RADIO CONTROL MODEL CARS

SEPTEMBER 1995 • DISPLAY UNTIL AUGUST 31

NEW!
Racer's Edge:
THROTTLE
DRIVING
TECHNIQUES

HOW-TO SPECIALS:

MAKING RACEDAY REPAIRS

BUILDING A PRO STOCK DRAG CAR

GETTING GOOD ELECTRICAL CONNECTIONS

'95 WHAT'S NEW PRODUCTS

REVIEWS:

TAMIYA'S 1/8 GAS RACER &

MINI COOPER

HIGH PERFORMANCE FOR KYOSHO'S GO-KART

$2.95 CANADA $3.95

09

71486 01334 1

NOVAK'S ONE-TOUCH SET-UP™

One Simple Step for Man, One Giant Leap for Mankind.



Team Novak's One-Touch™ Speed Controls have landed and are here to bring you astronomical results. They are the Duster Sport, Rooster Reversible, Racer, and Hammer Pro. You've heard about them! You've sighted them! You even know of those who have made awesome contact with them! But, have you experienced the simplicity and expertise of the Team Novak One-Touch Speed Controls for yourself?

With just a press of a button, your vehicle is set and ready to experience the smoothest and most efficient acceleration known to R/C. This new generation comes equipped with Radio Priority Circuitry™ to maintain total control even after the battery pack has dumped, Solid State RVP™, dual-level thermal protection, and digital anti-glitch circuitry to give mankind one strong weapon against unknown terrain.

ONE TOUCH SET-UP

You might call them technically-engineered, velocity-manipulating, vehicle modulators, or you might just call them the best speed controls this side of the galaxy.

Touch down at your local hobby store today to scope out the Novak One-Touch Set-Up Speed Controls and prepare to launch your best driving expedition yet!



© 1995 NOVAK ELECTRONICS, INC. • All Rights Reserved • The Duster Sport (#1950), Rooster Reversible (#1850), Racer (#1650), Hammer Pro (#1750), One-Touch Set-Up, Radio Priority Circuitry, and Solid State RVP are trademarks of Novak Electronics, Inc.

NOVAK ELECTRONICS, INC. • 18910 Teller Avenue • Irvine, CA 92715
(714) 833-8873 • *CALL OR WRITE FOR A FREE TEAM NOVAK CATALOG*

NO WAY.



WAY!



What do you get when you upgrade an easy "first-timer's" truck for higher torque, firmer handling and faster speeds?

TRACKER™

You get the Tracker 2WD—and the power to lay tracks almost anywhere. The Tracker's secret? Competition-proven off-road engineering, beefed up for a crash course in unstoppable monster mayhem.

It's priced lower than many lesser-equipped electric crushers. And the Tracker is even EASIER to build and run.

A protective, molded Kelron™ chassis puts the center of gravity low. That helps you stay on all fours, even over roller-coaster routes. With the Tracker's adjustable gearing, high-grip tires and stabilizing independent suspension, you'll easily blaze trails through the toughest off-road frontiers.

Just compare its list of features to any other "entry-level" electric truck. Kyosho's Tracker 2WD gives you the most monster for your money.

Here's how the affordable Tracker breaks new ground.

1. Efficient engineering minimizes weight—increasing run time and leaving more motor power for SPEED.
2. Included 550 motor supplies high torque for unstoppable climbing ability.
3. Proven, heavy-duty transmission permits easy pinion gear changes for optimum performance on any track.
4. Kyosho Heavy-Duty Mark II speed control delivers long-lasting, totally reliable performance.
5. Oil-filled shocks absorb bumps and jolts better than the typical "economy" truck's friction dampers.
6. Lightweight, clear Lexan® body is easier to paint and more durable than heavy, white plastic styles.
7. Tracker is easy to upgrade with affordable, widely available hop-ups.



Length: 18.1 in (460mm)
Height: 9.8 in (250mm)
Width: 11.6 in (295mm)
Weight: 3.9 lb (1770g)
Motor: 550-size (included)

KYOSHO
THE FINEST RADIO CONTROL MODELS

For a free brochure and the location of the dealer nearest you, please call **1-800-682-8948, ext. 092H.**

Distributed Exclusively Through

GREAT PLANES®
GREAT PLANES MODEL DISTRIBUTORS COMPANY
P.O. BOX 9021, CHAMPAIGN, IL 61826-9021

© Copyright 1993—3070340

RADIO CONTROL MODEL CARS

SEPTEMBER 1995 VOLUME 10 NUMBER 12

contents



COVER: From Tamiya's 1/8-scale Alfa to the diminutive Mini Cooper and Kyosho's Q-scale Go Kart, we've covered a wide range of new RC vehicles. Add to that our exclusive how-to features on building a Pro Stock racer and making good electrical connections, and you have a summer reading package packed with interesting features.

features

20 **REVIEW: TAMIYA'S 1/8-SCALE GAS CAR** Ben Chiu
Tamiya's first 1/8-scale gas-powered car is a faithful replica of a German Touring Alfa Romeo.

22 **REVIEW: TAMIYA'S MINI COOPER** Doug Adams
The mighty Mini is back with a versatile chassis and stunning scale detail.

26 **UPGRADING KYOSHO'S Q-SCALE GO-KART** R.C. Canon
RC's most realistic go-kart kit is enhanced with a variety of optional Kyosho hop-up parts that gives performance a real boost.

32 **RACEDAY REPAIRS** Rick Eyrich
It never fails: you're ready to leave the pits and head for the starting line and something breaks. Have no fear—we've got the fix!

40 **SOUTHERN DRAG NATIONALS** Rich Lacharite
Team Stroker's head guy goes south for the Southern Nats, where he reports on the fast times and trick equipment.

44 **HOW TO MAKE GOOD CONNECTIONS** Kevin Meyer
Good electrical connections are the key to success in your racing program. This detailed article shows how to keep the power flowing.

52 **REEDY RACE GOES TO JAPAN** Gene Husting
As a prelude to the world championships later this summer, Mike Reedy held an invitational event for the world's best offroad racers.

54 **TRUE COLORS: LONG BEACH GRAND PRIX** Richard Dowdy
The new teams, new cars and drivers are on display during the Indycar race weekend in Long Beach, California.

58 **HOW TO BUILD A PRO STOCKER** Kevin Meyer
A step-by-step feature outlines the process of creating a hot drag car using commonly available RC components.

62 **REVIEW: TEKIN'S G-12 SPEED CONTROL** Rob Tuck
Tekin's top-of-the-line electronic speed control, featuring QuickTune parameter setting, is run through the RCMC test lab.

68 **SOUTHERN DRAG NATIONALS** Rich Lacharite
Team Stroker's head guy goes south for the Southern Nats, where he reports on the fast times and trick equipment.



54



68

departments

8 New & Hot

10 Readers' Page

12 Answerman

14 Big Tips

16 Starting Out

30 Racer's Edge

34 J.R.'s Column

63 Drag Club List

POSTAL INDENTIFICATION INFORMATION IS LOCATED ON PAGE 6.

Schumacher USA

COUGAR 2000 '95 TEAM



NEW CAT 2000 E.C.
THE NEXT GENERATION



U499	COUGAR 2000 - 95 TEAM	SALE PRICE	$221.70
U498	CAT 2000 - EC -4WD EURO CHAMP	SALE PRICE	$329.70
U496	CAT 2000 - 4WD "OPEL CALIBRA"	SALE PRICE	$287.70
U1617	Schumcher Active Caster System RC10		34.95
U1618	Schumcher Active Caster System Losi XX		34.95

STORM 2000
THE NEXT GENERATION

COMPETITION RACING TRUCK



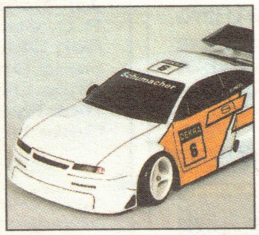
Low, mean, aggressive 1/10th scale racing truck ready to take on the strongest of competition. Two versions, electric and gas for serious racing.

U461	ELECTRIC STORM 2000 Competition Electric Racing Truck	SALE PRICE	$215.70
U486	NITRO STORM 2000 Requires engine & Installation set	SALE PRICE	$221.70

NITRO 10 MK3 & ELECTRIC TOURING CARS



MERCEDES C-CLASS



OPEL CALIBRA



FORD MONDEO



ALFA 155

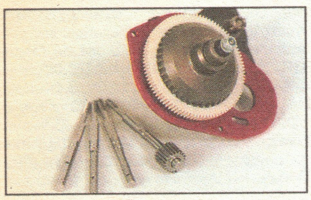


ESCORT COSWORTH

NITRO 10 MK3 SALE PRICE $119.70
Requires engine and Installation Kit

BOSSCAT - 4WD SALE PRICE $149.70
Includes Motor and Speed Control

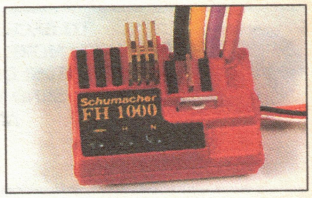
ALL KITS AVAILABLE IN BODY OF YOUR CHOICE



VISCOUS DRIVE UNIT & LAYSHAFTS

U1787	VISCOUS DRIVE UNIT - UNIVERSAL	$54.95
U1788	LAYSHAFT, VISCOUS DRIVE - CAT 2000	$ 9.50
U1789	LAYSHAFT, VISCOUS DRIVE - LOSI XX	$ 9.50
U1790	LAYSHAFT & COVER, VISCO RC10	$15.50
U1791	LAYSHAFT & COVER, VISCO Cougar 2000	$12.50

NEW FH1000
ELECTRONIC SPEED CONTROL



1. High Frequency 1000 Hz operation
2. Fully proportional forward and brake
3. Safe with 16T modified motors
4. Optionmal Heatsink G975 for motors down to 12 Turn
5. Temperature protected w/1.5 Amp B.E.C.
6. Set up LED indicator

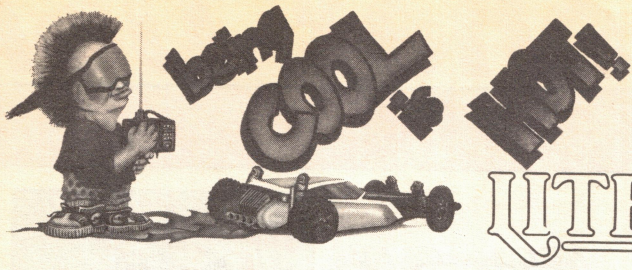
G974 FH1000 ELEC SPEED CONTROL $35.99

BUY DIRECT !!
KITS 40% OFF

6302 Benjamin Road - Suite 404 , Tampa - Florida 33634
PH: (813) 889 - 9691 OR 889 - 9489
FAX: 813 - 889 - 9593

WE ACCEPT VISA AND MASTER CARD

VISA M/C

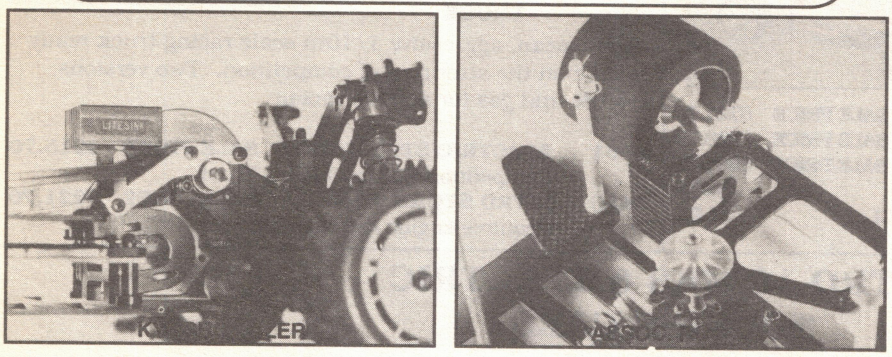


MORE TORQUE
HIGHER SPEED
LONGER RUN TIMES
EXTENDED MOTOR LIFE

LITESINK®

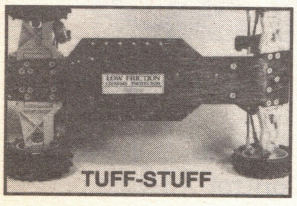
LITESINKS ARE THE PERFORMANCE MOTOR COOLING HEATSINKS FROM LITESPEED, AND A LITESINK COOLED MOTOR IS THE HOT SET-UP TO GET MAXIMUM POWER AND PERFORMANCE FROM YOUR R/C CAR.

NEW • LIGHTER WEIGHT • MORE COOLING



HEAT drains motors of power. HEAT is not cool, but a LiteSpeed LiteSink is! NOTHING beats a LiteSink for removing unwanted motor heat! The race proven LiteSink design can lengthen run times by 20-40% and provide the option of gearing for higher top speed. A LiteSink will increase your motor's torque and speed. Experience the increased power of running a LiteSink and burn up the track, not your motor.

AVAILABLE FOR MOST POPULAR CARS AND TRUCKS



Low friction covering reduces drag & stops costly chassis wear.



The lowest resistance highest performance connectors available.



Special heat transfer gaskets seal out dirt and aid motor cooling.



TO RECEIVE OUR **NEW CATALOG** WITH MORE INFORMATION ABOUT THESE AND OTHER QUALITY LITESPEED PRODUCTS, SEND YOUR NAME, ADDRESS, AND (2) STAMPS TO:

LITESPEED® INC.
P.O. BOX 4765
SPOKANE, WA 99202
(509) 535-2717

Accepting resumes

QUARTER FLASH MOTORS, INC.



BURY THE COMPETITION!

20 % OFF



Dealer inquiries welcome.

QUARTER FLASH MOTORS • (602) 625-9274
16301 S. Santa Rita, #C • Sahuarita, AZ 85629

CONGRATULATIONS!!!

Drivers Representing QFM at the
1994 NORRCA NATIONALS

Paul Schwander
6th "A" Expert St. Trk. with **Undertaker "2" Motor**
10th "A" Expert Mod. Trk. with **12/2 Ultra-Mod Motor**

Alexi Quinitaran
5th "A" Handout St. Car with QFM's **Z cut Brushes**
5th "A" Handout St. Trk. with QFM's **Hollow cut Brushes**

Mike Evert
1st "A" Sportsman Mod. Car with **17/3 Ultra-mod Motor**

RADIO CONTROL MODEL CARS

P.O. Box 2459
Capistrano Beach, CA 92624-0459
Phone: (714) 496-5411

PUBLISHER
Mark Thiffault

EDITOR
Richard Dowdy

ART DIRECTOR
Scott A. McPherson

ADVERTISING DIRECTOR
Mark Thiffault

ACCOUNTING MANAGER
Jim Lenhart

OFFICE STAFF
Kay Bastnagel
Brett Thiffault

CONTRIBUTING WRITERS

Doug Adams
Del Bagshaw
Jeff Bates
R.C. Canon
Ben Chiu
Reed Deanfield
Chris Dvorak
Rick Eyrich
Gene Husting
Rich Lacharite
Vernon Lewis
Kevin Meyer
Don Redondo
Joe Ringeisen
Dave Sproul
Bill Strauss
Rob Tuck
Eric Wiens

RADIO CONTROL MODEL CARS MAGAZINE (ISSN1061-7213) is published monthly at the editorial offices, located at 34249 Camino Capistrano, Capistrano Beach, California 92629. Phone (714) 496-5411. CONTRIBUTIONS: All contributions are welcome. Address your submission to Editor, Radio Control Model Cars, 34249 Camino Capistrano, Capistrano Beach, California 92629. Please enclose postage with manuscripts, photographs and illustrations if material is to be returned. Radio Control Model Cars accepts no responsibility for unsolicited material. All photos should be packed carefully and marked PRESS PHOTOS—DO NOT BEND. All materials published in Radio Control Model Cars becomes the exclusive property of Gallant Models Inc., unless prior arrangement has been made in writing with the publisher. Gallant Models, Inc., assumes no responsibility for unsolicited material. Manuscripts and photographs accompanied by an SASE will be returned. SUBSCRIPTIONS: One year (12 issues) $25.00 per year, two years $47.00. Single Copies $2.95. Subscriptions outside the US (except APO & FPO) $33.00 for one year, two years $63.00. In Canada, one year $35.00, two years $66.00. Foreign and Canadian orders must be in money order form, payable in U.S. dollars. Copyright 1995 by Gallant Models, Inc. All rights reserved. Reproduction without permission prohibited. CHANGE OF ADDRESS: Six weeks are required to change your address. In the meantime, forwarding postage is paid by you, and lost copies cannot be replaced. Send old address at least six weeks before you move, and include new address. POSTMASTER: Send address changes to Radio Control Model Cars, P.O. Box 2459, Capistrano Beach, California 92624. ADVERTISING RATES: Rate card is available on request. Contact the advertising director at the editorial address, or call: (714) 496-5411 HOBBY SHOP ORDERS: contact Radio Control Model Cars at P.O. Box 2459, Capistrano Beach, CA 92624 for details. BACK ISSUES: Some issues are available. See the back issues ad in the current magazine or send $5.00 for each issue desired along with the month and year to editorial address. Magazines will be mailed second class, postpaid. FOREIGN ORDERS: write for details. SECOND CLASS POSTAGE is paid at Dana Point, California and additional mailing offices. Made in U.S.A.

MEMBER RCHTA
RADIO CONTROL HOBBY TRADE ASSOCIATION

For a limited time, get MORE RUN For Your Money!



Combo Rebate
$25.00 merchandise certificate
OR **$15.00** cash

PRO-X™

PRO-XRT™

Get a $25.00 rebate on these powerful racing combos:

Kyosho Pro-X buggy OR Pro-XRT racing truck

STRUT YOUR STUFF at the starting line without risking budget burnout! You're racing with today's hottest electric technology behind the wheel of the Pro-X and Pro-XRT...two top-of-the-line 2WDs proven over two years of research and track-testing.

Lots of tricks in the ultra-affordable **Sport** versions don't come standard with comparably priced competitors—like the one-piece rear universals for dependable power delivery.



Team models take you trackside with every upgrade imaginable... and then some. Eleven ball bearings keep tranny action silky smooth. Oil dampeners reach perfection with Teflon®-coated aluminum Ultimate™ Shocks—sealed against contamination by an innovative "dust boot," and engineered for split-second spring tension changes.

Race Kyosho's Pro-X buggy and Pro-XRT racing truck, and you'll give any challengers a real run for their money...while you save some of your own.

Futaba® 2-channel pistol radio

FUTABA RADIOS lead the pack in comfort, quality and precision control. Paired to a Kyosho "Pro," any of these 2-channel systems will bring home the gold! All are available with servo reversing and one standard servo.



2PB Magnum Sport AM: Your "best buy" when running for fun.

2PBKA Magnum Junior AM: Killer combination of versatility and value.

2PD Magnum AM: The features and flexibility racers require.

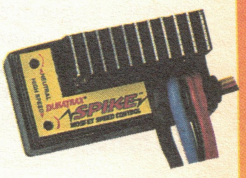
2PDF Magnum FM: All the features of the 2PD AM with superior FM signal clarity!



DuraTrax® Electronic Speed Control

ADD LIGHTNING-QUICK throttle response to your Kyosho Pro's performance with a DuraTrax electronic speed control.

Driving for sport? Save but don't sacrifice—choose the economical **Spike**, designed for efficiency and easy set-up.





If you're craving to compete, go with the digital, high-frequency **M5**. MEGAFET transistors cut on-resistance to just 0.003 ohms!

How to claim your rebate.

1. To qualify, you MUST purchase a Kyosho Pro-X buggy or Pro-XRT truck, **and** any Futaba 2-channel pistol radio **and** any DuraTrax electronic speed control.
2. This offer also applies to purchases of Kyosho's Pro-X or Pro-XRT Combo Pack, which includes car kit, radio, speed control, motor, battery and charger.
3. Items must be purchased between June 1, 1995, and August 31, 1995.
4. A rebate certificate and specific proofs of purchase are required. Get all the details at your Kyosho dealer.

You can redeem your rebate for a $25 merchandise certificate towards the purchase of Kyosho, DuraTrax, Great Planes, Top Flite, Hobbico, Heli Max, SuperTigre or DuraPlane products or get $15 in cash back from the manufacturer.

KYOSHO®
THE FINEST RADIO CONTROL MODELS

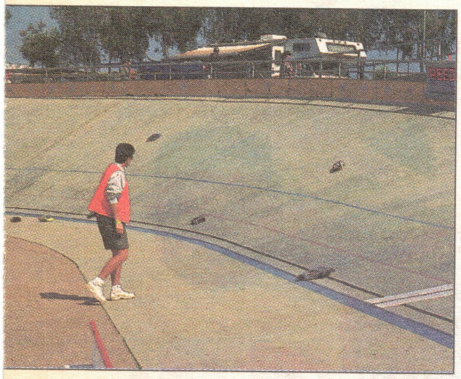
Distributed exclusively through
Great Planes Model Distributors Company
P.O. Box 9021, Champaign, IL 61826-9021

© Copyright 1995 — 3070364

Don't miss your chance to save on a winning racing package!

For the location of the Kyosho dealer nearest you, please call 1-800-682-8948 and mention code #096S.

New & Hot



BACK TO THE 'DROME

NORRCA's big oval extravaganza, dubbed the '95 Super Oval Winter Fest, takes place this October 6,7 and 8 at the Dominguez Hills Olympic Velodrome in Carson, California. Race Director J.R. Sitman has opened the high-banked track to Sportsman and Expert Stock, Mod and Nastruck classes, as well as Superspeedway and a flat-out Speed Run competition. Entries are filling fast, so if you want to get in on three days of high-powered fun, see the ad in this issue on page 71 for your entry blank. This is one race you don't want to miss!

COST-CONTROLLED RACING IN JERSEY

Ray Murray, who has organized a series of parking lot races in South New Jersey, writes to say that the series is off and running. With classes that include 1/10 NASCAR and NASTRUCK, Legends and Street Spec, the requirements are that all cars run six cells and a Dustbuster closed-endbell motor. Entry fees are only $5.00 and motors cost a mere $3.00 each. Races are held at HobbyTown USA at Berlin Circle Plaza, Rt. 73, Berlin, New Jersey; (609)768-7550, Pizza Hut in Magnolia, NJ and Quila's Mexican Restaurant in Malton, NJ. For more information, call Ray at (609) 629-4809.



CARPET CLEANERS

Dwayne Silva and Darryl Silva took the trophies home at the California Carpet Oval Champs at Lodi Raceway with their TMRC ST-10 cars recently. Dwayne drove an ST-10 oval chassis to TQ and won the expert modified class, while his brother Darryl qualified third and finished second in Pro Stock. Darryl also set a track record on the Lodi track.



REEDY IN JAPAN

Reedy's Race of Champions traveled to the Far East in a prelim to the World Championships at Yatabe Raceway in Tsukuba City, Japan. Mark Pavidis TQ'd every round and won the first two A-mains with his RC10 World's car. For the full story, see page 52 this issue. Congratulations to Mark, seen here with Miss Orion.



RC ROBOT CHAMPS

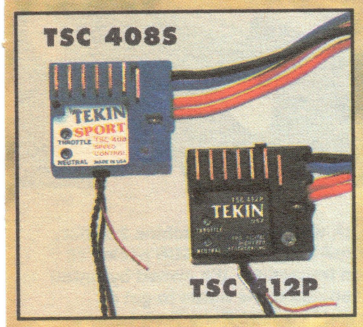
Raychem/ Woodside High School team, of Woodside, California beat 47 competitors at the '94 First National Robot Championships at Disney World in Lake Buena Vista, Florida recently. The tournament pits radio-controlled robo-gladiators against each other to achieve a victory over a course that included a three-way ramp and speed bumps. Tekin Electronics supplied the speed controls for each of the 48 teams competing. •

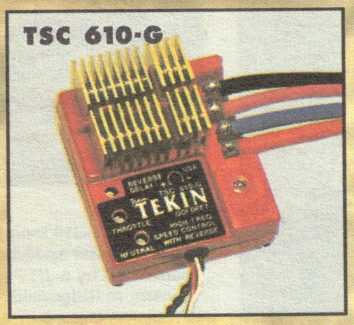


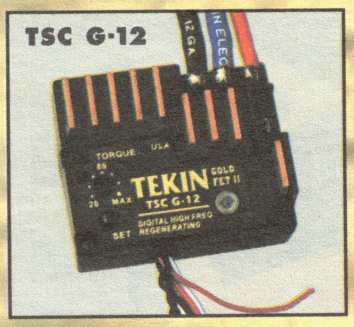
SHORT TAKES

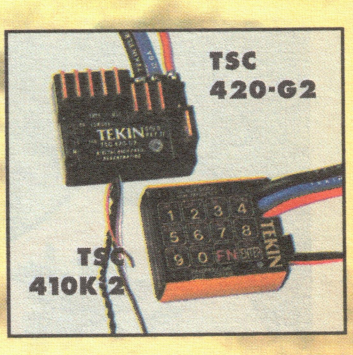
Velodrome results: At Major Taylor Velodrome in Indianapolis, PSE team driver Danny Crawford, of Union City, Ohio, was top qualifier in NASCAR Stock, using PSE's Monte Carlo body and Pro Eagle capped tires. PSE team driver John Foister was the winner. The NASTRUCK class was won by PSE's sales and marketing manager Garry Owen, using a Chevy PSE body and Rocket Sprocket spur gears, plus Eagle Cap tires...OOPS: Ed Allen, whose new 1/10-scale front end was profiled here in the July issue, wants us to give his correct phone number: call ARP at (714) 858-0702. The front end is a direct replacement for Associated's 1/10 oval cars. Give Ed a call...MIP has updated their successful Onboard Temp Gauge with a new enclosed probe-housing lug and a replaceable plug-in style probe wire sold in different lengths for more versatile installation. Also, the screen display numbers are now 25% larger. Eustace Moore Jr. has been testing some hot products for Tamiya's DTM cars, including a lightweight fiberglass chassis and a new differential. For details, contact MIP at 746 E. Edna Pl., Covina, California 91723. (818) 339-9008.

