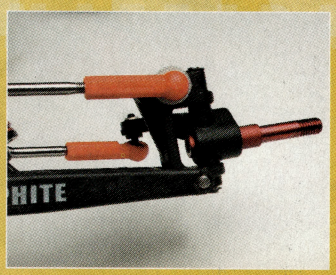
© Penguin r/c 2001

Red. Hot. Ride.

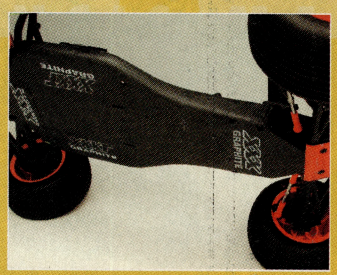
Get this. Juiced up **[hot]** and tricked out **[red]** by the man himself, it's a high-tech, high performance, cutting edge, sizzling signature edition of Matt's championship winning truck. It may not make you a winner, but it's so **[hot]** it's definitely gonna make the other guys see **[red]**.



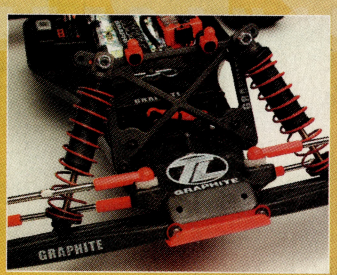
FEATURES OF THE MATT FRANCIS SIGNATURE EDITION XXX-T TRUCK KIT BY TEAM LOSI



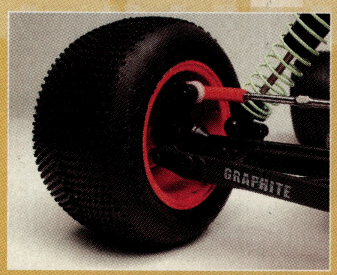
Titanium turnbuckles provide precise positioning of the red anodized aluminum front axles on the extra long Graphite arms. Color-coordinated **[red]**, shock-absorbing skidplate/bumper adds protection and style.



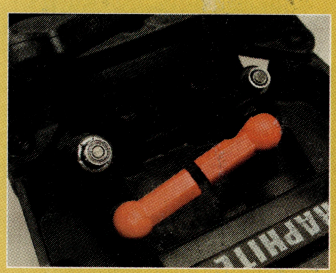
Unique rolled-edge chassis and major chassis components are engineered in Team Losi's **[hot]** exclusive graphite/composite material for unmatched rigidity and minimized weight. Interlocking modular design makes tuning and maintenance easy.



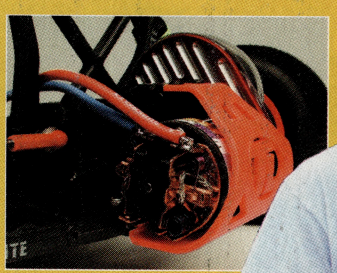
Vertically mounted camber links in titanium and threaded/hardcoated shocks mean easy front suspension adjustment. Anodized **[red]** inner pin brace and rigid graphite components maintain critical alignment.



MIP CVD driveshafts transfer the power smoothly from the dual-disk slipper equipped transmission. Soft compound racing tires mounted on **[red]** wheels optimize traction & acceleration.



The steering linkage with **[red]** ball cups, of course, features precision ball bearings above and below the bellcranks for maximum support. With the steering brace in place, flex and unwanted feedback is all but eliminated for precise control and predictable response.



Transmission features an anodized **[red]** and ball milled/lightened motor plate and a hardcoated aluminum gear/slipper shaft. The impact-absorbing rear bumper/motor guard is molded in, you've got it **[red]**.



World champion and multiple national champion, Matt's the man behind this **[red]** **[hot]** machine.

Team Losi®
ENGINEERING WINS
www.teamlosi.com

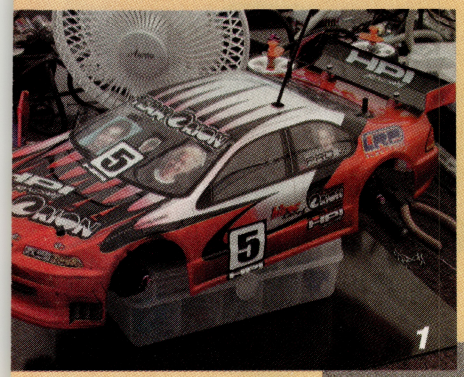
© 2001 Team Losi, a division of Horizon Hobby, Inc.

by Lito Reyes

2001 ROAR 1/12 and 1/10 Electric On-Road Nationals

Hot days, an efficiently-run program, and a bit of a surprise outcome all contributed to this year's exciting 2001 ROAR 1/12 and 1/10 Electric On-Road Nationals, sponsored by Yokomo USA and Team Associated/Reedy Modifieds. Held on July 25 through 29 in the city of Roseville, California, a suburb of the state's capitol city of Sacramento, and hosted by Speedworld Raceway, the five days of practice, qualifying, and mains went with little incident, and some amazing performances by the country's best racers.

With over 240 entrants (159 of them in the touring car classes) and 32 heats of qualifying races, it was imperative that the Speedworld crew run a tight ship. And from the beginning of qualifying to the end of the mains, there was nary a complaint about how the program was run. In fact, much praise was bestowed on track owners Billy and Tracy Bowerman and their volunteers. Even with the high temperatures, no tempers flared, and everyone had a good demeanor. But that didn't mean that there wasn't serious competition happening on the track.



1

1. HPI's Frank McKinney ran an RS4 Pro 3 "piloted" by a dream-team of R/C drivers.

2. Yendor, a Sacramento local, earned the first-place Concours trophy with this beautifully detailed entry. And yes, it's all paint.

3. Yendor also picked up the second-place trophy in the Concours contest.

4. Here's a close-up of the SpongeBob Mobile. "Hey, Patrick! Let's go get some Krabby Patties!"

5. David Jun and Mark Pavidis hanging out at the motorhome. With Jon Orr doing the BBQ duties, they were all set!

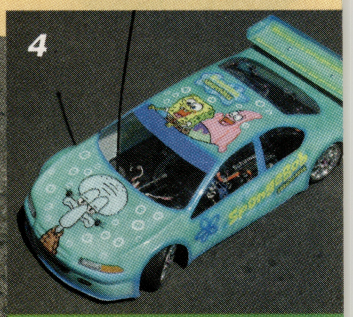
6. The ubiquitous Mike Reedy was on hand to make sure his team had enough power.



2



3


4

The Format

The drivers qualified with the average times of four IFMAR start (staggered timing against the clock) qualifying races. Even if a driver had two bad runs on the first day of qualifying, the track conditions were almost identical, though a bit cooler, on the second day, so day two was a great chance for those who gain their momentum a bit slowly. The mains were all held on Sunday, with triple mains for the "A" drivers. This format rewards consistency, with three chances to "drive it hard" and earn the points for a good overall finish.

The Track

Speedworld Raceway is located in the Placerville County Fairgrounds just a few hundred feet away from a full-size racetrack. It is a permanent track made of high-bite asphalt, with lanes made of a combination of plywood, two-by-fours, layers of stacked firehose, and 4-inch-high flexible plastic strips. Many racers commented on the quality of the facility, the consistency of the track, and how forgiving it was—that is, with the exception of one turn just off the back straight. There was shaded pit space for every racer, an air-conditioned hobby shop, and most importantly, a full-time barbecue and concession stand stocked with coolers of your favorite sports drinks.


5


6

Control tire

This is the first year that a control tire was used for the touring classes. The track temperature easily crept up past 150-degrees mid-day, which became a true test of the Sorex control tires' durability. There were no complaints about the quality of the belted Sorex 36R tires, as they are being used all over the world now with great success, notably by Atsushi Hara, current IFMAR Touring Car World Champion.

Being the first year for a control tire, ROAR President T. Rex Baldwin was a bit lenient and let each racer purchase one set of tires for each qualifier and one set for each main. He says that next year, tire quantity limitations might be made, and that control inserts are also a possibility. We saw a mix of people (and teams) who took advantage of the "one set per race" rule and others who let them break in over a couple of races.

Things heat up in Northern California



7


8

1/10 Pancar Stock

Qualifying: The first day of qualifying found Mark Anton, David Goss, and Jim Bishop setting the pace with 17-lap runs. By the end of the second day of qualifying, Goss ended up getting the TQ over Anton, with Michael May, Jesse Stark, William Brown, and Michael Evert squeezing their way in front of Bishop's qualifying time. Of note was privateer Steve Tsuruda, who qualified eighth while proudly using decade-old equipment and an AM radio.

A1: Goss, Evert, Stark, and Anton all post 17-lap runs, finishing in that order. The rest are all only one lap down, except for Larry Stevens, who finishes four laps down at the clock.

A2: Brown also posts a 17-lapper. With two wins, David Goss is declared Champion. May and Anton cross just after him, and now have their sights set on the second podium spot.

A3: Goss sits it out and lets May, Anton, and Evert battle it out for second. May gets the win just ahead of Anton, making the overall points order: Goss, May, Anton.

1/12 6-Cell Stock

Qualifying: Early on, Rob Michael from Corally USA sets himself up as the man to beat in this class. Leon McIntosh was the only other person on day one to post a 35-lap run. In fact, Michael was the only person to post more than one 35-lapper (three, to be exact) in both days of qualifying. But Rob Moots and Goss definitely have the potential to ruin Michael's weekend.

A1: The Robs (Michael and Moots) grab the top two spots, both hitting the magic "35". Gavin Salmon gets in a blazing run just one lap down at the buzzer.

A2: Once again, the Champion is decided in the first two of the triple-A mains, with Michael taking the win. But Patrick See and Stark sneak in there with great runs.

A3: Michael sits it out and lets everyone else fight. Dennis Racine comes out on top and, with his strong 4th place finish in round two, secures the second-place overall spot, followed by Jesse Stark, who was consistent through all three rounds.

1/12 4-Cell Mod

Qualifying: Josh Cyrul proves that he isn't just dangerous on carpet, but asphalt as well, on day one. But Mike Blackstock, Mike Dumas, and Brian Kinwald step up to throw a wrench in Cyrul's plans.

A1: The magic number is "39", and Cyrul and Blackstock reach it, closely followed by Dumas and Kinwald. The top four finish the way they started on the grid.

A2: Yet again, the TQ holder wins the first two rounds. Cyrul is declared the Champion. Meanwhile, Kinwald and Dumas duke it out for the second spot. Kinwald wins this battle.

A3: Cyrul, of course, sits it out. Dumas and Kinwald are "the show" as they perform an eight-minute sprint to the finish line. Dumas wins the round, which secures his overall second place. Kinwald's 4-2-2 result earns him third place overall.

7. The stock car races were only a few hundred feet away from the R/C track. If you want racing, this is the place.

8. Team Associated driver Jon Orr checks in his control tires and then mugs for the camera.

9. A few moments of quiet used to check the settings just one more time.

10. Tamiya's Fred Medel and Team Losi's Richard Trujillo "talking shop" between rounds.

11. Jimmy Jacobson takes control in a quick game of B-ball—Tamiya style!

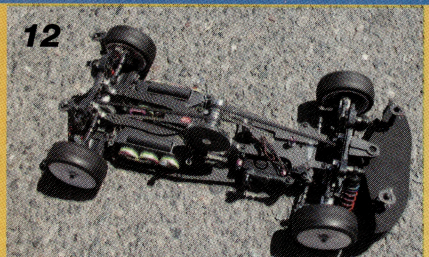
12. The RCLab 7even 6.0 Pro touring car. That has got to be the longest car name in the industry.

13. Here's a close-up of the 7even 6.0 mid-motor mounting area. The kit should be shipping by the time you read this.

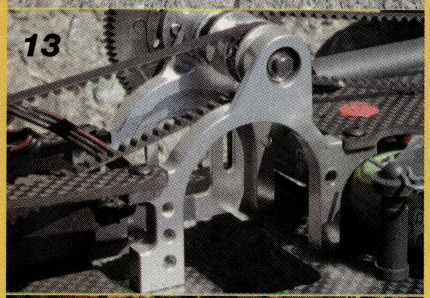
14. Does Brian Kinwald know something that we don't? Maybe, like how to be a World Champion....

15. "Pssst! Buddy, need an armature?" "How about this one?" "No, that one's no good for you! Tell you what I'm gonna do..."


9

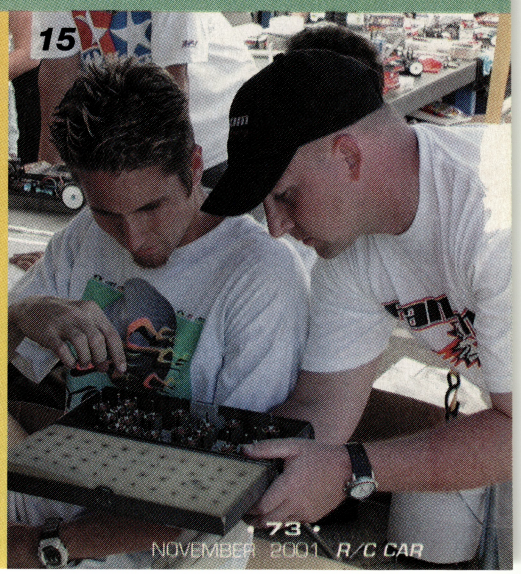

12

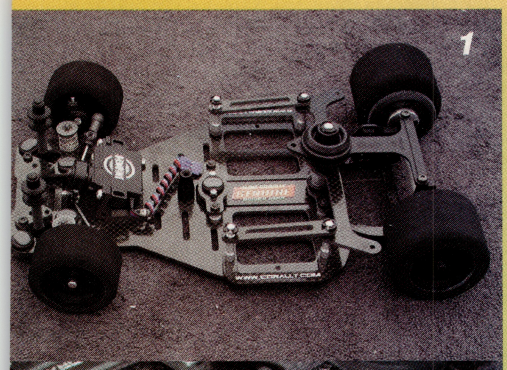

10

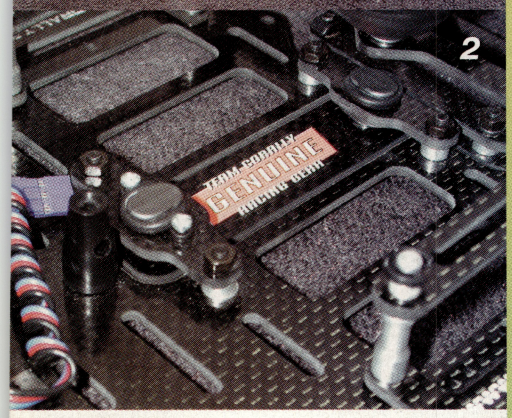

13


11


14


15







1. Corally USA will soon debut their newest 1/12-scale kit, the Corally12M. It should be available by Christmas. In the meantime, enjoy these spy shots.

2. The Corally 12M features a new T-plate that lies flush with the lower chassis.

3. The top Modified Touring await their A3 main.. Even for the Pros, those few moments just before a main can be nerve-wracking.

4. Paul Lemieux's winning Team Losi XXX-S, powered by Trinity.

5. Jay Neill's winninig entry in the Touring Stock class, a Yokomo MR-4 TC.

6. Rob Michael piloted a Corally SP12G3 to victory in the 1/12-scale 6-cell stock class.

7. The 1/10-scale Pancar stock winner, an Associated 10L, driven by David Goss.

8. Josh Cyrul's Trinity Switchblade 12, the winning car in the 1/12-scale 4-cell modified class.

1/10 Touring Stock

Qualifying: Ryan Cavalieri and Jay Neill set the pace on day one with 21-lap runs. By the end of day two, Joey Orlanes, Brian Jucha, and Losi and *R/C Car's* Richard Trujillo join the "Blackjack" club. And believe it or not, there are still some National-caliber sedan drivers who are still privateers—but probably not for long.

A1: Orlanes, Neill, Brett Sisley, and Jucha all drive it to the wire on the same lap. TQ-holder Cavalieri retires early.

A2: Cavalieri returns to round two with a vengeance. He takes the win by exactly 1.0 second over Neill. It is still anyone's race.

A3: Jucha puts the voodoo on everyone else's car and takes the win one lap ahead of the rest of the field. But Neill's consistency pays off, and with a 2-2-2 in the three rounds, he is declared the Champion. Jucha and Cavalieri keep him company on the podium.

1/10 Touring Mod

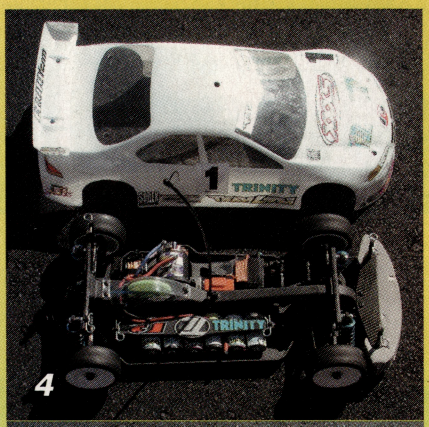
Qualifying: There was no doubt that this was the class to watch. Some of the top names in the whole hobby represented their teams for the National honors. 17-year-old Paul Lemieux, who at that point had only been with Team Losi for a few weeks, had the ins and outs of the track down like the back of his hand. He set the pace early on with fast 18-lap runs. But he couldn't let his guard down because the whole rest of the field, especially Chris Tosolini, Matt Francis—who had never entered a major on-road race before—and Barry Baker were all posting excellent times and breathing right down Lemieux's sunburned neck. By the time the second day of qualifying ended, Lemieux stood in amazement that he had the TQ spot.

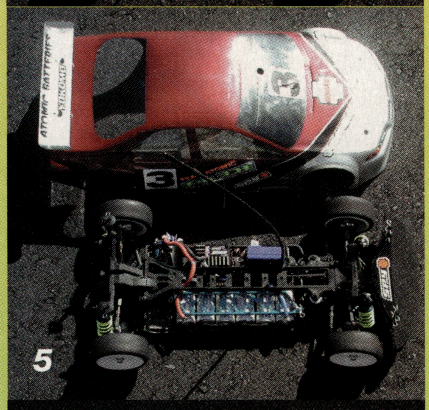
The rest of the field was a Who's Who in the R/C scene: Tosolini, Francis, Baker, Billy Easton, Todd Hodge, David Jun, Kinwald, Mark Pavidis, and Jon Orr.

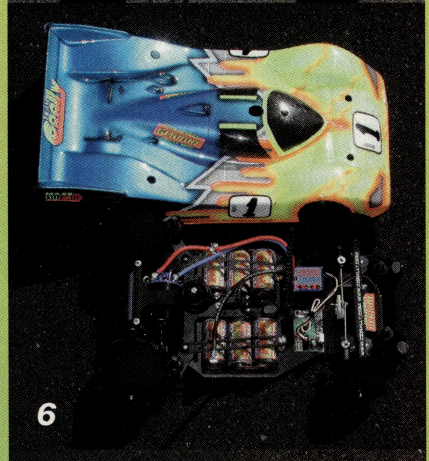
A1: The top five positions all end on the same lap, demonstrating just how tight the competition is. The order is Lemieux, Easton, Kinwald. Tosolini gets a DNS.

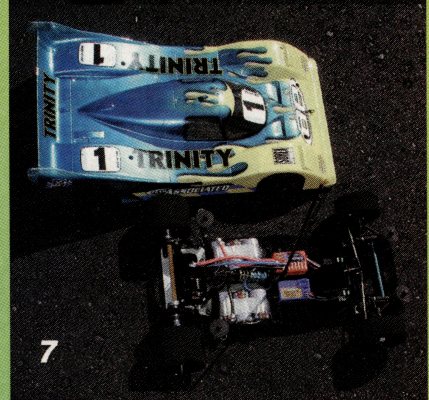
A2: Lemieux drives a clean race and is rewarded by a first place finish and a Championship under his belt. Francis, seven seconds behind the winner, keeps his distance away from Kinwald and Easton battling behind him.

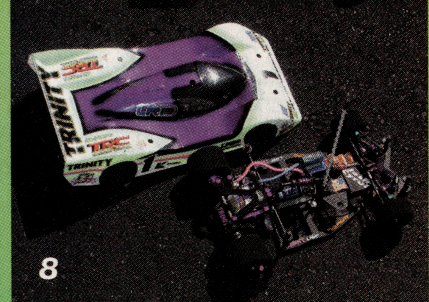
A3: With Lemieux out of the way, newcomer Francis (kind of weird, huh?) has clear track ahead of him and pulls in a decisive win with a lap over his nearest challenger. With a 5-2-1 result, Francis becomes the overall runner up. Easton, with a 2-4-2 result, earns the hard-won final spot on the podium.

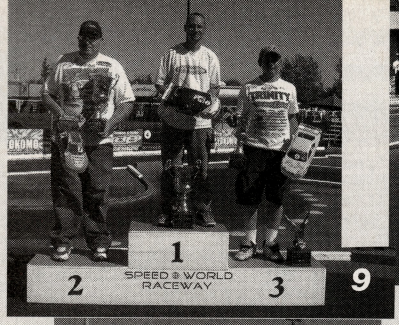


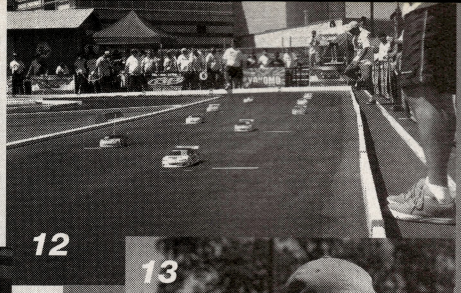




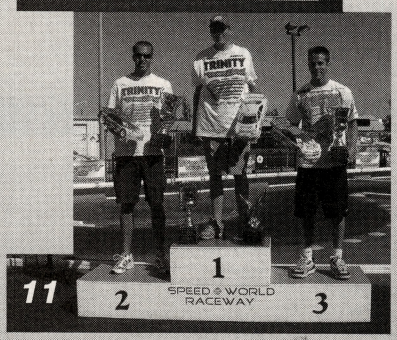




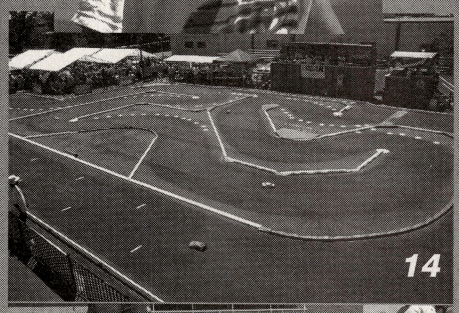


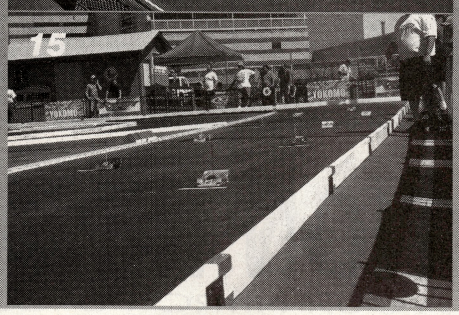


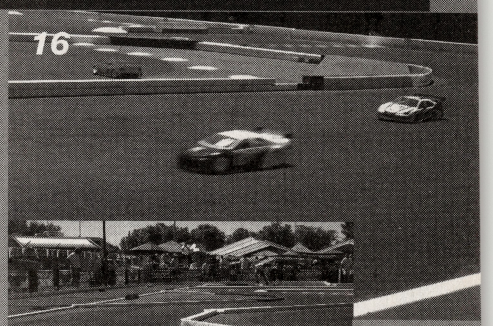


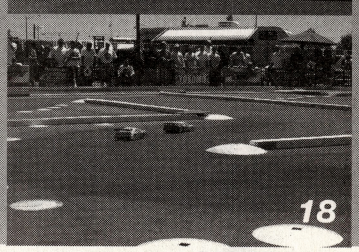












9. Touring Stock winners (left to right) Brian Jucha (second), Jay Neill (first), and Ryan Cavalieri (third).

10. 1/12-scale 4-cell Mod winners (left to right) Mike Dumas (second), Josh Cyrul (first), and Brian Kinwald (third).

11. Touring Mod winners (left to right) Matt Francis (second), Paul Lemieux (first), and Billy Easton (third).

12. The Touring Mod A-main grid.

13. Touring Mod ROAR National Champion, Paul Lemieux, just after locking in the title. That smile says it all...

14. The Speedworld Raceway track. Many racers said that it is a very deceptive track. It looks big and large, but when there are nine other guys to get around, it gets small really quickly.

15. 1/12-scale cars line it up for a main. If you want to see some fast, precise racing action, check out a 4-cell mod race some time.

16. "Hey, will you slow down for just a moment for a picture? Oh, come on, why not?"

17. You can see all the covered pit areas in the background. All those canopies provided much-needed shade, but trapped the heat in very well also. Sauna time...

18. Two factory guys in a kind of "blinking contest." Overshooting a turn by just a few degrees could be enough to let him get by.

ROAR

Controversy

The only bit of controversy that we heard about regarded Paul Lemieux's performance in Mod Touring. Apparently, some racers were a bit disturbed by the fact that he was able to "train" on the track for three weeks prior to the event. Well, the truth is that the track layout they used wasn't even set up that whole time, and most all the teams already had data about the track from prior events. And also, it's not like it would have been the first time that had happened... ◆

2001 ROAR Electric On-Road Nationals Racer Quotes:

Barry Baker: "Paul did his homework, but he was also up here for three weeks. Losi did a fantastic job this weekend, though, because their car is good."

David Jun: "I like the track, actually. The last major race was at Ripon for the Reedy Race, which had curbing, which is great too, but I'm a (full-size) racing enthusiast, so I kind of look at this as a "street circuit" with the scale "walls," so I like it. This track keeps people honest, too, because you can't really cut the track. But it does feel pretty narrow, which makes it difficult to pass, so you tend to get a little contact here and there...I'm having a good time!"

Jon Orr: "The track is really technical. It may look easy, but when you get up there it really isn't. It's a little deceiving with all the switchbacks and chicanes. You can definitely use all six cylinders on this track down the straightaway."

Mark Pavidis: "It's been all right. I think our team should have come up here three weeks before the other team!" [laughing].

Josh Cyrul: "I thought the event was really run well. The track stayed as consistent as you can have for an outdoor track. We did get faster times in the afternoon as the sun started going down . Then the track got hot it became a little greasy. We had fun; this place is a really good track!"

Brian Kinwald: "The mains were a little rough, but it was run pretty well. And the track is pretty good!"

1/10 Touring Stock

Fin.	Qual.	Name	Car	Motor	Battery	ESC	Servo	Gr. Ratio	Tires	Body	Radio	Sponsors
1	3	Jay Neill	Yok MR-4TC	handout	Atomic	Novak	Air	27/81	handout	Yokomo	Air M8	Yokomo, Ichiban Motors, Atomic Batteries
2	7	Brian Jucha	AE TC-3	handout	SMC	Novak	JR	40/96	handout	Protoform	Air M8	AE, Fantom, SMC, Jaco, Novak
3	1	Ryan Cavalieri	Losi XXX-S	handout	Trinity	Novak	Air	26/88	handout	Losi	Air M8	Losi, Trinity, Novak, Airtronics, Lunsford, Titan Tec
4	2	Joey Orlanes	Yok MR-4TC	handout	Integy	Novak	Air	26/78	handout	Andy's	Air	Yokomo, Novak, Integy, Andy's
5	9	Alex Lopez	Schu Axis 2	handout	Killer Volt	Key	Air	35/116	handout	Protoform	Air M8	Schumacher USA, Fantom, Keyence, Killer Volts, SMC
6	4	Jay Robinette	Losi XXX-S	handout	Stevos	Novak	JR	27/88	handout	Stratus	JR R1	Losi, Stevos Batteries, Novak, Peak Motors, JR, Lunsford, Team Rossi, M.H.O.R. R/C Raceway
7	8	Brett Sisley	AE TC-3	handout	SMC	Tekin	JR	36/94	handout	Proline	Air M8	privateer
8	5	Richard Trujillo	Losi XXX-S	handout	Peak	Novak	JR	27/88	handout	Losi Stratus	JR R1	Losi, Peak, Novak, JR Propo
9	10	Patrick See	Yok MR-4TC	handout	Trinity	Novak	JR	28/81	handout	Protoform	Air M8	privateer
10	6	Andrew Swanson	Losi XXX-S	handout	Trinity	Novak	Air	27/88	handout	Proline	Air M8	privateer

1/12 6-Cell Stock

Fin.	Qual.	Name	Car	Motor	Battery	ESC	Servo	Gr. Ratio	Tires	Body	Radio	Sponsors
1	1	Rob Michael	Corally SP12G3	handout	Corally	LRP	Fut	25/100	Corally	Protoform	Air M8	Team Corally, Corally USA, Superior Hobbies, Winning Edge Paint
2	7	Dennis Racine	AE 12L3	handout	Ballstic	LRP	Air	23/100	Jaco	Protoform	KO	Speedworld Raceway, Ballistic Batteries, B.G. Doh Graphics, RCRacing.com
3	5	Jesse Stark	AE	handout	Lightspeed	Novak	Air	24/100	Jaco	AE	Air CS2P	privateer
4	6	Patrick See	AE 12L3	handout	Trinity	Novak	MPX	17/75	Jaco	AE	Air M8	privateer
5	3	Rob Moots	AE 12L3	handout	Ballistic	GM	Air	22/100	n/a	AE	Air M8	Speed World Hobbies, Ballistic Batteries, Francis Racing
6	9	Gavin Salmon	AE	handout	Nuc. Power	Tekin	Fut	23/100	TRC	n/a	Air 3Ps	Castle Hobbies, John Chin's Racing Rentals, Nuclear Power, Medium Performance Racing
7	8	Steve Tsuruda	AE 12L	handout	n/a	n/a	n/a	n/a	n/a	n/a	Air Rival	privateer
8	2	Leon Mcintosh	AE	handout	Reddy	LRP	Hitec	22/100	Jaco	n/a	Air M8	Reedy, AE, LRP, Cedar Key Trading Co.
9	10	John Genord	AE 12L3	handout	Trinity	LRP	Fut	25/100	Jaco	Protoform	Fut 3JPS	Monster Hobbies
10	4	David Goss	AE 12L	handout	Pro-Match	Novak	Air	26/96	Jaco	Protoform	Air M8	Pro-Match, Lunsford, MF Racing

1/10 Pancar Stock

Fin.	Qual.	Name	Car	Motor	Battery	ESC	Servo	Gr. Ratio	Tires	Body	Radio	Sponsors
1	1	David Goss	AE 10L	handout	Pro-Match	Novak	Air	24/112	n/a	AE	Air M8	Pro-Match, Lunsford, MF Racing
2	3	Michael May	AE 10L2	handout	Trinity	Novak	Fut	18/84	Jaco	Protoform	Air M8	Yokomo
3	2	Mark Anton	AE 10L2	handout	Integy	LRP	Air	19/84	TRC/Jaco	Protoform	Fut 3PD	privateer
4	6	Michael Evert	AE 10L2	handout	World Class	Novak	Air	19/84	TRC	BBR	JR R1	BBR, Speedline, World Class, Racer's Choice
5	5	William Brown	HPI	handout	Peak	Tekin	Fut	n/a	Proline	BBR	Fut 3PD	BBR, Peak Performance
6	10	Steve Ashby	HPI	handout	Sanyo	Tekin	Fut	21/106	Jaco	BBR	Fut	BBR, Trinity, Serpent
7	8	Steve Tsuruda	HPI	handout	n/a	n/a	n/a	n/a	n/a	n/a	Fut AM	privateer
8	7	Jim Bishop	n/a	handout	SMC	n/a	n/a	n/a	BSR	n/a	n/a	Hobby Town
9	9	Larry Stevens	AE	handout	Perf. Match	Tekin	Fut	12/108	TRC	BBR	KO	BBR, Perfect Match
10	4	Jesse Stark	AE	handout	Lightspeed	Tekin	Fut	24/120	Jaco	PSE	Air CS2P	privateer

ATTENTION NEW JERSEY

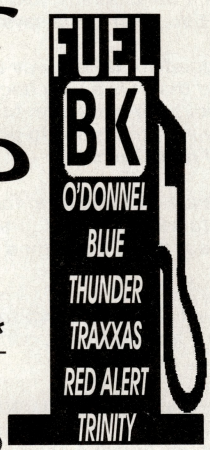
YOUR NITRO PLACE IS

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

HI-TORQUE'S

R/C CAR

THE RADIO CONTROL CAR MAGAZINE

BACK ISSUES



❑ **FEB. '99**
FSR V12 Nitro Bullet; MRC SP3; Kyosho [illegible] NXT; Tamiya [illegible] Lightning; R/C and Safety; Chicago Hobby Show; Dead Short Your Batteries?; Tamiya TCS [illegible] Trinity's Paradox; Inside the TCS winning cars; Tamiya CVA Transparent Shocks; Hitec CG-335 Charger; Integy discharge tray; Roland Sticka STX-7; Team Losi Street Weapon; MRC nitro Thunder King.

❑ **MAR. '99**
MRC Q-Tee Coupe; Schumacher Nitro [illegible] RS4; Tamiya [illegible] Mercedes CLK-GTR; Savage Motorsports Headhunter HS-350; Team Associated [illegible]; How to break in your engine; [illegible] Modified motor; pro building tips; new Era models Clod Buster Kit; How to set screw your suspension; Trinity foam touring car stand; Team Kinwald blue drivers; GM Racing Commander Charger; Integy Indi Reactor 20 discharger; MPH Products Packrack; OFNA Racing Nitro Z-10.

❑ **APR. '99**
Duratrax maximum ST RTR; Team Losi I.[illegible]; Kyosho Inferno [illegible]; HPI Nitro RS4 RTR; Schumacher S.S.T. '99 Pro; Team Losi Double-X Tuning Guide; Super Silent Nitro Sedan Shootout; Deans Speed Rig; Dirt Bags Cargo Hauler; Multiplex programmable servos; HG Inc. Transparent Shocks; HPI RS4 Rally.

❑ **MAY '99**
Tamiya Toyota GT-One; Kyosho Landr[illegible]; Team Associated [illegible]; Tamiya Baja Champ; Golden Horizon Colt 10-Formula 1; Integy parts cleaner; Team Losi NXT; [illegible] International Reedy Race of Champions; Team Associated Dual Sport Conversion; Motor Saver Filters; Inside the Reedy Race Winning Cars; Jamara 1/2-scale Go-Kart; RC10-GT Tuning Guide; Novak's new Millennium Charger.

❑ **JUNE '99**
Yokomo MR-4 Rally; Kyosho GP Spider Mk. II; [illegible]; Tamiya M4 Sherman; [illegible]; MR3R TRF; SVM Columbia Mk5 1/5th Scale; Novak Fusion; Robinson Racing RC10GT Spur Gear; Integy [illegible] Chargers; JR Racing XR3 FM [illegible]; HPI Nitro Bullet; '99 Team Losi Florida Winter Champs; Tamiya Juggernaut; Inside Winter Champs winning Cars.

❑ **JULY '99**
Hobby Tech HT1; BoLink/Racetech G-Force; [illegible]; Yokomo YR4-M[illegible]; Traxxas Nitro Wash; Pro-Line/Jaco pre-mounted sedan tires; FMA Direct Typhoon [illegible]; Horizon Turbo Head; FM [illegible] Receiver; Hi-Tec Lynx FM 3D; Silver State Nitro Challenge; How to update your HPI Nitro RS4; '99 Florida Gas Winternats; Tamiya TG-10.

❑ **AUG. '99**
Tamiya Juggernaut; Kyosho Ford F-150 Deser[illegible]; Kyosho [illegible] Spoke Super[illegible]; [illegible] F1; PC Controller Shootout; '99 Reedy truck Race of Champions; .12 Engine Guide; Inside the Tamiya Team Losi Merger; HPI Super Nitro RS4; Tamiya Porsche GT-One; Duratrax maximum ST; Take-Off Setup Board.

❑ **SEPT. '99**
CEN SP1; Kyosho QRC Ford Escort Rally; [illegible]; Kyosho TF-3 Type R; [illegible] Shootout; Inside Team Associated's TC3 touring car; FM racing receiver guide; How to make a pseudo s[illegible]; International Reedy Race Tou[illegible] Championship; FSR Bullet; Duratrax Piranha; Progressive Suspension piggy back reservoirs.

❑ **NOV. '99**
Tamiya 1/8 Mini Cooper; Neo Max [illegible]; Losi Triple [illegible] tranny works; '99 IFMAR Off-Road World Championships; Hitec HS-925MG & HS-94[illegible] servos; Inside the IFMAR [illegible]; Tamiya Monster Truck Alloy Shock Set; TamiyaMo3 Mini Cooper; Hobby Tech HT1.

❑ **DEC. '99**
HPI Nitro RS4 2; Kyosho Snake Bite; Serpe[illegible]; Tamiya M-04[illegible]; Golden Horizon Neo Type-M; Kawada SV-10 GT; '99 ROAR On-Road Na[illegible]; Racer of the Century; HPI Nitro [illegible]; ROAR On-Road National Winning Cars; CEN Two-Speed; MIP tweak Station; Team Losi NXT; Academy SP3,

❑ **JAN. '00**
Schumacher Fireblade EVO; Tamiya Wild Willy 2; Academy STR-4; Kyosho MP-6 DX; Thunder Tiger Real Ten RTR; Horizon Pro-Trax Stampede; Picco/Omega .21 Engine; Team Orion Chrome Modified motor; Traxxas T-Maxx; NORRCA Off-Road nats; How to clean bearings; Tamiya nationals; Pro-line Endless Summer; Budget battery discharger guide; Penguin Yokomo MR4-TC Chassis Set.

❑ **FEB. '00**
Schumacher SST AXIS Pro; Tamiya Tao3R-S TRF; Team Associated TC3; Thunder Tiger EB-4; New for 2000; *R/C CAR* interviews Mike Reedy; Volvo Challenge II; Trinity Real Time 2 battery discharger tray; Sierra Radio Control Racers PC Game.

❑ **MAR. '00**
Kyosho TF-4 type R; Tamiya Toyota Celica; Team Losi XX-4 Worlds Edition; Duratrax Axis; HPI World Challenge; How to make a pass; Hot Rod hobbies & *R/C CAR* Shootout; What's the deal with 4WD?; Inside foam inserts; Team Losi Triple-XT; Hitec Spectra Module.

❑ **APR. '00**
Yokomo MR-4TC Pro; Team Associated RC10GT RTR; DuraTrax Nitro Quake; Tamiya Mad Bison; Getting Started in R/C from A-Z; Inside Ian Aquino's Concours Winning NSX; We race Matt Francis' Cars; Competition Radio Guide; ROAR 1/5-scale Nationals; DuraTrax Universal Starter Box; Serpent Impulse Streetspec.

❑ **MAY '00**
Tamiya F103LM TRF; Corally C4 Limited Edition; Kyosho F-Ten Toyota TS020; Tamiya TB-01 Mitsubishi Lancer Evo VI WRC; Yokomo MR-4MT; 2000 Reedy Race of Champions; Getting Started in R/C Part II; New Era Nitro Dragster; How to get sponsored; MRC Super Brain 819 AC/DC Charger; Kyosho TF-4 Type-R.

❑ **JUNE '00**
Yokomo MR-4BC; Kyosho SuperTen FWO4; Team Losi Triple-XT; Kyosho Ultima ST Type R EP & GP; SEI 1/6-Scale Buggy; HPI Nitro MT; Team Losi 2000 Florida Winter Champs; Ten Common Mistakes Made at the Track; How To: Cut Your Crank; Corner the Experts; How to: Get a Job in the R/C Industry; Hudy Pro Wrenches; FMA Versapulse AC/DC Charger; DuraTrax RealRace Simulator; HG yank Eliminator.

❑ **JULY '00**
Tamiya Juggernaut 2; FG Modelsports 1/5 McLaren F1; Schumacher Cat 3000; Kyosho 2001 Fantom; Kawada Pit Gear; Guide to RPM Tools; T-Maxx Olympics; Corner the Experts; How to: Glue Tires; Silver State Nitro Challenge; Modified Motor Buyer's Guide; Nitro Truck Buyer's Guide; Hardcore Racing Nitro RS4 Titanium Chassis Set.

❑ **AUG. '00**
HPI Nitro RS4 Racer 2; Team Associated Factory Team RC10B3; Kyosho Mini-Z Racer; Kyosho Ultima ST EP & GP Racing Sports; Quick Look; Improve your Nitro Know-How; Team Associated TC3 Accessory Guide; Team Kinwaldi Losi Off-Road Accessory Guide; First Look: Picco G1 Engines; Tamiya Juggernaut 2 Mods; Ten Questions about NiMh Batteries; Corner
The Experts; Inside Saxton's Thunder Tiger EB4; Rally Racing at SoCal Raceway; Hudy Set-up Tool.

BACK UP!

Missing any back issues? Here's your opportunity to get those lost classics back and complete your collection! Use the order form below and get a brand-new magazine packaged and shipped directly to your door for only $5.70 plus $1.25 shipping and handling!

Yes! I want to get the above back issue(s) that I've checked. I've enclosed $5.70 for each copy plus postage and handling (U.S. $1.25 each copy; Canada $2.00 each copy; all other foreign $3.00 each copy). Canada and all foreign please send international money orders payable in U.S. funds only. Do not send cash. THANKS!
Make check or money order payable to *R/C CAR*, and mail to: *R/C CAR* Back Issues, ATTN: ACCT. DEPT., P.O. Box 957, Valencia, CA 91380-9057

Name _____

Address _____

City _____

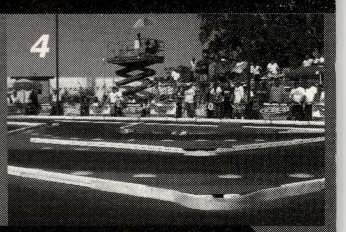
State _____ Zip _____



1. 1/10-scale Pancar Stock winners (left to right) Michael May (second), David Goss (first), and Mark Anton (third).

2. 1/12-scale 6-cell Stock winners (left to right) Dennis Racine (second), Rob Michael (first), and Jesse Stark (third).

3. Approaching the finish line.



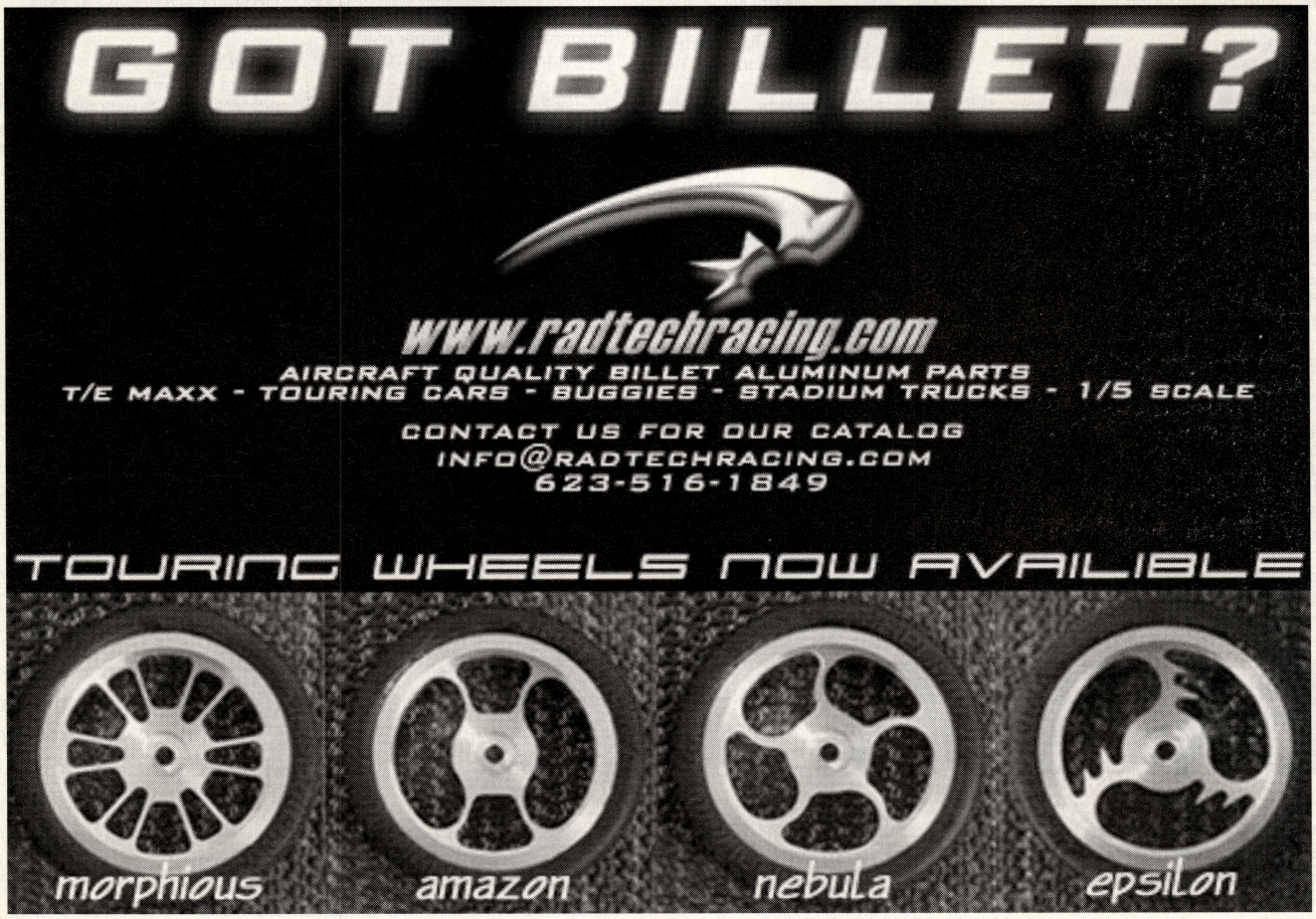
4. Our overhead track shot was taken from that portable lift in the background. It was primarily used by the professional videographers who were hired to record the whole event.

1/10 Touring Mod

Fin.	Qual.	Name	Car	Motor	Battery	ESC	Servo	Gr. Ratio	Tires	Body	Radio	Sponsors
1	1	Paul Lemieux	Losi XXX-S	Trinity 7x3	Trinity	n/a	n/a	18/88	handout	Protoform	Air M8	Trinity, Losi, Protoform, TRC, DieterWorks
2	3	Matt Francis	Losi XXX-S	Trinity 9x2	Trinity	LRP	Air	20/88	handout	Andy's	Air M8	Losi, Trinity, Airtronics, Lunsford, MIP, CE, LRP, MF Racing, DieterWorks
3	5	Billy Easton	AE TC3	Reedy 8x2	Reedy	LRP	Air	28/104	handout	Protoform	Air	AE, Reedy, Proline, LRP, MIP, Airtronics, Lunsford, Billy Billy Billy Graphics
4	8	Brian Kinwald	Losi XXX-S	Trinity 7x2	Trinity	Novak	Air	n/a	handout	Protoform	Air M8	Trinity, Losi, Novak
5	4	Barry Baker	Yok MR-4TC	Reedy 8x2	Reedy	LRP	Air	21/81	handout	Andy's	Air M8	Yokomo, Reedy, Airtronics, LRP, Andy's, Proline, Protoform, Integy
6	7	David Jun	Tam 414M	Reedy 7x2	Reedy	Novak	Fut	30/124	handout	Protoform	Fut 3PJ	Tamiya, Reedy, Novak, Futaba, Proline, Sorex, Promarkt
7	10	Jon Orr	AE TC3	Reedy 8x2	Reedy	LRP	KO	19/73	handout	Protoform	KO	AE, Reedy, Proline, LRP, KO Propo
8	6	Todd Hodge	Losi XXX-S	Trinity 8x2	Trinity	Novak	JR	19/90	handout	Andy's	JR R1	Losi, Trinity, Novak, JR, Lunsford, MIP, Andy's, Aerosol Paints
9	9	Mark Pavidis	AE TC3	Reedy 8x2	Reedy	LRP	Air	28/100	handout	Protoform	Air M8	AE, Reedy, Proline, Airtronics, Kimbrough, MIP, Razorgraphics
10	2	Chris Tosolini	Yok MR-4TC	Reedy 8x2	Reedy	LRP	Air	20/81	handout	Andy's	Air	Yokomo, LRP, Reedy, Airtronics, Universe Clothing

1/12 4-Cell Mod

Fin.	Qual.	Name	Car	Motor	Battery	ESC	Servo	Gr. Ratio	Tires	Body	Radio	Sponsors
1	1	Josh Cyrul	Trinity SB12	Trinity 9x2	Trinity	LRP	Fut	21/104	TRC	Protoform	KO	Trinity, TRC, LRP, KO Propo, Kyosho
2	3	Mike Dumas	AE 12L3	Reedy 10x2	Reedy	Novak	JR	25/100	Jaco	Protoform	JR R1	AE, Reedy, Jaco, Protoform, Proline, Novak, Kimbrough, JR, RB-RC, R/Cmadness, Billy Billy Billy Graphics
3	4	Brian Kinwald	Trinity SB12	Trinity 10x2	Trinity	Novak	Air	n/a	TRC	Protoform	Air M8	Trinity, Losi, Novak
4	2	Mike Blackstock	AE 12L	Reedy 9	Reedy	Novak	JR	22/104	Jaco	Protoform	JR	AE, Reedy, Novak, Jaco, Protoform, Proline, JR, JS Bodies
5	5	Eric Desrosiers	Speed Merchant	Mighty 10x2	Reedy	Novak	JR	23/100	Jaco	Protoform	Fut 3PJ	Speed Merchant, Novak, Jaco, Proline, Protoform,. Mighty Motors, Kimbrough, New Wave, GPM Racing, RB-RC
6	7	Brian Jucha	AE 12L3	Fantom 10x4	SMC	Novak	KO	30/100	Jaco	Protoform	Air M8	AE, Fantom, SMC, Jaco, Novak
7	9	Steve Rossi	AE 12L3	Reedy 10x4	Reedy	LRP	JR	25/100	Jaco	Protoform	JR R1	AE, Reedy, Protoform, Proline/Jaco, JR, Kimbrough
8	10	Fernando Gordinho	Trinity SB12	Trinity 10x2	Trinity	GM	Air	25/100	TRC	Protoform	Air M8	Trinity, Yokomo, GM Racing, Kimbrough, TRC
9	6	Chris Doseck	Speed Merchant	Fantom 10x4	World Class	Novak	KO	25/104	Jaco	Protoform	KO	Fantom, Speed Merchant, Serpent USA, Jaco, Protoform, World Class Batteries, Novak, KO Propo
10	8	Dave Vera	Trinity	Fantom 10x4	SMC	LRP	Fut	26/100	BSR	Protoform	Air M8	Yokomo, Fantom, SMC, LRP, BSR, Kimbrough



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

DT-10

1/10 SCALE 2WD NITRO STADIUM TRUCK

Available either Almost-Ready-to-Roar (90% Assembled with Engine) or Ready-to-Roar (100% Assembled with Engine & Radio)



DT-10 SC
* 1/10 off-road, sport, 2WD stadium truck.
* 100% or 90% factory assembled (90% without radio).
* Factory painted Ford F-150 Lexan body.
* 4 large capacity, oil filled, composite shocks.
* Double deck T6 aluminum chassis.
* 30 degree front kick-up.
* Strong, fiberglass reinforced composite parts.
* Adjustable fr/rr camber and fr toe-in.
* Single disc brake system.
* Durable gear differential.
* PRO-15BX(P) pull-start engine.
* Performance manifold & tuned pipe.
* Oil filled composite shocks.
* Rear dog bone and drive axle.
* Standard 1/10 stadium truck tires.