SPEED CONTROL









DRIVING FUN

408 Sport & 412P SpeedStar replace servo, wiper, resistor, receiver battery, and most original wiring with one simple, compact, efficient, durable, and reliable unit. Smooth proportional throttle control from a slow crawl, to wide open. Powerful adjustable braking. Genuine high-frequency operation gives you 25% more run-time, plus your motors last much longer.

SpeedStar model also features MegaFET transistors for extra power with hot modified motors.

REVERSE ACTION

The top-of-the-line reversing speed control is the 610-G. With a resistance of just .00187 x 2 Ohm, the 610-G is *twice* as potent as it's closest competition. This means it keeps its cool, so it can power 11 turn modifieds or even dual mild modifieds, without shutting down. Use it for heavy duty reverse power, and get ready for some real action!

Also available January 1995: All-new Entry-Level reversing model with an outstanding price / performance ratio.

COMPETITIVE ADVANTAGE

The P-12 and G-12 are our newest, latest models. They are the descendents of the P2 and G2, and add Tekin's new "QuickTune" electronic setup.

The P-12 and G-12 make use of the best newest components available, as well as exclusive new advanced designs, to pump out full power, with precise control, under extreme conditions.

We build them with new Low-Profile heatsinks, Replaceable wires, Super-Low voltage drops, High Power 5 Amp BEC's for truck and high speed servos, Higher 3500+ Hertz operation for an extra 15 to 20 seconds run-time, the Highest MosFET amp ratings, etc...

CHAMPION RACING

The new 410K, series 2, takes pushbutton control to the max! Built-in keypad allows three settable torque ranges, advanced brake rate setup, new External on/off switch, and more.

420-G2 is the 105 MPH speed control. Use it for extreme high power, drag racing, insane runs, etc. It handles up to 20 cells, and runs dual modified motors.

411-G2 (not shown) delivers performance approaching the G-12, but with simple manual radio adjustments. Loaded with exclusive advanced circuitry. Built in motor diode, Test Point, 5 Amp B.E.C., .00125 Ohm resistance, and 350 Amps of power.

SPECIALTIES

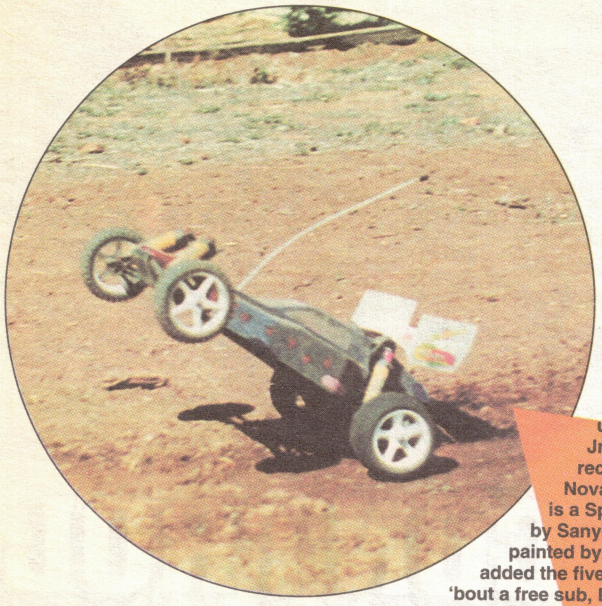
Visit your local hobby dealer for complete details, or write for a free Tekin catalog.

Team
TEKIN
THE FINEST IN R/C RACING

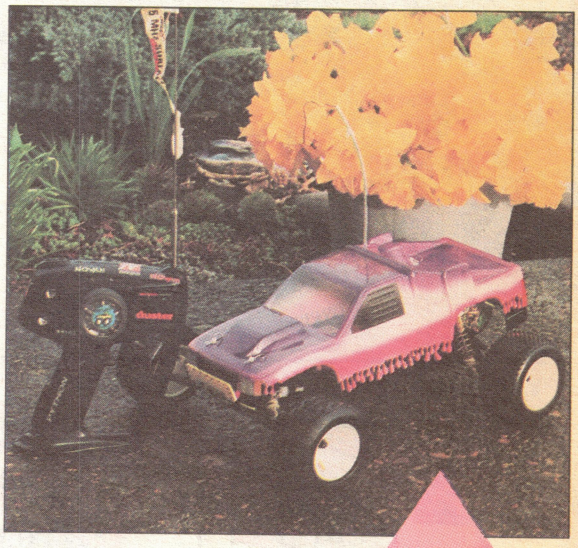
940 Calle Negocio, San Clemente, CA 92673
Phone: (714) 498-9518, Fax: (714) 498-6339

Readers' Page

READERS: WELCOME TO MY NIGHTMARE! WHAT DO I MEAN? I MEAN TOO MANY PICTURES AND NOT ENOUGH ROOM!! I'M NAGGING THE EDITOR TO GIVE ME MORE PAGES, AND I HOPE HE SEES IT MY WAY SOON. I'M BURIED IN YOUR PHOTOS, AND THEY'RE ALL GREAT! I WILL GIVE EACH READER WHOSE PHOTO IS CHOSEN A NEAT PRIZE, SO AGAINST MY BETTER JUDGMENT, I'M ASKING YOU TO SEND YOUR PICTURES TO ME SO YOU CAN GET IN ON THE GRAVY TRAIN! DO IT NOW! SEND TO: DEL BAGSHAW, READERS' PAGES, BOX 2459, CAPISTRANO BEACH, CALIFORNIA 92624.



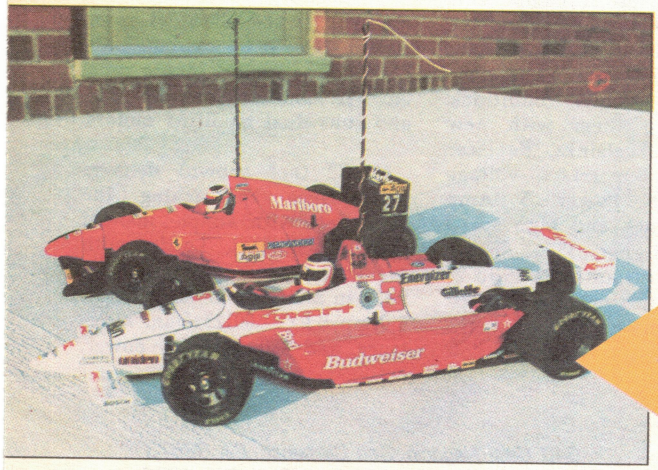
From South Australia we get this wheelstanding shot of David Kempe's Team Losi XX buggy. Dave uses a Futaba Megatech Jr. radio with a JR Beat 2 receiver. His ESC is a Novak 410M1c and the motor is a Speedworks 427, powered by Sanyo cells. The body was painted by Dave hisself, and he added the five-spoke rims too. How 'bout a free sub, Dave? It's on its way to Auburn, South Africa.



This is an RC10 team truck with a Green Machine 2 motor, Novak Duster speed control and two 1400 SCR packs, all controlled by a JR Python transmitter. It's owned by Anton Brown, of Ridgefield, Washington. He wants to get a Precision Outlaw motor and two 1800 Race Tech battery packs. Here's a free Dahm's body to get you going, Anton!

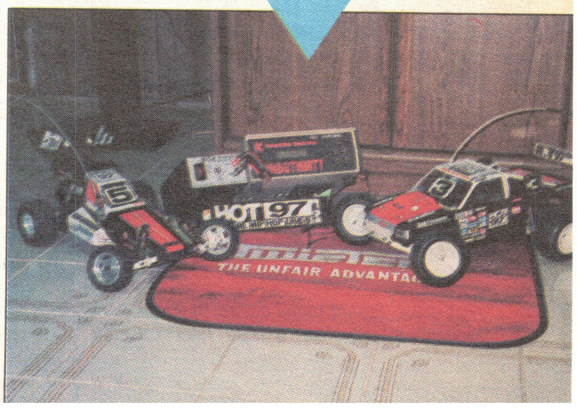


Bobby Allison's car, as driven by Derrick Cope, is the subject modeled by Michael Karmides, of Greensburg, Pennsylvania. Michael used an old Radio Shack chassis that was intended for a dune buggy, and modified it to accept a '92 Protoform T-Bird wide body, which he races in parking lot events. Mike's wife, Elizabeth helped mix the paints and airbrush the design, and made the decals for the Straight Arrow and Mane 'n' Tail. A great job. A subscription to *RC Model Cars* is headed your way.



Dennis Deeley (Simon's big brother) sent the photo of his and Simon's cars. The guys live in Bowmanville, Ontario, where they race when the sun shines. Both own Tamiya racers, and Simon's is the KMart/ Budweiser Lola as driven by Canadian Paul Tracy this year. Dennis' car is Jean Alesi's '94 F1 Ferrari. Both are equipped with Slot Machine motors, Tekin ESCs, Sanyo batteries and Futaba Magnum radio systems. Both boys are glad racing season is here, and they're ready to burn up some parking lots. A free subscription is on its way to the pair. Congratulations.

Paul Santiago, of Flushing, New York, started with stock RC10 and RC10T kits that he hopped up with some nice options. Reedy's Mr. series motors were installed in both vehicles, along with 1700 SCRC batteries, 410M1c Speed controls by Novak and classy paint jobs with his airbrush. We're sending a pair of Dahm's bodies to Paul to paint up for his chassis.

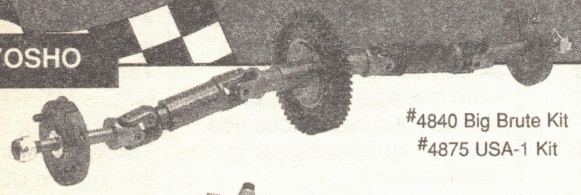


TOUGH STUFF

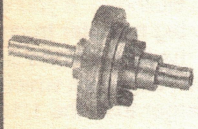
Whether you're pulling, racing or just having fun, THORP products give you more "TOUGH" for your money. You can count on Thorp's leading edge designs and high-quality machining to deliver long-lasting performance and reliablilty.

World famous Thorp Drivers Set the Standard for Quality

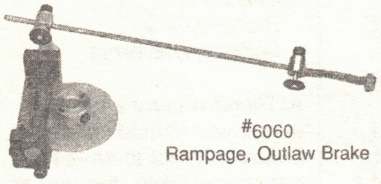
KYOSHO



#4840 Big Brute Kit
#4875 USA-1 Kit



#6050
Rampage Ball Differential

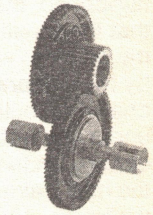


#6060
Rampage, Outlaw Brake

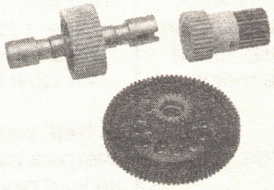
TAMIYA

#2000 Blackfoot Diiferential and Dog Bone Kit

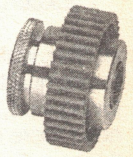




#2050 Super Blackfoot Differential Kit, 48 Pitch



#6000
Clodbuster
Differential



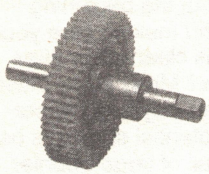
#4985 King Cab
48 Pitch Gear Kit

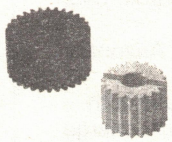
TRAXXAS



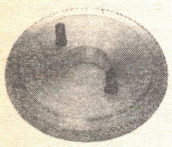
#5320 Adapter Kit

#5350 Blue Eagle/Nitro Hawk Ball Differential





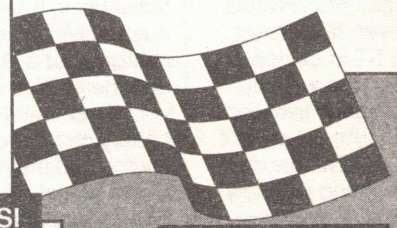
#5302 Idle Gear Set
#5309 3.0 Cheater Gear Set

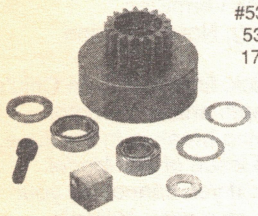


#5361 Nitro Hawk
Aluminum Flywheel



#5311 Gear Set

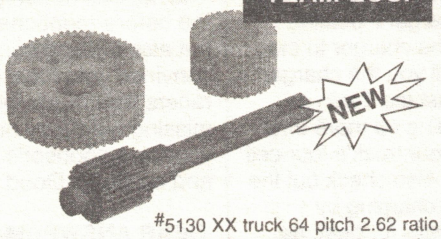




#5364, 5360
5363, 5362
17,18,19,20
Tooth
Clutch
Bells

#5370 Nitro Hawk
Adapter Kit
O.S. CZ-R

TEAM LOSI

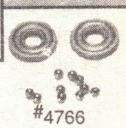


#5130 XX truck 64 pitch 2.62 ratio
#5140 XX car 64 pitch 2.22 ratio

ASSOCIATED



#4770 Gear Set
with Hard Aluminum
Top Gear

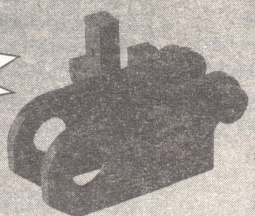


#4766
Thrust Washer

Dirt Burners!

THORP manufacturing

New Aluminum Gas Trans



Dealers Welcome!
Duratrax Gearbox Conversion
#4780 Associated Differential
#5120 Losi XX Differential

Send $2 for a catalog of these and Thorp's many other fine products

4054 E. Mission Blvd., Pomona, CA 91766 • Ph (909) 622-6518 • Fax (909) 622-2947

Answerman

DEAR ANSWERMAN,

I recently purchased a Kyosho Sandmaster ST offroad truck. While running the second tank of fuel through the ST on a local parking lot, the truck's throttle stuck wide open and it struck a building. I found that the throttle arm screw had come loose from the 0.5. engine's carb barrel and the result was a broken chassis on the Kyosho. After contacting Kyosho and explaining what happened, they explained that the situation surrounding my problem wasn't covered by the warranty. I feel the chassis should be replaced under warranty as the truck came from the factory with the motor already together in the frame. Also, I also found nuts missing on the motor mounts.

Ron Cooper
Lockport, New York

A: Ron, while all RC cars and trucks need plenty of tender loving care, gas RC vehicles need more even right out of the box. The ST truck does come from Kyosho with the engine/carb already installed in the chassis tub; but careful inspection is always mandatory prior to running any new RC gas vehicle. This means even checking already-installed factory parts on the truck before and after each run. Vibration that can loosen nuts and bolts is always a consideration on gas cars, and most fasteners will loosen up over time. Good RC car thread-locking agents like Loctite #242 should be a part of all gas car owner's toolbox contents. I'd rack up the parking lot accident you had with the Kyosho as a learning experience. Use it to be aware of what to check on your gas truck from this point on.

DEAR ANSWERMAN,

After building and enjoying two 1/10-scale electric cars, I recently purchased my first gas RC vehicle, a Schumacher Nitro Storm offroad truck. After getting the Storm assembled, I've been thoroughly pleased with the truck; but I need some advice on the truck's radio setup. The Futaba AM system I used requires an onboard four-cell power source for the receiver and servos. So far, I've been using alkaline AA batteries; but I'd like to switch to rechargeable nicads that I have on hand. What kind of chargers should be used for the four-cell radio pack? I already have a Tekin BC100L charger and a simple DC timer unit. Can I use these chargers for the radio pack?

Ned Hanson
Window Rock, Arizona

A: Ned, you can use both chargers *together* to charge up your gas Schumacher's onboard nicad radio cells. I've used this idea myself sometimes using a regular 2-6 amp automotive charger, peak charger and a Radio Shack ohmmeter. You use either your timer charger or auto/car battery charger as your power source and the peak charger as the actual AA cell charger. Hooking up a ohmmeter into the peak charger's positive lead (from the charger to the pack) will tell you the charger output. Adjust the Tekin so that it's feeding no more than 2 amps to your truck's four-cell nicad pack. Also check out the pack during charging by feeling the cells for heat, as you do not want much, if any, temperature in those AA batteries. Careful monitoring via the meter and cell temperature will ensure your truck's DC pack will provide long-lasting service and many years of fun.

DEAR ANSWERMAN,

I've been racing offroad electric cars for the past two years. In that time I've noticed that many of the other racers have sponsors who provide them with motors, batteries, parts and new bodies free of charge. Since I compete with and even manage to finish ahead of these racers on occasion, how do I go about getting sponsorship?

Richard Grant
Sonora, California

A: Richard there's several things you should consider before attempt to seek RC car sponsorship. Are you on time for your heats and mains? Do you pull your corner marshaling duties without repeated PA calls and show good sportsmanship on the drivers' stand? How about helping out the beginning racers and making sure your pit area is cleaned up after the races? Many times these things can be just as important to potential sponsors as a room full of large trophies. Also keep in mind you are not alone. Many, many other RC racers attempt to secure sponsorship everyday. You're going to have to show you're capable of providing that potential sponsor with some return on their investment. That means not only doing the before-mentioned things but also making sure to convince your local group of racers how much they're missing out on by not using your new sponsor's products and services. Good luck!

DEAR ANSWERMAN,

I have two questions on 1/10-scale RC monster trucks. To your knowledge, which truck is the fastest right out of the box, and which monster truck is the largest in size? Also, can you help me locate the closest hobby shop to my town that sells them? Thanks!

Carson Bay
Newberg, Oregon

A: Carson, your first question is tough, so I'll have to give you a general answer. I'd say the quickest monster truck would be a single motor, rear-wheel drive-only unit like the Tamiya Super Blackfoot, MRC's MT-10M, the Traxxas Stampede or the Kyosho Tracker. As for size, either the Kyosho USA-I, or the Tamiya Bullhead. If you want a *really* big monster truck, look at the MRC World Scale Thunder King truck which is much larger than the 1/10-scale vehicles. As for a nearby hobby dealer, check out the HobbyTown store in Clackamas, Oregon. Their phone number is: (503) 652-5899, and they're only about twenty miles from you.

DEAR ANSWERMAN,

I am a 44-year-old first-time RCer and have just completed my first kit, a Bolink Legends car. I am not all that mechanically inclined; but I am learning. Can you give me some easy ways of breaking in electric motors; and could you list some books that explain all the details of RC car racing? Love your magazine.

Rick Vermillion
King, North Carolina

A: Rick, first, read Ben Chiu's in-depth article on motor bushing break-in in the June, 1995 issue of *RC Model Cars*. If you cannot lay your mitts on a copy of Ben's excellent feature, try this easy and simple method: pick up a four-cell Sub-C battery holder from Radio shack (part # 270-390, $1.59) and wire two hook-up clips in place of the snap connector. Using either nicad or regular alkaline cells, run your motors for ten minutes. let it cool, and clean the entire motor and check the brushes. Motor can bushing break-in takes time; so do this procedure every

continued on page 15

Lightz products

P.O. BOX 24910
TEMPE, AZ 85285
(602) 894-6908
FAX: (602) 968-5058

WORLDS FASTEST R/C CAR!

105.6mph!

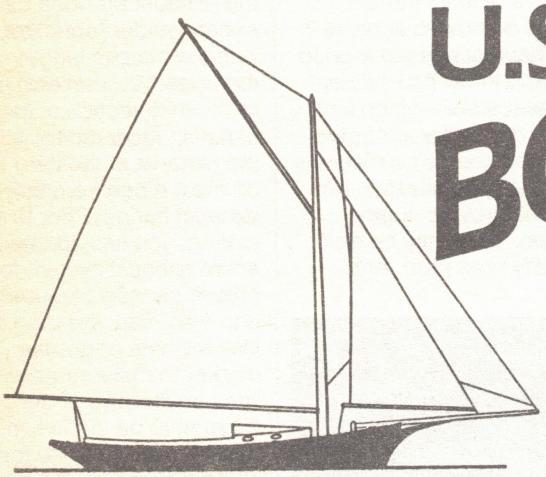


ONCE AGAIN!

CONGRATULATIONS TO A. D. RIGMAIDEN, WHO SET A NEW I.E.D.A. ALCOHOL FUNNY CAR RECORD AT THE SEMINOLE NATIONALS, MARCH 4, 1995 USING A LIGHTZ FUNNY CAR CHASSIS.

1.950 at 65.5mph!

U.S. BOAT & SHIP MODELER



THE **COMPLEAT** MODEL NAUTICAL PERIODICAL!

Ph: (714) 645-8830

The REAL how-to magazine on all types of model boats and ships; R/C, steam, electric, sail, racing, sport, static and operational scale. Also construction articles on all types, with full-size plans and patterns available, complete with reprint of building instructions.

SUBSCRIBE NOW (Starts with next published issue).
U.S. Only (includes APO and FPO): One year (4 issues) — $13.95
Two years (8 issues) — $26.75
Overseas (also Canada and Mexico); One year only — $23.00 includes postage and handling. Payment must be in U.S. funds, drawn on U.S. bank.
Calif. residents add 7¾% sales tax.

Name _____ Sig. _____

Address _____

City _____ State _____ Zip _____

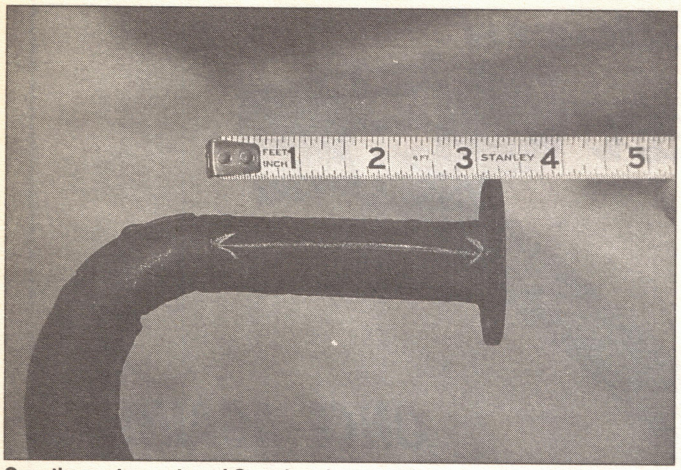
Visa or M/C No. (Add 5%) _____ Exp. Date _____

BACK ISSUES AVAILABLE - Limited supply, $5.00 per copy. U.S. add 75 cents per copy, outside U.S. add $1.50 per copy for shipping.

BOX 2459, CAPISTRANO BEACH, CALIFORNIA 92629

Big Tips

TUNED EXHAUST MODS



Over the past year, tuned Q-scale exhaust systems have seen a major increase in header pipe lengths. The area measured from where the pipe connects to the engine to the first bend in the exhaust is considered the header section. Some racers are currently running around eight-nine inches of header pipe.

BY RICK EYRICH

In RC car racing circles, the discussions among competitors on Q-scale exhaust systems are not unlike those on electric RC car batteries: wide open! Many ideas, suggestions, theories, etc., both bad and good, have been thrown back and forth on the subject of the tuned pipes used on 1/4-scale cars. So, this month's Big Tips will add to the on going debate over pipe design and how you can modify your own car's system to fit your own driving style.

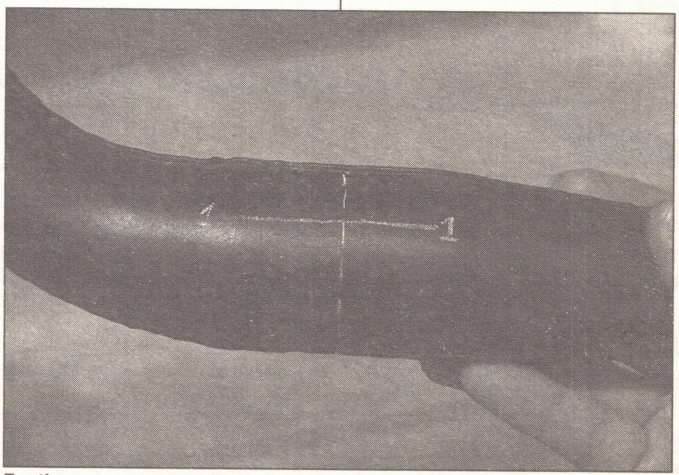
HEADER PIPE LENGTHS

Over the past year or so header pipe lengths on Q-scale cars have been getting longer and longer. By definition, the header pipe is the straight piece of round metal pipe that extends from the engine's exhaust flange to the first welded and curved part of the tuned exhaust. The gradual increase in header length has seen an overall upward gain in usable power output for most gasoline powered Q-scale cars. As of this writing, the maximum header length seen by this writer has been eight inches. Any headers longer than this usually run into clearance problems in the chassis, as the pipe runs into the frame tubing. You should keep this in mind when adding on to your exhaust. You have a decision on how you can increase header length. You can either add spacers to the exhaust port flange area between the cylinder and exhaust or weld a new piece of pipe into the system.

The spacer routine is good for testing purposes to first evaluate if your car would benefit from a extended header section. Keep adding spacers that are available from WCM and Quickdraw until you gain the power increase you desire. Then if you feel the increase is real, you can always have the header extended via the new section/welding method.

Of course with the spacers, you'll need longer five millimeter screws or studs for the cylinder exhaust flange. The stock studs found on the Zenoah G2-D with the muffler installed will work. You can find even longer units at some small engine repair shops. Always use locknuts and/or Loctite on the fasteners as they tend to loosen on occasion. Fresh exhaust flange gaskets are also recommended as you do not want leaks in this area under any circumstances.

Let's say that after you've tested the longer header via the spacer system, you want to make it permanent. Again, you have at least three choices on how to achieve it: If you have access to a good torch and know how to weld thin sheet steel—which isn't easy to do, go for it. Alternatively, find yourself a machine shop that specializes in two-cycle motorcycle engine hop-ups. They may be able to modify your pipe. And third, send the whole exhaust to either your car's manufacturer or to Quickdraw for modifications.



For those car owners who decide to add a section to the larger belly area of the exhaust, careful pipe pre-cutting procedures are important. Use either a grease pencil, chalk, or a whitewall tire paint pen to map out where the exhaust should be re-welded once you've added the new material to the pipe.

Of course, most of the Q-scale car tuned pipes made today, regardless of chassis manufacturer are constructed by Quickdraw. Their tuned exhausts have been winners in all classes of large scale RC cars; and they can make or modify a pipe to your own specifications. Contact them at Precision Boring and Machine, 25425 Mission Blvd., Hayward, California 94544 (510) 886-9413.

EXHAUST MAIN SECTION MODS

Another exhaust area you can increase in length is the main and largest section or "belly" of the tuned pipe. NOTE: I would recommend that any changes and/or modifications to this part of the exhaust be done by an expert welder/fabricator. As with the header-length changes, you can add metal to the mid-section of the exhaust. Most racers will cut the exhaust at the third weld on most pipes from the exhaust flange. Prior to any cutting, you should check the entire exhaust system for proper chassis clearance and also mark the pipe itself. Use a China or grease marker to make re-assembly lines on the part of the exhaust to be cut in two. The maximum addition to this part of the pipe has been a one-inch length of rounded sheet steel; but most with go with a half-inch addition.

As noted earlier, this kind of fabrication isn't for the weak of heart and should only be done by someone who's good with a torch and welding thin steel sheeting. One slip with the torch or welder can make a real nice hole in your pipe. So, you need to take care with exhaust system modifications.

If you're in doubt about any

continued on page 15

QSAC
1/4 Scale Racing

——Congratulations, Winners!——

TBS Speedway, May 26-28: Darlington, South Carolina

GRAND NATIONAL
Noal Templeton from Welcome, NC
OUTLAW LATE MODEL
Bob Moore from Bonaire, GA
SPORTSMAN G NATIONAL
Marty Freedle from Lexington, NC

1995 CHAMPIONSHIP SERIES SCHEDULE
August 16-19: Knoxville, IA
(Sprint Car Nationals)
October (Dates TBA): Las Vegas, NV Nationals

The Quarter Scale Auto Club packs more energy and realism into the sport and science of quarter-scale competition than any other class of radio-controlled racing. More than 600 drivers revel in the same excitement as their counterparts on the NASCAR circuit. QSAC, the governing body for quarter-scale racing, serves its members with all up-to-date information, results and other special items of interest in its regular newsletter.

Winning drivers can earn cash prizes and much, more more! QSAC enthusiastically says that the REAL victories belong to all those who share their talent, expertise and friendship in a program that promotes cooperation and involvement in this exciting and fast-growing sport!

DON'T MISS OUT! JOIN QSAC TODAY!

MEMBERSHIP APPLICATION

NAME:_____ PHONE:_____
ADDRESS:_____
STREET_____CITY_____ STATE___ ZIP_____
TYPE OF CHASSIS_____ QSAC No._____
New [ ] Renewal [ ] Amount Enclosed: $_____
Note: Expires Dec. 31, 1995 Date:_____
Make Checks Payable To QSAC
Mail To: 24625 W. 71, Shawnee, KS 66227
Received At:_____**By**_____
Membership Fee Non-Refundable
Membership $50.00- 2nd Family $45.00 - Juniors $40.00 Includes QSAC Ins.
Subscription associate (newsletter only) $20.00 a year.

FOR MORE INFORMATION:
Write - **QSAC**
24625 West 71st
Shawnee, KS 66227
Or Call - Judy Keith (913) 441-6440

ANSWERMAN CONTINUED FROM PAGE 12

other time you clean your Bolink's motor. As for publications on RC car racing, try either Harry Higley's *Completely Cars* book or George G. Sipos' *Building and Racing RC Cars.* Either book will give you some good basic information on most types of RC cars and any good hobby dealer can order the books. Any additional knowledge you will require are right here in the pages of *RC Model Cars.* Thanks for writing the Answerman! •

BIG TIPS CONTINUED FROM PAGE 14

of these exhaust adaptations, consider sending your pipe off to either your chassis' manufacturer or Quickdraw.

TRICK OF THE MONTH

To tie-in with our pipe mod story, here are some exhaust finishing tricks. Once the pipe has been cut, modified and re-welded, either sandblast or wire brush the entire exhaust. Then spray on a couple of coats of high-temp black or BBQ grille paint to prevent any rust appearing. For a different look, you can apply a crinkle-coat spray finish or even leave the pipe unpainted. To do this, either polish the metal and give it a coating of light oil or spray on clear enamel or lacquer to keep the rust at bay. Once you coat your modified exhaust, remount it to the car and go check your new faster lap times.

TIP OF THE MONTH

After a long weekend at the racetrack, most Q-scalers have ample amounts of dried CA glue on their hands. This comes from having to mount host tires and caps to wheels and/or the excess glue leaking onto your mitts. Throw in the factor that many 1/4-scale competitors use Sekomet CA which is black in color and you can have a real mess on your hands, clothes, etc. To overcome this process, there are several options. Penn International Chemicals (PIC) sells "Skin Shield" which is a product you apply to your hands prior to any gluing. This chemical allows you to wash any CA off quick and easy at the end of the day.

Hot Stuff sells their "Ultra Super Solvent" which removes dried CA from clothes, skin, etc., after the fact. Or you can simply purchase drug store glycerin and coat your hands before or wash with it afterward to remove any CA adhesive from your skin.

UPDATE OF THE MONTH

In recent conversations with some of the QSAC management team, I've learned of a problem in the Outlaw/Late Model class of Q-scale racecars. These competitors who prefer alcohol fuel over gasoline are experiencing a loss of engine horsepower after 2 to 5 minutes of ontrack time. My call (and mine only) on this is that alcohol fuel does increase power but is much trickier to run over gasoline for two main reasons; weather conditions and proper fuel system setup. Alcohol propelled cars are going to change drastically as the heat and humidity change.

And the last thing you want on an alcohol fueled Q-scale car is a lean fuel mixture. You can make a gasoline fueled engine survive in a lean condition for a short time: but with alcohol, you're going to damage the powerplant.

As for a rich condition with alcohol, you can actually go so rich (how rich is it?) that the engine can run too cool which will also lower power output. So, as you can tell, running alcohol is a tricky deal and should only be done by those who are knowledgeable in carb/fuel systems or know someone who is. For us normal folks (myself included), I'd stick with a racing gasoline fuel with a good 105-110 octane rating and premix oil.

WRAP UP

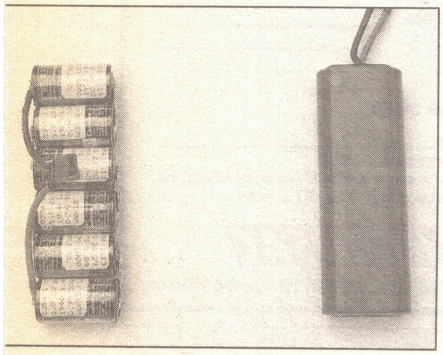
Okay, so now that I've got you all pumped up on modifying your car's exhaust system, I'm going to make a sharp 180-degree turn and go on to something completely different next month: Q-scale car graphics. We'll look at the different ways

continued on page 25

GETTING UP TO SPEED IN RC—PART TWO

BY JOSEPH RINGEISEN

Last issue, I started covering exactly what a person will need to get started in the hobby of RC cars. This was in answer to a question from a reader. So far, I've said that a person needs to get an RC car (Gee, no kidding?), and a radio system (which comes as a package with a transmitter, receiver, and two servos). However, your new RC car won't go anywhere without a battery pack. And a battery pack won't do you much good without a battery charger. That's what we'll cover this month.



Given a choice between the two battery packs shown, a beginner will be much better off with the "sport pack" shown on the right.

BATTERY PACKS

Back when I got started in this hobby, nearly everyone ran 1200 mAH battery packs. Now we have 1400 mAH SCR, 1700 mAH SCR, and even 1800 mAH "Z" battery packs. At this point you're probably wondering what these numbers and letters mean.

First of all, all RC batteries have a specific milliamp-hour (abbreviated as mAH, as above) rating. This expresses the power capacity of the battery. The milliamp-hour rating is just like the amp-hour (abbreviated as AH) rating that's found on other batteries. Expressing the battery's capacity in milliamp-hours rather than amp-hours simply moves the decimal place three places to the right. In other words, a 1.7 amp-hour battery has the same capacity as a 1700 milliamp-hour battery.

Now how does the milliamp-hour rating tell the power capacity of the battery? Simple. Take the milliamp-hour rating of the battery in question and divide it by 1000. Let's say, for example that you have a 1400 mAH battery. Dividing 1400 by 1000 gives you 1.4. If this 1400 mAH battery were to be discharged at 1000 milliamps (i.e. 1 amp), it would go from being fully charged to being fully discharged in 1.4 hours. Does this mean that the hobby-type cars we use in the hobby will run for 1.4 hours before the battery pack dies? No. Average run time for most RC cars in the hobby field is between 4 and 10 minutes. Why? Because the motors that power our RC cars draw anywhere from about 15 to 35 amps, not just one amp.

The batteries we use in the RC hobby are called Nickel-Cadmium (abbreviated as nicad) batteries. Each individual cell holds a charge of 1.2 volts. Most battery packs that we use in the RC car hobby have a total of six cells in them, for a total voltage of 7.2 volts.

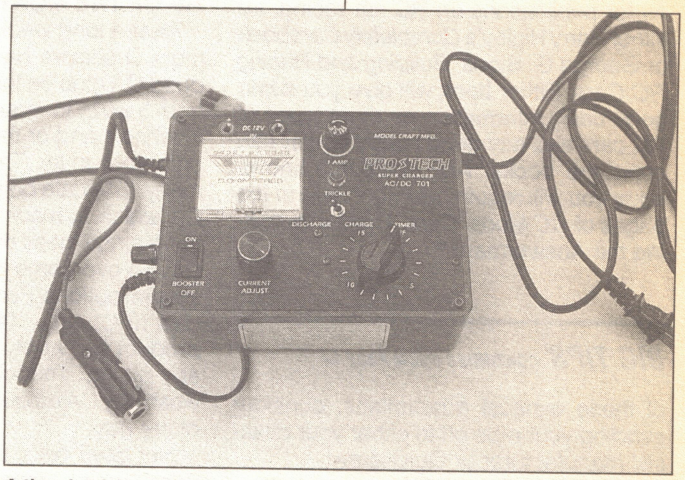
"WHAT SHOULD I GET?"

It's really kind of hard for me to make specific recommendations as far as what type of battery pack to get. Why? Well, I could tell you that it's because of all the wonderful types of batteries out there, but I won't tell you that. I'd just as soon come to the point and tell you the truth: all batteries used in the RC car field are made by either Sanyo or Panasonic. Yes, there are special processes for preparing the cells that make up battery packs, thus making them better for racers, but for the beginner, special battery processes really aren't all that necessary.

In that case, what would I recommend for the beginner? I'd recommend that the beginner buy one or two good "sport pack" type battery packs. These battery packs come pre-assembled, and usually have good, durable 1300 mAH or 1400 mAH cells in them. These packs are available from Duratrax and PTI, among others. You should be able to get one of these for under $20.00.

Once your battery pack is discharged, what do you do? You recharge it on your battery charger. Read on.

BATTERY CHARGERS



A timed quick charger is an absolute must for a beginner. It's much better than a trickle charger (not shown).

RC car battery packs require a special battery charger. The battery charger that you use to recharge the batteries for everything else in your household won't exactly work on your RC car batteries. This means you'll have to buy a battery charger along with the car, radio system and battery pack.

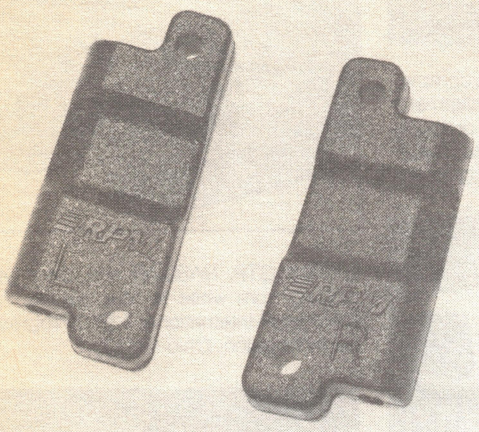
The number of battery chargers out on the market today is absolutely mind-boggling. The variety ranges from the "plug-a-cord-into-the-wall,-plug-your-battery-into-the-cord,-and-leave-it-there-overnight" system that's relatively cheap to buy, to the $350 Victor Super IQ Battery Conditioner, which gives you six different ways to charge your battery packs. Obviously a little middle ground is called for.

As I said, the simplest of all battery chargers is on that you plug your battery pack into, then plug the charger into a wall socket, and let the sucker sit overnight. This type of battery charger looks like a small box with two prongs (for the wall plug) and a cord coming out of it. It's very simple, very cheap, and very frustrating. Why? Because you can only run your RC car once per day. That is, of course, assuming you only have one battery pack. If you have two battery packs, you're in luck: you can run your car twice that day . . . and then wait two

continued on page 25

RPM

CUSTOM ENGINEERED R.C. PRODUCTS



#7062
RC10T2 3° Rear Mounts

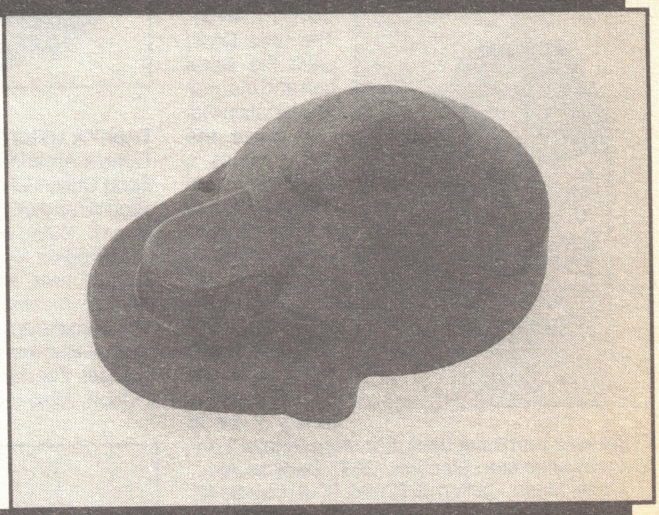
Same geometry as stock, but eliminating unneccessary mounting holes. Very durable, with better fits that remove arm slop. Includes thin black jam nuts for a firm mount.

RETAIL $5.95

#8018
RC10T2 Gear Cover (Slipper)

For the stock Slipper with an 87 or smaller spur. Molded in durable black nylon. Won't crack or split out. Large access hole with a soft plug for easy Slipper adjustment.

RETAIL $5.95





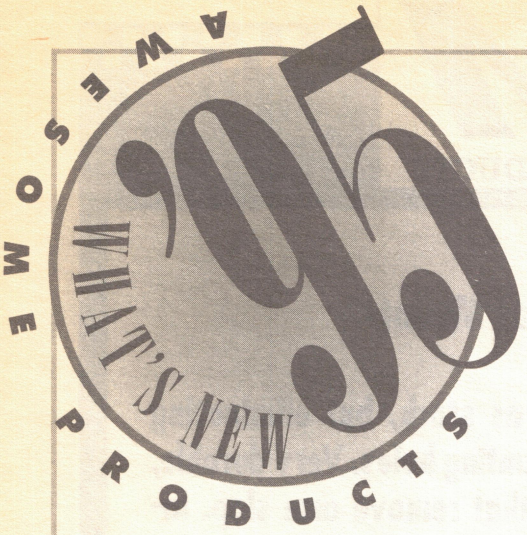
#8022
RC10T2 Gear Cover (Hydra)

Extra clearance for use with the Hydra-Clutch and an 87 or smaller spur. Finish molded in black nylon. No trimming or drilling needed. Comes with mounting screws and our easy access soft plug.

RETAIL $5.95

RPM 14978 Sierra Bonita Lane, Chino, CA 91710

Send $2.00 for complete catalog and decals.



REEDY'S ULTRA SONIC MOTORS

The world championship-winning technology that Reedy Modifieds created to take the top trophies has been developed for those who prefer the power band of a small commutator. The Ultra Sonic uses the same can and magnet combination that has made the Sonic motor a Championship winner. The motors are supplied with brushes developed for maximum brush and commutator life. There are 10 versions of the Ultra Sonic in a variety of winds for your particular uses. For more details, contact Associated Electrics, 3585 Cadillac Ave., Costa Mesa, California 92626. (714) 850-9342.



RACEAMERICA REAR-FACING LIGHTS

Any existing RaceAmerica Pro Tree RC light tree can be equipped with these new rear-facing lights. The second set of lights are easy to install, and hang on the backside of the tree and connect between the existing lights and the LED display. Power is supplied to both sets of lights from the same 12-volt automotive battery situated in the base of the tree. When installed, the outcome of a race can bee determined anywhere along the track, bringing the spectator instant recognition of the winning car lane. The design and craftsmanship of the lights complement the Pro tree, and add NHRA realism at a reasonable price. For details and ordering information, contact RaceAmerica, Box 3469, Santa Clara, California 95055. (408) 927-6064.

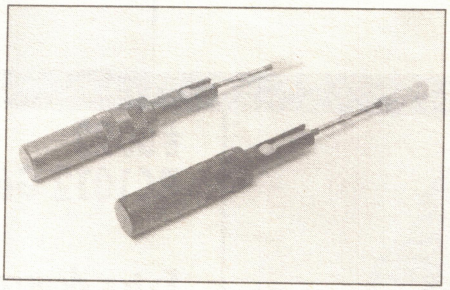






TAMIYA UTILITY VEHICLES

Tamiya America has introduced several new Sport Utility Vehicles in 1/10 scale, including a Jeep Wrangler, Isuzu Amigo and the Mitsubishi Pajero. These scale vehicles use hard ABS resin bodies for the ultimate in realistic detail, treaded tires, mesh and dish wheels, metal-plated trim, smoke-tinted windows all around, and transparent headlights and fog lights that can be illuminated with Tamiya's optional RC light set. For details, contact Tamiya America, 2 Orion, Aliso Viejo, California 92656.

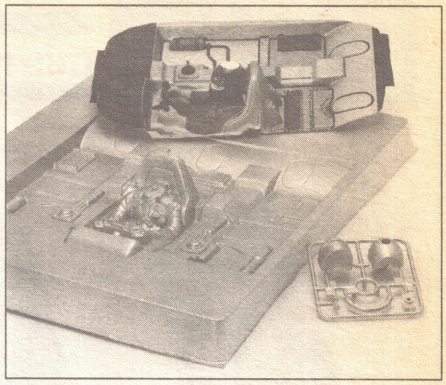


TOM'S TOOL BALL CUP WRENCH

This innovative new tool makes installing or replacing ball cups much easier, resulting in no more mangled ball cups. Tom's Tool is CNC-machined from aircraft-quality aluminum, mated to a non-slip handle. It's available for Associated and Losi ball cups. From Peak Performance, 23352-J Madero Rd., Mission Viejo, California 92691. (714) 707-4683.

PARMA'S UNIVERSAL INTERIOR

This new interior uses an injection-molded, two-piece head, steering wheel and gear selector for all 1/10-scale cars and trucks. The versatility of this interior is apparent, as it can be trimmed for right- or left-hand drive cars. Use for the NORRCA Touring Car class, which requires an interior, or in DTM, GTP, NASCAR and other types. It's molded from white styrene plastic. Available from Parma International, 13927 Progress Pkwy., North Royalton, Ohio 44133.



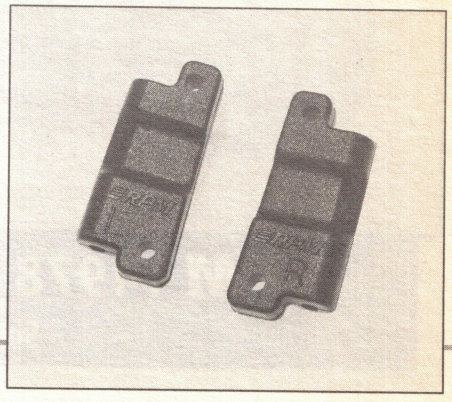


STOCK CAR CLASSIC FROM BOLINK

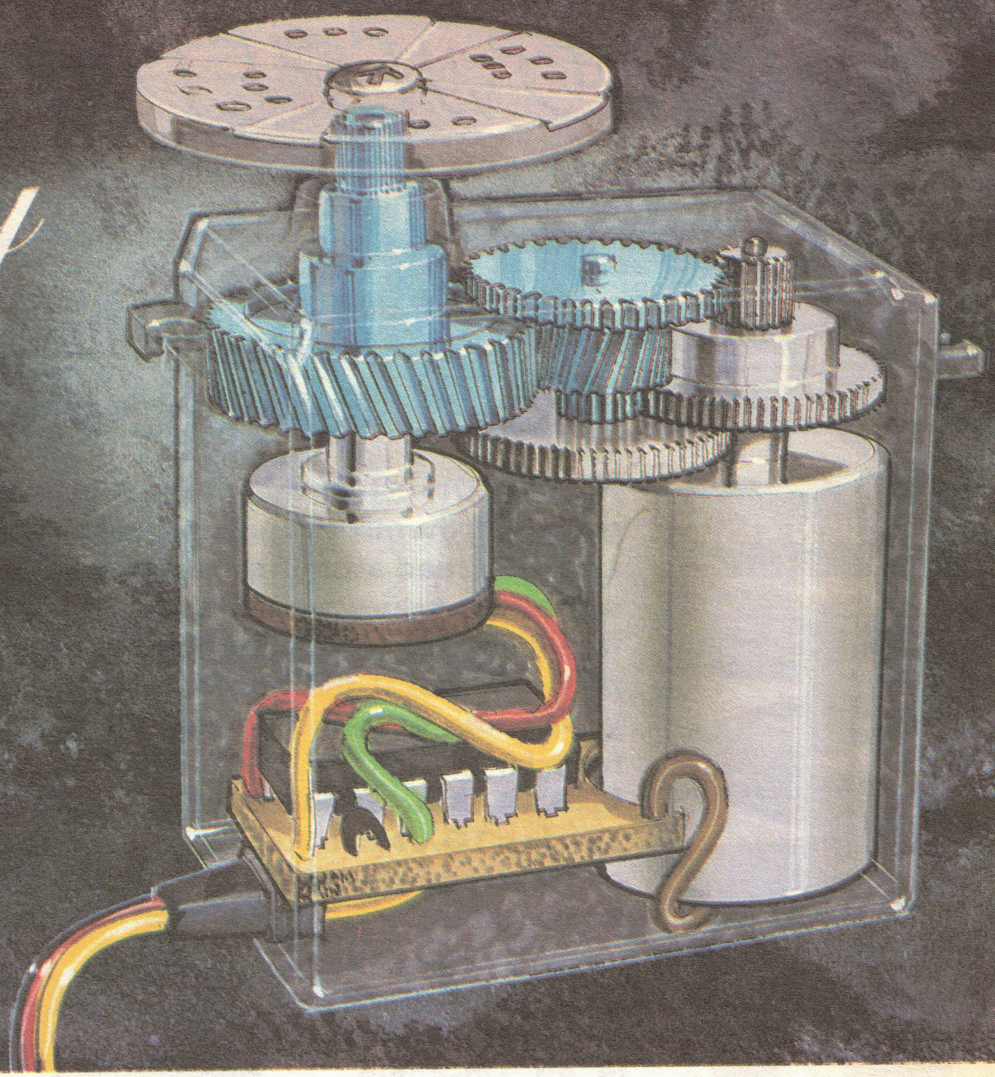
This is the second in a series of classic 1/10-scale stock car bodies from Bolink RC Cars. It replicates Bobby Allison's Coke-sponsored Monte Carlo car, one of the most popular cars of its time, back in '72. Also available in the series, is a '70 Nova SS and a '70 Superbird (Thunderbird). For a catalog, send $3.00 to Bolink RC Cars, 420 Hosea Rd., Lawrenceville, Georgia 30245. (404) 963-0252.

RC10T2 REAR MOUNTS

These mounts are molded in black, tough and durable. They are the same geometry as the stock rear mounting blocks (toe-in blocks). They are made specifically for the T2—the only two screw holes you need for mounting them to the chassis. All other holes were eliminated for increased strength. The pair of mounts come with four special thin black jam nuts to assure a firm mount. RPM Custom Engineered RC Products, 14978 Sierra Bonita Ln., Chino, California 91710. (909) 393-0366.



Beauty in the Beast



Let's face it. Servos are not exactly eye-catching beauties. They are used and abused with scarcely a second thought. Nothing more than a beast of burden.

But when you realize that a servo is the last link between you and your model, beauty takes on a whole new meaning. That's why every Hitec servo comes with our own custom-designed I.C. to provide strong standing torque, a very narrow dead band and improved stability under low voltage conditions. Precise, heavy duty gears are used throughout the gear train to improve the neutral position with minimal backlash. When you combine all this with the latest in SMT circuitry, you have a servo that won't cut out on you when the going gets a little rough.

In the eye of the beholder, beauty takes on many forms. We think you'll find our entire line of quality servos a sight for sore eyes.

Most Hitec servos are available either individually or in packs with other popular connector types that cover the spectrum of R/C applications. See your dealer today and ask to see the complete line of Hitec servos.