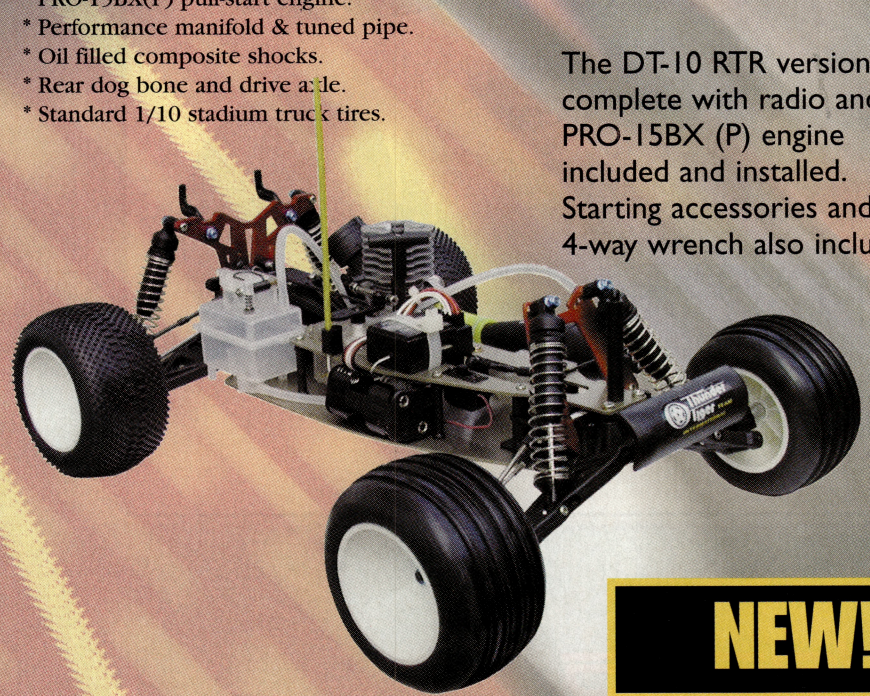
Specifications:

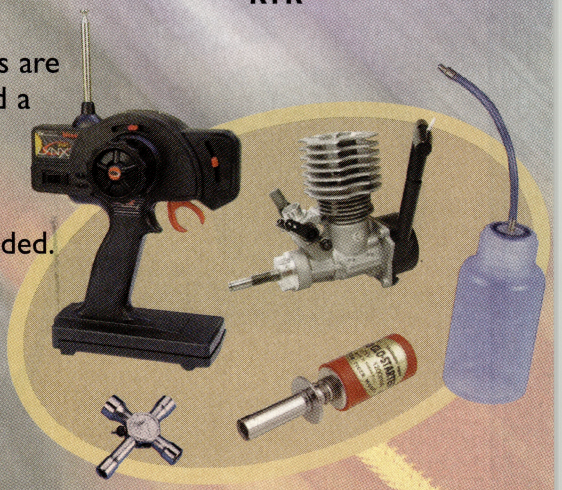
Length:	400mm
Width:	315mm
Height:	200mm
Wheelbase:	290mm
Weight:	1800g, dry

STREET
$189.99
ARTR

STREET
$249.99
RTR

The DT-10 RTR versions are complete with radio and a PRO-15BX (P) engine included and installed. Starting accessories and 4-way wrench also included.





NEW!

Thunder Tiger TEAM INTERNATIONAL

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



SSR

1/10TH 4WD NITRO RALLY CAR

STREET $214.99 ARTR

STREET $349.99 RTR

Specifications

Length:	390mm
Width:	260mm
Height:	160mm
Wheelbase:	275mm
Weight:	1800g, dry

Available either Almost-Ready-to-Roar (90% Assembled with Engine) or Ready-to-Roar (100% Assembled with Engine and Radio)

THE THUNDER TIGER SSR

In the tradition of the race track proven EB4, Thunder Tiger has released this quality 1/10th Scale 4WD rally car that gives an absolute maximum performance and durability for a meager minimum outlay of time and money.

Check out the features on this machine:

NEW!

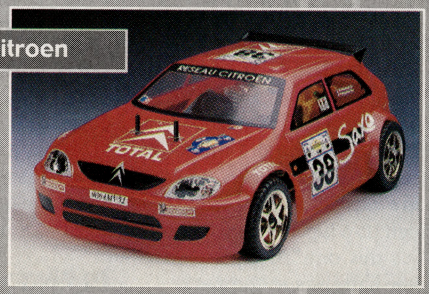
Peugeot



Subaru



Citroen



- 90% factory assembled.
- Three Lexan body styles:
  - Citroen Saxo
  - Peugeot 206
  - Subaru Impreza.
- Double wishbone suspension, front / rear.
- Oil filled composite shocks.
- Universal drive shaft, front.
- Dog bone and drive axle, center / rear.
- 2-speed transmission.
- Gear differential, front / rear.
- Single disc brake system.
- Sealed receiver box.
- PRO-15BX(P) pull-start engine.
- Performance manifold & tuned pipe.
- Rally tires and wheels.

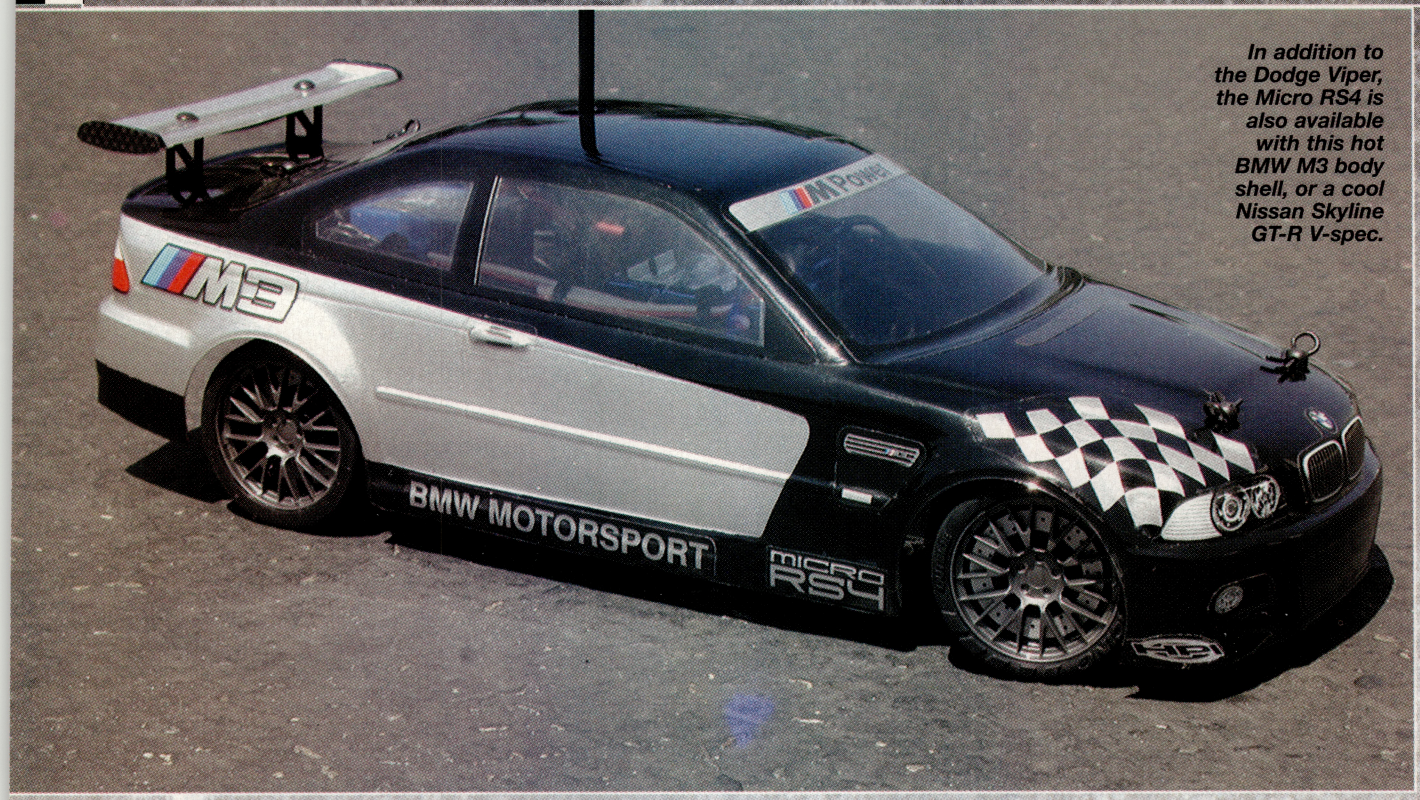
Distributed exclusively by Ace Hobby Distributors, Inc. 116 W. 19th ST, Higginsville, MO 64037
For a retailer near you, call (660) 584-7121or visit www.acehobby.com

Thunder Tiger TEAM INTERNATIONAL

First Test:

Micro-sized R/C is nothing new. Since the early '90s, there have been models ranging from motorized-Matchbox-machines to plastic-model-sized 1/24-scale, but HPI's new Micro RS4 is something else entirely. It's a fully detailed, high-performance 4WD touring sedan shrunk down to 1/18-scale, so it's small enough for basement or garage racing when the weather turns unfriendly, yet unlike most other micro-sized R/C, it's large and fast enough to work equally well outdoors when the sun reappears.

We were recently invited to HPI's Irvine, California, U.S. headquarters to view and drive the very first production Micro RS4s. Needless to say, we had been very excited about these cars since seeing pre-production prototypes at last year's Chicago hobby show, so the chance of being the first non-HPI people to drive them was, quite frankly, too good to pass up.



In addition to the Dodge Viper, the Micro RS4 is also available with this hot BMW M3 body shell, or a cool Nissan Skyline GT-R V-spec.

HPI Micro RS4

Just the right size

HPI's Marketing Manager, Kent Clausen, greeted us at the door and guided us up to the "inner sanctum" of R&D, where the finishing touches were being applied to the production Micro RS4. The first thing we realized was that 1/18-scale is also the most popular size among makers of scale die-cast car models. This was apparent when we mistakenly picked up a model of a Mercedes CLK that had been on the R&D technician's desk. "Uh, no," said the tech as he handed us a highly realistic-looking red Viper, "it's this one." Okay, so we're not the strongest batteries in the pack.

BODY BEAUTIFUL

Initially, there are three body styles you can choose from: a Dodge Viper, a BMW M3 and a Nissan Skyline GT-R Vspec. Just like those of 1/10-scale cars, the Micro RS4's bodies are molded of clear Lexan and must be painted from the inside. HPI has carried the quality of its larger bodies to these 1/18-scale versions, with crisp lines, plenty of detail and extensive graphics courtesy of high-quality vinyl decals. Each body comes with a racing wing and a set of three different plastic wing standoffs, which allow the angle of the wing to be altered to suit track conditions.

PLENTY OF ROOM FOR ELECTRONICS

Perhaps the greatest feature of the Micro RS4 is its ability to use full-sized radio equipment and electronics. With no need for specialized micro-sized equipment, it's much more affordable to get into HPI's micro because you can use what you likely already have in your arsenal. The production car we drove was fitted with a standard-sized budget servo (cheap and more than powerful enough for the Micro RS4), a full-sized HPI receiver and an LRP Quantum Reverse ESC. Kent explained that the size and placement of the ESC will depend on the body type. Taller sedan-style bodies such as the BMW and Skyline allow for a slightly larger ESC, which can be placed atop the chassis deck, while a lower body such as the Viper is slightly more restrictive (the ESC is mounted toward the rear of the chassis, where the Viper's "cabin" is located).

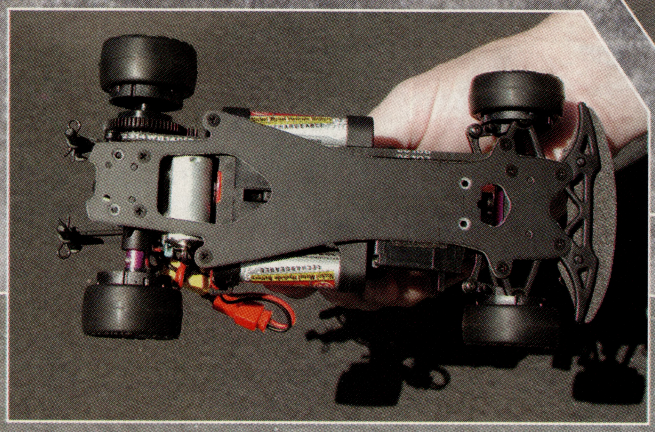
CHASSIS & DRIVETRAIN

The Micro RS4 chassis itself is simple and effective, with a lower plate made from FRP (fiber-reinforced plastic) and a molded-plastic upper deck. Suspension consists of upper and lower wishbones at the front end, and a rigid axle in back. Coil-springs provide damping for the front end, while the built-in flex of the lower chassis plate, coupled with a single coil-spring shock, handles rear damping.

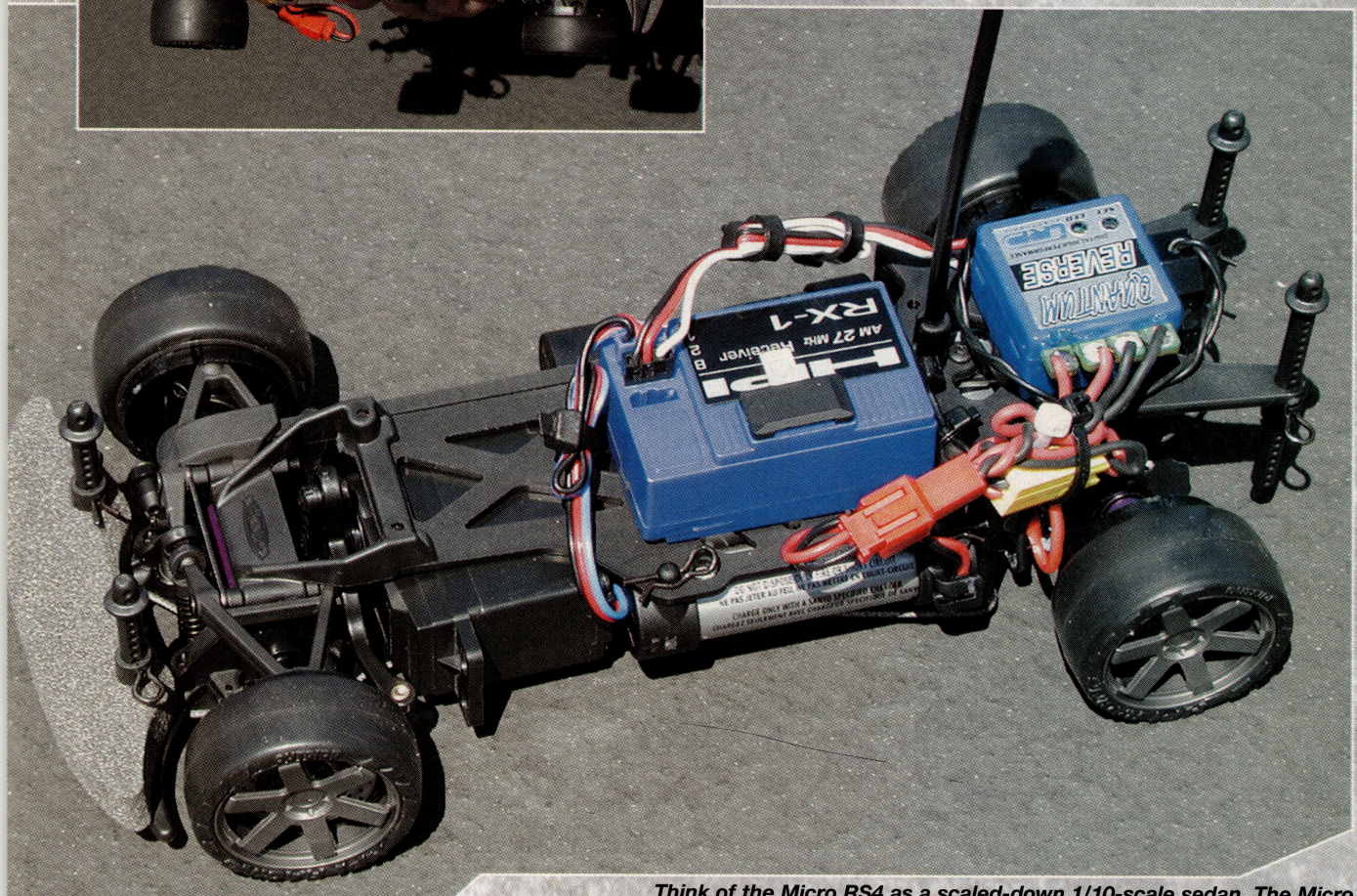
The 4WD system couldn't be simpler: the rear axle is directly driven by the motor, much in the same way as a 1/10-scale pan-car. A single belt runs from the rear axle to the front diff to make the Micro RS4 the only car in its category to have 4WD traction. In stock form, the car is equipped with simple gear differentials at both ends, but HPI already has plans to release ball diffs and a front one-way.



HPI determined that 1/18-scale is the ideal size for a micro-sized R/C car. They were right; the Micro RS4 works as well outdoors as it does indoors.



The Micro RS4's FRP (fiber-reinforced plastic) lower chassis plate also serves as the car's rear suspension.



Think of the Micro RS4 as a scaled-down 1/10-scale sedan. The Micro RS4 is the only car in its category to offer belt-driven 4WD for unmatched traction.

HPI Micro RS4

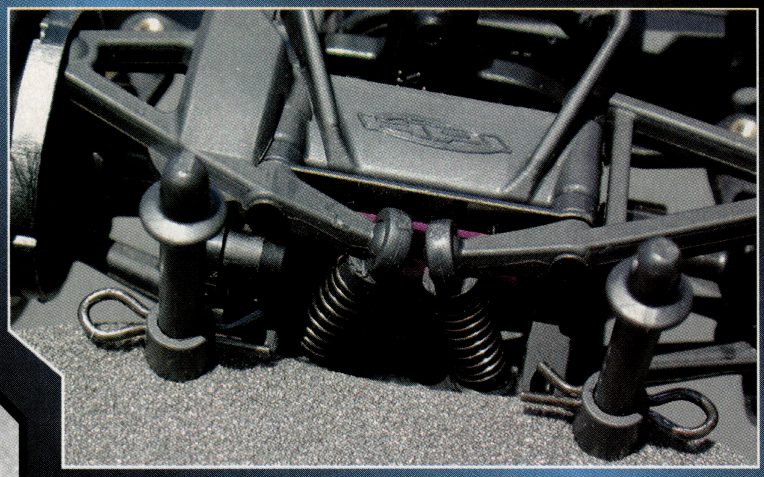




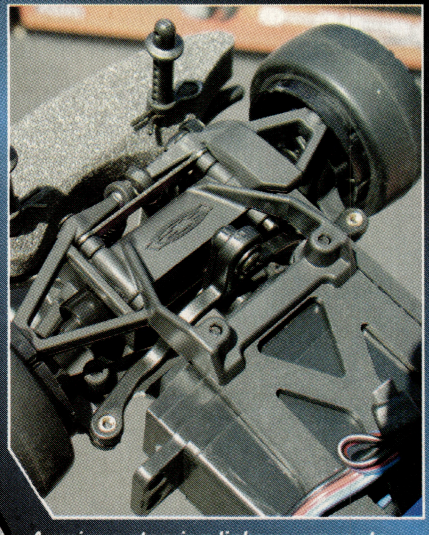
Each Micro RS4 comes with three different sets of wheels. The outer wheel section slides over the inner section, and you can select different widths by choosing which slots to engage. Note the faux brake disc for added realism.

PLENTY OF POWER

The battery requirements of the Micro RS4 allow for quite a bit of flexibility. The kit includes an innovative two-piece battery tray (we've been told this tray is designer Akira Kogawa's pride and joy) that can accommodate four AA-sized cells (rechargeable NiCad cells are definitely the way to go). The battery tray slides through the center of the chassis, where it gets secured to the top chassis deck with body clips. HPI supplies a plug harness that can be soldered directly to your ESC (an ESC with solder-on leads makes this much more convenient). Should you choose, alternate battery configurations can be used. For example, HPI showed us a second car that had been fitted with a five-cell 600mAH battery pack from a 1/8-scale gas car. As long as the pack fits the chassis and is compatible with the ESC, it's anything goes.



Molded upper and lower wishbones, damped by coil spring shocks, comprise the front suspension. The spring dampers can be coated with a thick grease to provide additional damping.



A unique steering linkage prevents bump-steer as the suspension moves up and down. The Micro RS4's clever chassis design allows for the use of standard-sized servos; no special gear is needed.



HPI's Marketing Manager and former ROAR 1/12-scale champ, Kent Clausen, pilots the Micro RS4 through a makeshift track in the HPI parking lot. General Manager Shawn Ireland (far right) was overheard telling Kent that "1982 was a long time ago," in reference to Kent's driving skill.



This photo shows the scale of the Micro RS4, which is parked next to a transmitter.

The stock motor is a 60-turn sealed-endbell unit that provides decent speed and extended run times (as high as 30 minutes or more, depending on the batteries used). HPI also allowed us to test a Micro RS4 that had been equipped with an optional 45-turn modified motor. Which version did we prefer? If you need to ask, you haven't been reading this mag for long!

TO THE TEST TRACK

The beauty of micro-sized R/C cars is that any flat area can become a track. Kent used small rubber cones to outline a course in front of the HPI building, then handed us the radio to the stock Micro RS4. Right away, we noticed that the slightly larger size of the Micro RS4 makes it more stable than other cars in its category. This, coupled with the car's 4WD system, provides so much traction that anyone could get the hang of driving after only a few laps. We particularly liked how well the car held a straight course—a source of minor irritation with some other micro cars.

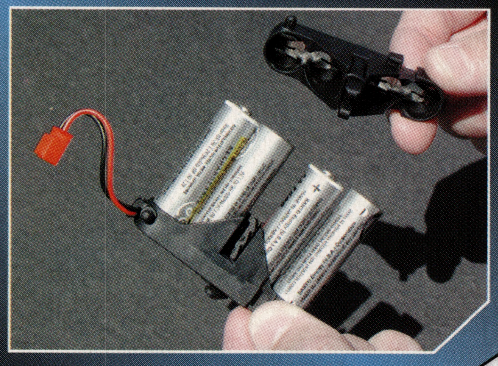
Steering feel will be familiar to anyone who has driven a 4WD sedan; it's remarkable how much the Micro RS4 drives like its larger relatives. Turn-in is good with a bit of stability enhancing understeer, yet there's enough power to slide the rear of the car at corner exit. Top speed is decent, but the overall sensation of speed will depend on the size of the track. If you decide to build a track that has a 60-foot straight, expect the car to feel slow. But on a track that's more suited to the Micro RS4's size, the car will feel plenty quick.

Next came the modified car. HPI General Manager Shawn Ireland made a couple of quick passes to ensure that the radio had been properly set, and passed the controls to us. Wow! What a rocketship! The little BMW felt as fast as a 1/10-scale stock sedan. What's more, the extra power served to highlight the excellent handling of the Micro RS4. Even with a significant boost in speed and acceleration, the car remained easy to drive, and if anything, it felt as if it could handle even more power.

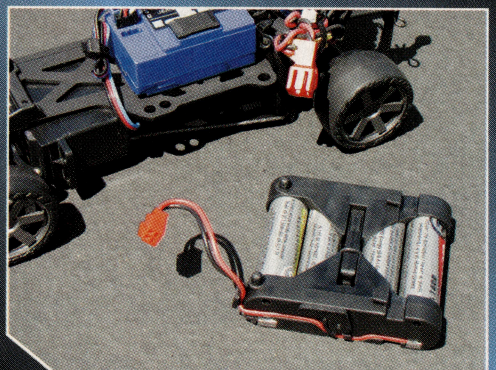
Finally, we went inside to run the stock Micro RS4 on the polished concrete floor of the HPI warehouse. Kent especially wanted us to try this because he felt the slippery surface would showcase the 4WD system. Driving the Micro RS4 on concrete opens up a whole new element of fun. We pitched the Viper into the turns with the back end hanging way out. Just as the car looked as if it would spin, we grabbed full throttle and the 4WD pulled the car from the slide and set it straight again. And as Kent had promised, the smaller confines of the warehouse made the stock Micro RS4 feel almost too fast. The modified car would have simply been too powerful for so small an area.

MICRO OR MAXI?

Micro R/C certainly has its place within the hobby. Until now, most models have limited themselves to novelty status. The reasons for this include size (some micro models are so small that they only work on ultra-flat surfaces) and expense (most models require specialized micro-electronics to operate). The Micro RS4 breaks from the novelty category by offering superior performance, the benefits of 4WD and the ability to use electronics that most of us already own. Add to this typical HPI quality and support, plus the inevitability of an extensive body and hop-up catalogue, and you have the makings for a complete new racing experience. ◆



The unique two-piece design of the battery holder locks together to ensure proper contact with the cells' tabs.



This special batter holder accommodates four AA-sized cells, and slips neatly into the Micro RS4's chassis.

SOURCE

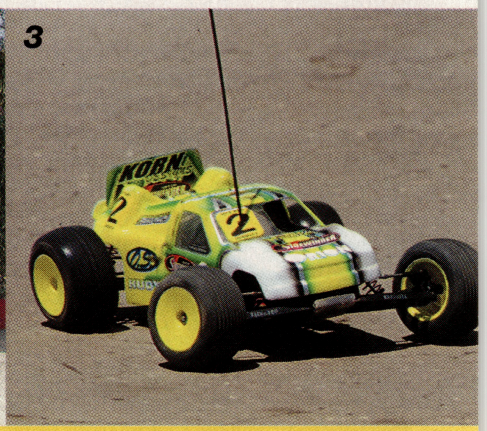
HPI, 15321 Barranca Pkwy., Irvine, CA 92618 • phone (949) 753-1099; fax (949) 753-1098

3rd Annual Hot Rod Hobbies/ R/C Car Off-Road Shootout

This race is getting out of control! What began three years ago as a "just for fun" event has now become one of the largest off-road races in the country. Heck, maybe even the World! Perhaps it's because the weather is always great, or because average club racers can hobnob with the world's best drivers. Or maybe it's the lure of the giveaway prizes (which this year included great stuff from Associated, Team Losi, Reedy, JR Racing and Novak), or the free tires and motor that are included with each novice and sportsman entry. Whatever the cause, the Annual Hot Rod Hobbies/*R/C Car* Off-Road Shootout has grown in just three years from 140 to nearly 400 entries. If you had believed that off-road racing was on a decline, all you had to do was show up in Saugus, California, on the weekend of July 13, 14 and 15. Your mind would have been changed.









1. Team Losi's Adam Drake top-qualified in the Expert Gas Truck class using his Losi Triple-X NT. After losing the main to teammate Travis Amezcua, Drake confided that he chose the wrong tires for the 45-minute race.

2. Team Losi's Matt Francis relaxes trackside.

3. When he actually races on a regular basis, Team Losi's Jimmy Babcock can run with the best. Unfortunately, Jimmy is so busy running the Hot Rod Hobbies shop and club races, he rarely gets any wheel-time. Jimmy has been running a lot of gas truck lately, so look for him to slowly make his way into the A-main.