HITEC #	DESCRIPTION	TORQUE@ 4.8 volts	SPEED@ 4.8 volts	BEARING	SIZE LxWxH	WEIGHT	AVAILABLE PACKS
HS-80 HS-80MG	Sub micro Metal gear	31 oz/in 31 oz/in	.15 sec .15 sec	NONE	1.1x0.6x1.1	.62 oz .76oz	RCD924 3 servos
HS-101 HS-101MG*	Mini servo Metal gear	24 oz/in 24 oz/in	.20 sec .20 sec	NONE	1.3x0.6x1.2	.93 oz 1.07 oz	RCD920 3 servos
HS-205BB HS-205MG	Super mini Metal gear	44 oz/in 44 oz/in	.20 sec .20 sec	TOP BALL BEARING	1.3x0.6x1.3	1.1 oz 1.3 oz	none
HS-300	Std. Sport	42 oz/in	.19 sec	TOP NYLON	1.6x0.8x1.4	1.57 oz	RCD905 4 servos
HS-422 HS-425BB*	Std. Pro Ball Bearing	43 oz/in 43 oz/in	.20 sec .20 sec	DUAL OILITE DUAL BB	1.6x0.8x1.4	1.55 oz	RCD910 4 servos
HS-605BB HS-605MG	Ultra Torque Metal gear	77 oz/in 77 oz/in	.16 sec .16 sec	DUAL BALL BEARING	1.6x0.8x1.5	1.73 oz 2.12 oz	RCD605 3 servos
HS-615MG	Super Torque Metal gear	107 oz/in	.21 sec	DUAL BALL BEARING	1.6x0.8x1.5	2.12 oz	none
HS-700BB HS-705MG	Giant scale Metal gear	133 oz/in 161 oz/in	.22 sec .27 sec	TOP BALL BEARING	2.3x1.1x2.0	3.5 oz 4.0 oz	RCD915 3+1 servos
HS-75BB	Retract servo	90 oz/in	.50 sec	TOP BB	1.7x0.9x1.0	1.3 oz	none
HS-725BB	Sail Winch 4 Turns	161 oz/in	1.62 sec 360 deg	TOP BALL BEARING	2.3x1.1x2.0	3.8 oz	none

*Denotes servo only available with Hitec/JR connector. All other servos available with FUT "J", AIRT and Hitec/JR connectors. Please specify connector type when ordering. All servo packs come with switch harness.

hitec®

RCD®

Hitec R/C USA Inc. • 10729 Wheatlands Ave., Suite C • Santee, CA 92071
(619) 258-4940 • FAX (619) 449-1002

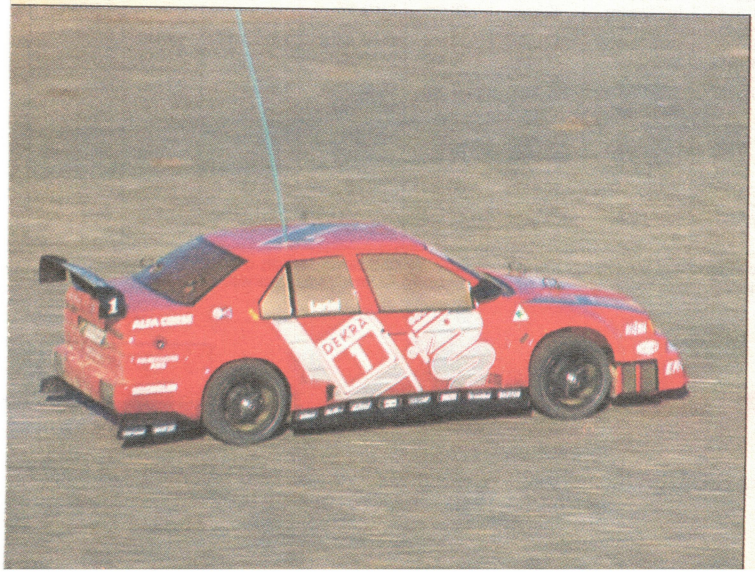
GAS-POWERED 1/8-SCALE TAMIYA TOURING CAR

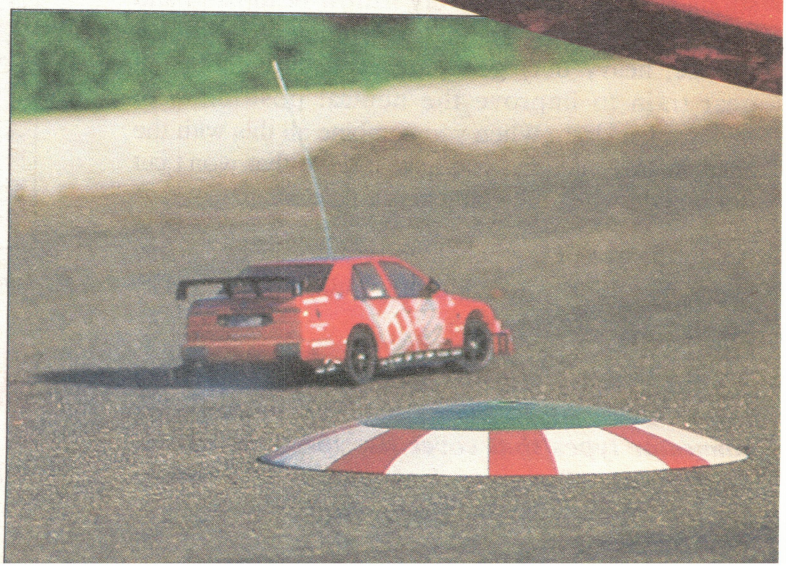
BY BEN CHIU

Hold on! Don't turn that page! I know if you're like me, you'll thumb through the pages of RCMC and only read stuff that pertains to your current or future race vehicle. Oh, you may give a casual glance at the nifty pictures, but if the subject isn't in your scale or vehicle class type, forget it. Well, ATTENTION DRIVERS OF ALL SCALES! The Tamiya TGX-Mk.1 TS is a car that you will want to know about.

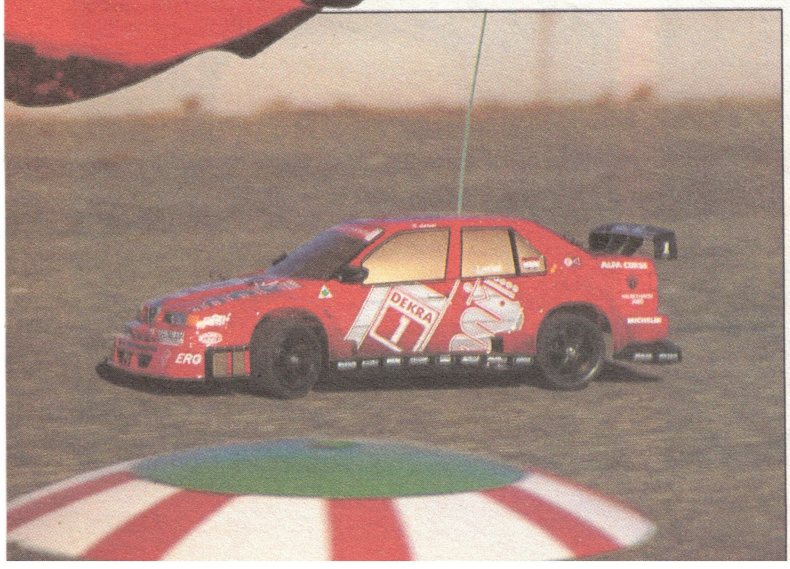
Seen here as an Alfa Touring Car, the new Tamiya model is an 1/8-scale, four-wheel drive, gas-powered onroad sedan. There are many features of the TGX that set it apart from other

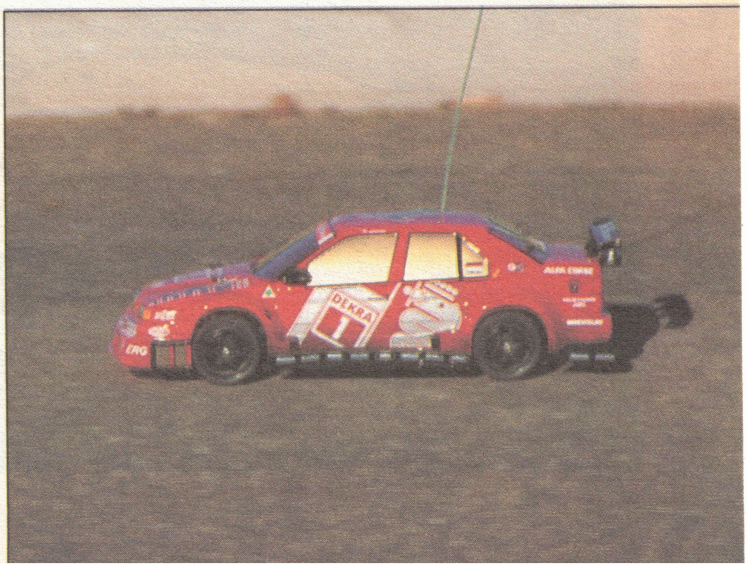
continued on page 33





RACE-READY REVIEW







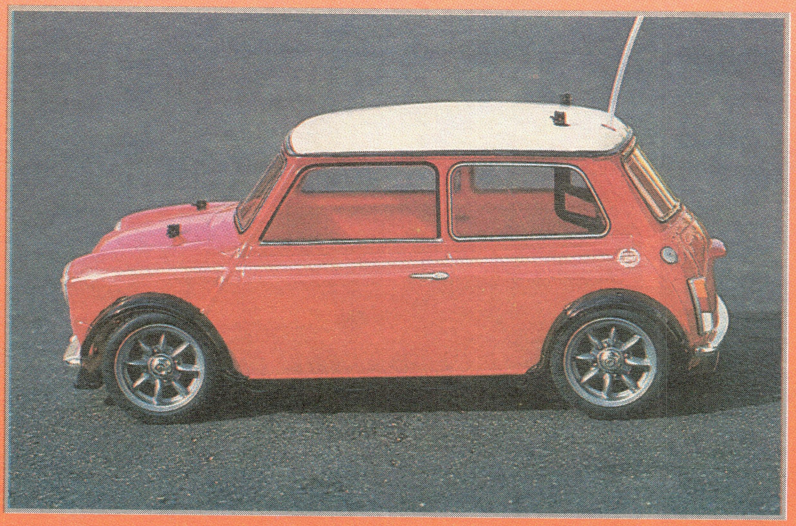
TAMIYA'S Mini Cooper

A STALWART RACER RETURNS

BY DOUG ADAMS

Austin, British Leyland, Cooper Morris, Rover. Alone these names recall a wide variety of British auto manufacturers. But, as a group they have one thing in common. For nearly four decades these companies along with some non-British auto makers have taken part in producing an automotive legend: the Mini.

The Mini went from concept to production in less than two full years,







Get HIGH on R/C!

RADIO CONTROL MODEL CARS

SUBSCRIBE TODAY!

A full year (12 issues) of RC MODEL CARS is only $25, a savings of 33% over newsstand price. Two years, $47.

Card #_____ Card Exp._____
Name_____
Address_____
City_____State___Zip_____
Canadian orders, $35; Mexico & Foreign orders, $33 per year

❑New ❑Renew ❑Bill Me ❑Payment Enclosed:
❑Check ❑Money Order or Charge to: ❑Visa ❑Mastercard ❑Discover

Send To:
RC Model Cars, Box 2459, Capistrano Beach, CA 92624
Order toll-free: (800) 243-9593. In California: (714) 496-5411

from 1957 to 1959. The extremely accelerated prototype-to-production process was a direct result of constraints placed upon the United Kingdom by an adverse political climate. The sole purpose of the Mini was to get maximum fuel efficiency reliability and big car interior space front the minimum. Along the way Sir Alec Issigonis and his staff just happened to create a revolutionary automobile. Such things as a transverse-mounted engine, front-wheel drive and structural subframes were pioneered on the Mini. These features along with several others continue to be the foundation on which many modern day cars are built.

After close to 40 years of production, the Mini retains one of the most popular cars in the world. Early Minis are big among collectors and enthusiasts while later versions perform the economical tasks for which they were originally designed. Racers still hold the Mini in high regard; on any given weekend Minis can be found dicing around England's historic road race circuits flexing the muscles that once made them the Giant Killers of rally racing.

THE TAMIYA VERSION

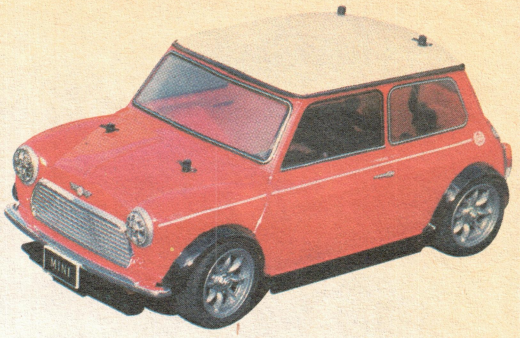
After releasing a series of successful four- and front-wheel drive performance race cars, Tamiya introduces their latest radio-controlled car kit, the all-new front-wheel drive Rover Mini Cooper. The Mini, unlike recent Tamiya (full-fendered) racing kits is unique unto itself in that it does not feature a TA-designated chassis. In addition, there are very few parts shared between the Mini and the familiar TA-chassied car kits.

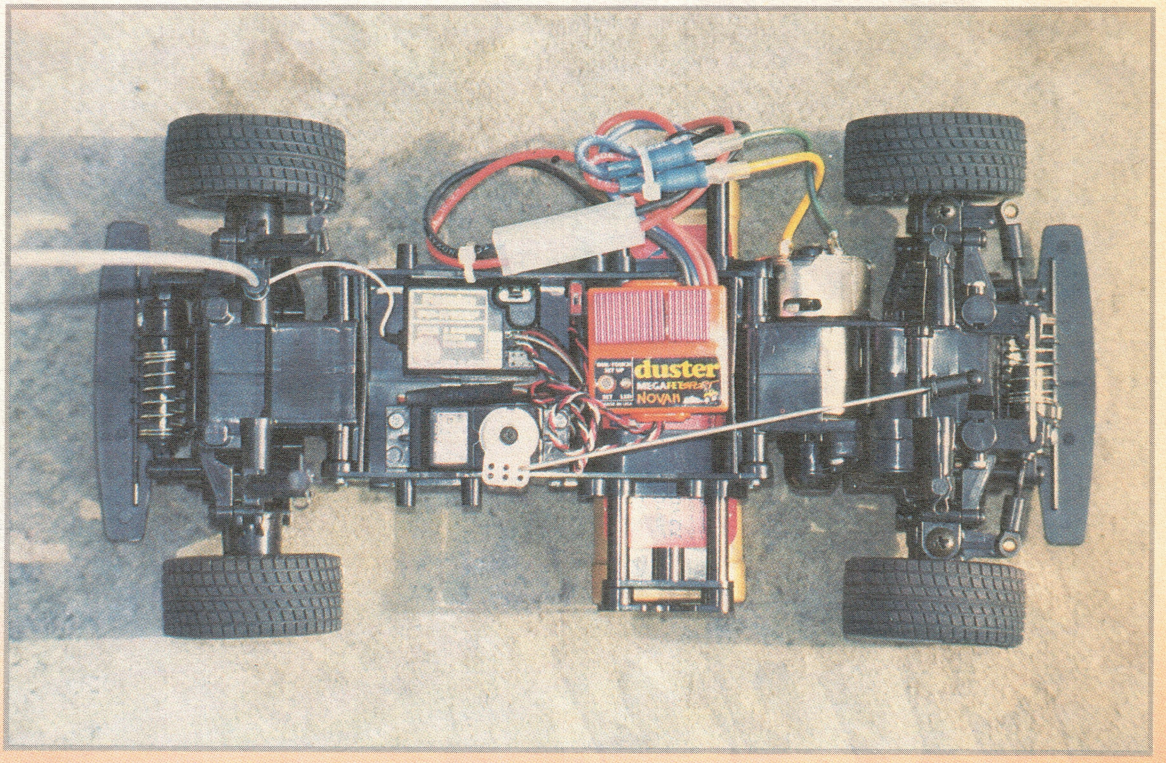
The Mini boasts a brand-new chassis, suspension and drivetrain that appear to be geared more toward the entry-level RCer. One thing that immediately jumps out at you is the no-oil mono, laydown, front and rear shock absorbers. The dampener suspension is the kind of thing that eliminates guesswork and possible confusion for someone Just starting out. With the Mini you'll find yourself having fun instead of in front of the workbench scratching your head.

ASSEMBLY

Before you get into opening all of the little bags, lay everything out on the bench and look it over, while scanning through the directions. This will help familiarize with the parts prior to assembly. Another thing you might try is to empty the small screw bags into the compartments of a muffin tin. This is an easy way to save yourself a lot of aggravation. Just dump the contents of each bag into a compartment that is identified the same as the bag. Once you have everything orga-

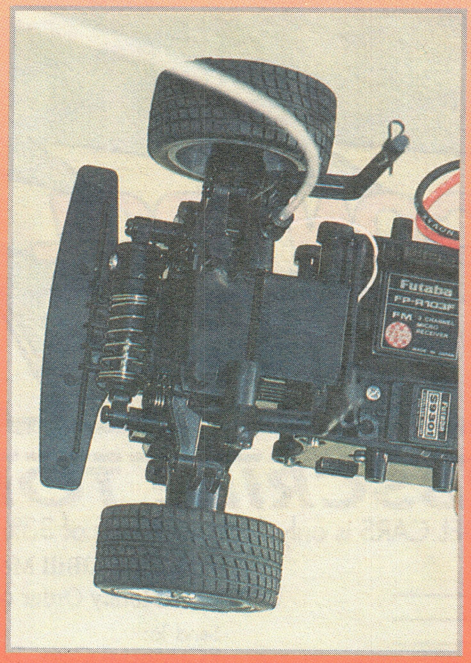
continued on page 25

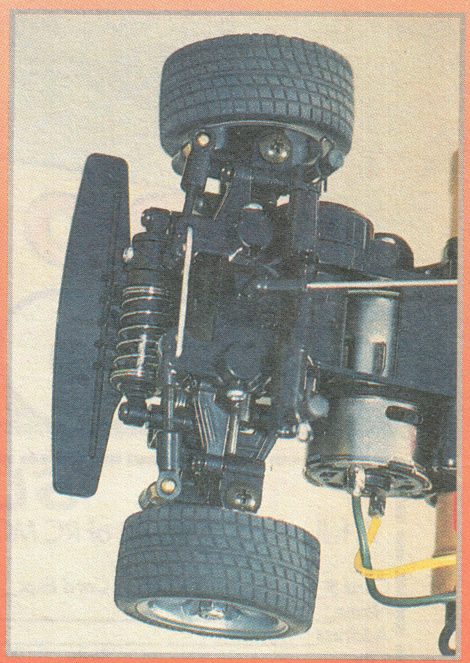




The chassis created for the Mini Cooper by Tamiya is a two-half chassis with drivetrain components sandwiched between the two halves. Novak's Duster speed control and Futaba components were used in this project.

■ LEFT: Both front and rear ends of the monocoque chassis use the same suspension parts and both have steering linkage pick up points. Gearbox uses a split housing with non-adjustable, limited-slip planetary gear diff. ■ RIGHT: Front-mounted 540 stock motor has its power transmitted through diff and into a common dogbone-style halfshaft. Double-wishbone suspension is used on front and rear.





BIG TIPS CONTINUED FROM PAGE 15

you can locate, apply, and layout several types of large scale decals and stickers; plus, we'll tell how and where to get them for your car. Until then, only spend as much money on your RC cars to have FUN! •

STARTING OUT CONTINUED FROM PAGE 16

days for both battery packs to charge again. This type of battery charging is called "trickle charging," so named because the electrical charge "trickles" into the battery at a maddeningly slow rate. This is extremely frustrating, as I, and anyone else who started out with that type of charger will attest to. If you're buying a "beginner's combo" from a hobby shop or mail order house, make sure that the charger included with the combo is NOT a trickle charger.

A much better choice for the beginner is a timed quick charger. In its most basic form, this type of battery charger is shaped like a box (usually called the case). It has an electrical cord that plugs into the wall, and a second cord that plugs into your battery pack. On the top of the case will be a wind-up timer, and, usually, a small light that comes on when the charger is trickle charging. More sophisticated models will have a switch marked "charge" and "discharge," as well as an ammeter, which shows the number of amps at which the charger is charging. Even more sophistication comes in with the addition of an adjustment knob, which allows you to adjust the number of amps at which the charger is charging.

"WHAT SHOULD I GET ?" (ACT II, SCENE ONE)

As I said before, there is a mind-boggling assortment of chargers on the market. Personally, I'd recommend that you get a lower-priced timed quick charger. Some excellent chargers are available from Astro-Flight, Hobbico and Pro-Tech. From the Astro-Flight product line, I'd recommend the Astro-Flight 114. If you decide to go with a Hobbico charger, I'd recommend the Hobbico 900, 905, or 910. The 900 is the simplest of the three chargers, while the 910 is the most advanced, complete with its current adjustment knob. My personal preference of the three brands is Pro-Tech. I've used their chargers for years, and with the exception of a few blown fuses, I've never had a problem. From their product line, I'd recommend the 701 or the 702. The 701 is the more expensive of the two, and is identical to the 702, except that the 701 has a current adjustment knob, whereas the 702 does not.

THAT'S ALL, FOLKS

That's it for this month, everybody. I'll cover the actual act of battery charging in a later column. If you'd like to write to me (I'd like to hear from you), the address is Starting Out, Box 2459, Capistrano Beach, California 92624. See Ya. •



MINI COOPER CONTINUED FROM PAGE 24

nized the way you like it you should be ready to start.

If you have assembled any of the Tamiya touring car kits (either four- or front-wheel drive you wont have any problem with the Mini. The only thing I gave a second thought to was the steering linkage only because I didn't want to have to go back and make adjustment to it later. The entire assembly process, providing you have an electronic speed control, Tamiya battery and motor plugs and a radio with a servo and receiver, should only take a couple of hours.

CHASSIS

Most Tamiya junkies should be fairly familiar with the tub-style chassis that Tamiya has been using on all of their Touring cars and some trucks, commonly referred to as TA0I or 02. Because of the Minis size there is no way possible for a standard tub-style chassis to be used. Instead Tamiya opted for the split or two-half chassis, this new configuration has been designated the M-chassis, short for monocoque.

Once the drivetrain components are assembled they are sandwiched together between the monocoque and secured with long screws

The battery runs through the chassis horizontally and is held in place by a plate and pin similar to that of the TA02 chassis. If you get ahead of the directions and don't attach the battery stays before joining the chassis halves you'll end up having to take the car apart.

One thing that I found interesting about the Mini's design is that the front and rear of the car use the same suspension parts and both have steering linkage pick-up points. So, although the Mini is billed (and was built) as a front-wheel drive car it's quite possible that it could be a number of things. Theoretically you should be able to make the Mini front- or rear-wheel drive.

If your feeling creative and willing to spend a few bucks on parts, you can make a four-wheel drive, twin-motor Mini. If you have a three-channel radio with a mixing feature you could try four-wheel steering. I plan on playing around with a few of these ideas and will get back to you with the results. But for the time being let's stick with the chore at hand!

DRIVETRAIN

The gearbox is a fairly simple unit. It uses a split housing that contains the non-adjustable, limited-slip, planetary gear differential. Try saying that three times fast! The idler gear and the integrated spur/counter gear slide onto shafts and are then installed into the gearbox from the outside. The external dust cover protects the gears and also serves as the outer bushing carrier for the idler and spur gears. Always be careful when working with plastic and metal gears that have been lubed. If any type of grit gets in the lube it can cause damage to the gear train.

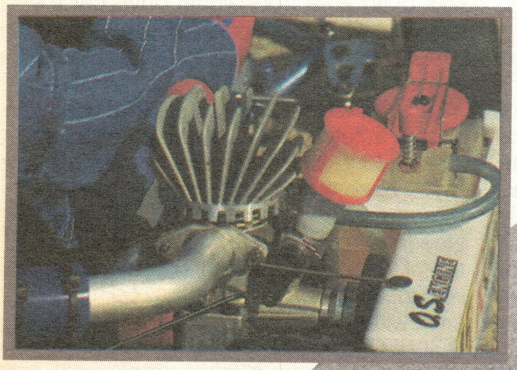
From the stock, sealed-endbell 540 motor, power is transmitted through the differential and into a common dogbone-style halfshaft system. The axle uses a pinned wheel nut that turns the scaled-down 10-inch wheels (another Mini first). The treaded, natural rubber tires are semi-pneumatic and use a foam inner liner for

continued on page 31

BY R.C. CANON

ZAPPING KYOSHO'S GO-KART





Fan-style heatsink head improves cooling while creating Yamaha Kart engine appearance.

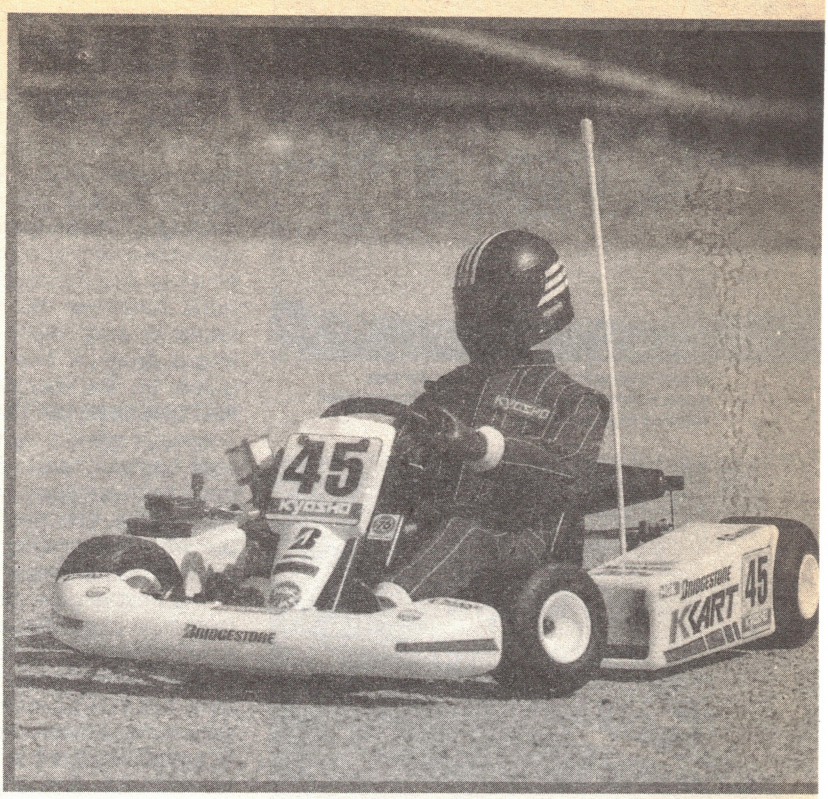


Special exhaust manifold and compact Duratrax tuned pipe further increases output of O.S. .10 FPB engine. Optional aluminum rear axle is also visible.



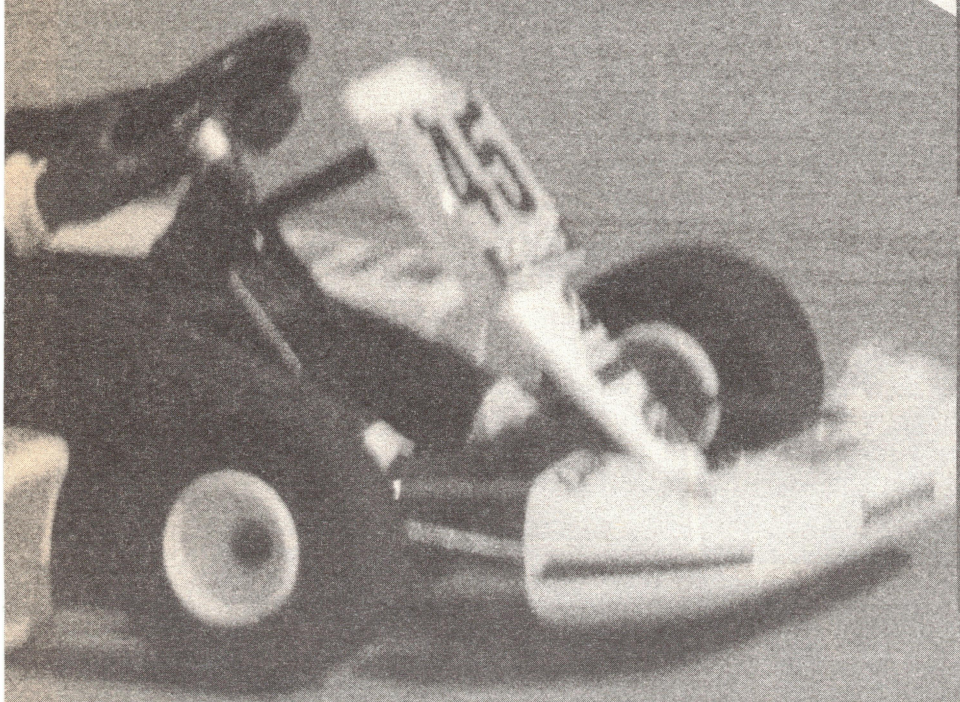
Kyosho's racing Kart 10 is a very enjoyable, fun RC vehicle stock out the box, but when zapped with a couple engine mods and a few option parts, the Kart takes on a new look and level of performance.

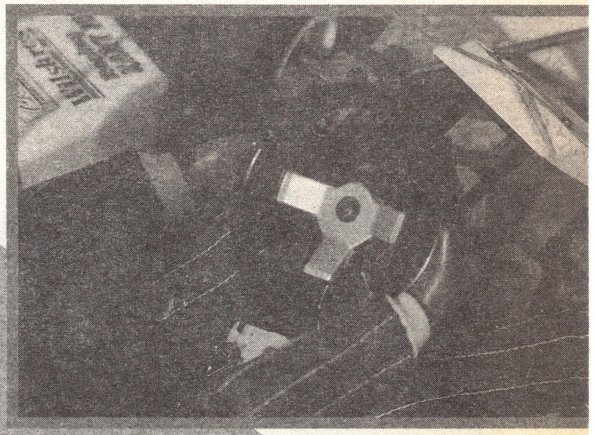
Since we previously reviewed the mostly stock racing Kart 10 a number of issues ago, we won't dwell too long on stock features. Let's just say the Kart is an absolute blast to drive with its reliable O.S. .10 FPB pull-start engine, authentic chain drive live axle, real disc brake system and wonderfully realistic, animated racing driver and scale detail. The stock Kart is plenty fast particularly when considering there is no diff to help you through the corners. Straight-stretch speeds may initially seem a little slow, but the throttle-steer tech-

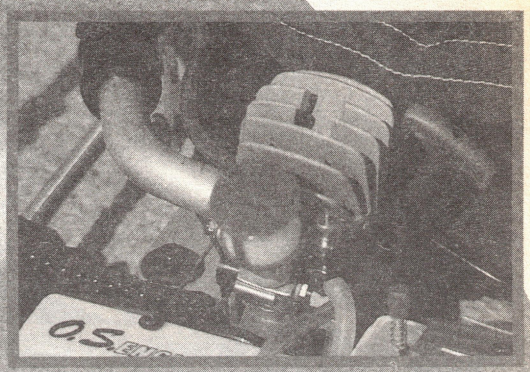


Front end updates shown here include aluminum steering bellcrank, adjustable-width axles and front bumper.

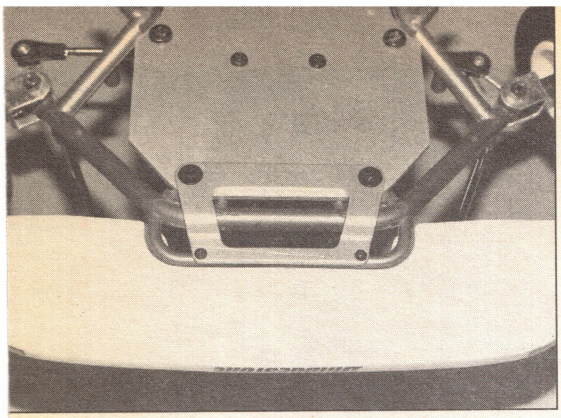
UPGRADES TO INCREASE PERFORMANCE



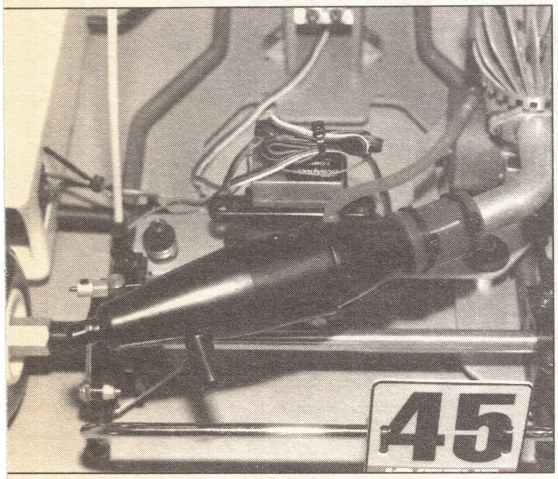




Weight of fuel tank can cause right side pod to bounce excessively so a brace was made using 1/16-inch piano wire and fastened between the pod and the exhaust manifold bolt.



Added protection and appearance was accomplished by bolting on the strong blow-molded front bumper.



We relieved the restriction of the stock muffler by adding Kyosho's special exhaust manifold combined with the Duratrax "compact" tuned pipe. This combination reduces exhaust back-pressure and the pipe is "tuned" to maximize the power output of the two-cycle O.S. engine.

nique needed to quickly negotiate the turns is much easier to master with the docile O.S. .10.

The much more powerful O.S. .12 CZ-R or the .12 CZ-Z (!) is a bolt-in and either one will turn the lightweight Kart into a rocket ship! The only problem is getting all that power to the ground making a .12-equipped Kart next to impossible to drive without constant spinning out. But the obvious quest of most (all?) American RC fanatics is to go faster or add "more power" as Home Improvement's Tim Taylor frequently quips. So, the solution? Modify the .10.

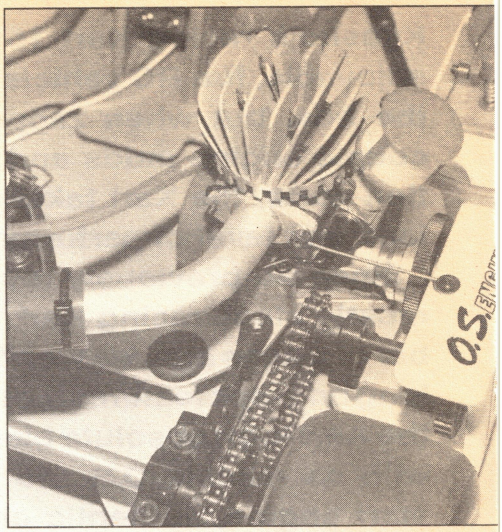
RATCHETING UP THE SPECS

Kyosho offers a very cool looking fan-style heatsink head which is also a fairly good representation of a 100cc Yamaha Kart engine. The new head provides improved cooling which in turn allows a leaner mixture. Result? More power!

The next engine mod is to relieve the restriction of the stock muffler by adding Kyosho's special exhaust manifold combined with the Duratrax "compact" tuned pipe. Not only does this combination reduce exhaust back-pressure but the pipe is "tuned" to maximize the power output of the two-cycle O.S. engine. Result? Even more power!

Finally, in the power department, O'Donnell 20-percent racing fuel was added to the fuel tank providing a cooler running, more reliable engine and — you guessed it! Still more power!

About now, you are probably wondering why we didn't just stick with dropping in the .12 engine. Well the reason is two-fold. One, the .10 engine comes with the



Since the weight of the full fuel tank tends to cause the right side pod to dance up and down quite a bit while running, I added a simple brace made out of 1/16-inch piano wire and attached between the pod and the outside exhaust manifold bolt. No more excessive pod bounce.

Kart so it is cheaper to hop it up than to change it. Second, the performance levels achieved with the .10 mods are perfect for the Kart, making it substantially faster, but not out of control.

Next on the list of hop-ups was a set of ball bearings, which probably should have been at the top of the list since they dramatically reduce rolling resistance, so speed is increased even with the stock engine. Plus they last much longer than the metal bushings. In the rear, Kyosho's optional aluminum axle was added, reducing rotating mass and weight. The



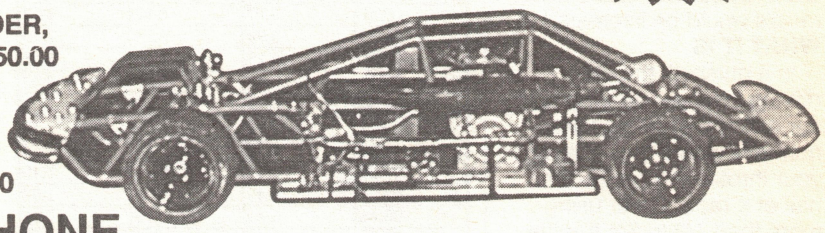
WCM CORP. CHECK OUR LOW 1/4 SCALE PRICES

ZENOAH G2D PARTS
PISTON RINGS $3.00 ea.
PISTON $12.35
CYLINDER $45.18
GASKET SET $7.50
CARBURETOR $33.00
2HP CYLINDER $58.00
WYK 4 CARB 5/8 BORE $56.00
BIG MANIFOLD $20.00
28 GRAM CLUTCH $30.00
ALCOHOL CONVERSION FOR 2HP ENGINE (CARB AND MAINFOLD) $95.00

RIGHT & LEFT HAND METAL ROD ENDS $4.65
QUICKFILL FUEL BOTTLE $7.00
3" FIRM HOST TIRE $19.95
3" FIRM STAG TIRE $19.95
3" SOFT HOST TIRE $19.95

GRAND NATIONAL (TOP QUALIFIER AT QSAC NATIONALS)
COMPLETE STOCK CAR PACKAGE (ASSEMBLED READY FOR RADIO) $895.00
4-WHEEL INDEPENDENT SUSPENSION ADD $100.00
OUTLAW STOCK CAR
COMES COMPLETE WITH A 2HP CYLINDER,
BIG CARBURETOR AND TUNE PIPE $1450.00
(THIS BABY IS BAD)

QSAC APPROVED



LIMITED SPRINT CAR
ASSEMBLED READY FOR RADIO $895.00

(903) 322-4869 TELEPHONE
(903) 322-3643 FAX

GENUINE Mini-Z PARTS WCM INC.

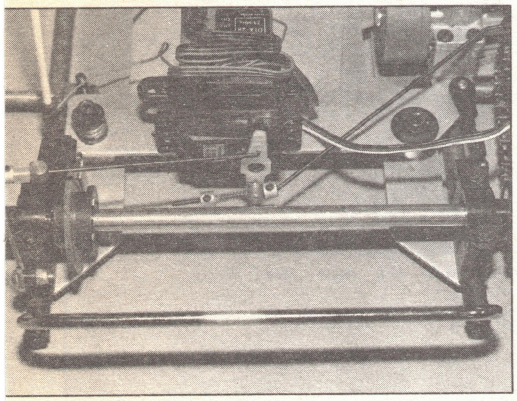
RT. 2 BOX 207A, BUFFALO, TEXAS 75831

stock disc brake is very good so no modification was necessary.

Up front the adjustable-width stub axles were added to improve steering response and the aluminum steering bellcrank replaces the stock plastic piece to improve durability. Also in the durability department is the new front chassis skid plate/brace which includes aluminum bumper upright posts. Added protection and appearance was accomplished by bolting on the strong blow-molded front bumper.

While the foam insert-filled rubber slicks are very realistic and perform well on most surfaces, there are times when rubber tires just don't grip as well as foam tires.

Kyosho's optional aluminum axle was added, reducing rotating mass and weight.

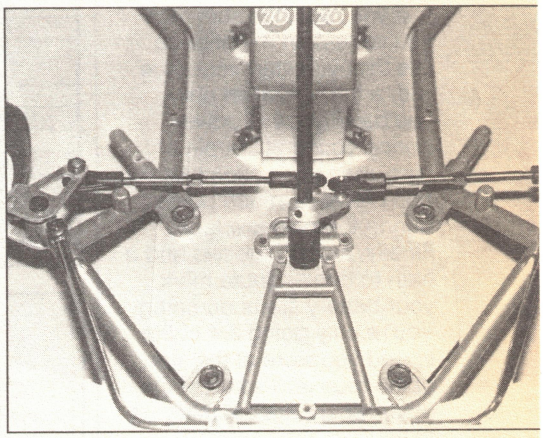


So, a set of Duratrax foam tires were mounted on a second set of wheels and tossed in the toolbox for those occasions when foam tires will be required.

The Futaba radio system installed works okay with the standard 4.8-volt alkaline receiver batteries, but I added a Duratrax 6-volt, 600-mAH hump pack for better servo control, quicker steering and ability to recharge.

Since the weight of the full fuel tank tends to cause the right side pod to dance up and down quite a bit while running, I added a simple brace made out of 1/16-inch piano wire and attached between the pod and the outside exhaust manifold bolt. No more excessive pod bounce.

In the strictly-for-looks category, the frame was sprayed with blue metallic paint as was the center "fuel tank" steering servo box. The driver's helmet was also painted blue with white stripes, while the seat and steering wheel were done in seem-gloss black. I purposely stayed away from painting the side pods, front bumper and number plate. This can be done however, but requires using a flexible primer used on automotive rubber bumpers. To finish off the scale look, Kyosho's cloth driver's suit with embroidered patches was slipped over the driver figure. The cloth driver's suit is available in blue or red but is quite expensive. Of course, the plastic driver can be painted but that suit is way cool!!



Up front the adjustable-width stub axles were added to improve steering response and the aluminum steering bellcrank replaces the stock plastic piece to improve durability.

Overall performance of the modified Kart is very much improved over the stock version but is still very derivable without the excessive tendency to spin out that I experienced when testing a .12 CZ-R. The modifications to the Kart will decrease your finances a little, but the resulting enjoyment is worth the price.

PRODUCT SOURCE:

Great Planes/Kyosho, 2904 Research Rd., Champaign, Illinois 61826. (217) 398-6300. ●

THROTTLE DRIVING

BY BEN CHIU

Throttle Driving is a driving technique for electric cars and trucks. Although mainly used by the more serious 1/12-scale onroad racers, it has many benefits that 10th-scale onroad as well as oval, Super Speedway and offroad racers would be interested in.

WHAT IT IS

In a nutshell, throttle driving involves gearing your car a little higher than you normally would and "rolling" your throttle during the first half of a race, never using more than 1/2 to 3/4 throttle, rather than using the speed control as an on/off switch. This allows you to extract more consistent power from your motor and batteries. If done properly, it will also increase your overall speed.

WHY LEARN TO THROTTLE DRIVE

If you race, I'm sure that you've had an experience like this: you start your race with a fully charged pack, you have gobs of power during your first couple of laps, then you notice that you don't have as much power during the next few laps. Finally, around the two and a half- to three-minute mark, your battery starts dumping. You're only going 3/4 of the speed you were at the start of the race and some of the other racers are catching up to you.

What you have been experiencing is your battery discharge curve. Many racers would blame this type of performance on using less than topnotch battery packs or over-gearing. While using $100 battery packs may have a more favorable discharge curve—depending on how you gear and drive—there will still be a noticeable down slope in any case. Since there aren't that many of us out there who can justify $100 battery packs, what many racers end up doing when faced with this type of problem is to gear down. If you weren't way over-geared to begin with, this will cause slower lap times, although they will be more consistent overall throughout your race. The main complaint with this solution is that you probably aren't going any faster than you were before. Before you break down and buy some of those $100 batteries, read on. There is hope!

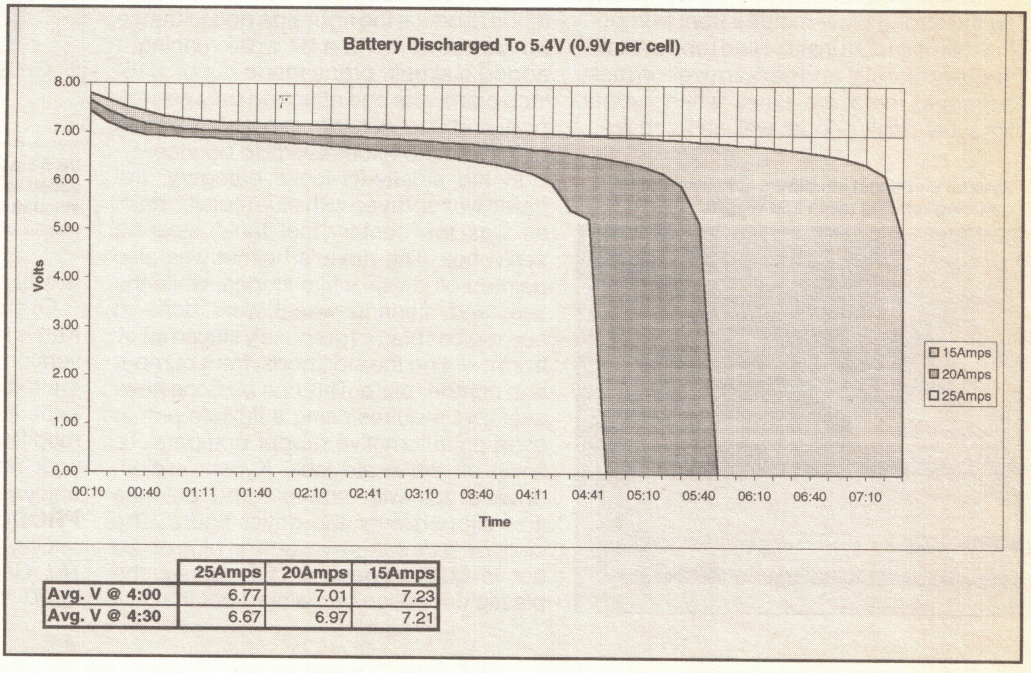
As you may know, many 1/12-scale four- and six-cell onroad races are eight minutes long. These long races magnify the discharge curve of batteries more than any other class of electric racing. So it should be of no surprise that throttle driving originated here. These guys have learned to use their batteries to their maximum potential. The rest of us can learn from what they know.

WHY IT WORKS

The theory behind throttle driving is like this. Think of your battery as a fuel tank. As with any fuel tank, there is only a limited capacity. When you start a race, your battery voltage is at its highest point. Power, more or less (we'll get into that in a future article), is a product of amps times volts. So, the higher the voltage, the higher power consumption. In other words, you'll drain more power to supply a higher voltage than a lower voltage even though your amp draw is constant. By limiting the power you allow your motor to have at the start of the race, the more power you'll have left over near the end of the race. Moreover, since you generally have an excess of power at the start of a race and this extra power doesn't necessarily translate into more

continued on page 31

Time	25Amps	20Amps	15Amps
00:10	7.43	7.65	7.80
00:20	7.19	7.43	7.66
00:31	7.04	7.27	7.52
00:40	6.96	7.17	7.42
00:51	6.93	7.10	7.33
01:00	6.91	7.07	7.28
01:11	6.90	7.05	7.23
01:20	6.88	7.04	7.20
01:31	6.86	7.03	7.19
01:40	6.84	7.02	7.19
01:50	6.82	7.01	7.18
02:01	6.79	6.99	7.18
02:10	6.77	6.97	7.17
02:21	6.74	6.96	7.16
02:30	6.71	6.94	7.15
02:41	6.68	6.92	7.14
02:50	6.65	6.90	7.13
03:01	6.62	6.88	7.12
03:10	6.58	6.86	7.11
03:20	6.54	6.83	7.10
03:31	6.49	6.81	7.08
03:40	6.43	6.78	7.07
03:51	6.38	6.75	7.06
04:00	6.29	6.73	7.05
04:11	6.18	6.69	7.03
04:20	5.97	6.66	7.02
04:30	5.43	6.61	7.00
04:41	5.25	6.56	6.98
04:50		6.51	6.97
05:01		6.43	6.95
05:10		6.35	6.93
05:21		6.20	6.91
05:30		5.93	6.89
05:40		5.16	6.86
05:50			6.84
06:00			6.81
06:10			6.78
06:20			6.75
06:30			6.71
06:40			6.66
06:50			6.60
07:00			6.53
07:10			6.41
07:20			6.18
07:30			4.90



	25Amps	20Amps	15Amps
Avg. V @ 4:00	6.77	7.01	7.23
Avg. V @ 4:30	6.67	6.97	7.21

MINI COOPER CONTINUED FROM PAGE 24

added anti-roll stiffness.

It's evident that because of the size constraints there wasn't enough room to allow motor adjustment for various pinion sizes. This resulted in a very narrow range of pinion gears. There are only three pinion sizes to choose from 16, 18 and 20. At the time of this article there were no hop-up parts available for the Mini. But, I'm sure that if the Mini takes off like their Formula One and Touring Cars did, it won't be long before the hop-ups start flowing into the hobby stores.

SUSPENSION

The Mini uses a double wishbone-style suspension on both the front and rear. The lower wishbones are connected by a no-oil laydown shock absorber. The shock gets its rebound capabilities from a piece of rubber hose (inside around the shaft) and an external spring. Because the laydown shock moves from side to side on a lateral plane it has no control over chassis roll (weight transferring to the outside wheels when turning) when the car is traveling on a flat surface. To handle the chassis roll and assist in both dampening and keeping the tires planted on the ground springs are used at each wheel. The only time the shock becomes a real factor in dampening is when the wheels move independently of each other, when you hit a bump.

As I said earlier, the suspension parts between the front and rear of the car are the same. Both ends use the "D" parts bag. The only parts that are different are the axle carriers, only because of the steering attachments. This similarity in parts makes it nice if you have to replace something. There aren't separate bags for the front and rear so chances are you'll be able to make two repairs for the cost of one.

FINISHING TOUCHES

This is the part of the program were you can follow the box or venture out on your own. For the sake of history I'm going to paint this car the same colors as the Monte Carlo Rallye winner: red and white. If you choose the traditional color scheme don't expect to find British racing green RC paint on the shelf. Chances are your going to have to mix your own and spray it through an airbrush. Well I'm sure that thought just eliminated a few fans of British Racing Green! Anyway, as is normal you should wash the inside of the body out with warm water and soap. Before I start to tape or handle a clean body I wash my hands. This gets the skin oils off of your fingers and keeps the body clean.

Regardless of what color you choose to paint your car, you're still going to have to mask the windows. The kit provides you with an outlined sheet of window mask that works great. Since I'm going with the two-tone paint job I had to tape off the roof and the two stripes A couple of strips of 3/8-inch fine-line tape works for the stripe while newspaper and masking tape protect the roof. It's always a good idea to paint the dark color first to prevent bleed-through.

Once the paint is dry it's time to add the finishing touches to your classic Mini. Install the grill, mirrors, license plate and decals as indicated by the instruction book. Then, get it all shined up and ready for a test drive!

POWERING UP

I used my tried and true radio gear to get the Mini on the road. The radio is a Futaba three-channel FM with an S9301 servo to which I linked the box-issue servo saver and steering control rod.

To manage the power I turned to the new Novak Electronics Rooster Sport speed control. After installing the purple anodized heatsinks on top of the transistors, I located the Rooster in the Mini's chassis. The only soldering I had to do was when I installed the capacitors on the motor. Because the Duster comes prewired with Tamiya-style plugs on both the motor and battery leads, no other splicing or soldering was necessary. The Duster was hooked into the system and ready for set-up in no time.

Like all of the new Novak speed controls the Duster features one-touch set up. After following the easy step-by-step directions I had my radio adjusted and ready to execute the one-touch function. I powered the car with a Tamiya Championship Series 1400 mAH stick battery pack. I first turned on the transmitter then the speed control. Then, with a simple push of the button on the speed control then a quick pull and push of the transmitter's throttle trigger I had the setup completed. This one-touch feature is great, as there's no hit or miss with neutral, high speed or brakes, making the Duster perfect for all levels of RC enthusiasts.

DRIVING IMPRESSIONS

The first thing that caught my attention was how incredibly fast this car actually is! The stock motor really gets the job done. If you get a little trigger-happy you can find yourself lighting up the front tires. Its fun to do but doesn't make for long tire life.