4. Following the leader over the big triple.

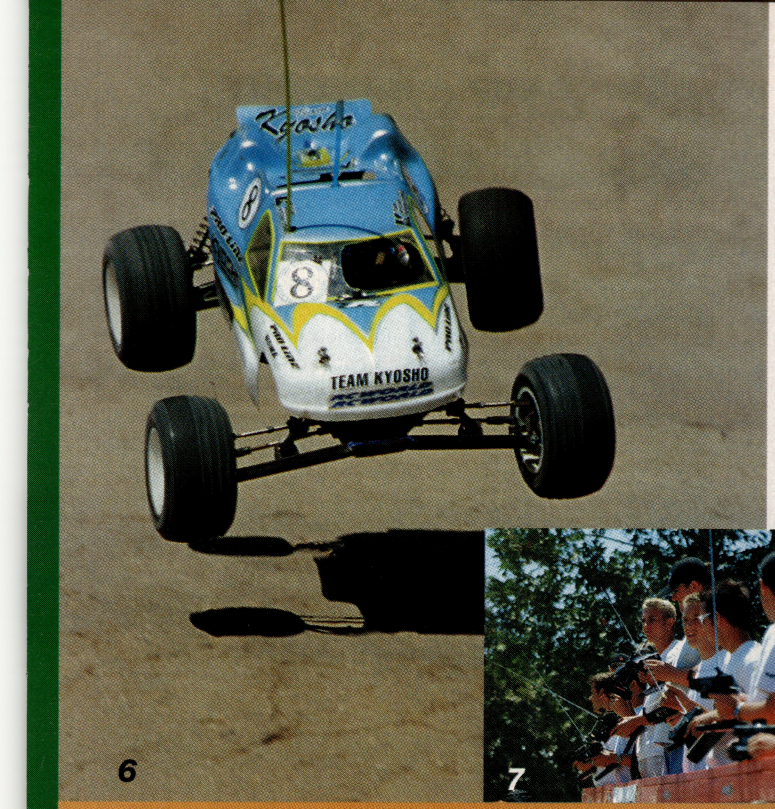
5. Here's the wrong way to enter the first turn. Note the guy way up on top of the berm; do you think he forgot to shut off? How about the guy on top of someone else's buggy? Clue: he won't win by riding on another car's hood!



Off-road *fun* in the SoCal sun

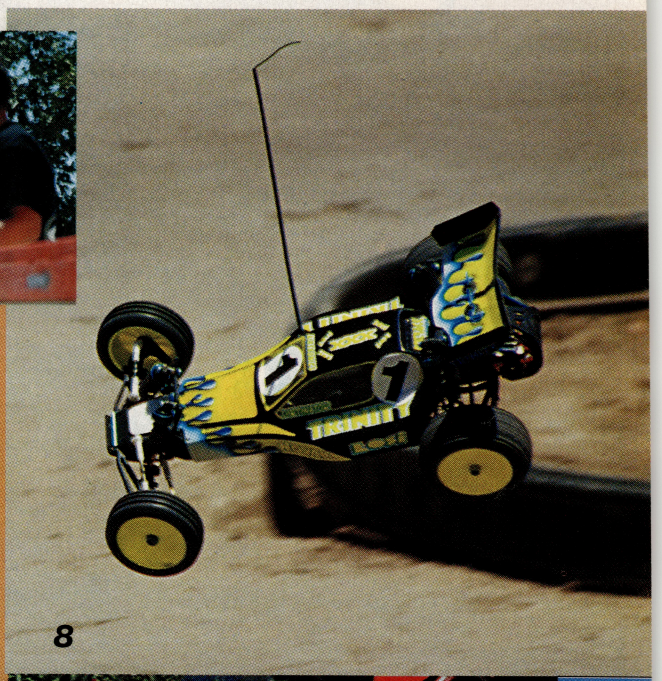
Recipe for a successful program

Last year, the Shootout schedule called for three rounds of qualifying on Saturday, with a fourth round and the mains on Sunday. With over 380 entries, the racing ran well into the wee hours of the evening. As a result, some drivers felt not only tired, but at a disadvantage if their heat was run at night under rather poor lighting and on a cold track. This year, the event was extended to three days, with two rounds of qualifying on Friday, two rounds on Saturday, and the mains on Sunday. Although we aren't advocates of three-day races (some of us do have to work now and then), we do agree that when there are this many entries, it's the only way to go. Thanks to the extra day and race director Jimmy Babcock's strict adherence to the schedule, all of the racing action finished up well before the sun went down.



6

7



8

6. Team Kyosho's Andy Smolnik downsides a small tabletop during the Expert Gas Truck A-main. Andy and the rest of the Kyosho drivers (Greg Degani and Jeremy Kortz) were a major threat during the 45-minute main.

7. Expert Stock Buggy drivers await the start of the A-main.

8. Brian Kinwald is fast in every class he races, but in 2WD buggy, he is virtually unbeatable. Brian again dominated in the 2WD Mod class at the Shootout.

9. High flying: Jimmy Babcock leads the field over the big triple during Expert Gas Truck qualifying. Some racers opted for the security of going double-single, while other racers threw caution to the wind (quite literally) and went for the triple. Which was faster? The line that didn't make you crash!



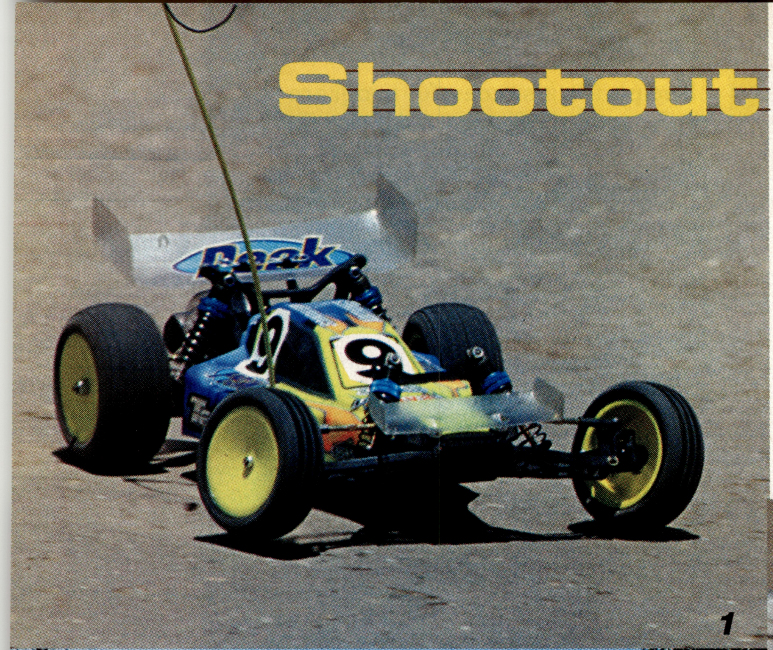
9

Shootout

LOOKING FOR A HANDOUT

Of the nearly 400 entries at this year's Shootout, well over half of the racers chose to compete in the novice and sportsman classes. And for good reason; for a $40 entry fee, each racer received a full set of Team Losi blue Dirt Spec tires, a hot Reedy MVP stock motor and a commemorative Shootout T-shirt—what a bargain!

All of the racers we spoke with said that the Losi Spec tires actually worked better as they became worn; prior to the race, some drivers were seen "scuffing in" their new Spec tires on the pavement. Although the overall traction of these tires isn't as high as with some of the more exotic rubber compounds used in the expert classes, it didn't matter, because everyone was on equal footing. More events should adopt the spec-tire rule, as it makes racing much more fair and, most importantly, cheaper.



1



2



3



4



5

1. Travis "Peanut" Amezcua is having his best year ever. Check out the funky front wing on Peanut's Losi Triple-X buggy. The wing is actually available from Losi, and helps high-speed steering by pressing down on the front wheels.

2. Concentration on the drivers' stand. The best drivers in the world ready themselves for the start of the 4WD A-main. Brian Kinwald (center) stole the show.

3. Now here's a clean start. Andy Smolnik's Kyosho buggy leads the field through the first turn during one of the Expert Stock Buggy A-mains. There's a reason they call these guys experts!

4. Peanut power: Travis Amezcua drove flawlessly for 45-minutes to win the Expert Gas Truck A-main event. Out of over 100 laps, we saw Peanut tap a board once; he never needed the assistance of a turn-marshal. That's how to win races, boys and girls!

5. Thirteen-year-old Mike Grigorev became Matt Francis' best buddy for the weekend. Matt believed that Mike was a good luck charm, as Matt turned his fastest times whenever Mike placed his car on the track.



6

6. Mile-high club: the huge triple on the back section of the Hot Rod track was by far the most challenging obstacle. Cars and trucks were thrown several feet into the air, and if the wind was blowing, you could very well end up in the parking lot beyond the chain-link fence.

7. Sacramento's own Philip Atondo leads Brian Kinwald through the S-section during one of the 2WD Mod A-mains.

8. Carnage in the Expert Gas Truck B-main. HPI's Atsushi Hara (black Dodge truck, foreground) escapes disaster with a liberal application of throttle.

9. Current sedan world champ Atsushi Hara, together with HPI owner Tatsuro Watanabe, came out to test an HPI Nitro Rush prototype. The truck looked good enough to keep Hara in the top ten up until the final round of qualifying. He ended up mid-pack in the B-main.

10. Andy Smolnik top-qualified the Expert Stock Buggy class with his Kyosho Ultima RB. The Kyosho team is making a serious effort to dethrone the incumbent Losi and Associated vehicles. The Ultimas look better and better at each race.



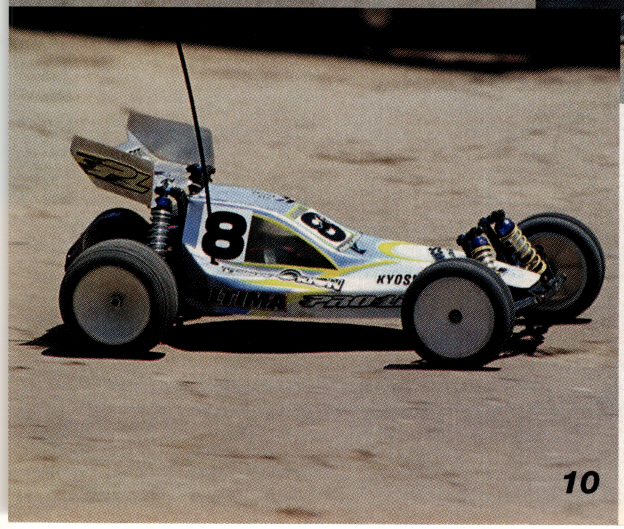
7



8

9





10

ELIMINATING THE ROCKET ROUND

At regular club races, where there may be only two or three heats of qualifying for each class, the condition of the track has little effect on the outcome of qualifying. At big races, where there are dozens of heats which can run the course of several days, track conditions can change so much that a "rocket round" can occur.

A rocket round is when the track conditions improve for a short period of time—it could be after a light rain, or when the dirt becomes fully dry and "grooved—and produce lap times that are consistently higher than those of the other rounds. If a driver had a mechanical problem, or crashed, during the rocket round, his hopes of making the A-main would be dashed—even if he had been the TQ during the prior rounds. (*cont'd*)

Shootout



1



WHO THE HECK IS PHILLIP ATONDO?

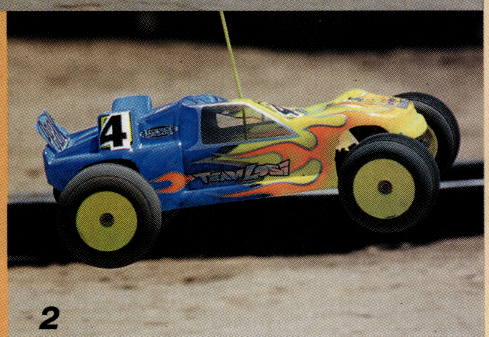
When some guy we've never heard of before makes not one, but three A-mains against the best factory drivers, we need to do some investigating. As it turns out, 24-year-old Phillip Atondo turned to R/C racing after a severe ankle injury ended his motocross career. Phillip, who hails from Yuba City, California, decided to look for an activity that was slightly less risky, and found R/C after picking up a magazine at a local newsstand. Phillip headed straight for the closest track, which happened to be Capitol City R/C in Sacramento, where he met Matt and Mark Francis, who showed Phillip the ropes. Not long after, Phillip became fast enough not only to give the Francis' some trouble on the track, but to secure sponsorship from Team Losi, Trinity, Lunsford and Novak (for which he credits Matt Francis). Phillip's most notable racing accomplishments include finishing sixth overall in 2WD mod at the recent ROAR nats, and placing eighth in mod truck and mod buggy and ninth in gas truck at this year's Hot Rod Hobbies/*R/C Car* Off-Road Shootout. Look out for this guy!



ON THE RISE

Fifteen-year-old Dustin Evans made the trip from Aurora, Colorado, to sunny Southern California just to race at the Shootout. It's a safe bet to say that the trip was well worth Dustin's while, as he won the Expert Stock Buggy class. He also made the A-main in the extremely tough (and some say unmerciful) 2WD Modified class, where he diced with the likes of Brian Kinwald and Matt Francis, and eventually ended in seventh overall.

This accomplishment was all the more impressive as Dustin has been racing only for about five years, and said that the Shootout was his first real "big race." Dustin runs a Team Losi Triple-X buggy (what else he uses, we don't know—he left everything else blank on his tech sheet), and his home track is MHOR in Aurora. Look for Dustin to attend more big races, and we're sure he'll attract the eyes of many sponsors. We just hope he learns to fill out those sponsor sheets (it must've been the excitement)!



2

To combat this, the organizers of the Shootout used a points system to determine qualifying order. Instead of using the quickest times from all the rounds, each driver was assigned points based on his performance in each single round. For example: the fastest driver in the second round of the 2WD Modified class received a perfect 100 points. The second-fastest received 98, while third received 97 (the fastest driver enjoyed a two point bonus). After all of the qualifying rounds had been completed, the driver who had the highest points (the best two of the four rounds were used) would sit on the pole for the mains. Actual lap times came into play only as a tie-breaker should two drivers be tied in points.



3

1. Team Losi's Brian Dunbar is running Fantom motors and SMC batteries and has never looked faster. Brian was runner-up at the '97 Off-Road Worlds in Pomona, and should be a serious contender at the upcoming Worlds in South Africa.

2. Travis Amezcua's Team Losi Triple-XT shows battle scars during qualifying.

3. Just as Brian Kinwald has dominated 2WD this year, Matt Francis has been equally successful in Mod Truck. Matt's been so good this year, Losi has rewarded him with his own signature truck: the Matt Francis Edition Triple-XT, in commemoration of winning the ROAR championship.



2WD MODIFIED

Fin.	Qual.	Name	Chassis	Motor	Battery	Servo	ESC	Gearing	Front tire/insert	Rear tire/insert
1	1	Brian Kinwald	Triple-X	Trinity 10x2	Trinity 3000	Airt. 452	Novak C2	23/92 (BK)	Losi gold 7202/stock	Losi BK Bar red/Trinitiy B2
2	4	Travis Amezcua	Triple-X	Peak 11x2	Peak Powerflo	Airt. 357	Novak C2	20/78	Losi silver 7202/Losi firm	Losi BK Bar red/PL 2-stage
3	8	Dave Montgomery	Triple-X	Orion 11x2	Team Orion	Airt. 257	LRP V7.1	21/78	Losi Widebody gold/stock	Losi BK Bar red/Trinity B2
4	2	Matt Francis	Triple-X	Trinity 10x2	Trinity 3000	Airtronics	LRP V7.1	22/92 (BK)	Losi 4-rib gold/stock	Losi X-2000 silver/Trinity B2
5	3	Brian Dunbar	Triple-X	Fantom 11x2	SMC	Airtronics	LRP V7.1	21/78	Losi 4-rib gold/stock	Losi Sprints gold/Trinity B2



4WD MODIFIED

1	1	Brian Kinwald	XX-4	Trinity 9x2	Trinity 3000	Airt. 452	Novak C2	21/100 (BK)	Losi Taper Pin red/stock	Losi BK Bar red/Trinitiy B2
2	4	Adam" The Drake"	XX-4	Trinity 9x2	Trinity 3000	Airt. 755	Novak C2	18/84	Losi Blockhead silver/stock	Losi BK Bar red/Trinitiy B2
3	2	Brian Dunbar	XX-4	Fantom 9x2	SMC	Airtronics	LRP V7.1	17/86	Losi Blockhead silver/stock	Losi Sprint red/Trinity B2
4	3	Travis Amezcua	XX-4	Peak 10x2	Peak Powerflo	Airt. 357	Novak C2	19/84	Losi Blockhead silver/Losi firm	Losi BK Bar red/PL 2-stage
5	5	Chris Bridgewater	XX-4	Orion 11x2	Orion 2400	Airt. 357	LRP V7.1	19/84	Losi Taper Pin red/Trinity B1	Losi Taper Pin red/Trinity B1



TRUCK MODIFIED

1	1	Matt Francis	Triple-XT	Trinity 10x2	Trintiy 3000	Airtronics	LRP V7.1	22/92	Losi 8-rib silver/stock	Losi Taper Pin red/Trinity
2	6	Dave Montgomery	Triple-XT	Orion 10x1	Team Orion	Airt. 257	LRP V7.1	17/86	Losi 8-rib silver/Losi firm	Losi Taper Pin red/Trinity B2
3	2	Travis Amezcua	Triple-XT	Peak 10x2	Peak Powerflo	Airt. 357	Novak C2	18/88	Losi 8-rib silver/Losi firm	Losi Taper Pin red/PL 2-stage
4	3	Brian Dunbar	Triple-XT	Fantom 10x2	SMC	Airtronics	LRP V7.1	17/86	Losi 8-rib silver/stock	Losi Taper Pin red/stock
5	4	Ryan Cavalieri	Triple-XT	Trinity 10x4	Trinity 3000	Airt. 357	Novak C2	20/100 (BK)	Losi 8-rib silver/stock	Losi Taper Pin red/stock



SPORTSMAN STOCK BUGGY

1	1	Ryan Dunford	Triple-X	Reedy handout	Pro Match 3000	KO PS2000	Novak Cyclone	21/82	Team Losi blue handout	Team Losi blue handout
2	3	Kyle Stallings	Triple-X		Integy 2400	Airt. 257	Novak Cyclone	21/82		
3	2	Mike Truhe	Triple-X		Trinity	Airt. 357	Novak Cyclione	22/84		
4	4	Lee Caldwell	Triple-X		Trinity	Airtronics	Novak Cyclone	20/78		
5	6	Doug Nielsen	Triple-X		Pro Match 2000	Airt. 737	Novak Cyclone	21/82		



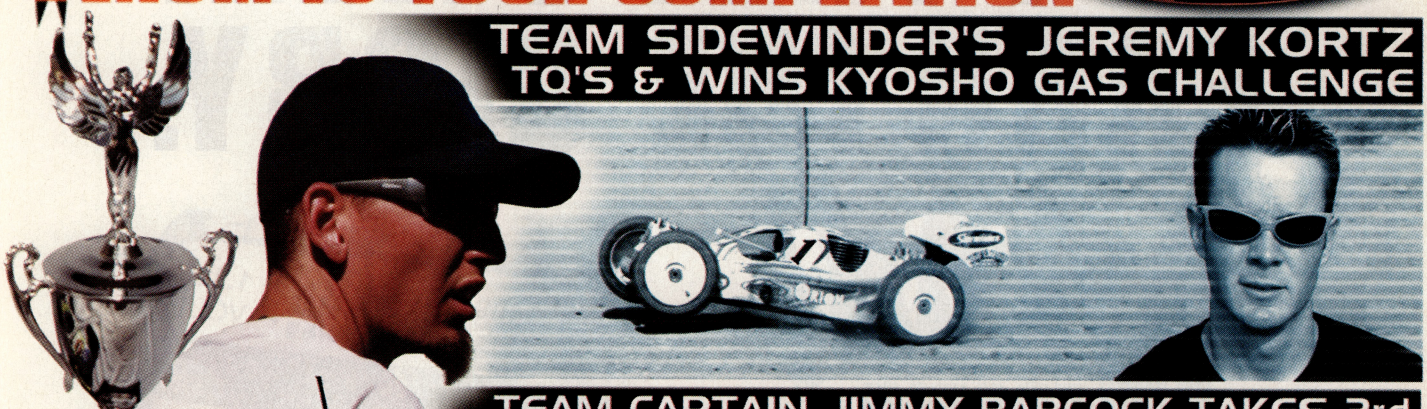
SPORTSMAN STOCK TRUCK

1	1	Ryan Dunford	Triple-XT	Reedy handout	Pro Match 3000	Airt. 258	Novak Cyclone	17/86	Team Losi blue handout	Team Losi blue handout
2	2	Kyle Stallings	Triple-XT		Integy 2400	Airt. 732	Novak Cyclone	18/90		
3	3	Theo Captanis	Triple-XT		Trinity 2400	Airt. 357	LRP V7.1	19/88		
4	5	Sean Cahill Jr.	Assoc. T3		Ballistic	Hitec 525MG	Tekin G-10	18/87		
5	7	Doug Nielsen	Triple-XT		Pro Match 2400	Airt. 258	Novak Cyclone	17/86		

VENOM TO YOUR COMPETITION

TEAM SIDEWINDER HIGH PERFORMANCE RACING FUEL

TEAM SIDEWINDER'S JEREMY KORTZ TQ'S & WINS KYOSHO GAS CHALLENGE



TEAM CAPTAIN JIMMY BABCOCK TAKES 3rd AT NORRCA NATIONALS & KYOSHO CHALLENGE

Find out what the top drivers in the world are rapidly learning, "Get Sidewinder in your pit or get bit!" Sidewinder is quickly becoming the fuel of choice for professional drivers and Backyard Bashers as well. Hardcore Race Team drivers, Marty Korn and Bill Hagen the same drivers that dominated the T-Maxx Shootout, have made Sidewinder their official team fuel. Sidewinder is the perfect blend of Power and Protection giving you complete Performance that you can't find in any other fuel. The reason only Sidewinder can offer you both Power and Protection is our exclusive CP-O7® additive which dramatically reduces the coefficient of friction, reducing wear while allowing your engine to obtain its maximum horsepower. Our groundbreaking accomplishments in technology and performance have enabled us to engineer a High Performance fuel that can give you the competitive edge...

MORGAN FUEL / www.morganfuel.com / 1-800-633-7556 / Enterprise, AL 36330



NOVICE

Fin.	Qual.	Name	Chassis	Motor	Battery	Servo	ESC	Gearing	Front tire/insert	Rear tire/insert
1	2	Glen Aures	Triple-X	Reedy handout	Trinity	Airtronics	Novak Cyclone	21/81	Team Losi blue handout	Team Losi blue handout
2	1	Juan Espinoza	Assoc.T3		Integy 2400	Hitec 925	LRP V7.1	18/87		
3	4	Tom Kistler	Assoc.T3		Sanyo 2400	Airt. 258	Novak Cyclone	17/87		
4	6	Jonathan Ahumada	Triple-X		Integy 2400	Airt. 258	Novak Cyclone	21/87		
5	3	Omar Espinoza	Triple-X		Integy 2400	Hitec 925	Novak C2	21/82		



EXPERT STOCK CAR

1	6	Dustin Evans	Triple-X	-	-	-	-	-	-	-
2	1	Andy Smolnik	Kyosho RB	Orion Chrome	Orion 2400	Airtronics	LRP V6	24/81	Pro-Line/Pro-Line	Pro-Line/Pro-Line
3	8	Brett Newman	Triple-X	Trinity P2K	Trinity	Airt. 158	LRP V7.1	27/92	Panther Mult-rib/stock	-
4	2	Charlie Albrecht	Triple-X	Peak	Peak Powerflo	Airtronics	Novak Atom	21/78	Losi 4-rib silver/stock	Losi Taper Pin red/stock
5	5	Greg Degani	Kyosho RB	Orion Chrome	Team Orion	Futaba 9450	LRP V7.1	25/81	Pro-Line Blade M2/stock	Pro-Line Holeshot M2/stock



EXPERT STOCK TRUCK

1	1	Doug E. Scripture	Triple-XT	Orion Chrome	Orion 2400	Airtronics	LRP V7.1	21/88	Losi 8-rib silver/stock	Losi Taper Pin red/stock
2	3	Charlie Albrecht	Triple-XT	Peak	Peak Powerflo	Airtronics	Novak Atom	19/86	Losi 8-rib silver/stock	Losi Taper Pin red/stock
3	2	Jeremy Felles	Triple-XT	Banzai	Peak Powerflo	Airtronics	Novak Cyclone	20/90	Losi Taper Pin red/stock	Losi Taper Pin red/stock
4	6	Brandon Beckering	-	-	-	-	-	-	-	-
5	5	Bill Hagen	Assoc.T3	Banzai P2K	Ballistic	Airt. 257	Novak Cyclone	20/87	Losi 8-rib silver/stock	Losi Taper Pin red/stock



SPORTSMAN GAS TRUCK

Qual.	Fin.	Driver	Truck	Engine	Pipe	Th. servo	St. servo	Gearing	Front tire/insert	Rear tire/insert
1	1	Theo Captanis	Triple-XNT	Trinity/Picco	Trinity	Airt. 737	Airt. 358	Stock	Team Losi blue handout	Team Losi blue handout
2	7	Glen Gregorio	RC10GT	Mugen MT12	Associated	Futaba 3003	Airt. 358	15/66		
3	8	Adrian Redding	Triple-XNT	O.S. CV	Losi	Airt. 358	Airt. 358	Stock		
4	9	Sean Cahill	RC10GT	O.S. CV-R	Associated	Hitec 525MG	Hitec 525MG	15/66		
5	5	Brett Crane	Triple-XNT	O.S. CV-R	Associated	Airt. 358	Airt. 357	Stock		



EXPERT GAS TRUCK

1	3	Travis Amezcua	Triple-XNT	Trinity/Picco	Associated	Airt. 737	Airt. 357	18/51	Losi 8-rib silver/Losi firm	Losi Taper Pin red/PL 2-stage
2	1	Adam "The Drake"	Triple-XNT	Trinity/Picco	Associated	Airt. 755	Airt. 755	17/51	Losi 8-rib silver/Losi firm	Losi Taper Pin red/Losi firm
3	4	Jeremy Kortz	Kyosho ST	O.S. CV-R	Kyosho	JR-Racing	JR-Racing	17/67	Pro-Line Edge M2/stock	Pro-Line Holeshot M2/stock
4	2	Jared Tebo	RC10GT	Mugen MT12*	O'Donnell	Airt. 451	Airt. 452	15/66	Pro-Line Edge M2/PL white	Pro-Line Stubbie T/PL 2-stage
5	5	Marty Korn	RC10GT	Mugen MT12	Associated	Airt. 552	Airt. 358	15/66	Losi 8-rib silver/stock	Pro-Line Holeshot M2/stock

BUY THE POWER. EARN THE GLORY.

Spyked! racing



There is a list a mile long of motors, batteries, and other hop-ups you can buy. But if you can't drive, you'll never make the "A". Practice, patience, and quality equipment is necessary.

Start your racing career with enough power to get you through Stock and make runtime with a hot wind in Mod.

Grab a couple of Spyked's Powers GT3000R packs. Then hit the track and start practicing. You can always buy stuff with someone's name or picture on it, but at some point you have to start earning your own glory.

Spyked Racing, Inc.
www.spyked.com • 866-676-5541


You're looking at one of the most-raced radios on the planet.
Why? Simply because it's got what racers need.
For starters, the XR3's FM modulation and sensitive, highly selective receiver put you in control and keep you there. And once you've experienced using its digital trims, you'll never consider settling for anything less.
Next, factor in 3-model memory, 3 channels, race-adjustable brake and steering rates, adjustable endpoints plus subtrim, and there's no doubt why it's a winner.
Finally, just to sweeten the deal, you can now get your XR3 in a new, race-oriented configuration—with a single, high torque, high-precision steering servo. All for around 170 bucks.*
So speed on down to your local shop or racetrack today and see what you've been missing!
* At participating dealers.
JR RACING
DIRECT TRIM DISPLAY
ADVANCED TECHNOLOGY RACING SYSTEM
ENTER
MODE
CHANNEL
CLEAR
CREASE
DECREASE
JR RACING
FM
3 CHANNEL, 3 MODEL MEMORY FM COMPUTER RACING SYSTEM
XR3
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 dealer, call toll-free 877-504-0233.



The Golden Age of Rally Returns!

There will always be a never-ending debate as to which class of drivers are the kings of motorsport. Some will argue that it is the Formula 1 driver, a man who is subjected to forces many thought were humanly impossible to withstand, in a class where a few hundredths of a second can mean victory or finishing twenty-fourth! Others will tell you that it is the NASCAR driver, a man whose knowledge of setup and drafting are integral parts in the equation for success. There are those who feel that it is the top fuel driver, who tames insane amounts of horsepower to catapult himself down a concrete canyon. We could go on all day listing reasons for just about every class of racing (well, everything except lawn mower racing—unless they leave the blades on, in which case they shoot strait to the top of the list.) But in our opinion there is only one true king: the World Rally driver.

For those of you unfamiliar with the class dominated by 400-plus h.p. cars like the Subaru WRX, the Mitsubishi Lancer Evo VI and the Peugeot 206, here is the best analogy we can think of. Have your best friend find a loose gravel road that is no wider than your car. Make sure that there is a sheer rock-faced mountain on one side and a 300-foot drop on the other. Oh yeah, make sure he has a phenomenal attention to detail and can take good notes about the road. Now, get in your car, start a stopwatch, and take off up the road while your friend reads back his notes and tells you when to turn. Oh, and one more thing: try to keep your speed between 60 and 100 mph, and do it in the rain, snow, dark and any combination thereof. It is these men who defy all that we once thought was impossible. The scary thing is that these men are tame compared to the forefathers of the sport. In those early days there was no carbon fiber or sequential gearboxes. There were only manual transmissions and 800 to 1000 h.p. beasts barreling down country roads we would be afraid to drive at 10 mph. Rally is an increasing popular segment of the R/C community and Tamiya has paid tribute to the sport by re-releasing its beautifully detailed Lancia 037 rally car.

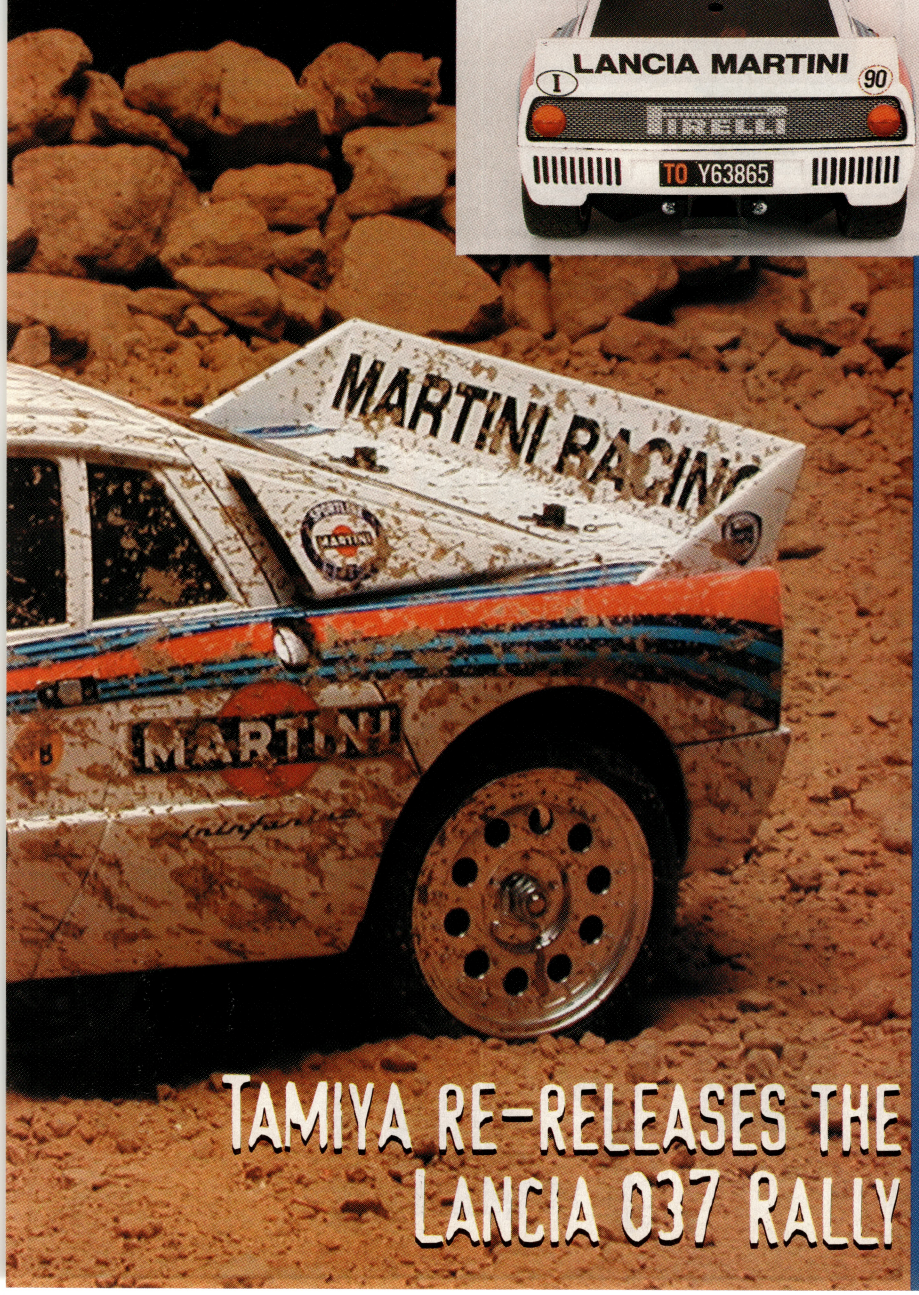
Things you'll need

- Radio gear
- Electronic Speed Controller (recommended, but not necessary)
- Paint for body
- CA for tires
- Six-cell battery pack
- Battery charger
- 8 AA batteries for radio

Equipment Used

- JR XR3
- Multiplex profi speed mcV2 servo
- Trinity 3000mAh Sport pack





TAMIYA RE-RELEASES THE LANCIA 037 RALLY

HISTORY IN A BOX

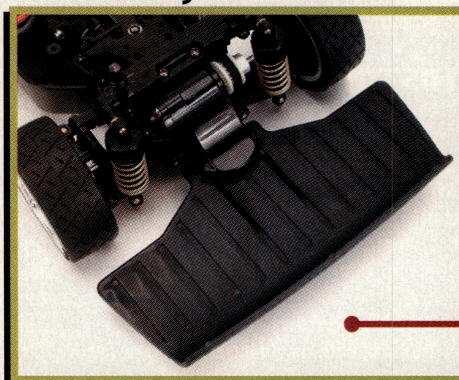
Lancia developed the 037 in 1982 in collaboration with Abarth and Pininfarina. Based on the Lancia Monte Carlo, the 037 was modified to fit an enlarged engine and stiffened significantly to withstand the grueling conditions of the WRC. In its first year it boasted a paltry 205 bhp but over the next five years the subsequent versions gained gobs of horsepower and better performance.

Much like its original counterpart, Tamiya has chosen to base its version of the 037 on their own proven TA03R-S. The RS is the short wheelbase version of the TA03. While the 03 has a wheelbase of 257mm, the RS is shortened to 237mm by using a different tub chassis and shorter belt. Other than that it retains all the great features of the regular '03. Though it has been around for several years, the TA03 continues to be a very capable chassis, and is first in its class for providing R/C enthusiasts with both durability and reliability. Power from the mid mounted motor is transferred to the ground through a single belt 4WD system that turns two beefy and very reliable gear diffs front and rear. Suspension is handled through two sets of oil filled shocks. Make sure you note that the front shock bodies are much shorter than the rear on this kit, so don't switch them around or the car will blow up—just kidding.

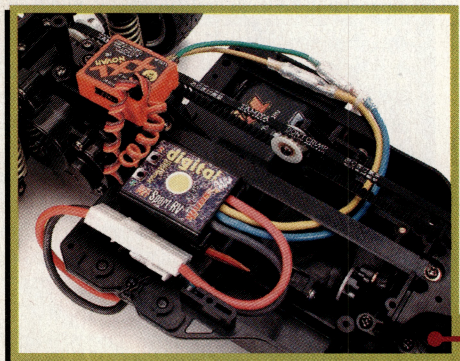
Like all other Tamiya kits, the instructions are very detailed and easy to follow. There are a few areas where we would have liked to see better notation of part orientation, and when multiple parts need to be built using the same step. If you haven't built a Tamiya kit, you may find yourself getting halfway through the instructions only to realize you needed to build two gear diffs in step number one (of course we didn't do this, um, a friend of mine did it, but we told him we wouldn't mention his name).

As with most of Tamiya's kits, the Lancia lacks a full set of bearings. If you plan to compete or would just like a more efficient driveline, installing bearings during the initial building process is the way to go. We left our Lancia in its original kit form because this car is a true collector's piece. The first time you open the box you can tell this is not your ordinary R/C rally car. The Lancia body is injection molded which allows for incredible detail but makes it significantly less resilient than its Lexan counterparts. But then again, who cares, because this thing is beautiful. Tamiya has really gone to great lengths with the detail on this body set. There are fuel filler caps, tinted windshield with wipers, side view mirrors, detailed driver's compartment and even a set of night driving lights mounted on the hood (that appear as though they can be lit using an optional light kit!). The package is topped of with a set of beautiful, ten-hole chrome race wheels that were modeled off the actual car. Should you decide to hit the track with the TAO3R-S, you will find a proverbial boatload of hop-ups that can get you on pace to win some races.

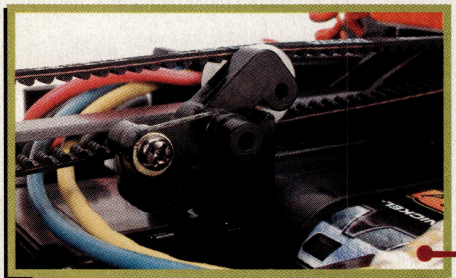
The Golden Age of Rally Returns!



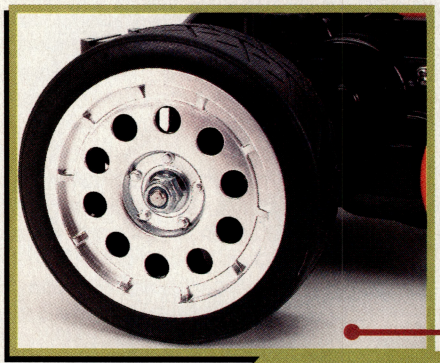
Check out that massive front bumper! It helps support the front end of the hard-plastic styrene body shell.



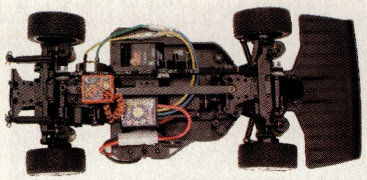
A simple FRP brace connects the front and rear gearboxes in an effort to keep the chassis from flexing front to back.

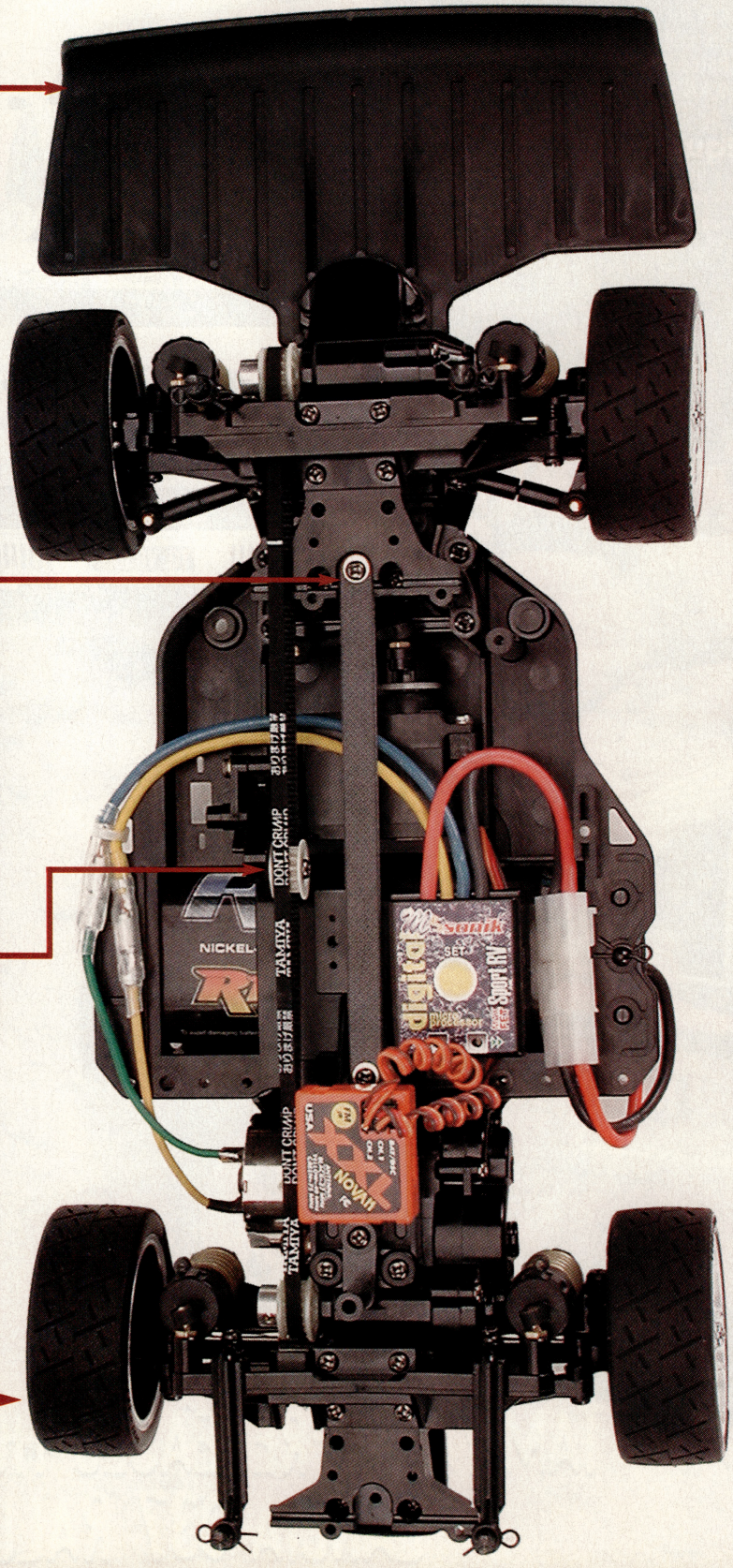


The TA04 comes with a handy little belt tensioner to help keep the belt from skipping under load.



These scale-looking 10-hole wheels were modeled from those of the full-sized Lancia.





If you're going to get stupid, YOU BETTER GET BALLISTIC!

front & rear skids $34.95 PR. MSRP

servo skid $16.95 EA. MSRP

center skid $11.95 EA. MSRP

wheelie bar $29.95 EA. MSRP

braces $59.95 PR. MSRP

hub adapters $39.95 SET MSRP

www.ballisticstupidity.com

BS is stepping into the 1/5 scale market with aluminum spacers to help stiffen up the front and rear bulkheads on your FG Model™ F-1 cars. These allow the suspension to be tuned more efficiently, improving your cars handling.

Price: $39.95

(Kits include spacers for the front & rear bulkheads and case hardened allen head screws)

BALLISTIC STUPIDITY

Email: info@ballisticstupidity.com
Proud supporters of www.joiseymaxx.com
CANADIAN DEALERS CALL: Hi Performance Distributors 1-800-661-0063
Distributor Inquiries: distribution@ballisticstupidity.com

NEW Era Models

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.)	$ 3.95

"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 Wheelie 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



NTF101 $499.95 less Engine & Radio



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





NPS103 $449.95 less Engine & Radio



T/E-MAXX CNC Aluminum Upgrades

TRM320	Front Skid Plate $19.95	TRM331	Rear Bulkhead pr $67.50
TRM321	Rear Skid Plate $18.95	TRM332	Upper Arms pr $36.50
TRM320SD	3.2mm Frt Skid $22.50	TRM332R	Racing Arms pr $29.50
TRM321SD	3.2mm Rear Skid $22.50	TRM333	Lower Arms pr $39.50
TRM322	Front Bumper pr $18.95	TRM333R	Racing Arms pr $32.50
TRM323	Rear Bumper pr. $18.95	TRM334	Center Skid Plate $14.00
TRM324	Front Bumper Supports pr. $22.95	TRM336	Frt or Rear Shock Tower $36.00
TRM325	Rear Bumper Supports pr. $22.95	TRM910	Roll Bar W/Brace $39.50
TRM102	Rear Sway Bar. $35.95 (Requires TRM325)	TRM110	.21 Conversion $129.95
TRM305	Front Sway Bar. $35.95 (Requires TRM324)	TRM107	3.2mm Ex. Main Chassis $49.90
TRM326	Lower Braces pr. $48.95	TRM320XL	Ext Front Skid $23.50
TRM326R	Racing Braces pr.$36.50	TRM330V2	Front Bulkheads $49.50
TRM318P	Front Body Mount With Solid Post and Collar $22.50	TRM331V2	Rear Bulkheads $49.50
TRM319	Rear Body Mount With Solid Post and Collar $22.50	AGT301	Hi-Torque Ripple Pipe Powder Coat Blue $29.95
TRM329	Steering Drag Link $ 8.95	AGT301W	Pipe Wire Blue $ 5.00
TRM330	Front Bulkhead pr $67.50	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

1/10 SCALE UPGRADES







Upper Steel Tube Chassis for OFNA Monster PIRATE $169.95



Steel Tube Chassis Only $239.95
Call for Other Upgrades

AGT203 Bi-Level Chassis	$79.50
AGT206 for 21 Engine	$124.50
AGT101 Rear Brace	$21.95
AGT102 Front Brace Tubes	$ 7.95
AGT910 3pt. Roll Bar	$39.50
AGT250 125cc Fuel Tank	$10.95
AGT302 High Volume Header	$24.95
AGT333 Frt. Arms Aluminum	$34.50
AGT334 Rr Arms Aluminum	$34.50
AGT430 Frt Shock Tower Alum	$19.50
AGT431 Rr Shock Tower Alum	$19.50
AGT345SD Servo Reciever Guard	
CNC Alum for RTR and TEAM	$16.95



Upper Steel Tube Chassis for USA1 $169.95 Chassis only

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



Kits Starting at $995.00 Including Gasoline Engine

Tamiya Lancia 037 Rally

REPORT CARD

Test location: R/C Car office parking lot, Valencia, CA
Track type: Untreated asphalt. Mildly dusty, but surface had relatively decent traction.

Low-speed steering: B+

Before we get into how well the car handles, we must remind you that this is not a "race car". This is a vehicle that should be treated with a healthy amount of respect thanks to the amount of detail work that has been poured into the car. As a matter of fact, we almost wanted to shelf it as a display car once we were done with it! Still, we couldn't resist the urge to go out and drive the car once the last decals were put into place... And one last thingóno matter how tempting it may be to throw a mean roost with the car out on the dirt, we'll warn you that by doing so, you really risk trashing the car quicker than you could imagine. So, with those words of wisdom out of the way, we can move onto the car's performance.

As with all TA03 cars, the Lancia 037 rally has excellent low speed steering. The shorter wheelbase RS car steered quite admirably while shooting from corner to corner on our makeshift road course out on our back parking lot. Even with a slightly dusty surface, low-speed steering was more than adequate.

High-speed steering: B

At speed, the car felt stable and high-speed steering was predictable. In all actuality though, the included silver can 540 doesn't really propel the car to ballistic speeds, so it is hard to determine if the car's high-speed steering would be affected significantly if the car were "motored-up". The included kit tires helped provide good traction on the unswept surface which kept the car planted.

Acceleration: B

Again, it's hard to have a true feel for the car's acceleration with the included silver can 540. The belt drive system is a proven one though, and has worked admirably with higher horsepower. Stock gearing proved to be right on, and the car had decent punch out of the turns. For power we used one of Reedy's 3000 NiMh battery packsóthe pack doesn't have the punch of a NiCd pack, but it makes it back up in runtime.

Braking: B

The '03 RS stops fast and tracks straight once the brakes are applied. Throughout the test session we experienced no belt skip, even with the belt tentioner set a little on the loose side.

Straight-line tracking: A

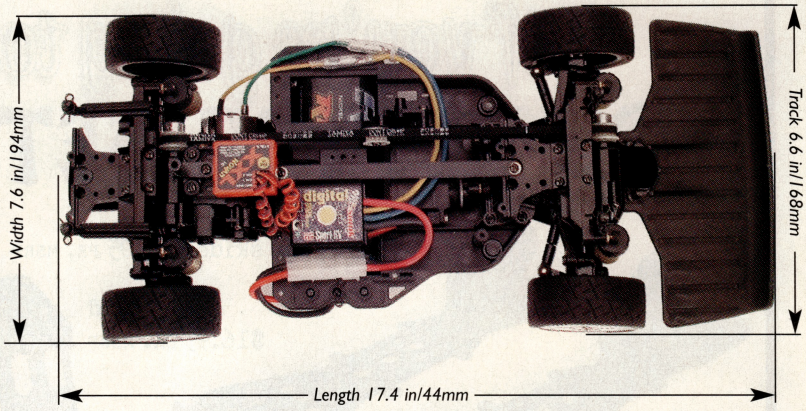
The Lancia rally car tracks as straight as an arrow! We set the trim once on the radio and forgot about it as long as we were driving.

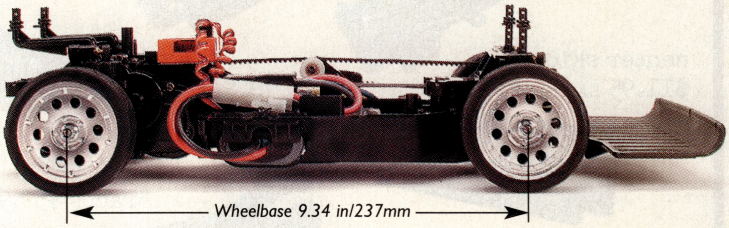
Adjustability: B-

The '03 the Lancia is based on isn't one of the most adjustable chassis on the market. Camber and caster isn't adjustable, nor is rear toe like on other touring cars. Still, we can't be too harsh on the car since it isn't meant to be a true racer.

Durability: ?

So why does the Lancia get a question mark for this grade? Do you honestly think we'd jeapordize this car kit in any way by crashing it? Are you kidding? If we had to hazard a guess, we have to think that the hard plastic body wouldn't fare too well in the event of a run in with a curb. As far as the chassis is concerned, the '03 is as reliable as they come. The belt lasts forever, and the drivetrain is pretty bullet-proof as well.





SPECS

TYPE	4WD Belt Driven Rally		
SCALE	1/10		
PRICE	Available at $175-185 (approximate "street" price)		
SUSPENSION			
Type	Oil filled coil over		
Material	Plastic/Steel		
Front end:			
Caster	Fixed		
Camber	Adjustable		
Toe	Adjustable	**WHEELS**	Chrome 10-hole rims
Down-travel	Ajustable	**TIRES**	Rally Tarmac
Rear end:		**INSERT**	Standard foam
Anti-squat	Fixed	**BODY**	Injection molded plastic Lancia
Camber	Adjustable		
Toe	Fixed		
Down-travel	Adjustable		
Shocks	Oil-filled coil over		
Springs	Kit Gold		
TRANSMISSION			
Type	Single belt drive 4WD		
Differentials	Front and rear, gear diffs		
Drive shafts	Dogbones in front & rear		
Bearings	Ball bearings in diffs, bushings in outdrives		

HIGHS

- Excellent parts quality.
- Highly detailed body.
- Dependable chassis.

LOWS

- Once again we are left with bushings instead of full bearings.
- With a body this beautiful (the car, not me), the thought of sliding this thing upside down on its lid makes it too painful to really put it through its paces. An optional less detailed Lexan version of the body would have been nice.

THE VERDICT

Although the kit comes with the very dependable TAO3R-S chassis that is perfect for beginners, an injection-molded body may not be your best choice. This kit is geared towards the enthusiast who is more concerned with taking the first place trophy in the concourse than the A-main. With the attention to detail in this kit you'd be hard pressed to find another rally car kit out there that could challenge the Lancia 037 Rally.◆

SOURCES

Novak Electronics, Inc., 18910 Teller Ave., Irvine, CA 92612 • (949) 833-8873; fax (949) 833-1631
Reedy, distributed by Team Associated, 3585 Cadillac Ave., Costa Mesa, CA 92626 • phone (714) 850-9342; fax (714) 850-1744
Tamiya America, 2 Orion, Aliso Viejo, CA 92656 • phone (800) TAMIYA-A; fax (949) 362-2250



Hot NEW ITEM GREEN RUBBER SEALED BEARINGS

FOR GAS CARS AND TRUCKS

LONGER LIFE • NO MAINTENANCE

NO FURTHER LUBRICATION

GOGO 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

JASON JAECKEL'S RACER MAXX

Is this the most radical racer we've seen yet?

By now, regular readers of *R/C Car* should be familiar with Jason Jaeckel's handiwork. Over the past year we've featured three distinct Traxxas Maxx project vehicles he has created. The first was a T-Maxx that had been converted over to an E-Maxx. It was quite a significant project, due to the fact that Traxxas had yet to release any info about their own soon to be released version. After that, we got to take a look at his epic S-II Maxx—a twin tranny, quad-motored monster. It was truly an awesome piece of machinery! The last vehicle we saw from Jason was a race-oriented, widened and lowered E-Maxx designed to get around a track as fast as possible.