I drove the Mini primarily on the street. I took it over small bumps, across asphalt to cement transition, weaved it back and forth under full acceleration and couldn't upset its track. I didn't experience one roll-over or incident. I was really surprised—not knowing how the short wheel-based, somewhat heavy, small car was going to react. The powerful front-wheel drive unit really works well with the entire package.

The only thing that was unusual about the car was that its suspension was a little stiff. I think that was due in part to my cutting the rubber shock dampener too long. Once I freed up some room inside the shock the car seemed to take the bumps better. I must admit I had a lot of fun testing the Mini and I look forward to several projects we have planned for it in the near future. If your looking for a first RC car or just a fun car, check out the Tamiya Mini Cooper. You won't be disappointed!

PRODUCT SOURCES:

Tamiya America, 2 Orion, Aliso Viejo, California 92656.

Novak Electronics, 18910 Teller Ave., Irvine, California 92715.

Futaba Corp., 4 Studebaker, Irvine, California 92718. ●

BOCA BEARING
Miniature Bearings Specialists
For R/C cars, trucks, boats, planes & helicopters

Largest Inventories of Miniature Bearings for Remote Control Models
- 3 Complete Product Lines
  - Premium Ultra-Seal frictionless sealed maintenance-free bearings
  - Econo-Power bearings, precision engineered for strength and durability
  - High Speed, high heat engine bearings
- Huge Inventory of Standard U.S. and Metric Bearings
- Low Prices, Fast Delivery
- Toll-Free Number for Easy Ordering
- Dealer Programs Available

NEW

ULTRA SEALS
FRICTIONLESS SEALED MINIATURE BALL BEARINGS
Available in Metric & Inch sizes

Gives you the Winning Edge
"SECRET WEAPON"

A new line of miniature bearings built to the highest tolerances in the industry. Available in all the most popular inch sizes

FREE
$1.00 Trade Up Bearing Coupons
Trade in your worn out wheel bearings for $1.00 Coupons.
Coupons good towards purchase of ULTRA-SEAL or SECRET WEAPON 4 Pcs Wheel Kits.
Send us as many bearings as you like, along with $3.00 for catalogs and details for redemption.

QUALITY BEARINGS GREAT PRICES!
VISA MasterCard

BOCA BEARING
SEND $3.00 FOR CATALOGS
7040 W. Palmetto Park Road, Suite 2304MC, Boca Raton, FL 33433
407-998-0004 • Fax: 407-998-0119
Call Free • Canada • Mexico • USA • 1-800-332-3256
FAX Free • Canada • Mexico • USA • 1-800-409-9191


RACER'S EDGE CONTINUED FROM PAGE 30

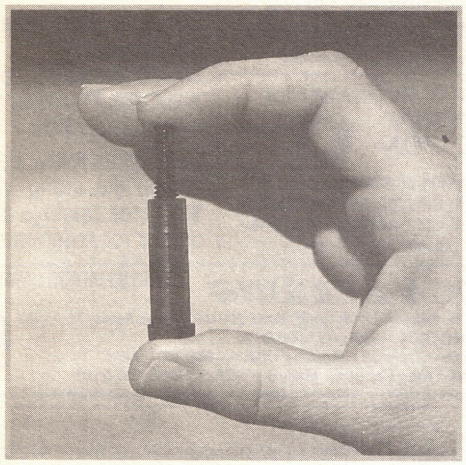
speed, by using full throttle, you aren't using your battery

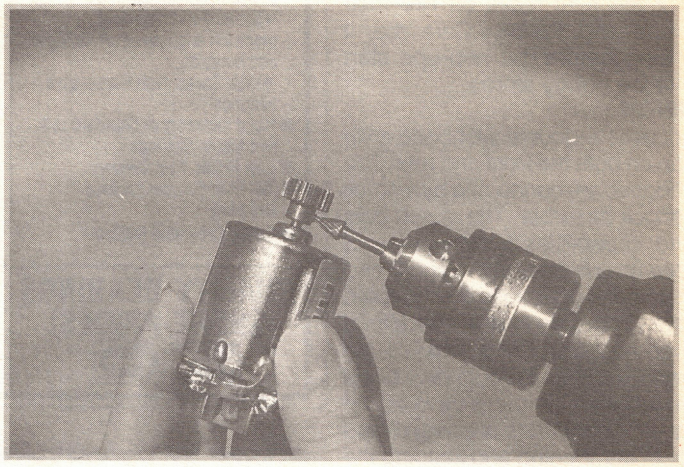
power the most efficient way possible. To make matters worse, this extra power is

continued on page 43

Trackside Help

QUICK AND EASY RC CAR RACEDAY REPAIRS





■ LEFT: Sometimes a simple piece of regular gas line can save your raceday. A cracked or broken body post (Bolink type) can be made usable by supporting it with a piece of 1/4-inch inside diameter automotive fuel hose. ■ RIGHT: A stripped hexhead pinion screw can be a real pain to get out in a hurry. A tampered Dremel metal grinding bit and a reversing drill can be used to back out the offending pinion screw. Notice the towel used to protect the pinion teeth from damage.

No matter how hard we RCers try we sometimes have raceday car problems. Normal headaches, like dirty motors, old brushes and the wrong shock oil can usually be repaired between races, but what happens when you have a problem just before a race? You know, the ones you discover about two nano-seconds before your A-main? Well, lucky for you, many RC racers have shared with me some quick-fixes for those last-minute, frantic hair-pulling RC vehicle repairs you've grown to hate on racedays. Of course I should point out that these quick fixes are just that, *quick*, and shouldn't be left as-is beyond one race. Once you complete your day's racing, repair the car with the correct factory parts before you run again.

GAS CAR FIX-UPS

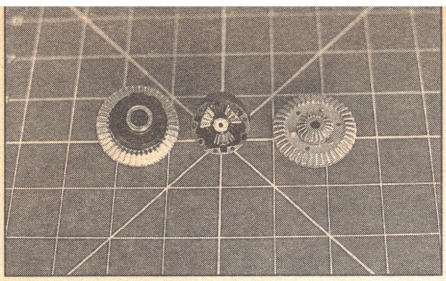
Okay, you're running good in either a 1/10-scale offroad gas truck race or a 1/4-scale stock car event and you completely run out of fuel out on the track. Once the vehicle is back in the pit area and is refueled it, won't crank up; what now? Some racers keep a spray can of WD-40 lubricant handy for these situations. Spray a bit of the WD-40 (which is a volatile) onto the air filter and try starting the engine. This works best on those RC cars using foam air cleaners, but in many cases it will work on paper/gauze types as well. A small amount of either glow or gasoline fuel applied to the filter itself will also cure a fuel-dry engine but extra care should be taken to prevent the chances of fire.

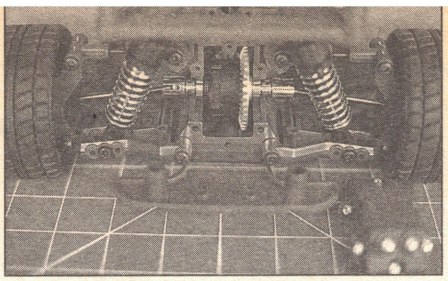
For the Zenoah-engined Q-scale RC cars, a recoil rope that will not return into the starter housing is a common pre-race problem. Should you suffer this glitch the same two products mentioned above will help the situation. Spraying the WD-40/fuel into the recoil housing near the drum housing will usually loosen the gunk that's causing the stuck starter rope. Tilting the car up on its side so the recoil is close to the pavement makes it easier to apply the loosening spray.

Should you notice that your car's throttle won't return properly there are a couple of ways to quickly cure the glitch. A piece of silicone fuel tubing (softer than gas line) or a couple of regular ballpoint pen springs will solve it. Acting as a simple device to return the carb to the idle position,

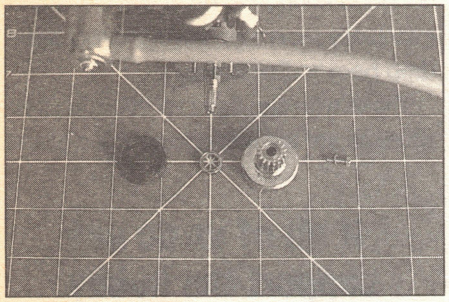
continued on page 43

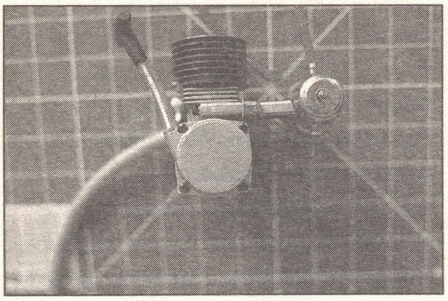
By Rick Eyrich



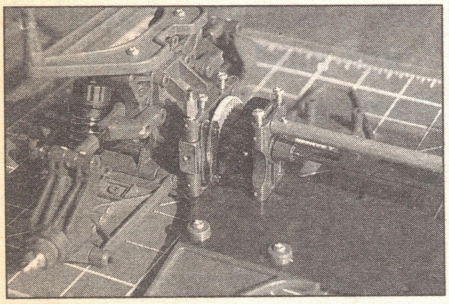


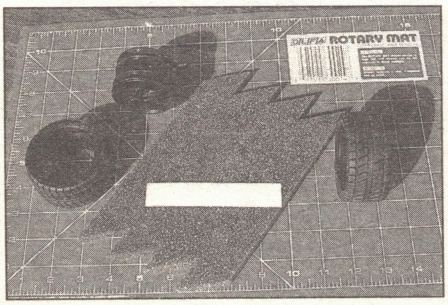
■ LEFT: At the center of the front and rear gear cases are gear diffs. An optional one-way diff is available for the front gear case. ■ RIGHT: Thanks to Tamiya's excellent design, you only have to remove six screws to get at a diff. No other disassembly is required.



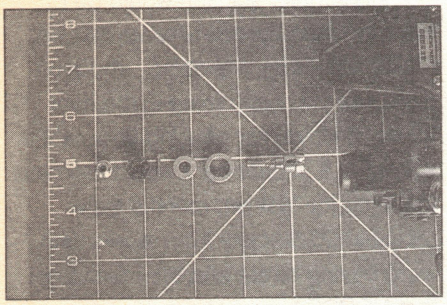


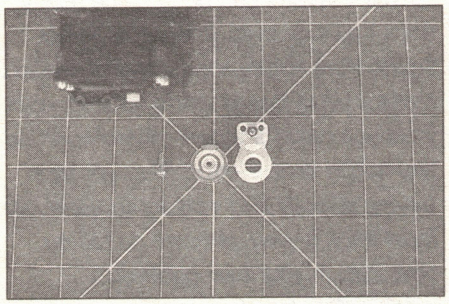
■ LEFT: The TGX clutch uses a rubber O-ring instead of springs. It is cheap to replace and works remarkably well. The pinion and clutch bell come as one unit. ■ RIGHT: Bolted to the rear of the OPS VR-15S is a heavy-duty aluminum pull starter. If you've ever had the plastic press-on type, you'll really like this one. Tamiya also has an optional onboard electric starter.





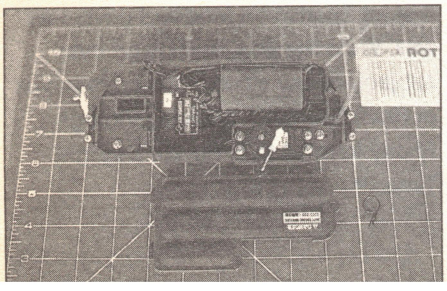
■ LEFT: At the center of the picture is the disc brake. The rectangular block acts as a cam and presses against the two vertical metal plates, which in turn squeezes the brake disc. Note that the cam arm and upper gear case brace was removed to expose brake detail. The shaft to the right is the driveshaft. Above it is the upper chassis stiffener. ■ RIGHT: Foam inserts are included for the street racing tread tires. The one-piece wheels are very, very, stiff. Optional scale wheels for whichever body set you end up getting are available.

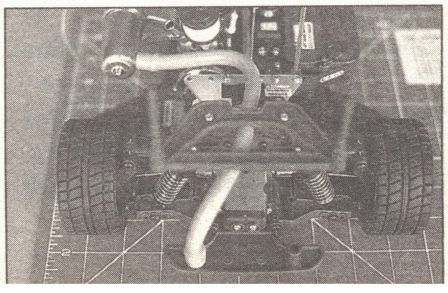




■ LEFT: The only bushings in the TGX are located at each wheel and in the steering bell cranks. Power is transferred from the gear box via metal dogbones. Ball bearings for these areas and universal swing shafts are available as options. ■ RIGHT: The included heavy-duty servo savers use metal spring clips to absorb shocks.

■ LEFT: All radio equipment is mounted either on or in this radio pod. When the cover is on, it protects its contents from most of the elements. The whole pod can be easily removed by undoing five screws. The radio pod cover is held in with a body clip and the radio switch is externally accessible. ■ RIGHT: Engine exhaust is routed via a silicone tube out through the bottom of the rear bumper. This helps keep your car and scale-looking body free of glow fuel gunk.





TAMIYA 1/8 CONTINUED FROM PAGE 22

1/8-scale cars, but what is most interesting is that the TGX is Tamiya's first 1/8-scale Spec Class car. Just in case you've been hiding under a rock lately, the extremely popular Tamiya Spec Class racing is a class of racing that has very strict rules that limits your car type and hop-ups. This allows racers to compete for a very low cost. Up until now, Spec Class racing has been limited to 1/10 scale.

THE KIT

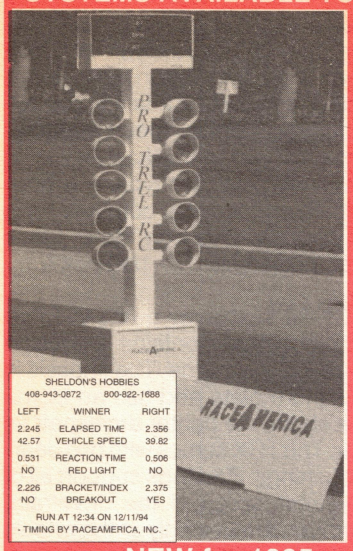
The TGX kit is sold as a chassis and engine combo that contains a Tamiya OPS VR-15S glow engine. The chassis is a flat aluminum plate and has an aluminum tube above the center driveshaft as a stiffener. The TGX comes with ball bearing and bushings. Bearings support all of the high-stress areas of the drivetrain, and bushings are found only on the wheels and the steering bell cranks. Wheel bearings and other upgrades can be purchased separately. The body isn't in-

continued on page 45

SPECIFICATIONS

Scale	1/8
Chassis Price	$599.00 (Retail)
Body Price	$89.00 (Retail)
DIMENSIONS	
Overall Length	21.00 in.
Overall Width	9.00 in.
Overall Height	6.12 in.
WEIGHT	
Ready To Run	4 pounds, 8.1 ounces
CHASSIS	
Type	Plate with aluminum tube backbone
Material	Anodized aluminum
DRIVETRAIN	
Type	Sealed drive gear
Primary	Pinion/spur 16t/50t
Transmission	Metal dogbones
Differentials	Gear diffs front and rear
Bearings	Ball bearings and metal bushings
Brakes	Single disk on driveshaft.
SUSPENSION	
Type (f/r)	Independent double wishbone - adjustable camber links
Dampening (f/r)	Plastic, oil-filled, coil-over shocks
WHEELS	
Type (f/r)	Lightweight one-pieced molded
TIRES	
Front/Rear	Racing radial tires w/sponge inserts
ENGINE	
Motor	OPS VR-15S w/pull start
Exhaust	Muffler
Tank Size	80cc

THE MOST ADVANCED SYSTEMS AVAILABLE TODAY



TIMING SYSTEMS

NEW for 1995

- 6' and 60' ET's
- 60 Second Timer
- Large Displays
- Rear Facing Lights

CLUB STARTUP HELP
CUSTOM APPLICATION TIMERS
Call for Details

RACE A MERICA
PO BOX 3469, SANTA CLARA, CA 95055
(408) 927-6064

SHOP - TASK
MILL · LATHE · DRILL
The Original Home Machine Shop Designed in USA by Shoptask



3 Models to Choose
Best quality, best price
3 Axis Power Feed Available
12 Month Warranty
100% Parts Supply
All Tooling Available
17" Swing
11 x 18 Mill Table

1-800-343-5775 FREE CATALOGUE
DEMAND THE BEST
SHOPTASK P.O. BOX 186, ABERDEEN, WA 98520
SINCE 1981

RC CARS DECALS!
RADIO CONTROL MODEL CARS
FULL-COLOR FOR YOUR CAR, ONLY $2.50
RC Model Cars
34249 Camino Capistrano
Capistrano Beach, CA 92624

JR's View

BY J.R. SITMAN

Editor's note: Occasionally we will present a column of interest to racers from J.R. Sitman, the top dog at NORRCA (National Organization for Racing Radio-Controlled Autos). This is the first of those columns.

This month's subject concerns a problem that you may not be aware of, though it could play a significant role in the future of RC racing. It seems that an increasing number of small manufacturers are selling directly to the racer at anywhere from 30 to 50 percent off regular prices. This obviously means that they are deliberately bypassing the hobby shops. This type of activity has dramatic effects on whether the hobby shop can continue to operate or not. I honestly believe that many of the racers don't realize what they are doing when they buy directly from a manufacturer. The only thought that goes through their minds is that they are getting the products for half price, and that they're a sponsored driver.

Well, maybe I can bring some reality back into their lives. If all of us do not support the hobby shops, then it doesn't make a hill of beans who's sponsored or what you paid for a part—there won't be any hobby shops left! *Unless you stop buying directly and instead support your local track or you can plan on racing your cars in your own backyard.*

NORRCA does have some control over the situation, but it's not enough. We have a rule in place that if you are buying directly from a manufacturer, you cannont race in any Sportsman Stock classes in any scale. This has its good and bad points. It has had an effect on many racers who are buying direct, as they don't want to race with the experts. However, there are those racers who think because they are sponsored that they are good enough to race with the experts. Well, get real; the majority are not good enough to be in that class and eventually most stop buying direct and drop back to Sportsman.

Those who can have an effect on this situation are the track owners. If a track

If all of us do not support the hobby shops, then it doesn't make a hill of beans who's sponsored or what you paid for a part—there won't be any hobby shops left!

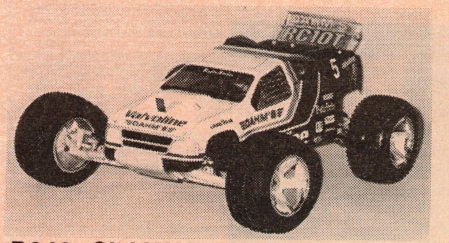
owner knows that a racer is buying directly from a manufacturer, either bump them up to an Expert class or don't let them race at your track. What have you got to lose, they're not supporting you anyway.

A still simpler solution would be to have the manufacturers wake up and realize what they are doing—though I don't see that happening in the near future. Believe me, policing your racers will make a difference. I would estimate that over the last two months we've received 20-30 calls from racers who were buying direct and then found out that NORRCA would bump them to Expert. Eighty percent of those who called told us they would stop buying direct and would go back to supporting the hobby shops.

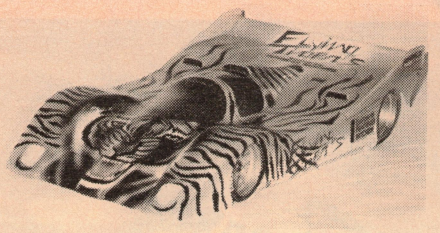
There is a 1996 NORRCA rules proposal being developed that could restrict Sportsman Modified drivers as well. We'd like your opinion on this subject, or any other. You can reach us at (909) 944-5381, Monday through Friday from 10 to 5, Pacific Daylight Time. •

DAHM'S™

CLEAR LEXAN RACING BODIES



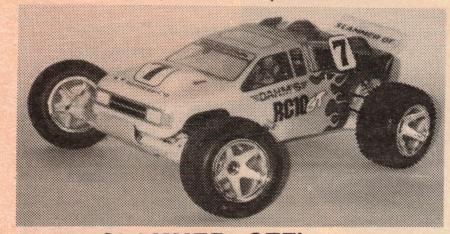
D046 SLAMMER™ Fits **RC10T, Rustler & Stadium Blitzer**! Super Low, Narrow, High-Performance Body! Includes Spoiler & Grill Decal.



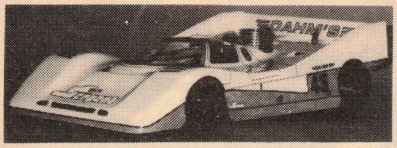
D054 LOLA - Fits **RC10L, Evolution 10**, & Most Others. Low Profile Improves Handling & Increases Top Speed! ROAR & NORRCA Approved!



D201 & D202 MC/SS STOCK CAR™ Super Aerodynamic High Speed Oval Racing Body for 10th Scale Narrow Cars like the **RC10LSS**. Race Winning Styling, Super Detailing, Adjustable-Functional Spoiler, & 3-D Side Panels that can be Shaped for Outstanding Aerodynamics! Instructions Included! D201 - 030 Lexan D202 - .040 Lexan

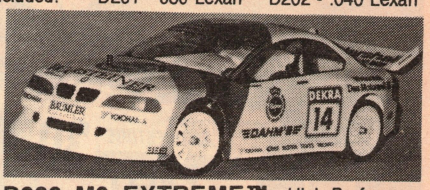


D038 SLAMMER GT™ Fits Associated **RC10GT**. Specially Designed to Improve Handling, Increase Top Speed, & Improve Motor Cooling. Includes Grill Decal and Adjustable Rear Spoiler!



WINTERNATIONALS WINNER !!!

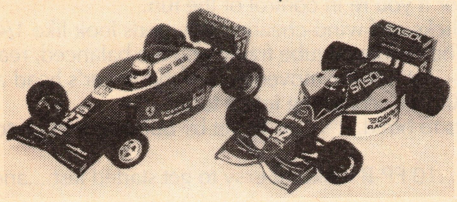
D042 SPICE GTP Fits 10th Scale Gas Cars like Serpent, BMT, Parsec, PB, & Delta. IFMAR World Champ Art Carbonell Wins the 1994 & 1995 Florida Winternationals with his Spice/Serpent! ROAR National's Winner Dave Campbell Wins 2nd Place at Winternationals with his Spice/Delta!



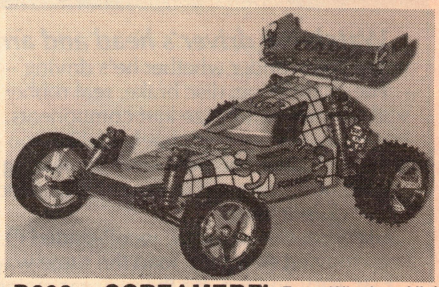
D020 M3 EXTREME™ High Performance Body & Wing. Fine Detailing. Fits **Tamiya** Sedans.



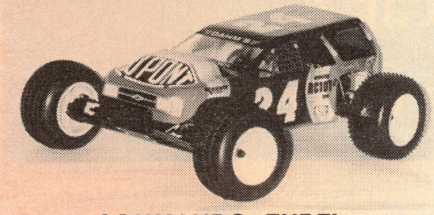
D040 SLAMMER XL™ Fits **Losi LXT, XXT, Blue Eagle, LSII, Nitro Hawk, Ultima Outlaw**, Associated **RC10T, RC10T2, & Stadium Blitzer**. Excellent Motor Cooling, Superior Aerodynamics, Excellent Handling, & Free Grill Decal!



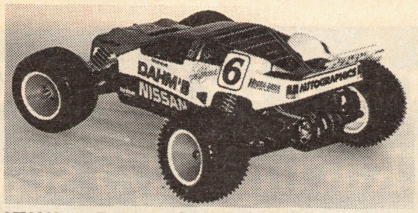
D034 TYPE F and **D036 TYPE J** For Tamiya & Kyosho **F-1 & Indy Cars**. Very Affordable, Realistically Styled, Replacement Bodies!



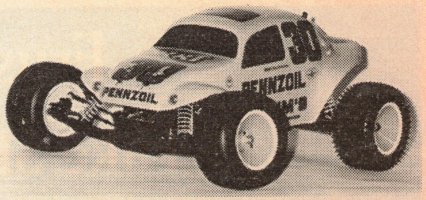
D063 SCREAMER™ Race Winning, High Performance, Body & Wing for the **Associated RC10**. Low and Narrow. Motor Cooling Scoop!



D049 COMMANDO EXP™ Fits **RC10T, RC10GT, RC10T2, Stadium Blitzer, Losi XXT, LXT, Tamiya Prerunner & Nitro Hawk.** Free Grill Decal.



NEW! D200 SLAMMER X™ High Performance Racing Truck Body for **Team Losi XXT**. Features Front and Rear Molded-in Spoilers, Optional Rear Spoiler, Grill Decal, Cooling Vents, and 3-D Side Panels that can be Shaped to Fit Your Truck like a Glove! Complete Instructions included.



D056 BUGGSY™ 8th Scale Fits **XXT, LXT, Inferno, Mugen, Pirate, Burns, & RC10GT.**

D080 BUGGSY™ Fits **RC10T2, RC10T, Nitro Hawk, Clodbuster, & Stadium Blitzer**

D043 BUGGSY™ fits **RC12L & Digger**



NEW! D203 RAMMER™ Exciting, Aerodynamic Racing Truck Body for the **Associated RC10T2.** Rammer's Narrow, Low, Profile Design Features a Molded-In Rear Spoiler, a Separate 2" Adjustable Spoiler, Fine Detailing, Cooling Vents, 3-D Side Panels that can be Shaped to Hug the Frame, and Dahm's Decals.

NEW!



NEW! D016 TORNADO II™ High Performance Racing Body for Narrow S.S. Cars like **RC10LSS.** Race Winning Aerodynamics, 3-D Side Panels that can be Shaped for Improved Handling, and Increased Body Strength. Super Detailing! Spoiler, & Grill Decal! **NEW! D017 TORNADO II™** for Standard **RC10L**

THE MOST IMPORTANT, AND LEAST EXPENSIVE CHANGE YOU CAN MAKE TO YOUR CAR TO IMPROVE PERFORMANCE AND APPEARANCE, IS TO PUT ON A NEW DAHM'S LEXAN BODY. DAHM'S RACING BODIES ARE WORLD FAMOUS FOR THEIR LOW, SLEEK STYLING, AND SUPERIOR AERODYNAMIC CHARACTERISTICS. YOU CAN COUNT ON DAHM'S RACING BODIES FOR THE HIGHEST QUALITY, NEWEST AND MOST INNOVATIVE DESIGNS, FINE DETAILING, AND RACE-WINNING PERFORMANCE!!!

WANT TO KNOW WHICH BODIES FIT YOUR CAR? CALL US AT: **707-792-1316 FAX: 707-792-0137**

SEND $2.00 FOR DAHM'S LATEST CATALOG, OR SEND $4.00 FOR CATALOG AND DECALS TO:

DAHM'S RACING BODIES (Dept. C) P.O. BOX 360, COTATI, CA 94931 USA

Gas Racing Realism — A'la Kart!



KYOSHO®
THE FINEST RADIO CONTROL MODELS

Length: 15.7 in
Width: 12.2 in
Height: 11 in
Weight: 3.3 lb
Requires: 2-channel radio, fuel, glow starter



Watch the driver's head and arms move —and Kyosho's Racing Kart 10 will make you wonder whether he's driving — or if you're in control of the fun.

The chain drive, disc brake, real rubber slicks and wind-cheating side pods look like 1/4 scale copies of full-size kart components. The simulated tube frame and the balanced, rear-engine layout are completely lifelike, too — just like the movements of the driver's head and arms each time you (he?) send the Racing Kart 10 screaming into a turn.

With no suspension to assemble or shocks to build, it's easy to get by building and on to the track in a hurry.

Likewise, the included, recoil-started O.S. .10 FP-B makes it easy to get started fast....and keep moving down the road the same way.

Fast, easy and fun. It's the way gas racing ought to be, served up as only Kyosho knows how.

For a free brochure and the location of the dealer nearest you, please call **1-800-682-8948, ext. 093K.**

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

© Copyright 1994—3070346

Frustrated by your RC car ?
Take SEI Racing's *1/5* scale Quiz...

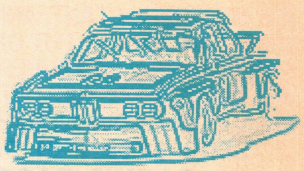
	Yes	No
1. Tired of hauling tons of equipment?	☐	☐
2. Sick of replacing costly tires at every race?	☐	☐
3. Fed up with parts wearing out frequently?	☐	☐
4. Tired of tuning ☼¿6§©! nitro motors?	☐	☐
5. *Still* want to go fast?	☐	☐

Don't Worry. The FG answer is coming *next* month.

SEI RACING
Sole U.S. Distributor

For those who can't wait...
call (206) 827-7158.

World famous 1/5 scales by FG Modellsport®
RC racing the way it should be.





NOBODY KNOWS GAS RACING LIKE THE TEAM.

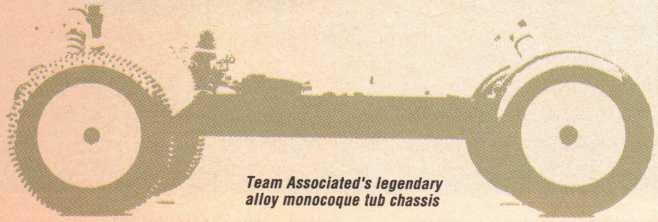
A lot of people would like you to think they created the whole concept of RC gas racing.

But with over 25 years of experience racing RC gas cars and winning two IFMAR Gas World Championships, Team Associated knows gas racing.

That's why the Team built the RC10GT.



IFMAR World Champion factory drivers Brian Kinwald and Cliff Lett teamed with Curtis Husting in designing, track testing and racing our RC10GT prototypes.



Team Associated's legendary alloy monocoque tub chassis

Our RC10GT is the real thing, designed and engineered by the same racers that brought you the original RC10 and the RC10T.

While it might be enough for some to simply drop an engine and a fuel tank into an electric truck, the Team takes this kind of powertrain transfusion seriously. The RC10GT is a completely integrated package created to take maximum advantage of gas power yet versatile enough to accommodate all popular .12 and .15 size engines.

The most advanced, high performance vehicle of its kind, the RC10GT features competition proven, four wheel suspension with precision, coil-over shock dampening. Our World Famous Team Associated Stealth ATC gearbox is also adapted to the RC10GT, to get all that nitro power to the ground and our race-ready disc brake gets it all slowed down in a hurry.

Like all our kits, hardware and materials are nothing but the best. And because Team Associated understands RC racers, and their budgets, the RC10GT is available with either bushings or ball bearings and for both pull and non-pull start engines.

Enjoy the sound and power that makes gas RC racing come alive. The RC10GT is the ONLY RC gas truck with Team Associated's proven performance and reliability. Because no one knows RC gas racing like the Team.

Quick-fill 75cc fuel tank lets you race as long as you want with simple 2 second pit stops.

All terrain tires developed by Pro-Line specifically for the RC10GT

Wide track, long throw suspension, molded from durable, dyeable virgin nylon



The RC10GT is available in several Sport and Competition versions for most .12 or .15 engines. We highly recommend the .12 size for scale performance and reliability.

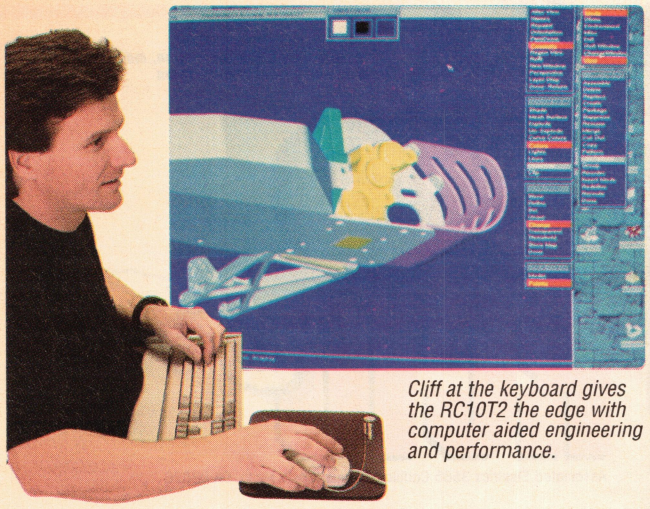
RC10GT

Associated Electrics 3585 Cadillac Avenue, Costa Mesa, CA 92626

© 1994 Associated Electrics



COMPUTERS MADE



Cliff at the keyboard gives the RC10T2 the edge with computer aided engineering and performance.

The RC10T2 was developed using the most advanced computer automation design tools available.

But all the new technology in the World wouldn't make any difference if we didn't input the right specifications.

The RC10T2 was designed from the ground up to be a pure, RC racing truck. We took the proven World Championship-winning Stealth design and made it even better with a lower, 2.6:1 reduction ratio, higher torque capacity and more consistent performance with fewer rebuilds. The gearbox is also used in the laydown configuration for a lower center of gravity and with the integrated bulkhead and rear shock tower provides exceptional chassis rigidity.

Every component of the RC10T2 was created within the sophisticated computer programs. The suspension geometry was fine tuned on the screen, animated to check clearance and other critical performance data. Everything that could make the RC10T2 a winner was analyzed in the system.

The RC10T2, however, must win on the track, so Team Associated still does some things the old fashioned way. RC10T2 prototypes were constructed and subjected to the usual high speed abuse and unreasonable demands of our Factory drivers. Now Team Associated's RC10T2 is ready to win when you are.



RC10T2 Top Qualifier/1995 Winterchamps!

US DO IT, FASTER.

Hard anodized, Teflon-coated oil shocks. Competition silicone shock oil included.

Revised front suspension provides faster cornering and a tighter turning radius.

New Steath 2.6:1 ATC truck transmission uses high efficiency composite internals, increased torque capacity diff and laydown, low c.g. design.



New, channeled bottom alloy chassis for increased rigidity, lower center of gravity and improved roll clearance.

RC10T2

ASSOCIATED ELECTRICS 3585 CADILLAC AVENUE, COSTA MESA CA 92626

With Tamiya's newly expanded line of over 100 4WD hop-up, spare and replacement components, you'll never have to settle for anything less than top gear again. To go with racing motors there are new 4WD speed-tuned shocks, springs and gear sets. Carbon fiber chassis, universals, super slicks, radial tires, stabilizer bars, turnbuckles, FRP shock towers. Everything you need to turn your stock Calibra or any TA02 chassis into a modified class winner.

For the fastest 4WD performance products, reach for the stars...genuine Tamiya Hop-Up Option Parts in the familiar star-studded package.

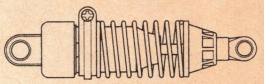


Just a few of the more than 100 genuine Tamiya Hop-Up Option parts for 4WD's.

HOP-UP OPTIONS

Tamiya's newest 4WD Hop-Ups:

Universal Shaft Set	53172
M-Grip Super Slicks	53178
Rear Stabilizer Set	53189
Tie-Rod Set	53191
Adjustable Upper Arm Set	53192
FRP Front Damper Stay	53193
FRP Rear Damper Stay	53194
TA02 Carbon Chassis	53195
Front 1-Way Diff Unit	53200
Shaped Tire Inserts	53209
Super Grip Radial Tires	53214
5-Spoke Primera Wheels	50636



Part parts, part glory.

TAMIYA
First in quality around the world

New 4WD Opel Calibra V6 DTM 58150

Tune to exact track conditions with 6 weights of shock oil, a full array of tires and inserts, plus much, much more.

©1995 Tamiya America Inc.
2 Orion, Aliso Viejo, CA 92656-1200; 1-800-TAMIYA-A

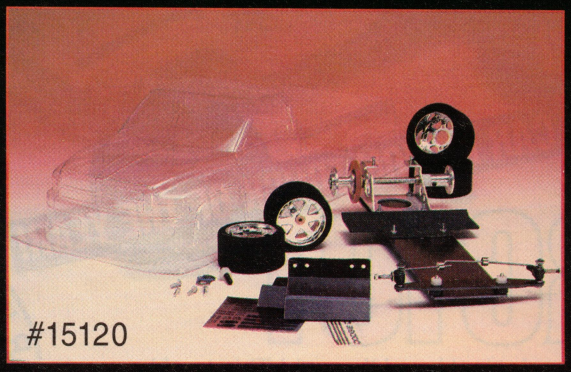
"The Truck of the Year."

"Dodge Ram has created a new standard by which full-size pickups will be judged."

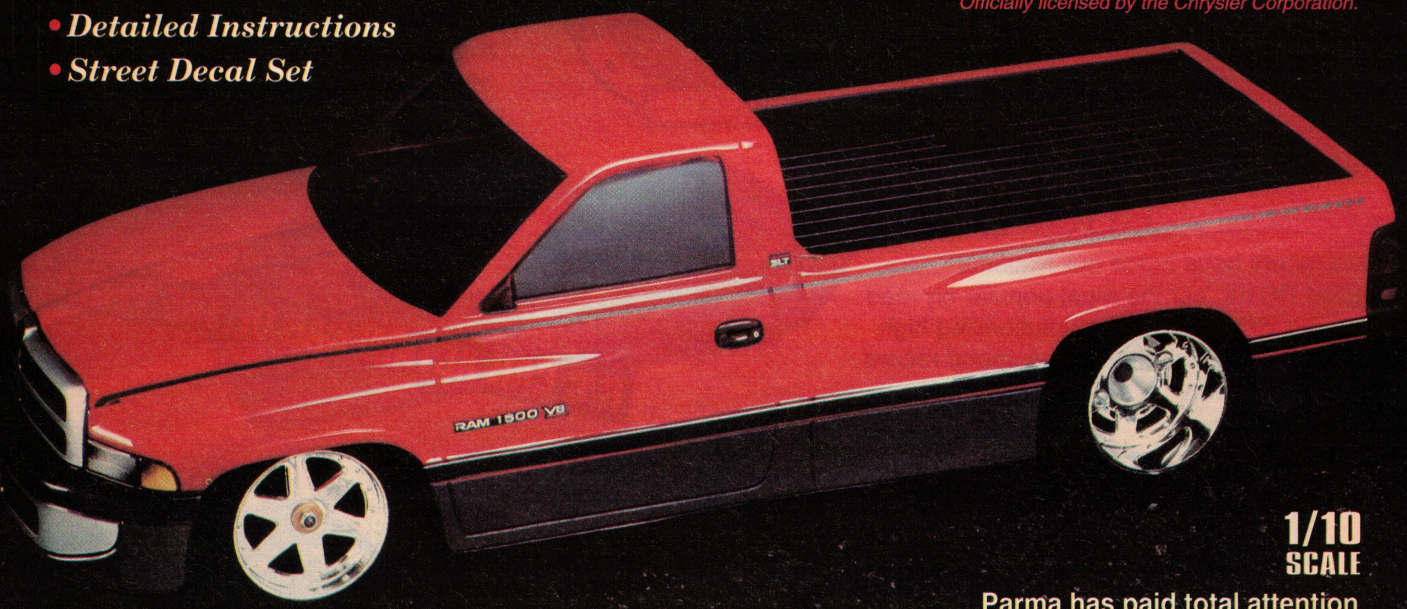
- Motor Trend

This Incredible Scale Reproduction Includes:

- Clear Lexan® Body
- Black G-10 Chassis
- Chrome Spoke Rims
- High-Grip Foam Tires
- Ball Type Differential
- Aluminum Rear Pod & Wheel Hubs
- Detailed Instructions
- Street Decal Set



Officially licensed by the Chrysler Corporation.



1/10 SCALE

Parma has paid total attention to detail and ease of construction. Now you can create your own personalized version of this great looking pickup by choosing decals from V6 to V10 and a paint scheme of your choice.

Radio Control Kit

MOTOR, BATTERIES, RADIO & ELECTRONICS NOT INCLUDED.

DODGE RAM TRUCK

By Parma International Inc. 13927 Progress Parkway • North Royalton, Ohio 44133

TEAM ASSOCIATED

STILL

THE TOP NAME IN 1/10 OFF ROAD RACING

and 1/10 on road . . . and 1/12 on road . . . and 1/10 gas



R/C CAR ACTION TRUCK OF THE YEAR!

RC10T

A technological breakthrough! This truck's design is similar to the RC10, which has made it the dominat electric truck since its release. Winners race RC10T's.

IFMAR WORLD CHAMPIONSHIPS
TWELVE



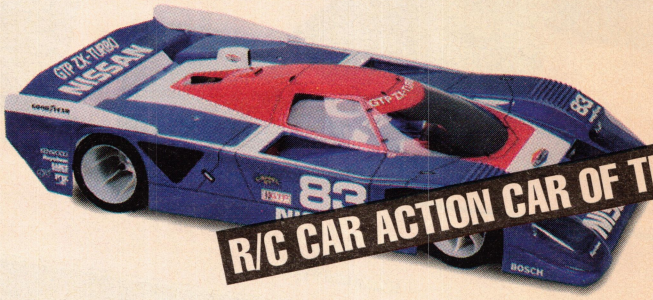
R/C CAR ACTION CAR OF THE YEAR!

RC10

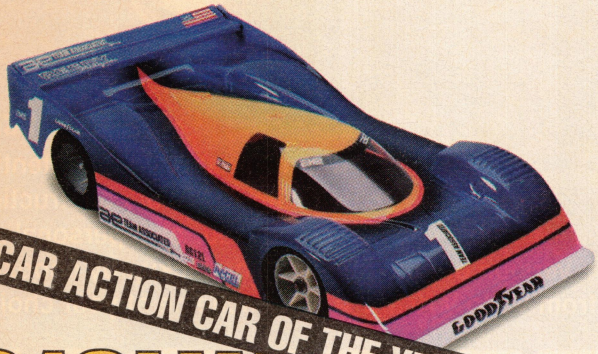
The RC10 has won 4 IFMAR World Championships, and was voted as Car of the Year by the readers of *RC Car Action Magazine.*

RC10L

On road racers have made our National Champion RC10L car the most popular on road car, and our RC10LSS has revolutionized high banked oval racing, shattering the speed record with an *85 mph run!*



R/C CAR ACTION CAR OF THE YEAR!



R/C CAR ACTION CAR OF THE YEAR!

RC12LW

Our family of RC12 cars have won 6 IFMAR World Championships. They're tough to beat!



RC10GT

The most advanced 1/10 gas truck available anywhere, setting new track records everywhere.

TEAM ASSOCIATED
3585 Cadillac Ave. Costa Mesa, CA 92626
714-850-9342 fax 714-850-1744

usually wasted by generating more heat earlier in the race. This further decreases the efficiency of your battery and motor which, in turn, also decreases your run time.

By increasing your gearing and using the driving technique I'll outline, you can maintain your previous speed (or actually go faster than you did before) using less throttle and with less of a hit on your discharge slope! I've included a couple of battery discharge charts and a graph to illustrate how discharging a battery at different rates affects its discharge curve (voltage in relation to run time). Each test was done with the same exact (borrowed) SCRC battery pack. (I wouldn't subject my own batteries to this type of torture!) Please note that the 25-amp discharge was performed first followed by the 20-amp and 15-amp discharge cycles respectively. So the effects of lowering amp draw is less evident due to the loss of capacity inherent from recharging the same SCRC pack without giving them a proper rest. (Remember, the pack was borrowed.)

The discharging was done on a Victor Super IQ connected to a printer using the optional printer interface. The pack was charged at 12 amps (Don't try this at home! Did I mention this was a borrowed pack?) and then immediately discharged. As you can see from the charts, by limiting the amount of power you send to your motor, you have a much flatter discharge curve. This means you won't be dumping by the two-minute mark.

HOW TO DO IT

Now that you're convinced (or at least curious), let's talk nuts and bolts. The term "rolling" the throttle can be a bit confusing. Basically, what you want to do is just be as smooth as possible with your power application. What is just as important is where and how much you apply the throttle. First off, you want to avoid using full throttle until later in the race. Exactly when to switch back to full throttle is part of the technique you'll have to develop. There are too many variables to consider to give you an exact number, but when you notice your car going slower, give it a little more throttle to maintain your lap times. Generally, for modified racing, you'll hit full throttle about two to three minutes into the race. For stock racing, you can usually hold for a little longer. The only thing you have to really be concerned about is making time (making it to the end of the race). After you've done it a few times, you'll get an idea of how early you can switch to full throttle mode with your gearing. I know it'll be tough to hold back, but this is where your skill as a driver will be put to the test.

Next, only use less than full throttle in the slower turns through out the whole race. Try to lead your car with your throttle. For example, when you exit a turn leading to a long straight, apply 1/4 throttle as you exit and squeeze up to 1/2 or 3/4 throttle in the straight. At about 2/3 to 3/4 the way down the straight, ease off to set up for the next turn. The idea is to only use the amount of throttle necessary and apply power slow enough so that your motor can "catch up" to the current given to it, rather than turning the usual excess current into efficiency- and power-robbing heat.

Throttle driving really is a valuable weapon for any driver to add to their arsenal of driving skills.

As I mentioned earlier, throttle driving requires some re-gearing to work to your advantage. Obviously, if you don't re-gear, using less throttle will only make you go slower. While I can't give you some absolute gear ratios to go by due to the enormous variety of tracks and motor/battery combinations out there, I can give you some general starting points. First you'll want to gear for the fastest lap times possible and still make time. For onroad and offroad racers, you'll want to gear up from 2-3 teeth for 64-pitch gears and 1-2 teeth for 48 pitch. Oval and Superspeedway will require some experimenting due to the wide variety of track sizes, but the above can be a good starting point. Keep in mind, now you're over-geared, and you'll need to use the throttle to make time.

CONCLUSION

So what did you learn here besides never to lend me your batteries? Throttle driving really is a valuable weapon for any driver to add to their arsenal of driving skills. Using this technique/strategy, you can yield more speed during the first parts of a race than a car geared to make time at full throttle and delay the down slope of the discharge curve at the same time. If you've never tried throttle driving before, give it a try. It won't work for everyone in every situation, but the results may surprise you. Besides, the only thing you have to lose are those slow lap times. Than again, if it doesn't work for you, you can always buy those $100 batteries!

Have a comment or suggestion? Write to me here at *RCMC* or on Internet at ben.chiu@patchbay.com.

Have fun and be fast! ●

you can even use a strong rubber band in a pinch—but use RC aircraft units as they are fuel-proof.

Our final gas car fix-up concerns the possibility of a loose or broken fuel line. Should the line simply come loose from a tank-carb fitting a handy tie-wrap will resolve the problem. But if you cut or break a hose just prior to your race a short length of brass tubing could save your day. Simply cut a one-inch piece of tubing that has the same inside diameter as your car's fuel line and use it to rejoin the cut hose. Another option would be to simply install another inline fuel filter on the fuel line. Either way you'll make the main.

ONROAD-OFFROAD REPAIRS

Now let's suppose you've suffered a serious ontrack crash of your favorite 1/10-scale pancar. Luckily you had ample time to repair the major damage, but the last check revolves a broken nylon bolt-type body post and there's no spare anywhere to be found. An 1-1/2-inch piece of 1/4-inch inside diameter automotive-style fuel line slipped over the broken post will hold it through the main. How about a broken shock mount on an offroad car's shock tower? Sandwich the tower's broken-off piece with two pieces of scrap Lexan sheet and use extra 4-40 screws and nuts in the tower's other mounting holes to secure the patch. A few drops of CA glue on the tower fix is also a good thought.

Badly cracked Lexan bodies can also be quickly repaired with only some CA glue and accelerator. First cover the crack itself on the outer part of the body with either strapping or packing tape. Then, on the inner crack area of the shell run a heavy bead of thick CA down the length of the break. Quickly follow this with the spray CA accelerator being careful not to touch or inhale the glue or fumes during the reaction. This welding process will temporally hold a body together but I would also back-up the glue with some tape as well.

At this point I should talk about the bits and pieces you might need to have handy for these quick repairs. Besides the before mentioned CA glue, accelerator, scrap Lexan, and tapes, consider having the following extra stuff:

Kydex—like old pancar front bumpers are good for making backup parts on your chassis.

Paper clips—good for making wire connectors and spare body post clips. Plus pickup some good five-minute epoxy, some small clamps or even clothes pins for gluing purposes, and a small selection of wire connectors.

These crimp-style wire connectors may have a high resistance factor but in a pinch they'll get you through a race. No one wants to think about it but there are days when nobody will have a hot soldering iron for you to repair a ESC wire. And if you have to re-hookup a battery lead from your radio onboard pack these simple crimp connectors may be your only recourse. While you're at it buy a cheap pair of crimping pliers as they make installing the connectors easier and faster as well.

MOTOR/GEAR LASH-UPS

Ever had a pinion gear set screw strip

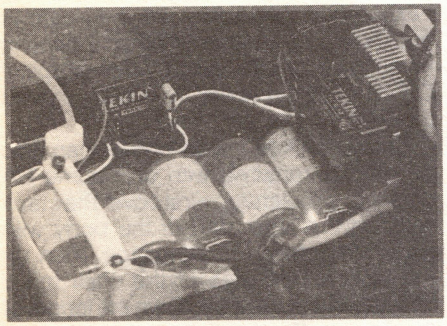
continued on page 45

Getting A Good Connection

BY KEVIN MEYER • PHOTOS BY JOHN DAVIS

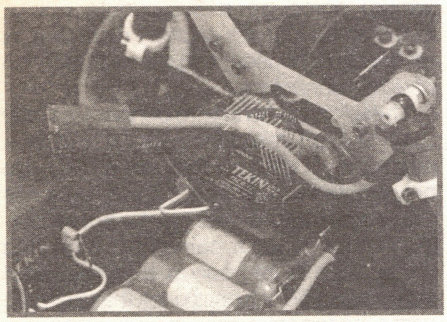
THE SECRET TO EFFICIENT RACING ELECTRONICS

POWER! SPEED! Definite requirements to get you to that first-place spot, right? But you need to know how to harness



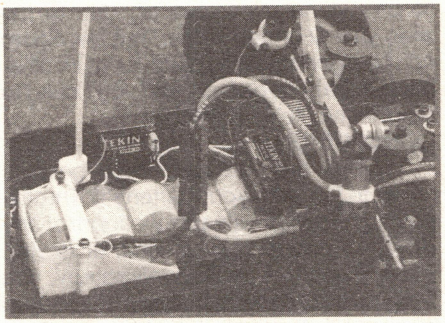
ESC mounting is very important. It should be located so it receives cool air over the heatsinks and also uses the shortest amount of wire possible. I made a small shelf from a piece of Lexan, to mount the speed control to the bulkhead. This particular mini receiver works best when mounted on its side. Servo tape it to the side of the chassis tub for more mounting area.

that power. A race can be won or lost in the pits. A poor power connection or a motor glitch from a bad capacitor is all that it takes to put you out of the race. That's why maintenance and preparation play a big part in RC competition.

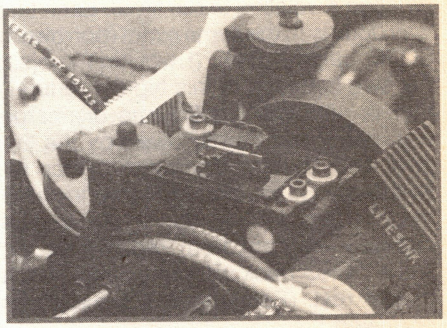


On the serious racing ESC, the power wire (orange) is connected directly between the battery and the motor. This keeps the distance the power has to travel to a minimum. Splice at about the middle of the power wire and solder together. Cover the solder joint with shrink tube. Quality connectors like Litespeed are a great alternate to hardwiring.