As wild as each machine was, it is his latest creation that really had us scratching our heads wondering about Jason's sanity level. His newest machine, named the S-III, is a full-blown race-ready T-Maxx. Without a doubt, it is one of the coolest trucks we've ever seen!

How Low Can You Go?

Since this was to be a racer, Jason decided that the most important thing to sort out first was how to considerably lower the truck's overall center of gravity. Jason took apart his stock T-Maxx and began by placing all the parts out on his workbench to get an idea on how to accomplish that goal. In the end, Jason turned to Rix Gear, as he had with

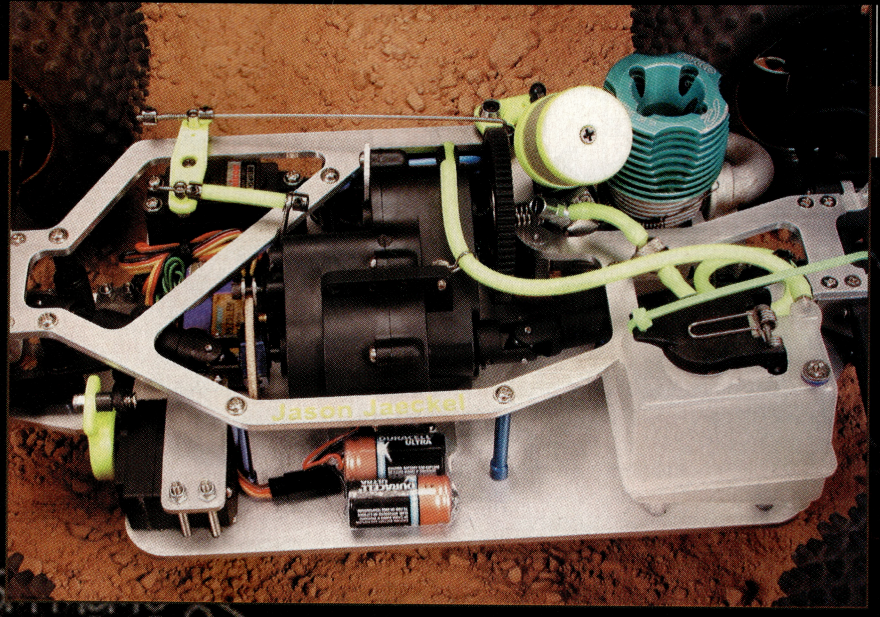


Two three-volt Lithium Duracell batteries make up Jason's receiver pack. The two cells have a weight savings of roughly two ounces over a standard receiver pack.

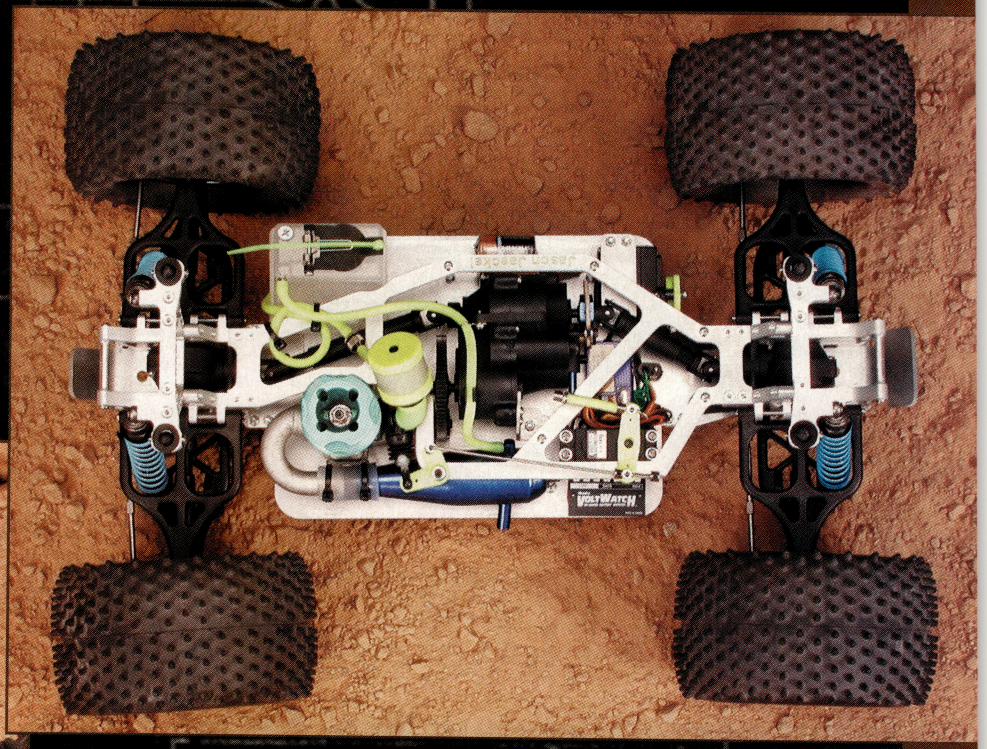
past projects, to once again provide him with an upper and lower chassis designed to his specifications. Jason had planned-out a 3mm-thick lower chassis design that would run in-line and parallel with the front and rear skid plates, yet would remain a separate piece from the two skids. A 3mm-thick upper plate would help keep the chassis rigid. When viewed from the side, you can see the new upper deck is actually on the same level where the original lower chassis plate would be on a stock T-Maxx. Jason had accomplished lowering the truck by a whopping inch and a half with this new arrangement! While he was at it, Jason also lengthened the overall wheelbase of the truck by stretching the chassis by an extra inch and a half.

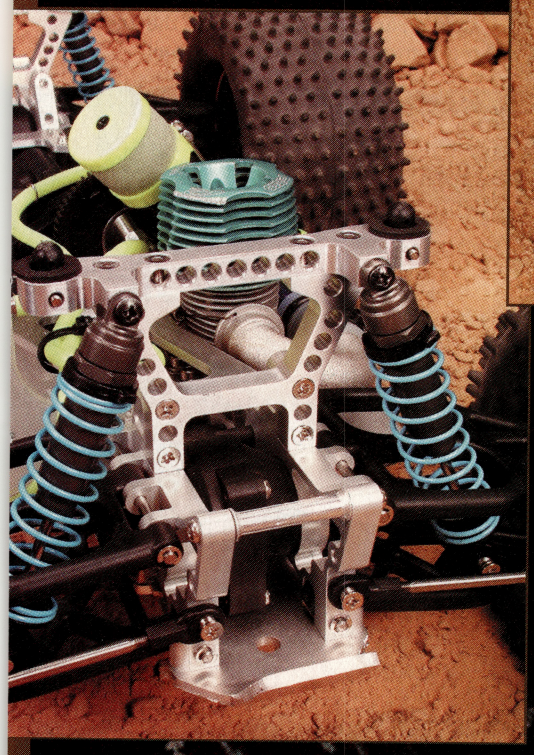
The most significant other change that you may have noticed by now from looking at the pictures is how Jason reconfigured the drivetrain. By laying it on its side, Jason was able to lower the center of gravity even more on the truck. To help fit the tranny securely in place, Jason custom made a few mounting brackets out of aluminum stock. A goal of Jason's was to keep the truck a "T-Maxx at heart." This entailed keeping the stock drivetrain intact—although some minor mods such as a one-way conversion (which ditches reverse gear), and using some lightweight gears were on the list of changes.

Another goal of Jason's was to be able to mount a non-pull start engine in the chassis. Most importantly, though, he wanted to be able to put a rear port exhaust engine in place—that way either a .12 or a big-block .21 engine could be used.



Jason laid down the transmission flat on the chassis in an effort to lower the truck's center of gravity.





Rix Gear shock towers along with Traxxas aluminum bulkheads (with the anodizing removed) are used front and rear.

Many More Mods!

Now that you've seen the most noteworthy features this truck has to offer, let's take a look at some of the more "fine details."

• Traxxas bulkheads were used on the truck. The anodizing was stripped off using Easy-Off oven cleaner in an effort to match the natural finish of the chassis and skid plates. Sandwiched in between the bulkheads are polished HPI chassis standoffs.

• Only one shock is used at each wheel (done primarily to save weight). In addition, it's easier to work on a truck equipped with four shocks than it is with eight. And when the shocks are set up specifically for that application, they work just fine. Jason used Traxxas' hard-anodized Big Bore shocks with two-hole pistons and Trinity heavy Blue springs.

• Hitec radio gear is used on the project S-III (a 5925 MG servo for steering with a 605 BB servo for throttle/brake/shifting are used). Controlling the vehicle is an Airtronics M8 matched with a 92836 FM Airtronics 75 MHz receiver.

• Two Duracell 3-volt Lithium batteries wired together make up the truck's receiver pack. The two cells combined are significantly lighter than your average receiver pack (roughly two ounces lighter), but they don't last quite as long. Additionally, you also need to use a special Lithium-only

charger to charge the cells. Still, when every ounce counts, this is a hot setup. As a bonus, the batteries only cost $12.

• For his choice of powerplant, Jason opted to use the new Picco 15 RC rear port exhaust engine with a slidecarb. A Traxxas pipe coupled to a Picco header gets rid of any leftovers from the combustion chamber. GS Racing fuel tubing is used as well as their servo savers.

• Throttle and brake linkage is set to work as the stock linkage does (the throttle linkage has been modified slightly, though, to accommodate the slide carb on the Picco).

• Both the fuel tank and throttle servo mounting posts have been ground down a small amount in an effort to lower the CG.

• Traxxas steering bellcrank posts are sandwiched in between the upper and lower chassis to help support the top chassis plate.

• Traxxas ball bearing steering keeps the front wheels turning smoothly and efficiently.

• Traxxas titanium hingepins and turnbuckles add some extra reliability to the vehicle.

• Traxxas hard-anodized aluminum pivot balls help reduce unsprung weight on the suspension arms and are also more wear-resistant.

• A Dynamite fuel filter helps keep nasty gunk from entering the engine in case anything gets into the fuel tank by accident.

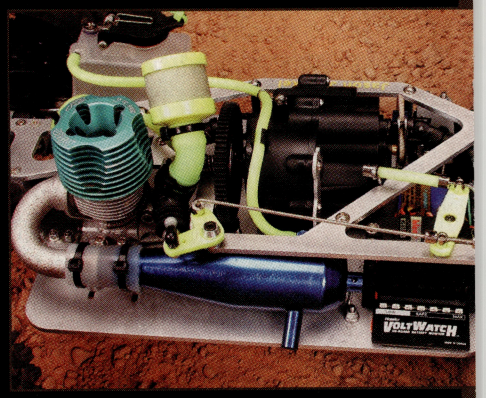
• Jason has been driving the truck with the stock gearing—20/72.

• Panther Meat Grinder tires (with stock foam) are mounted on Pro-Line's lightweight Outback Weld wheels.

• Rockhoundz! skid plates are made from beefy 3mm-thick 6061 T-6 aluminum alloy.

• As it stands now, the S-III is 7.9 pounds (roughly a pound lighter than stock). Not bad, considering the upper and lower deck as well as the front and rear skid plates are made from some pretty hefty material!

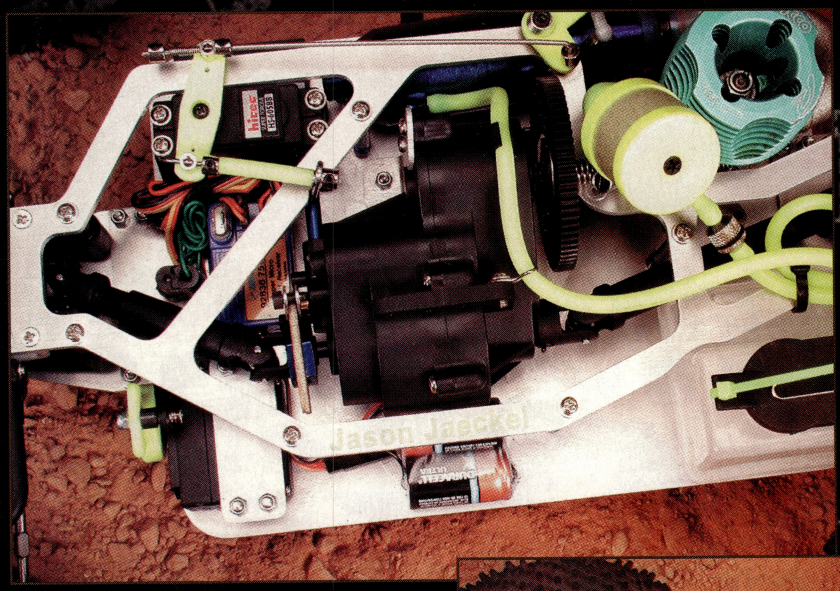
We've been told that if there is enough interest in the truck, Jason, in conjunction with Rix Gear, is contemplating offering this as a kit. For now though, Jason would like to thank his sponsors for all their help—Rix Gear, Traxxas, Rockhoundz!, and Panther tires



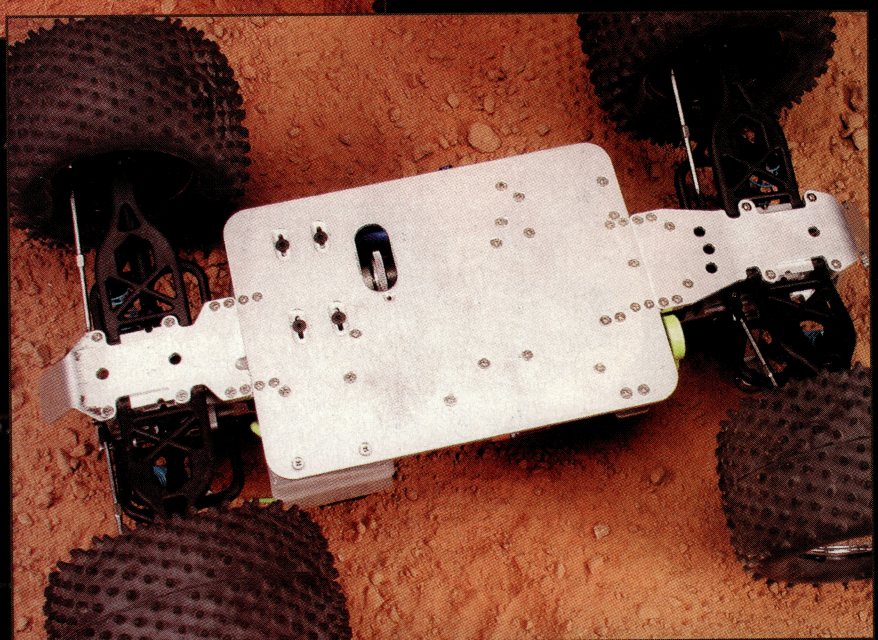
For power, Jason used a Picco .15 engine coupled with a Traxxas pipe.

Performance Evaluation

So what's it like driving the S-III? Well, the truck actually drives like a slammed-down T-Maxx without having to sacrifice any ground clearance or suspension travel. It doesn't roll through corners like a stock T-Maxx—it enters and exits turns more like a 1/10-scale gas truck would. The Picco engine rips! We could see a big block .21 finding its way into this machine quite easily. Speed isn't the biggest issue, though—it's all about how well this truck handles out on the track. The biggest benefit with this truck is that you don't have to slow down for turns like you would with a stocker, and you can stay on the throttle more throughout the turn as well.



Check out the overhead view of how the driveshafts weave in and out of the chassis design. Pretty trick setup!



The main chassis is inline with the front and rear skidplates. By dropping the center chassis section, Jason has lowered the overall center of gravity by roughly an inch and a half.

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



THANK YOU JEFF WHITMAN & KORGAE SCALES for choosing Nuclear Power to power their cars to the A-main at the Reedy Race of Champions!

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

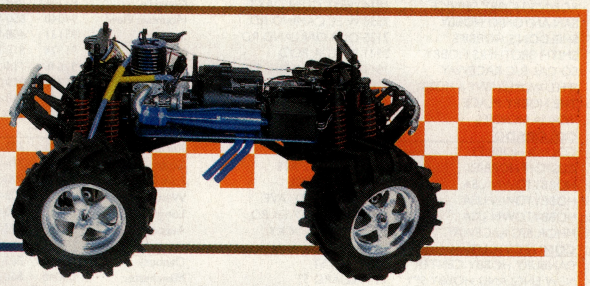
WHEN FAST AND COOL JUST ISN'T GOOD ENOUGH

CVEC Power System for on road speed and power control



NEW Custom Performance Headers/Manifolds Exhaust Couplers Exhaust Deflectors

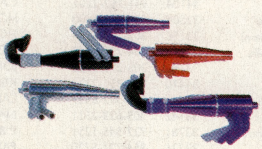
The Number "1" Selling Performance Exhaust In America





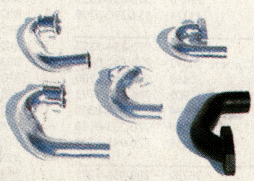
Colored CVEC's:
Z 120 Side Exhaust, For 1/10 th Scale.

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

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



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

CVEC Incorporated

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

1 800-529-1919

321 757-3999 • Fax: 321 757-9377

www.cvecrc.com

R/C CAR HOBBY SHOP LOCATOR

THE RADIO CONTROL CAR MAGAZINE

ALABAMA

BRYANS HOBBY SHOP	2837 ROSS CLARK CIR	Dothan	36302	334-793-2439
HOBBYTOWN USA RACEWAY	450 SCHILLINGER RD S.	Mobile	36608	334-633-8446
HURRICANE MOTORSPORTS	5963 HWY 90 WEST	Theodore	36582	866-653-6643
OAK MOUNTAIN HOBBIES	2238 PELHAM PARKWAY	Pelham	35124	205-989-4882
RC HI TECH RACEWAY	3303 MERIDIAN ST	Huntsville	35811	256-539-1347

ARKANSAS

HOBBYTOWN USA	400 N. BOWMAN/STE B-5	Little Rock	72211	501-223-5155
HOBBYTOWN USA	9220 HWY 71 SOUTH	Fort Smith	72916	501-649-9220
K & S HOBBY SHOP	809 N. 62-65 HWY	Harrison	72601	870-365-0597

ARIZONA

HOBBY DEPOT	216 WEST SOUTHERN AVE	Tempe	85282	602-968-1880
HOBBYTOWN USA	1915 E. BASELINE RD	Gilbert	85233	480-837-7674
HOBBYTOWN USA	5030 E. RAY RD #11	Phoenix	85044	480-837-7674
HOBBYTOWN USA	1102 E. 22ND ST	Tucson	85713	520-408-1153
SCOTTSDALE R/C RACEWAY	3023 N. SCOTTSDALE RD	Scottsdale	85251	480-945-2186

CALIFORNIA

ARC RACING	41083 SANDLEWOOD CIR/ D	Murrieta	92562	909-304-0580
B.C.T. HOBBY & CRAFT	620 B SAN BENITO ST	Hollister	95023	831-636-7550
BEE GEE HOBBIES	234 GOLF CLUB RD	Pleasant Hill	94523	925-798-5133
CALIFORNIA R/C	1230 N. KRAEMER BLVD.	Anaheim	92806	714-630-9300
CASTLE HOBBIES	14918 CAMDEN AVE	San Jose	95124	408-377-3771
COVINA HOBBY SHOP	140 N. CITRUS	Covina	91724	626-331-1910
CYCLE ART RACING	2211 N. PLEASANT WAY	Fresno	93705	559-233-3665
D & J HOBBIES	96 SAN THOMAS AQUINO RD	Campbell	95008	408-379-1696
DISCOUNT HOBBY WHSE	4444 CONVOY ST	San Diego	92111	619-560-9633
DOLLHOUSE TRAINS & MORE	300 ENTRADA DR	Novato	94949	414-883-0388
EXTREME MOTOSPORTS	1230 JUAREZ ST	Napa	94559	707-251-9876
FRANCISCIAN HOBBIES	1920-A OCEAN AVE	San Francisco	94127	415-584-3919
GIZMO'S HOBBY	2010 WEST BURBANK BL	Burbank	91506	818-842-8200
GLENDALE HOBBY CENTER	1215 E. COLORADO ST #101	Glendale	91205	818-247-1008
HOBBIES TOYS & MORE	17600 COLLIER AVE/ H172	Lake Elsinore	92530	909-245-1147
HOBBY SHACK	18480 BANDILIER CIR	Fountain Valley	92728	714-964-0827
HOBBY WORLD	6148 BOLLINGER RD	San Jose	95129	408-873-2109
HOBBYTOWN	727 CENTER DR #106	San Marcos	92069	760-739-0672
HOBBYTOWN USA	2500 E.IMPERIAL HWY #130	Brea	92821	714-990-9652
HOBBYTOWN USA	3069 WEST BULLARD AVE	Fresno	93711	559-435-3342
HOT ROD HOBBIES	25845 SAN FERNANDO RD	Santa Clarita	91350	805-255-2404
JAKES PERFORMANCE HOBBY	6650 COMMERCE BLVD #21	Cotati	94928	707-586-3375
JAX HOBBIES	17421 BROOKHURST/107	Fountain Valley	92708	714-378-8924
KIT & CABOODLE	550 EL CERRITO PLAZA	El Cerrito	94530	510-524-9942
KRAZY KEVIN'S	1223 3RD ST #D	Chula Vista	91911	619-422-2724
LAW'S HOBBIES CENTER	855 MARSH ST	San Luis Obispo	93401	805-544-5518
MARTY'S HOBBIES	1728 N. MOORPARK RD	Thousand Oaks	91360	805-497-3664
MODESTO HOBBIES	1300 SYLVAN AVE #C7	Modesto	95355	209-529-7310
PALMDALE HOBBIES	2127 E. PALMDALE BLVD	Palmdale	93550	661-273-6229
PEGASUS HOBBIES	5505 MORENO BLVD	Montclair	91763	909-982-6507
R/C COUNTRY HOBBIES	6011 FOLSOM BLVD	Sacramento	95819	916-731-5868
R/C TECH	1618 SULLIVAN STSTE 105	Daly City	94015	650-992-7600
RACERS HAVEN	7401 WHITE LANE #12	Bakersfield	93309	805-835-0441
RIPON RC SPEEDWAY	701 N.ACACIA	Ripon	95366	209-599-5160
ROBIN'S HOBBY SERVICE	1844 WEST GLEN OAKS	Glendale	91201	818-240-2093
SAN ANTONIO HOBBY	2550 W. EL CAMINO RD	Mountain View	94040	650-941-1278
SHELDON'S HOBBIES	2135 OLD OAKLAND RD	San Jose	95131	408-943-0872
SMITH BROTHERS HOBBY	8941 RESEDA BLVD	Northridge	91324	818-885-8636
SO CAL R/C RACEWAY	19118 BROOKHURST ST	Huntington Beach	92646	714-963-7484
SPEED WORLD RWY & HOBBY	1704 CHILTON DR	Roseville	95747	916-783-8864
THE HOBBY PLACE	10600 W. PICO BLVD	Los Angeles	90064	310-836-2000
VISALIA HOBBIES	2137 W.WHITENDALE AVE	Visalia	93277	559-734-8072

COLORADO

COLPAR HOBBIES	804 S. HAVANA ST	Aurora	80012	303-341-0414
CUSTOM HOBBIES	2813 E. PLATTE AVE	Colorado Springs	80909	719-634-7400
HOBBYTOWN USA	4348 S. COLLEGE	Fort Collins	80525	970-226-3900
HOBBYTOWN USA	6815 WEST 88TH AVE	Westminster	80021	303-431-0482
HOBBYTOWN USA	800 SOUTH HOVER RD	Longmont	80501	970-226-3900
MHOR R/C RACEWAY	12559 E. KENTUCKY	Aurora	80012	303-343-0151

CONNECTICUT

DANBURY HOBBY CENTER	366 MAIN ST	Danbury	06810	203-743-9052
NEW ENGLAND HOBBY SPY	71 HILLIARD ST	Manchester	06040	860-646-0610
PIT STOP HOBBIES	43 GRASSEY PLAIN ST	Bethel	06801	203-778-9249
RC MADNESS TRACK & HOBBY	640 ENFIELD	Enfield	06082	860-741-6501

DELAWARE

HOBBY STOP SPEEDWAY	RD 4 BOX 100 RT 13	Seaford	19973	302-629-3944

FLORIDA

ACE HOBBIES	2127 S. RIDGEWOOD AVE	Daytona Beach	32119	904-761-9780
ATOMIC HOBBIES	13205 S.W. 137 AVESTE 103	Miami	33186	305-235-3232
BOB'S HOBBY CENTER	7333 LAKE UNDERHILL RD	Orlando	32822	407-277-1248
CENTRAL FLORIDA HOBBIES	5600 W. COLONIAL DR #310	Orlando	32808	407-295-9256
COLONIAL PHOTO & HOBBY	634 N. MILLS AVE	Orlando	32803	407-841-1485
CROWN HOBBIES	7439 S.W. 24TH ST	South Miami	33155	305-264-3964
G & C HOBBIES	1228 HYPOLUXO RD	Lantana	33462	561-547-3812
GRAND SLAM HOBBIES	20505 U.S. HWY 19 NORTH	Clearwater	33764	727-548-0699
HOBBIE WAREHOUSE INC.	1237 AIRPORT RD S.	Naples	34104	941-262-2701
HOBBY CENTRAL	UNIVERSITY MALL	Pensacola	32504	850-471-9800
HOBBY NUT INC.	12679 DIXIE HWY	South Miami	33156	305-235-9584
HOBBY WORLD	7273 103RD ST	Jacksonville	32210	904-772-9022
HOBBYTOWN USA	12608 S.W. 88TH ST	Miami	33186	305-273-7803
JACKS HOBBIES	131 N.E. 17TH PLACE	Ocala	34470	352-351-2224
MONSTER HOBBIES	616 S.E. 10TH ST	Deerfield Beach	33441	561-392-5447
ORANGE BLOSSOM	1975 N.W. 36TH ST	Miami	33142	305-633-2521
PHIL'S HOBBY SHOP	6050 PARK BLVD	Pinellas Park	33781	727-545-1251
R.C. HOBBIES	6800 N. UNIVERSITY DR	Tamarac	33321	954-721-5720
ROB'S HOBBY WORLD	8602 S.W. ST RD 200	Ocala	34481	352-854-2799
SCOTT'S HOBBIES	26690 61ST RD	Branford	32008	904-935-0758
SPACE COAST HOBBIES	2135 PALM BAY RD NE	Palm Bay	32905	321-722-3696
SUPERIOR HOBBIES	1478 E. SEMORAN BLVD	Casselberry	32707	407-834-9299
TAVERNIER BIKE & HOBBIES	91910 OVERSEAS HWY	Tavernier	33070	305-852-2859
WARWICK CUSTOM HOBBIES	7676 PETERS RD	Plantation	33324	954-370-0708

GEORGIA

ALLISON PERFORMANCE HOB.	12 GREENVILLE ST	Newnan	30263	770-254-9557
HOBBY MART	6889 PEACHTREE INDUST. /STE H	Peachtree Corners	30092	770-840-8495
HOBBYTOWN USA	19 NORTHSIDE DR EAST	Statesboro	30458	912-489-8700
HOBBYTOWN USA	6770 VETERANS PKWY/STE 1	Columbus	31909	706-660-1793
HOBBYTOWN USA	800 E. BARRETT PKWY	Kennesaw	30144	770-426-8800
NATIONAL HOBBY	1975 SOUTH COBB DR	Marietta	30060	770-333-0190
SUGAR BOWL SPEEDWAY	5272 NELSON BROGDON WY	Sugar Hill	30518	770-945-6709

HAWAII

ACE RADIO CONTROL	1005 LEHUA AVE	Pearl City	96782	808-456-1279
THE HOBBY COMPANY	98-1005 MOANALUA RD	Aiea	96701	808-487-2473

IOWA

BOB'S R/C HOBBY	6322 UNIVERSITY AVE/UNIT E	Cedar Falls	50613	319-277-0211
BOX KAR HOBBIES	3649 FIRST AVE S.E.	Cedar Rapids	52402	319-362-1291
FAGAN'S	2327 CENTRAL AVE	Dubuque	52001	319-588-0846
HOBBY CHEST	209 E. MAIN	Ottumwa	52501	641-683-4436
HOBBY HAVEN	7672 HICKMAN RD	Urbandale	50322	515-276-8785
HOBBY SHOP	1700 S. FIRST AVESTE 17	Iowa City	52240	319-338-1788
HOBBYTOWN USA	2406 E. 53RD ST	Davenport	52807	319-355-2071
HOBBYTOWN USA	2737 16TH AVE S.W.	Cedar Rapids	52404	319-364-3289
HOBBYTOWN USA	620 LINCOLN WAY #6	Ames	50010	515-232-9060
WILD BILLS R/C HOBBIES	901 W. JONES	Knoxville	50138	515-842-5973

IDAHO

BOISE HOBBIES	4516 OVERLAND RD	Boise	83705	208-363-9555
DAPCO HOBBIES	2211 GARRETT WAY	Pocatello	83201	208-233-8163
HOBBYTOWN USA	1870 W. PULLMAN RD	Moscow	83843	208-882-9369
HOBBYTOWN USA	3317 N. COLE RD	Boise	83704	208-376-1942
THE TOY SHOP	837 POLELINE RD	Twin Falls	83301	208-734-2725

ILLINOIS

AL'S HOBBY SHOP INC.	121 ADDISON, BOX 449	Elmhurst	60126	630-832-4908
CORNER HOBBY	308 NORTH VIRGINIA AVE	Swansea	62220	618-277-6030
DEPOT HOBBY SHOP	180 SOUTH SEMINARY ST	Galesburg	61401	309-342-9323
G & D HOBBIES	1950 W. CHURCH ST	Sandwich	60548	815-786-8553
HOBBY LAND	616 N. MAIN	Bloomington	61701	309-828-1442
HOBBYTOWN USA	1000 LAKE ST	Oak Park	60301	708-445-8056
HOBBYTOWN USA	1772 S. RANDALL STSTE 200	Geneva	60134	630-208-9062
HOBBYTOWN USA	4338 E. NEW YORK	Naperville	60540	630-778-8707
HOBBYTOWN USA	MACHESNEY PARK MALL	Machesney Park	61115	815-282-0727
LA GRANGE HOBBIES	25 S. LA GRANGE RD	Mc Cook	60525	708-354-1220
LEISURE HOURS HOBBIES	2712 N. PLAINFIELD RD	Joliet	60436	815-439-1477
PAT'S HOBBIES & CRAFTS INC.	5730 W. 95TH ST	Oak Lawn	60453	708-424-6131
RADIO ACTIVE RACEWAY	751 N. BOLINGBROOK DR #15	Bolingbrook	60440	630-759-7557
STANTON HOBBY SHOP	4718 N. MILWAUKEE AVE	Chicago	60630	773-283-6446
VENTURE HOBBIES	23 HUNTINGTON LANE	Wheeling	60090	847-537-8669

INDIANA

B & R HOBBIES	9014 CRAWFORDSVILLE RD	Indianapolis	46234	317-297-4257
BREMEN HOBBIES	308 N. BOWEN AVE	Bremen	46506	219-546-3807
G & G HOBBIES	105 E. MAIN ST	Griffith	46319	219-924-6686
GRANGER HOBBY STOP	12131 STATE RD 23 UNIT L	Granger	46530	219-243-2390
HAPPY HOBBIES	1398 EASTERN BLVD	Jeffersonville	47129	812-282-0060
HOBBY TOWN USA	139 N. BURKHARDT RD	Evansville	47715	812-477-7200
HOBBYLAND INC.	2564 MIRACLE LANE	Mishawaka	46545	219-255-1722
HOBBYTOWN USA	6336 E. 82ND ST	Indianapolis	46250	317-845-4106
HOBBYTOWN USA	1858 E. 80TH PLAZA	Merrillville	46410	219-736-0255
JOE'S HOBBY BARN	1950 E. SPRINGHILL DR	Terre Haute	47802	812-299-5773
P & T HOBBIES AND RWY	2412 N. POORFARM RD	Bedford	47421	812-849-6666
PHILS HOBBY SHOP	1722 LAKE AVE	Fort Wayne	46805	219-426-5056
R & D HOBBIES	4217 FRANKLIN ST	Michigan City	46360	219-879-7563

KANSAS

HOBBY HAVEN	10560 METCALF	Overland Park	66212	816-942-2205
HOBBYTOWN USA	2108 W. 27TH ST	Lawrence	66047	785-865-0883
HOBBYTOWN USA	8229 EAST KELLOGG	Wichita	67207	316-683-7222
HOBBYTOWN USA	9270 METCALF	Shawnee Mission	66212	913-649-7979
MIKES R/C	121 S.E. 29TH ST	Topeka	66605	785-266-5767
R/C SUPERDOME & T.Q. SHOP	14 E. AVE A	Hutchinson	67501	316-665-6633

KENTUCKY

HOBBYTOWN USA	12615 SHELBYVILLE RD	Middletown	40243	502-245-5755
PIT STOP HOBBIES	1927 IRVIN COBB DR	Paducah	42003	502-527-8216
SCALE REPRODUCTION	3073 BRECKINRIDGE LANE	Louisville	40220	502-459-5849

LOUISIANA

HARES ART-N-HOBBY	4529 LEE ST	Alexandria	71302	318-443-2755

MASSACHUSETTS

BARN SPEED HOBBIES	109 CENTER ST	Lee	01238	413-243-2651
BIG BOYS TOYS	33 FATHER DEVALLES BLVD	Fall River	02723	508-677-9400
DAVE'S HOBBIES	281 CABOT ST	Beverly	01915	978-921-1559
HENRY'S HOBBY HOUSE INC.	67 W. BOYLSTON ST	West Boylston	01583	508-835-6165
HOBBY WORLD	171 GROVE ST	Adams	01220	413-743-7223
HOG HEAVEN HOBBIES	3 ARNOLD RD"P.O. BOX 416	Fiskdale	01518	508-347-9350

MARYLAND

DOUGS HOBBY	2935 CRAIN HWY	Waldorf	20601	301-843-7774
GPA HOBBIES	2431 CROFTON LANE STE 6	Crofton	21114	301-858-0004
HOBBY CITY	15751 COLUMBIA PIKE	Burtonsville	20866	301-421-5977
HOBBYTOWN USA	1305 W. 7TH AVE #28	Frederick	21702	301-694-7395
HOBBYTOWN USA	CHESAPEAKE SQR SHP CTR	Glen Burnie	21061	410-590-4950
HUNT VALLEY HOBBIES	10824 YORK RD	Hunt Valley	21030	410-666-1098
STONELEIGH HOBBY INC.	6717 YORK RD	Baltimore	21212	410-377-4447
THE TRACK	16806 OAKMONT AVE	Gaithersburg	20877	321-417-9630

MAINE

R/C SPEEDWAY & HOBBIES	87 MAIN ST	Fairfield	04937	207-453-4588
VICTORY LANE HOBBIES	306 ROUTE 236	Eliot	03903	207-439-3278

MICHIGAN

ACTION HOBBIES	211 EAST MAIN	Niles	49120	616-687-8550
ANYTHING GOES	5108 ROCHESTER RD	Troy	48098	248-740-2277
CAPITOL CITIES HOBBIES INC.	15357 HALL RD	Macomb	48044	810-532-0050
HOBBIES & TOYS	106 WEST MAIN ST	Gaylord	49735	989-732-3963
HOBBYTOWN USA	2252 S. MAIN ST	Ann Arbor	48103	734-996-2444
HOUSE OF HOBBIES	2763 N. 120TH AVE	Holland	49424	616-786-3686
JOE'S HOBBY CENTER	35151 GRAND RIVER RD	Farmington	48335	248-477-6266
KECK HARDWARE & HOBBY	2132 WEST RD	Trenton	48183	734-676-2282
LARRY'S PERFORMANCE R/C'S	43665 UTICA RD	Sterling Heights	48314	810-997-4840
NANKIN HDWRE & HOBBY	35101 FORD RD	Westland	48185	734-722-5700
P & D HOBBY SHOP	31280 GROESBECK HWY	Fraser	48026	810-296-6116
PASTIME HOBBIES	2700 PINE GROVE RD #16	Port Huron	48060	810-982-2874
PROP SHOP HOBBIES, INC.	23326 VAN DYKE	Warren	48089	810-757-7160
R & L HOBBIES & RACING	9782 PORTAGE RD	Portage	49002	616-323-3686
R/C NITRO ZONE	213 WEST MAIN STSTE #9	Brighton	48116	810-225-9586
RIDER'S HOBBY	32115 JOHN "R" RD	Madison Heights	48071	248-589-8111
RIDER'S HOBBY	42011 FORD RD	Canton	48187	734-981-8700
RIDER'S HOBBY SHOP	22789 NORTHLINE RD	Taylor	48180	734-287-7405
RIDER'S HOBBIES	2061 S. LINDEN RD	Flint	48532	810-720-2500
RIDER'S HOBBY	4417 S. WESTNEDGE AVE	Kalamazoo	49008	616-349-2666
RIDER'S HOBBY SHOP	2055 28TH ST S.E."UNIT 12	Grand Rapids	49508	616-247-9933
RIDER'S HOBBY SHOP	4035 CARPENTER RD	Ypsilanti	48197	
RIDER'S HOBBY SHOP	1609 E. MICHIGAN AVE	Lansing	48912	517-485-0700
RIDER'S HOBBY SHOP	30991 FIVE MILE RD	Livonia	48154	734-425-9720
ROBBY'S HOBBY	1106 COLUMBUS AVE	Bay City	48708	517-893-2712
THE HOBBY HUB	526 FRANDOR AVE	Lansing	48912	517-351-5843
YESTERDAY'S COLLECTION	5899 JACKSON RD	Ann Arbor	48103	734-668-6304

MINNESOTA

CHRISTOPHER'S HOBBIES	116 WEST BRDWAY ST	Owatonna	55060	507-451-2825

HOBBY TOWN USA	7916 BROOKLYN BLVD.	Minneapolis	55445	612-424-6052
HOBBY WAREHOUSE	7120 CHICAGO AVE S.	Richfield	55423	612-861-5587
HUB HOBBY CENTER	82 MINNESOTA AVE	Saint Paul	55117	612-490-1675
NORTHWOODS HOBBY	2638 HWY 25 NORTH	Brainerd	56401	218-829-9257
R.C. CAR KINGS	1913 W. BURNSVILLE PKWY	Burnsville	55337	952-895-9643
TWIN CITIES HOBBY & RWY	7577 BROOKLYN BLVD.	Brooklyn Park	55443	763-569-5069
MISSOURI				
CHECKERED FLAG HOBBIES	4451 LEMAY FERRY RD	St. Louis	63129	314-892-5353
HOBBY HAVEN	14100 A EAST 42ND ST	Independence	64055	816-478-3233
HOBBYTOWN USA	524 N.W. ENGLEWOOD RD	Kansas City	64118	816-459-9590
HOBBYTOWN USA	533 S.E. MELODY LANE	Lees Summit	64063	816-525-6885
JOPLIN R/C HOBBIES	1900 S. RANGELINESTE 9	Joplin	64804	417-623-0011
MARK TWAIN HOBBY CTR	2793 WEST CLAY ST	Saint Charles	63301	636-946-2816
REAL R/C	12019 EAST 47TH	Raytown	64133	816-358-0238
SCHAEFER'S R/C SHOP	4206 VIRGINIA AVE	Saint Louis	63111	314-352-3750
MISSISSIPPI				
HOBBYTOWN USA	4378 MALL DR	Tupelo	38804	662-690-6030
HOBBYTOWN USA	6380-D RIDGEWOOD COURT	Jackson	39211	601-957-9900
MONTANA				
NORTHLAND HOBBIES INC.	1325 HWY 2 WEST	Kalispell	59901	406-257-1808
PRAIRIE UNIQUE	114 S. LOGAN ST	Terry	59349	406-635-5598
THE TREASURE CHEST	1612 BENTON AVE	Missoula	59801	406-549-7992
NORTH CAROLINA				
ACTION HOBBIES	8500 PINEVILLE MATHEWS RD	Charlotte	28226	704-540-0311
HOBBY TOWN USA	8332 PINEVILLE MATHEWS RD	Charlotte	28226	704-544-2303
HOBBYTOWN USA	1319 MILITARY CUTOFF RD	Wilmington	28405	910-256-0902
HOBBYTOWN USA	SHERWOOD PLAZA SHP CTR.	Winston Salem	27106	336-774-2324
HOBBYTOWN USA	TERRYMORE SQUARE	Raleigh	27604	704-544-2303
K/C HOBBY INC.	10948-G NORTH MAIN ST	High Point	27263	336-434-3482
KING R/C	614 S. MAIN ST	King	27021	336-983-3969
Z N Z HOBBIES	972 TALBERT BLVD	Lexington	27292	336-249-6127
NORTH DAKOTA				
HOBBYTOWN USA	2500 S. COLUMBIA RDSTE D	Grand Forks	58201	701-746-0708
NEBRASKA				
FUN TIME HOBBY	2020 CENTRAL AVE	Kearney	68847	308-234-1806
HOBBYTOWN UNLIMITED	EAST PARK PLAZA	Lincoln	68505	402-434-5056
HOBBYTOWN USA	13110 BIRCH DR	Omaha	68164	402-498-8888
HOBBYTOWN USA	3537 WEST 13TH ST	Grand Island	68803	308-382-3451
NEW HAMPSHIRE				
HOBBY ETC. INC.	90 WEST PEARL ST	Nashua	03060	603-883-4919
NEW JERSEY				
ALLIED HOBBIES	CHERRY HILL MALL	Cherry Hill	08002	856-665-7888
ALLIED HOBBIES	207 ECHELON MALL	Voorhees	08043	856-772-1268
ALLIED HOBBIES	264 BURLINGTON CENTER	Burlington	08016	609-386-5044
CRUIZIN WITH RC'S INC.	53 EAST MAIN ST	Ramsey	07446	201-825-4884
FISHKIN BROS.	285 MADISON AVE	Perth Amboy	08861	732-826-0048
HOBBIES ETC.	240 S. BRD ST	Woodbury	08096	609-384-7740
HOBBY WORKSHOPS	510 WEST KINGS HWY	Mount Ephraim	08059	856-931-2400
JERRY'S HOBBY CENTER	336 RT 22 W	Greenbrook	08812	908-752-6030
THE HOBBY SHOP	ABERDEEN TOWNSQUARE	Aberdeen	07747	732-583-4189
WACKY RC'S HOBBY SHOP	409 EAST 2ND ST	Roselle	07203	908-241-6700
NEW MEXICO				
ALBUQUERQUE HOBBY CO	1431 EUBANK BLVD N.E.	Albuquerque	87112	505-275-1882
BIG BOYS TOYS	1735 JUAN TABO N.E.	Albuquerque	87112	505-298-1023
CHARLIES HOBBY SHOP	225 E. IDAHO/STE 11	Las Cruces	88005	505-541-1097
FLIGHT DECK HOBBIES	1513 9TH ST	Alamogordo	88310	505-434-6563
HOBBIE'S & STUFF	9577-L OSUNA RD N.E.	Albuquerque	87111	505-293-1217
HOBBYTOWN USA	636 W. BRDWAY	Farmington	87401	505-325-5156
NEVADA				
DANSEY'S INDOOR R/C HOBBIES	741 N. NELLIS BLVD.	Las Vegas	89110	702-453-7223
HOBBYTOWN USA	5085 W. SAHARA AVE #134	Las Vegas	89146	702-889-9554
HOBBYTOWN USA	3789 S. CARSON ST	Washoe Valley	89701	775-883-5475
NEW YORK				
ACTION HOBBIES	1070 MIDDLE COUNTRY RD	Selden	11784	516-736-1574
ACTION HOBBIES	502 W. 167TH ST	New York	10032	212-568-3677
BROOKLYN HOBBIES	3842 FLATLANDS AVE	Brooklyn	11234	718-951-2500
BRUCKNER HOBBIES	3587 E. TREMONT AVE	Bronx	10465	800-288-8185
COMPETITION HOBBY SUP	1006 LOUDON RD	Cohoes	12047	518-786-3622
EAST COAST HOBBIES	2515 65TH ST	Brooklyn	11204	718-627-3814
FANTASIA HOBBIES	17169 46TH AVE	Flushing	11358	718-460-5671
FROGTOWN HOBBIES	RT 37 MINI PINES VILLAGE	Hogansburg	13655	518-358-3686
HOBBY HOUSE	2366 LYELL AVE	Rochester	14606	716-429-6280
HOBBY WORLD	311 BROADWAY	Monticello	12701	914-794-8770
HOMETOWN HOBBIES	14 FEDERAL PLAZA	Monroe	10950	914-782-2401
LARRY'S HOBBY SUPPLIES	3006 JERICHO TPKE	East Northport	11731	631-499-7166
MACH 1 HOBBIES	249 W. 29TH ST #1	New York	10001	212-947-0157
NAGENGAST HDWR & HOBBY	68-02 FRESH POND RD	Flushing	11385	718-821-0958
PERFORMANCE HOBBIES	15 WEST MAIN ST	Webster	14580	716-872-4990
RACING CITY HOBBIES	MIDTOWN SHOPPING CTR	Glens Falls	12803	518-792-7272
RAMPAGE R/C AND HOBBIES	782 RT 9G ROCKLEDGE PLAZA	Hyde Park	12538	914-229-1379
TONY'S HOBBY SHOP	229 HARRISON AVE	Harrison	10528	914-835-4765
TRANS BORDER CUSTOMS	C/O MODELER DISTRIBUTION	Champlain	12919	514-687-6214
UNIVERSAL ENTERTAINMENT	1611 PINE AVE	Niagara Falls	14301	716-282-4840
WALT'S HOBBY	2 DWIGHT PARK DR	Syracuse	13209	315-453-2291
WILLIS HOBBIES	300 WILLIS AVE	Mineola	11501	516-746-3944
OHIO				
A K HOBBY AND RACEWAY	3826 NORTH BEND RD	Cincinnati	45211	513-661-7080
CAPSTONE HOBBIES	562 W. SCHROCK RD	Westerville	43081	614-899-6313
DIVE IN SCUBA CENTER	3182 WARREN SHARON RD	Vienna	44473	330-856-6275
GRANDVIEW HOBBIES	1460 W. FIFTH AVE	Columbus	43212	614-486-3532
HOBBY STOP WEST	4550 MONROE ST	Toledo	43613	419-471-1108
HOBBYTOWN USA	8000 PLAZA BLVDSTE 9	Mentor	44060	440-946-5588
RIDER'S HOBBY SHOP	5333 MONROE ST	Toledo	43623	419-843-2931
OKALAHOMA				
ACTION HOBBIES	4955 S. MEMORIAL DR	Tulsa	74145	918-663-8998
WINGS N' THINGS INC.	5241 S. PEORIA AVE	Tulsa	74105	918-745-0007
OREGON				
AERO SPORT & HOBBY	17941 N.E. GLISAN	Portland	97230	503-669-7665
EUGENE TOY & HOBBY	32 E. 11TH AVE	Eugene	97401	541-344-2117
HOBBY CENTER	1125 DALE ST S.E.	Albany	97321	541-928-5255
LEISURE HOBBIES	982 LANCASTER DR N.E.	Salem	97301	503-588-9884
R C ADDICTION	2810 N. PACIFIC HWY	Medford	97501	541-779-8298
R/C PLUS HOBBIES	1685 25TH ST	Salem	97302	503-364-9188
TAMMIES HOBBIES	12024 S.W. CANYON RD	Beaverton	97005	503-644-4535
ULTIMATE HOBBIES	1210 JANTZEN BEACH CTR	Portland	97217	503-247-8194
WAYNES WORLD OF HOBBY	10910 N.E. HALSEY ST	Portland	97220	503-261-8598
PENNSYLVANIA				
ADAM & EVES PET & HOBBY	313 LATROBE 30 PLAZA	Latrobe	15650	412-539-7130
ALLIED HOBBIES	204 OXFORD VALLEY MALL	Langhorne	19047	215-757-8086
CRANBERRY HOBBY DEPOT	GARDENS PLAZA	Cranberry Twnshp	16066	724-776-3640
GLENNS ALLIED HOBBIES	6607 RISING SUN AVE	Philadelphia	19111	215-745-5777
HOBBY EXPRESS INC.	309 MARS-VALENCIA RD	Mars	16046	724-251-1550
J.C. R/C HOBBIES	13 YORK RD	Warminster	18974	215-672-5200
LORESKI'S INC.	MIRACLE MILE SHOPPING CTR	Monroeville	15146	412-372-5155
R C OUTFITTERS	519 BROADWAY	Hanover	17331	717-633-9490
RHODE ISLAND				
NSANE TOYS	267 POCASSET AVE	Providence	02909	401-943-2629
NANCY'S CO-OP	350 MAIN ST	Warren	02885	401-247-0288
SOUTH CAROLINA				
ATLANTIC WORLD HOBBIES	2458 REMOUNT RD	Hanahan	29406	
ED'S HOBBY SHOP	702 MAIN ST	Myrtle Beach	29577	843-448-8685
GOLDEN STRIP HOBBIES	315 FAIRVIEW RDSTE G	Simpsonville	29681	864-963-7149
HOBBY STOP	939 S. ANDERSON RD	Rock Hill	29730	803-327-4121
HOBBYTOWN USA	BELVEDERE PLAZA	Anderson	29621	864-627-9633
HOBBYTOWN USA	VERDAE MARKET FAIR/ 340	Greenville	29607	864-627-9633
THE GREAT ESCAPE	1426 LAURENS RD	Greenville	29607	864-235-8320
SOUTH DAKOTA				
HOBBYTOWN USA	DAKOTA PLAZA	Sioux Falls	57105	605-339-6613
TENNESSEE				
AAA MODEL SUPPLY	5237 HWY 126	Blountville	37617	423-323-1513
HOBBYLAND TENN INC.	5985 STAGE RDSTE 1	Bartlett	38134	901-937-0636
HOBBYTOWN USA	2000 MALLORY LANESTE 610	Franklin	37067	615-771-7441
HOBBYTOWN USA	2884 WOLFCREEK PARKWAY	Memphis	38133	901-213-2682
HOBBYTOWN USA	634 NORTHGATE MALL	Red Bank	37415	423-877-9885
HOBBYTOWN USA	COMMONS II	Knoxville	37923	865-690-6423
HOBBYTOWN USA	KINSINGTON PLACE SHOP CTR	Murfreesboro	37130	615-890-6777
TENNESSEE MODEL HOBBIES	8903 OAK RIDGE HWY	Knoxville	37931	423-927-2900
TEXAS				
ACTION HOBBIES	2005 9TH ST	Wichita Falls	76301	940-766-2667
BIG MIKE'S HOBBIES & TOYS	2157 GILMER RD	Longview	75604	903-297-7814
DRYCREEK HOBBIES	2518 I 30 WEST	Greenville	75402	903-527-5381
GUADALUPE HOBBY CENTER	200 SIDNEY BAKER S.STE 5	Kerrville	78028	830-895-5654
HOBBY CENTER	18177 GULF FREEWAY	Webster	77598	281-488-8697
HOBBYTOWN USA	3033 W. PARKER RD #120	Plano	75023	972-758-7875
HOBBYTOWN USA	2500 W. PARMER LANE	Austin	78727	512-246-8904
HOBBYTOWN USA	4107 S. CAPITAL OF TEXAS HWY	Austin	78704	512-440-7877
HOBBYTOWN USA	4638 S. COOPERSTE 190	Arlington	76017	817-557-2225
HOBBYTOWN USA	5276 S. HULEN ST	Fort Worth	76132	817-263-1196
HOBBYTOWN USA	999 E. BASSE RD 135	San Antonio	78209	210-829-8697
INDY RC WORLD	2020 SATURN RD	Garland	75041	972-2714844
JUST HOBBIES	202 SAWDUST RDSTE 115	The Woodlands	77380	281-292-5878
M & M HOBBY CENTER	6703 CHIMNEY ROCK	Bellaire	77401	713-668-8866
MIKE'S HOBBY SHOP	1605 CRESCENT CIRSTE 300	Carrollton	75006	972-242-4930
ROY'S HOBBY SHOP	1309 N. NORWOOD DR	Hurst	76053	817-268-0210
T & T R/C CARS	3420 AVE K	Plano	75074	972-633-2470
THE HOBBY CENTER RCEWY	4104 STAN SCHLUETER/STE 1	Killeen	76543	254-690-7311
THE RC HOBBY SHOP	13835 S.W. FREEWAY	Sugar Land	77478	281-265-4844
UTAH				
HOBBIE STOP	1150 W. RIVERDALE RD/STE D	Riverdale	84405	801-773-7849
HOBBYTOWN USA	FAMILY CTR. MIDVALLEY/STE A	Salt Lake City	84123	801-964-8242
HT'S RC'S	166 S. FORT LANE	Layton	84041	801-546-6959
VIRGINIA				
BROWN BROTHERS HOBBIES	924 N. MAIN ST	Montclair	22026	703-221-5746
CROSSWORD HOBBIES	1104 W. MAIN ST	Salem	24153	540-387-3414
DRCW RACEWAY	2200 COMMERCE PARKWAY	Virginia Beach	23454	757-340-6681
GRAYMIA LLC	9105 CENTER ST	Manassas	20110	703-369-1197
HOBBY HANGERS SPEEDWAY	14014 D SULLYFIELD CIR	Chantilly	22022	703-631-8820
HOBBYTOWN USA	1067 INDEPENDENCE BLVD.	Virginia Beach	23455	757-464-4140
LINVILLE HOBBIES	7065 WENGERS MILL RD	Linville	22834	540-833-2222
STREAM HOBBY SHOP	10015 JEFFERSON AVE	Newport News	23605	757-591-0720
TSG HOBBIES	251 W. LEE HWY #691	Warrenton	20186	540-347-9212
WASHINGTON				
B & B	6422 EAST 2ND	Spokane	99212	509-534-7223
BURIEN TOYOTA	15025 1ST AVE SOUTH	Seattle	98148	206-243-0700
FOUR SEASONS R/C RACING	2941 SLEATER KINNEY RD N.E	Olympia	98506	360-491-2430
HOBBYTOWN USA	16421 A CLEVELAND ST	Redmond	98052	425-558-0312
HOMETOWN HOBBIES	14011 N.E. 3RD COURT	Vancouver	98685	
MITCHELL RC HOBBIES	N. 4715 CRESTLINESTE B	Spokane	99207	509-482-6188
PERFORMANCE R/C	320 E. SUIRHAVEN AVE #100	Burlington	98233	360-691-4922
RAIN CITY RACEWAY	3616 SOUTH RDSTE #A-3	Mukilteo	98275	425-438-2454
REDMOND HOBBIES	1629 REDMOND	Redmond	98052	425-885-3639
TACOMA R/C RACEWAY	6305 6TH AVE	Tacoma	98406	206-565-1935
THE CLOVERLEAF	4110 MAIN ST	Union Gap	98903	509-453-8959
TIM'S HOBBY	2405 BROADWAY	Everett	98201	425-259-5929
ULTIMATE HOBBIES	131 E. MAIN ST	Auburn	98002	253-939-2515
WEST COAST HOBBY & RWY	2239 STEVENS DR	West Richland	99352	509-375-4995
WISCONSIN				
ABC RC INC.	244 W. MAIN ST	Waukesha	53186	262-542-1245
DOCKTER'S HOBBY WORLD	402 WESTGATE MALL	Madison	53711	608-274-0024
FOCUS INC.	75 S. MAIN ST	Fond Du Lac	54935	920-922-5999
GREENFIELD NEWS & HOBBY	6815 W. LAYTON AVE	Greenfield	53220	414-281-1800
HOBBY JUNCTION	1729 STEPHENSON ST	Marinette	54143	715-732-6333
HOBBYTOWN USA	10970 N. PORT WASHINGTON	Mequon	53092	262-241-1862
HOBBYTOWN USA	2075 S. KOELLER	Oshkosh	54901	920-426-1840
HOBBYTOWN USA	2767 S. ONEIDA ST	Green Bay	54304	920-490-9996
HOBBYTOWN USA	3347 KOHLER MEMORIAL DR/D2	Sheboygan	53081	920-452-0801
JOHN'S HOBBIES	54 N. MAIN ST	Hartford	53027	262-673-7454
KDM HOBBY	711 E. SPRUCE ST	Abbotsford	54405	715-223-4414
PHIL'S HOBBY & CRAFTS	409 W. MAIN ST	Wautoma	54982	920-787-7232
RTV SUPERSTORE	100 VIKING DR	Reedsburg	53959	608-524-8999
S & N'S TRACKSIDE HOBBIES	6045 N. GREEN BAY AVE	Glendale	53209	414-351-1910
WEST VIRGINIA				
DW REED HOBBY STOP	142 W. MAIN ST	Bridgeport	26330	304-842-2742
FULTON'S HOBBY SHOP INC.	3301 CHAPLINE ST	Wheeling	26003	304-233-5355
HOBBYTOWN USA	220 NITRO MARKET PLACE	Charleston	25313	304-776-7259
LEFT TURN HOBBIES	607 SAPPHIRE AVE	Beckley	25801	304-255-3930
WEST VIRGINIA HOBBY&CRFT	PUTNAM VILLAGE SHOP CTR	Teays	25569	304-755-6474
WYOMING				
LARAMIE HOBBY CENTER	158 N. 2ND ST	Laramie	82072	307-755-5376
XTREME HOBBIES	2810 DOGWOOD AVESTE B	Gillette	82718	307-682-6077
PUERTO RICO				
D'S HOBBY SHOP	VILLA TURABO	Caguas	00726	787-460-2677
EMMANUELLI R/C HOBBIES	BO. RAYO GUAVAS BUZON #20	Sabana Grande	00637	787-873-1404
HI SPEED C. RACEWAY	422 SAN CALUDIO AVE	San Juan	00926	787-648-0016
ISLAND HOBBIES	DELFIN-OLMO 166	Arecibo	00612	787-871-1129
LA SORPRESA	1759 AVE. MILITAR/SUITE 1	Isabela	00662	787-872-2396
MILLENNIUM HOBBIES	CALLE PARANA #1719-B	Rio Piedras Hts	00926	787-767-2432
RACER'S HOBBY	873 SAN PATRICIO AVE	San Juan	00921	787-783-9150
SPEED ZONE SUZUKI	AVE. PONCE DE LEON 520-C	San Juan	00918	787-767-3475
THE TROPICAL HOBBY SHOP	RR-02 BOX 6486 RD 643 KM 4.0	Manati	00674	787-854-8884

CANADA						
HOBBY GUYS	#1, 222-16 AVE N.E.	CALGARY	ALB	T2E 1J8	CANADA	403-230-8821
PM HOBBY CRAFT	2020 B 32ND AVE N.E.	CALGARY	ALB	T2E 6T4	CANADA	403-291-2733
GOLDEN HORIZON	2132-3779 SEXSMITH RD	RICHMOND	BC	V6X 3Z9	CANADA	604-331-2526
ONE STOP HOBBY	33228 S. FRASER WAY	ABBOTSFORD	BC	V2S 2B3	CANADA	604-852-6497
CAPE COD HOBBY	23 DIVISION ST NORTH	KINGSVILLE	ONT	N9Y 3E8	CANADA	519-733-2443

SUBSCRIBE

TAMIYA Team Driver David Jun's TA04 Pro!

Take advantage of the lowest price of the year!
One year (12 issues) only $13.98!

To order call toll free 1-800-767-0345



Subscribe now for only $13.98 and be automatically entered to win the David Jun Tamiya sweepstakes! Don't wait, order today to start receiving all of the best product tests, buyer's guides and car shootouts in the R/C industry!

TAMIYA

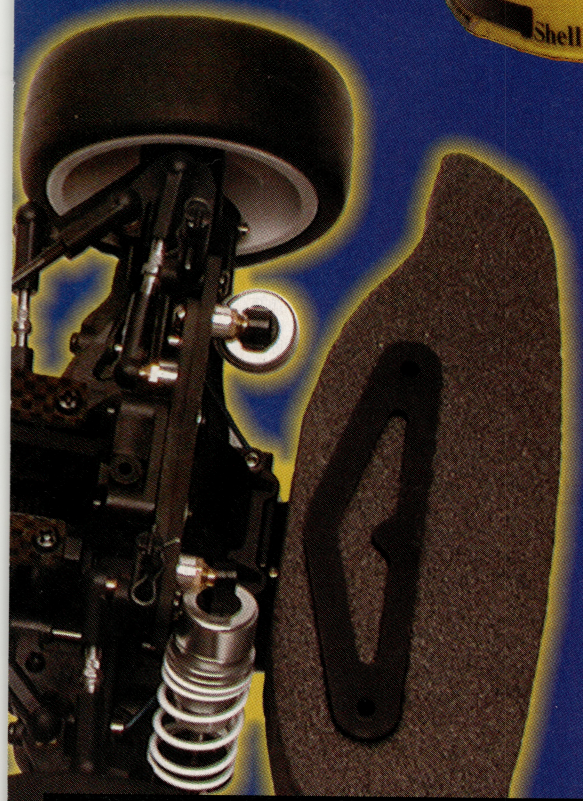
OFFICIAL SWEEPSTAKES RULES: No purchase necessary. **To enter sweepstakes, subscribe with the coupon or hand-print, in block letters, the words "*R/C Car/TAMIYA* Sweepstakes," your name, address, daytime phone number and age on a standard USPS postcard.** Mail to *R/C Car/TAMIYA* Sweepstakes P.O. Box 958, Valencia, CA 91380-9058. Enter as often as you like, but each entry must be mailed separately and received no later than January 1, 2002. Non-subscription or non-renewal entries sent in the postage-paid envelope will be disqualified. By participating, entrants agree to be bound by the official rules. No mechanically reproduced entries will be accepted. Sponsors not responsible for lost, illegible, incomplete, mutilated, postage-due, misdirected or delayed 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 January 15, 2002. Winner will be notified by mail no later than February 1, 2002. Sweepstakes limited to continental U.S. and Canadian residents age 18 or older as of January 1, 2002. 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 & TAMIYA In accepting a prize, the winner grants Hi-Torque Inc., and TAMIYA the right to publicize and promote his/her photograph and name. Employees of Hi-Torque & TAMIYA 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.

& WIN

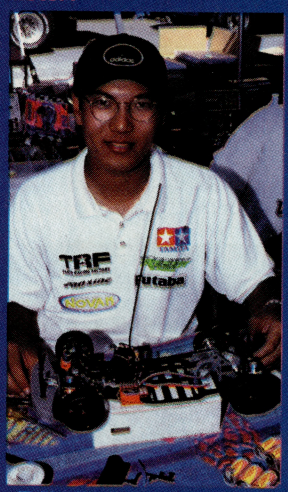
R/C CAR
rc-car.com

One year (12 issues) only $13.98!

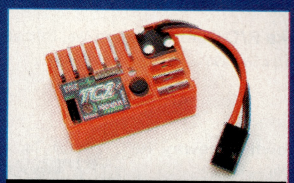




Along with David Jun's TA04 Pro you'll also get a Novak TC2 speed control, Reedy 300mah zapper pack and a Reedy Ti modified motor!



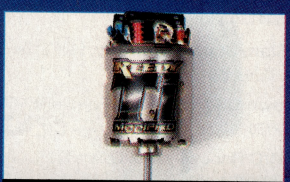
DAVID JUN
former ROAR National Champion



Novak TC2 speed control



Reedy/Sanyo 300mah Zapper



Reedy Ti modified motor

R/C CAR
THE RADIO CONTROL CAR MAGAZINE

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

- ❑ U.S. Resident $13.98
- ❑ Canadian Resident $25.98
- ❑ Other Foreign 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 $25.00
- ❑ Canadian Resident $49.00
- ❑ Other Foreign Resident $55.00

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

Subscription Sweepstakes Coupon

Make check or money order payable to *R/C Car* and mail to *R/C Car/TAMIYA 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 January 1, 2002* (or have a parent** or legal guardian** sign below to qualify for sweepstakes)

Signature _____

Date _____

TAMIYA

*Entrants must be at least 18 years of age as of January 1, 2002, 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

RCTAM



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

ALASKA

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

ARIZONA

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

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

Scottdale R/C Speedway, 3023 N. Scottsdale Rd., Scottsdale, AZ 85251 (480) 945-2186

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

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

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

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

LPRP, 800 Lake Paris Dr., Lake Paris, CA 92551 Dean Jones (909) 488-9021 lprcrp@cumpuserve.com

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

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

Pegasus Hobbies, 5515 Moreano Blvd. Mont Claire, CA 91763 www.pegasushobbies.com (909) 982-6507

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

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

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

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

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.

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

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

Hobbytown Raceway, 2301 Airport Thruway, Columbus, GA 31904, (706) 660-1763

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

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

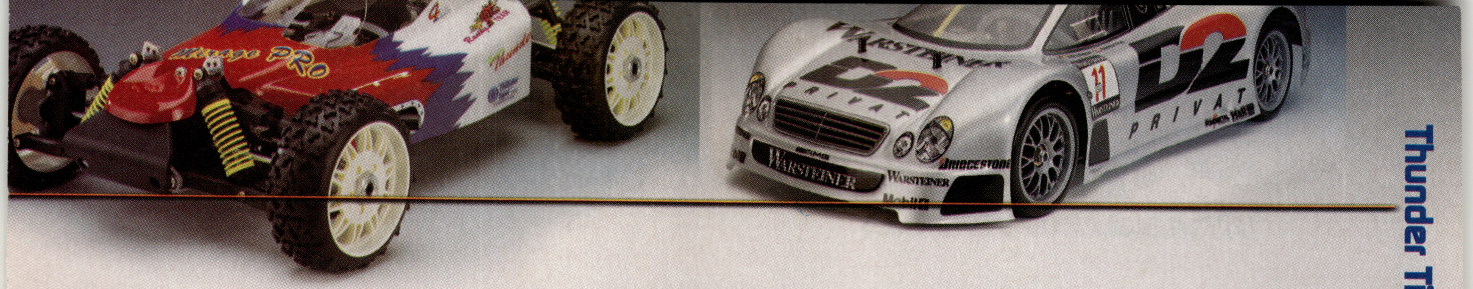
Team PRC Racing Club, 176 Mamo St., Hilo, HI 96720, (808) 935-3561

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

HOBBY SHOP DIRT OVAL PAVED OVAL DRAG STRIP OFF ROAD ON ROAD



ILLINOIS

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

CIRCR/Precisoin RC Hobbies, 1917 2nd St. Pekin, IL 61554 (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

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

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 www.pnthobby@bigfoot.com, www.pnthobby@safeshopper.com

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

Radio Control Raceway Park, 2100 First Ave. N., Ft. Dodge, IA 50501, (515) 576-3780

Riverfront Speedway, adjacent to Sunkist Meadows Golf Course, FT. Dodge, IA (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

KENTUCKY

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

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

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

Megadrome Raceway, Rt. 8 Curran Hwy. North Adams, MA 01247, (413) 743-7223

R/C Excitement Inc. Hobbies & Raceway, 36 Harlon St., Worcester, MA 010605 Mike Gordan (508) 753-8676 (508) 854-0915 www.rcexcitement.com

MICHIGAN

Beyond Extreme Racing, 36159 Plymouth Rd., Livonia, MI 48150 (734) 513-7641 www.beyondextremeracing.com

Hobbytown USA, 2252 S. Main St., Ann Arbor, MI 48103, (734) 996-2444

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

R&L Hobbies & Racing, 9782 Portage Rd., Portage, MI 49002, (616) 323-3686

Village Hobbies, 195 N. Elm St. Hesperia, MI 49421 231-854-1374

MINNESOTA

Duey's Hobbies & R/C Raceway, 6600 Cahil Ave., Inver Grove Heights, MN 55076, (651) 450-1721

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

Patriot Racing, 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

St. Louis Dirt Burners, Marshal Road, Kirkwood, MO (314) 831-2194

INDOOR ELECTRIC TRACK ELECTRICITY WATER RESTROOMS FOOD

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



Thunder Tiger TEAM TRACK DIRECTORY

INTERNATIONAL

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

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

NEVADA

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

OHIO

Corcar-Low's, 1675 Georgesville Square Dr. (614) 870-7159, Columbus OH 43228 www.corecar.com Bill Stevenson

OREGON

RC Speedcenter, 2810 N. Pacific Hwy. Medford, OR 97501 (541) 779-8298 Betty Skelton www.rcaddiction.net

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; *www.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

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

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

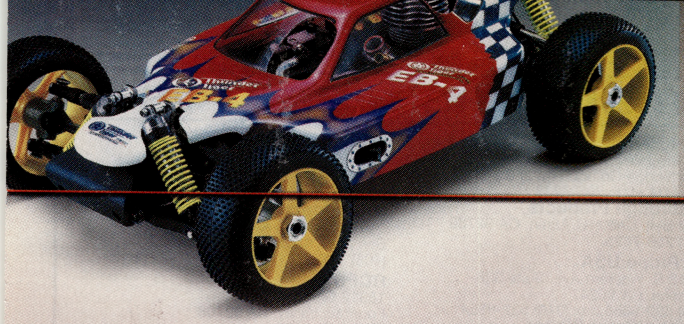
HobbyTown USA, 999 E. Basse Rd., Suite 177, San Antonio, TX 78209; Joe Sena, or Clark Baisdon, (210) 829-8697

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

HOBBY SHOP DIRT OVAL PAVED OVAL DRAG STRIP OFF ROAD ON ROAD





Performance Raceway, 1106C Witte Rd., Houston, TX 77055; Jorge Tabush or Terry Schmid, (713) 464-4458

T-N-T R/C Cars, 3420 Ave. K Suite 154, Plano, TX 75074 (972) 633-2470 (972) 238-0965 Joe Sullivan

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

Linville Hobbies Raceway, www.linvillehobbies.com

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

B & B Indoor Raceway, 6422 E. 2nd Ave., Spokane, WA 99212; Brain Batch (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

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

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

Canada R/C Auto Racing, www.geocities.com/midcanadarcautoracing

One Stop Hobbies Raceway, 33228 S. Fraiser Way, Abbostford, B.C. Canada V252B3 (604) 852-6497 Dave Palmer

ATTENTION TRACK OWNERS!

Have your track added to our list in R/C CAR. Call 1-800-767-0345.

Track Name_____

Address_____

Phone_____

Website_____

Email_____

Check The items which best describe your track:

- HOBBY SHOP ☐
- DIRT OVAL ☐
- PAVED OVAL ☐
- DRAG STRIP ☐
- OFF ROAD ☐
- ON ROAD ☐
- INDOOR ELECTRIC TRACK ☐
- ELECTRICITY ☐
- WATER ☐
- RESTROOMS ☐
- FOOD ☐

Return to:

R/C CAR Track Directory,
P.O. Box 958,
Valencia, CA
91380-9058

INDOOR ELECTRIC TRACK ELECTRICITY WATER RESTROOMS FOOD

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

Spyked! Racing
584 Meadoway Park
Worthington, OH 43085
(614) 840-0870
(614) 880-0305
wwww.spyked.com

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)

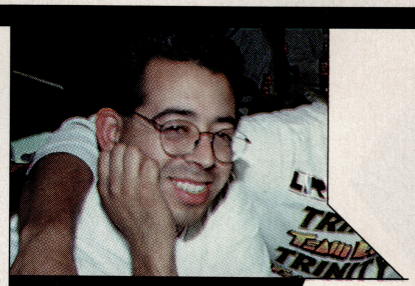
Traxxas Corp.
1210 Shiloh Rd.
#120 Dallas, TX 75228
(972) 613-3300 fax (972) 613-3599

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

Kyosho CRX



BY RICHARD TRUJILLO

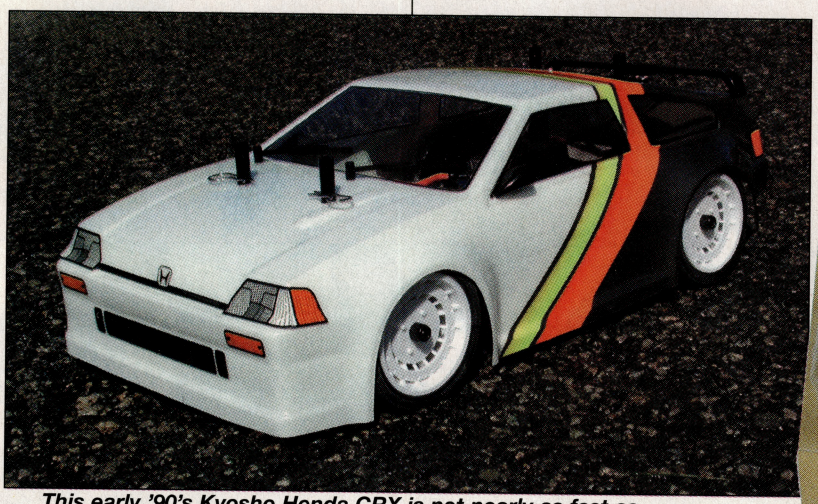
While I was doing my daily hunt on eBay, I ran across an auction for a Honda CRX R/C car. It was produced by Kyosho and was described as a 1/12-scale, front wheel drive racing car. It actually was a complete new kit with another partial car that was good for spare parts. Anyone who knows me, knows that I'm a big fan of the Import Scene. I own two Honda Civics that I have fixed up and show as often as possible. I had never seen the Kyosho Honda CRX before and according to the information given in the auction, it was produced in 1991 and only for one year. I saw the pictures and had to have it. The car was up for auction for seven days. I waited patiently all week, watching the price go up and up. After one long week, it was time to bid. One of the things I've learned when bidding on a auction, you always wait until the last possible second. Bidding at the last second is also known as being a "Sniper," which is fun to be, unless you become the "Sniped". With five seconds to go, I submitted my bid, refreshed my browser, and won! It turns out there were two other people bidding on it at the same time and my bid turned out to be just enough. Now, I know you're probably wondering what I paid for it, and I would love to tell everyone, but I can't; my wife reads these articles.

I sent my money order to the seller and about a week later the kit came in the mail. Upon opening the box, I found a kit that was in much better condition than I expected. The box was a little beat up and the "new" body had a few scuffs on it, but other than that it was a perfect kit. Most collectors would be happy to just park it on the shelf and let it collect dust, but not me; I had to build this thing.

I set up my pit on the kitchen table and opened up the instruction manual. It was all in Japanese! Luckily there were plenty of pictures. However, once I started building this kit, the pictures were not enough. What a nightmare this car became. The screws didn't match up to the pictures, it would tell you to build it a certain way, and then after you got through a few steps, you had to do it another way. In all honesty, this was the absolute worst kit I have ever built and I feel bad for anyone who bought one in 1991. Now I know why it was only produced for one year. After finally getting the car together, I thanked the R/C gods for progress.

I decided to paint the body in my "old school" paint scheme. These were the colors I used to run when I raced. After the paint had dried, I decided to only apply the detail stickers (headlights, taillights, etc.). Even though it was a frustrating kit to build, once it was completed, it was definitely worth all the work. Now it can sit on my shelf collecting dust. Hey, at least I built it! ◆





This early '90's Kyosho Honda CRX is not nearly as fast as Richard's highly modified Honda street racer, but it's close.

XXX-



READY-TO

BENCH-BUILT BY


NT
XXX-NT RTR
When we tell you our new XXX-NT RTR is built by Team Losi, we don't mean your basic assembly line job. We mean each one is bench-built, then performance adjusted and personally inspected by actual Team members. Guys like Adam Drake, Todd Hodge and Greg Hodapp. And it's not an assembly-line kit, either. It's a full-blown, no compromise racer with all the race-proven parts and features of the original XXX-NT kit paired with a performance Picco .12 engine (a combo that's won a bunch of big races this year, including the Nats). Plus, you'll get a custom hand-painted body and a top-quality JR XR3 FM radio system with premium race servos. In fact, we've done so much to make this RTR package totally complete and race-ready, there's really only one thing left for you to do. Win.
JR RACING
Complete Ready-to-Run package including a top-quality JR XR3 FM radio system.
RACE
EAM LOSI
Team Losi
ENGINEERING WINS
www.teamlosi.com
© 2001 Team Losi, a division of Horizon Hobby, Inc.

Rip It Up! NITRO RUSTLER

One the Fastest Ready-To-Run® Nitro Trucks Ever Made!

RTR READY TO RUN

Fast, Fully Assembled and Ready-To-Run® with a Hot Six Color Painted Body!

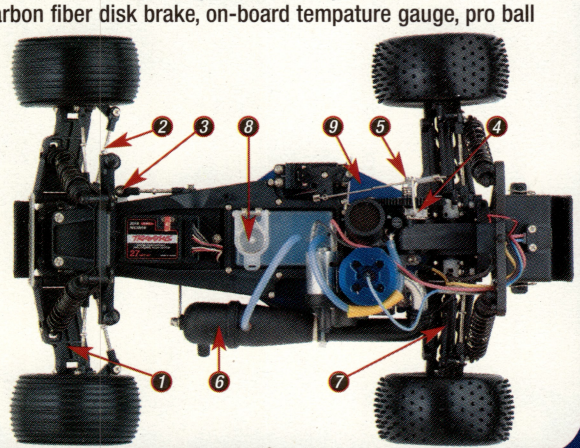
ProGraphix™



TRAXXAS

Hot Nitro Rustler Features!

- Nitro Rustler's bellcrank steering geometry virtually eliminates bump steer for precise steering control. Add optional bearings for even smoother steering.
- High-torque steering servo included. Our servo eliminates "mushy" steering response with its precise turning performance and 80 in/oz. of torque.
- Tuned exhaust system increases the engine's power output for maximum torque and incredible top speed. It also promotes cooler running and better fuel efficiency.
- Durable blue anodized T-6 aluminum chassis.
- Adjustable slipper clutch improves traction when racing and provides protection for the drivetrain components during extremely hard use.
- Oil filled Ultra Shocks™ deliver silky smooth performance and precise dampening control with racing style clip-on spring pre-load spacers.
- The deep chrome beauty of the TRX Pro Star™ wheels provide stunning good looks at no extra cost.
- It's easy to make Nitro Rustler even more competitive with optional Traxxas accessories, including carbon fiber disk brake, on-board tempature gauge, pro ball differential and blue-anodized tuned pipe.



1. X-Tra Long Suspension
2. Adjustable Turnbuckles
3. Bellcrank Steering
4. Disc Brake
5. Adjustable Slipper Clutch
6. Tuned Pipe
7. Telescoping U-Joint Driveshafts
8. 75cc Primerless Fuel Tank
9. Blue Anodized T-6 Aluminum Chassis

TRX PRO .15

- EZ-Start push-button electric starting system
- Hard chrome sleeve
- Oil groove piston
- Dual O-ring carb seals
- Sealed ball bearings
- High power output
- 2-year warranty
- Lifetime engine replacement plan





PLANETARY DIFF

The preferred choice for nitro trucks. Our hardened steel differential is built to last and requires no adjustment or maintenance headaches.

MAGNUM 281 TRANNY

The Nitro Magnum 281™ transmission is built nitro tough with 32-pitch gears, metal top gear, smooth running, long lasting ball bearings, slipper clutch and disc brake.



THE SUPPORT EDGE

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.

Total Customer Support

1-888-TRAXXAS

support@TRAXXAS.com

WWW.READYTORUN.ORG

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. 2001. Call, write, or fax for your nearest hobby shop and for our latest catalog. Specifications subject to change.

www.TRAXXAS.com