Troubleshooting an electrical system for a beginner can be a nightmare. Until you're more familiar with your car, you don't know where to start looking for problems. I'll start by saying resistance makes heat and heat means lost power. Let's take a look at what it takes to make a more reliable, efficient electrical system. The basics are the wires and connectors. I've seen wires and connectors actually melt they were so hot! You can have a great electronic speed control (ESC) and motor, but if your connectors are poor, as they say, a chain is only as strong as its weakest link. Hardwiring (soldering your ESC wires directly to your battery and motor) will give less resistance, i.e.., more power and longer run times. As for wire, Stage III



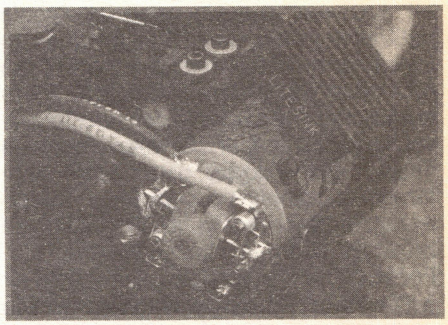
Keep the battery connections away from the receiver to avoid power glitches. Keep each electronic component adequately spaced to eliminate receiver interference from the motor and ESC. Mount the receiver as close to the antenna as possible.



To make a larger more stable mount for your ESC switch, use a small dab of silicon adhesive or "Shoe-Goo" to attach the switch to a piece of Lexan. Then use servo tape to mount to the rear transmission bracket.

Dragon Wire, 13-gauge is a good choice. 12 gauge is even better.

The larger the wire (12 gauge being the largest) the least amount of resistance you'll have. As a general reference, the standard wiring code colors are: Blue or black are negative (-), red or orange are positive (+). A hardwiring tip: strip about 1/8-inch of insulation off the wire. Then, tin (melt) a small amount



Hardwiring your motor is a quick way to get less resistance and more power from your battery to your motor. Installing motor heatsinks helps increase run time and extends the life of your motor.

continued on page 47

REPAIRS CONTINUED FROM PAGE 43

out? That's to say you're tightening that little pinion grub screw and the hex hole rounds out and now you can't remove the gear from the armature shaft? If this happens try this: if you can first remove the motor from the chassis. Then support the pinion gear via a flat surface like a pit tabletop. You can also protect the gear teeth by placing a folded towel between it and the hard table surface. Now check your Dremel tool bit collection for a #118 metal grinding bit which has a cone-shaped tip. Place the grinder bit tip in the hex screw hole and give the bit shaft a good shot with a small hammer.

Now chuck the Dremel bit into your cordless drill and set the switch on reverse. NOTE: During the running of the drill keep all hands, fingers, faces and small house pets as far away from around the motor/pinion area as possible! Set the bit back into the stripped hex screw and press down hard as you engage the drill. In most cases the offending pinion screw will back itself out of the threaded hole without any damage being done to the gear itself.

Another common motor glitch is a broken motor capacitor wire that runs from the cap to the motor lead tabs. Again, should there not be a hot soldering iron handy or even enough time to solder it, try this fix first loosen the brush hood screw closest the loose cap wire with a screwdriver. Bend the cap wire so that it slips between the motor brush hood cover and the metal base plate and re-tighten the screw. Of course you're going to throw off the alignment of the brush slightly but at least you won't have a serious radio glitch from a broken cap wire.

GENERAL/MINOR REPAIRS

Let's suppose you use Velcro hook and loop material to retain your car's body to the chassis, and just before the main you remove the body and the chassis-side Velcro strip comes off. You've got two alternatives; either use some CA glue or servo tape. Usually the servo tape will hold better on some different chassis surfaces but the doubled-sided would be better if the body side Velcro pulls free.

Some racers will just use the tape over the bad Velcro itself if the driver is already up on the drivers' stand!

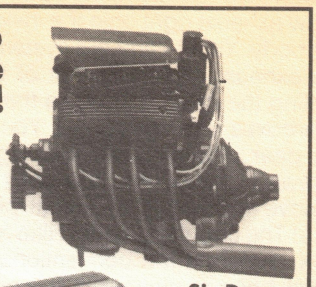
Ever had a dual motor brush break-in machine die on you at the track? In a pinch use either a variable speed Dremel or cordless drill in its place. Chuck the motor armature shaft to either tool and hold the motor in one hand and run the tool at about half speed. Usually this trick is limited to offroad motors only, but in a hurry-up situation I would use it for other types of RC car types using DC motors for power.

And finally, here's one for those who've stripped-out a front wheel axle just after they heard their one minute call for the A-main. First pull the wheel back off and make sure the axle threads are shot. If they are put the wheel back into place on the axle. Use a pair of small needle-nose Vise-Grip pliers to mush up the old axle threads. Now force a metal axle nut onto the axle using a socket wrench and haul tail to the starting line!

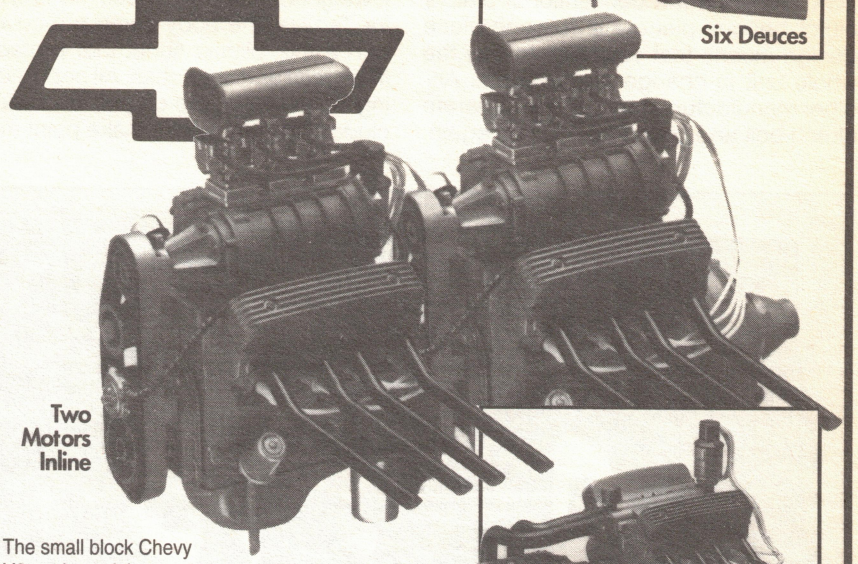
As stated at the start of this article, these are strictly quick fixes, not permanent repairs. If it's possible to make do with a simple and fast lash and still compete, do it! Most racers by nature tend to never give up on their cars and neither should you. •

The Classic Small Block Chevy

Build Two Complete Motors!



Six Deuces



Two Motors Inline

Front Draft Blower

The small block Chevy V8 engine celebrates 40 years! Lightweight and ease of parts interchangeability from both factory and aftermarket sources have made it a natural choice for high speed thrills since 1955. Blowers and fuel injection are still the most popular and effective means of achieving maximum horsepower and torque.

This 1/10 plastic scale kit includes all parts necessary to build two injected and blown motors that can be built together as a twin engine model or as two separate motors with your choice of induction ranging from blown with three carbs or injection, six carbs and a scoop, to a nostalgic front draft blown version. Detailed instructions and a wiring kit are also included. Looks excellent as a display or in radio controlled cars, trucks & boats when additional realism and powerful looks are desired!

Chevy V8 Motor #10419 $17.95

America's Choice! PARMA INTERNATIONAL

Parma International Inc. 13927 Progress Parkway • North Royalton, Ohio 44133 (216) 237-8650

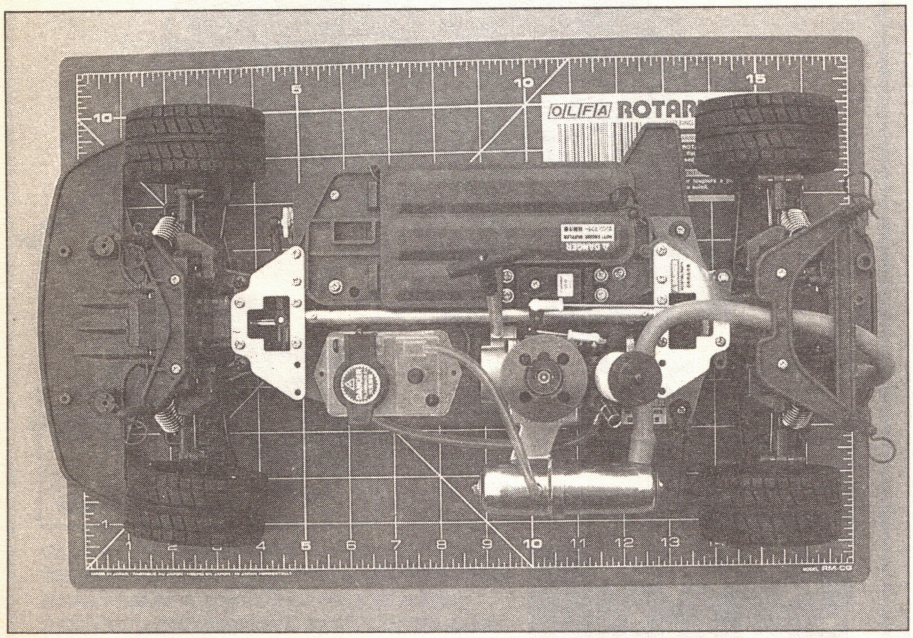
TAMIYA 1/8 CONTINUED FROM PAGE 33

cluded with the TGX chassis. It is sold separately, which incidentally isn't a bad idea for both Tamiya, dealers, and the racer/customer if you think about it. As of this writing, there are three sedan bodies available: the Sonax AMG Mercedes C-Class DTM, the Opel Calibra V6 DTM and the Alfa Romeo 155 V6 TI.

FEATURES

The engineers at Tamiya who designed the TGX did an excellent job in some areas. My favorite is the long exhaust tube that extends from the muffler outlet

down to the rear bumper. Other cars just spew exhaust right onto the inside of the car body. Yuck! Tamiya's system directs the exhaust down and out of the way, limiting the mess. I also like the way the gearboxes were designed. You remove the gear diffs by just removing the six screws of the cover. You don't have to remove anything else to get at them. Very nice! The only thing I didn't like about the TGX design is the conventional pinion/clutch bell one-piece unit. This one-piece design means that you have to buy the whole unit to change pinion gears. Another manufacturer has gone to separate clutch bell and pinion units. Then again, this may not be a big deal since only one gear combination is available for the TGX from Tamiya right now.



You can see how the notorious pull starter can get caught in the throttle linkage (see text). Otherwise, everything else is well thought out and neatly arranged. Tamiya engineers should be proud. They have done an excellent job. Note how I routed the fuel line under the fuel tank. This is a trick used in offroad gas cars. By routing the tube under the tank like this, it buys you a couple of extra seconds before your engine dies of fuel starvation during a mishap.

ASSEMBLY

Assembling the TGX was a pleasure. Of particular note was that I didn't need to tinker with the OPS engine to get it to fit on the chassis. Some kits require you to reorient the carb, head and/or muffler to get it to fit. Everything fit perfectly and the excellently written manual explained everything. I have only two pieces of advice that I'd like to offer. First, pay particular attention to the suspension arm numbering. Although both the front and rear gearboxes are the same, the suspension arms are not, even though they look very similar. Second, use some thread-locking compound on every screw that threads into metal. I am very surprised that the manual didn't mention this basic construction tip, and that some sort of thread-lock compound wasn't included in the kit. Gas cars vibrate quite a bit so thread lock is a good safety precaution.

FINISHING

I have both good news and bad news to report on this subject. First the good news. A few months ago during my review of the Tamiya Castrol Celica I said that the polycarbonate (Lexan) body that came with that kit was the "thickest and most detailed body I've ever seen." Well, I now have to modify that statement. The Alfa Romeo body for the TGX is the new king! It weighed in at 7.3 ounces! As is typical for Tamiya, the body came pre-covered with a thin plastic sheet that protects it from paint and scratches. All body mounting holes were pre-drilled, and the included window masks make paint masking a breeze. (Be aware that the rear window mask is about 1/8 inch wider than it needs to be. I fixed the mismatch with a little paint and brush.) Being spoiled by other Tamiya kits, I only wish that the wheel wells were cut out too. The Alfa body's Lexan is so thick that cutting it with scissors is tough. I cut as much as I could, but then resorted to the sanding drum on my roto-tool. This worked fine.

Now the bad news. At a recent industry show I picked up a few sample bottles of Badger Accu-flex paint. I was told by their representative that Accu-flex would work well for painting RC car bodies. Well, to make a long story short, it doesn't work. It flows away from corners and flakes off after drying. I was terrified when I saw this happening to my nearly $90 body! Stick with Tamiya and Pactra polycarbonate paints. If you decide not to heed my warning, please only attempt to use this stuff if someone who has had success with it tells you what and how they did it. I tried every painting trick I know of and it still flaked. It worked well on my test samples, but they were flat pieces of Lexan. At first I thought that maybe I didn't wash off all of the dish soap (to remove finger oils and the mold-release agent), but it still flaked on my second painting attempt (after removing the first botched paint layer). I finally ended up removing as much of the Accu-flex paint as possible using a mixture of 50% rubbing alcohol and 50% lacquer thinner and repainting the body using racing red Pactra polycarbonate paint. There isn't any interior or cockpit, so I covered the windows with a light coat of gold Pactra polycarbonate paint.

The Alfa body set has no less than 90 stickers. So if you like stickers, you'll be in heaven. It takes a lot of time to apply them, but they really look great and are well worth the effort.

RADIO INSTALLATION

Another one of the really cool innovations in the TGX is the radio tub. Well, it's actually more like a radio pod. Every radio component is either mounted in or on this pod. The receiver and receiver battery are mounted inside the sealed tub. It protects its contents from the elements. Very smart! The servos are then mounted on the outside of the pod. You can remove the radio pod with just five screws. This makes cleaning a breeze. Also, if you are lucky enough to have two TGX cars, you could conceivably move the radio between both cars with amazing ease.

I used a high-torque Airtronics 94738 to handle the steering work. The TGX is four wheel drive and the extra torque and precision of such a servo is a necessity. To control the throttle, I used a standard 94102. The mounting brackets were too large for a mini or micro servo. The TGX comes with two heavy-duty, metal spring clip-type servo savers to use with your servos.

SETUP

A set of plastic body oil shocks are included with the TGX. I used the recommended single-hole shock pistons with the included silicone shock oil. This combination was very stiff, but considering the TGX is a heavy onroad car, this is appropriate. The recommended spring spacers seemed to bring the car to a high ride height, but because there were no shock travel limiting devices installed, the extra height seemed necessary. Wheel camber didn't require an adjustment from the recommended settings, although toe-in seemed a bit excessive. That was quickly adjusted by popping off a tie rod and giving the end a couple of twists. Turnbuckles are available from Tamiya as an option although they aren't a necessity. I coated the included foam air filter with some fresh silicone shock oil to help it keep dust from entering the carb and set out for our test track with my testing crew.

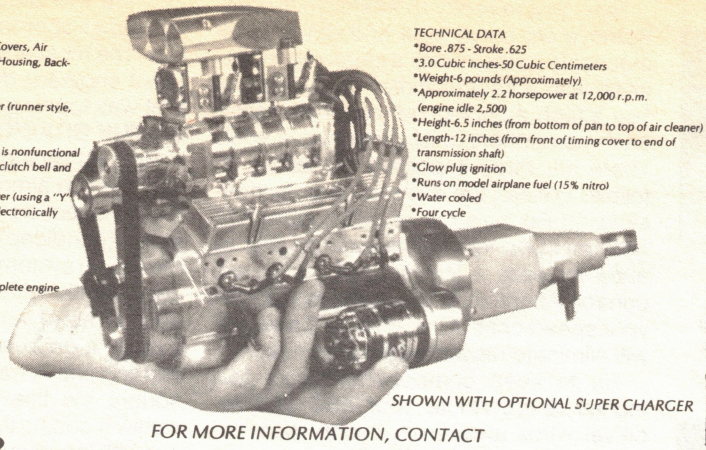
BREAK-IN

Bolted to the back of the OPS VR-15S is an aluminum pull starter. As you would expect, this is a major improvement over the plastic snap-on type found on other

THE ULTIMATE MODEL ENGINE KIT

The Conley-Small Block-V8 Engine
BASE PRICED $2395.00

FEATURES
*All new Die Cast Parts (Pan Heads, Valve Covers, Air Cleaner top and base, Timing Cover, Bell Housing, Backplate, Wing Nuts, Wire Separators)
*All parts fully machined.
*Intake manifold & Walbro Carb/Air Cleaner (runner style, cast and cored)
*Centrifugal clutch
*Replica 4 speed transmission (transmission is nonfunctional but serves as a ball bearing support for the clutch bell and universal joint)
*Custom designed electronic glow plug driver (using a "Y" harness from the receiver the transmitter electronically turns the glow plugs on and off)
*Rubber mounts
*Water pump
*Ball bearings
*All screws, nuts and necessary parts to complete engine
*Instruction manual
*Only hand tools required for assembly
*Crankshaft pre-installed
*Cylinder linders installed and decks ground



TECHNICAL DATA
*Bore .875 - Stroke .625
*3.0 Cubic inches-50 Cubic Centimeters
*Weight-6 pounds (Approximately)
*Approximately 2.2 horsepower at 12,000 r.p.m. (engine idle 2,500)
*Height-6.5 inches (from bottom of pan to top of air cleaner)
*Length-12 inches (from front of timing cover to end of transmission shaft)
*Glow plug ignition
*Runs on model airplane fuel (15% nitro)
*Water cooled
*Four cycle

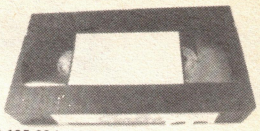
SHOWN WITH OPTIONAL SUPER CHARGER

FOR MORE INFORMATION, CONTACT
Conley PRECISION ENGINES INC
825 Duane Street * Glen Ellyn, Ill. 60137 * (708) 858-3190
"World Class Performance - Made in the U.S.A."
Prices subject to change without notice.

KEY CHAINS



$5.00 $6.00 $10.00



If the $2,195.00 is not in your budget at the present time, enjoy the next best thing...a video tape for only $24.95.
Developed by GARY CONLEY (the designer of numerous original model engines, including the Conley 1.20 c.i. double over head camshaft 4 valve model airplane engine and the world famous Conley V-8 engine) this video will take you through various stages of development, from its inception in 1979 to the all new supercharged version. The video is a detailed look at the 32' Ford highboy roadster, 1/4 scale Cobra, Butch Leal's pro stock Pontiac Firebird and the original Pacesetter sprint car. For the avid model engine builder you will see complete step-by-step construction techniques and hints. A must for even the most experienced engine builder.

ONLY ***$24.95 *** VHS Only

engines and is most welcome. Tamiya also offers an optional onboard electric starter which is very slick. The glow plug that comes with the OPS has a long, for lack of a better term, plug wrench grip area (the octagonal part of the plug). My McDaniels Ni-Starter wouldn't lock on it. I just manually held it there and the OPS sprang to life after about eight or ten pulls. Everyone commented on how quiet the VR-15S was. I think this is due in part to the long exhaust diverter. Anyway, whatever the reason is for the OPS quietness isn't important. What matters is that quiet engines will go a long way in helping 1/8-scale spec class reach acceptance by non-racers.

We continued to break-in the OPS engine using 15% nitro fuel. I found the needle valve setting from the factory to be a bit too lean. Needle valve adjustment requires the use of a small slotted screwdriver. This is only a minor inconvenience because once the OPS was broken-in, no needle valve fiddling was required, even for starting. The oversized cooling head on the VR-15S did a very good job of keeping itself cool.

DRIVING

We took the TGX out to our local Spec Class racing parking lot. We didn't sweep or blow off the surface. The first thing we noticed is that the TGX handled great. It is without a doubt, the easiest car to drive that any of us has ever driven. Remember, this is on an unprepared surface!

Acceleration is very brisk, although top end speed isn't overwhelming, the TGX is still pleasantly fast even for a speed freak like myself. It seems the TGX comes geared for tracks the size of larger 1/10-scale tracks. Again, good for Spec Class possibilities. The disc brake worked very well and provided progressive braking. All of us enjoyed driving the TGX immensely, but that isn't to say that we didn't encounter any problems.

After a few tanks of gas, the TGX throttle got stuck in the wide open position and ran away wildly. As you can imagine, this was terrifying! We checked everything out and found that the pull starter handle got stuck in the throttle linkage. We freed it up and started driving again. Later on, we experienced the same problem again. We finally overcame the problem by hooking the pull start handle under the fuel pressure return line. It may not be elegant, but it works.

After each run, as usual when testing a new vehicle, we inspected everything for wear and tear. We found that the rear wheel nuts come loose with some regularity, so be sure to check them frequently. We also noticed quite a bit of slop had developed at the rear wheel axles too. The rear metal bushings wore out quite quickly. We'd recommend getting the TGX wheel bearing upgrade at the very least. Power is transferred from the gear cases via dogbones. They seemed to hold up. Just FYI, efficient universal swing shafts are available from Tamiya, but they aren't necessary.

CONCLUSION

First off, I think it's only fair to tell you that the TGX is my first 1/8-scale gas onroad car I've ever owned. 1/8-scale onroad gas racing is very popular outside of the U.S. I think the main reasons why it has never become very popular in the U.S is due to the cost and large track requirements. At least, these are the reasons that previously kept me away from 1/8-scale racing. Tamiya's Spec Class concept addresses both of these problems. Spec Class racing can take place in just about any parking lot, so that solves one problem, and while 1/8-scale gas racing has never been considered cheap, the premise of a cheap(er) spec class racing might change your mind about the cost factor.

While the TGX may not be as fast as a Serpent or BMT, Tamiya has an optional two-speed transmission for the TGX. I'm sure that'll even things out a little. Nevertheless, there is no doubt that 1/8-scale gas cars are very exciting and the TGX is no slouch. In fact, I can't remember being this excited about an RC car before. The thrill I got from reviewing this car is just about equal to the thrill I got when I got my first RC car. Considering that I've had the privilege of playing with a wide assortment of RC cars over the years, I can think of no higher compliment.

The TGX-Mk.1 TS is a fast, well-designed car. It goes where you point it, and is very easy to work on. It only requires wheel bearings and some shock limiting devices. I ended up using some of the excess fuel tubing that came in the kit to limit shock travel with good results. Other than that, we couldn't find anything really wrong with the TGX. The TGX is a great car. The beauty of it all is that with the option of purchasing Tamiya hop-up parts, you can set the TGX up to be as serious or as fun filled as you want.

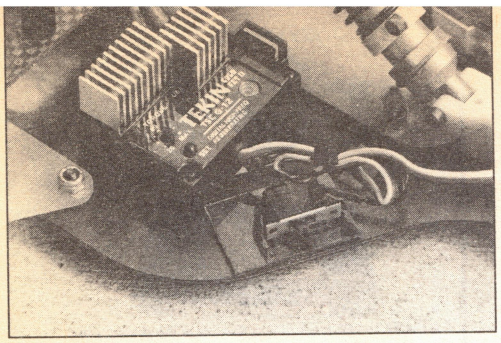
If you are either bored with what you're now driving or have ever considered getting into 1/8-scale gas cars, there has never been a better time to take the plunge. If 1/8-scale Spec Class racing popularity is anything near the success that 10th-scale Spec Class has enjoyed, there are some really fun times ahead.

Have fun and be fast! ●

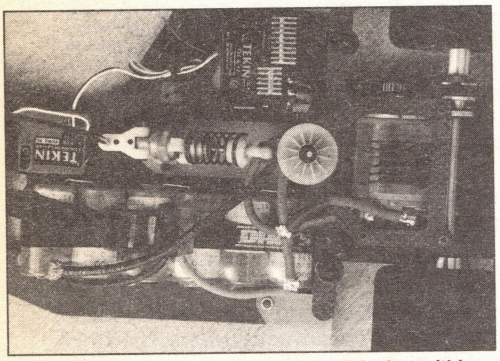
CONNECTIONS CONTINUED FROM PAGE 44

of solder on the exposed end. Also, tin the terminal that you're hardwiring to. To help heat things up, apply solder to the tip of your soldering iron.

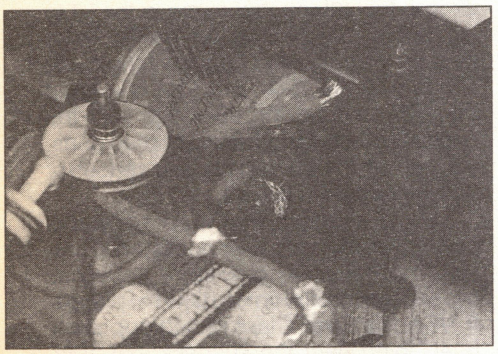
Even though hardwiring has its advantages it's not always convenient. There may be times when it's not possible to hardwire, then it's desirable to use quality connectors such as Litespeed or Dean's Ultra Plugs. For the beginner these connectors are the way to go. Because batteries are changed more frequently than motors, a good idea would be to use connectors on your batteries and hardwire



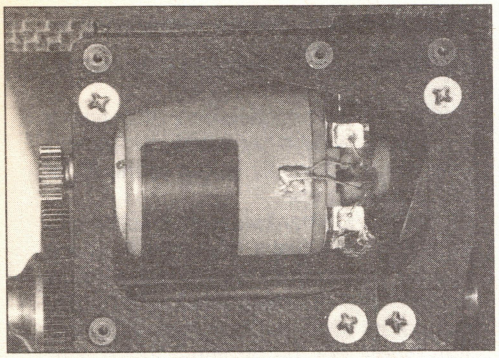
Use caution when mounting your ESC switch. Be sure to place it back from the edge of the chassis to avoid accidental shut-off when hit during a race. Wire ties and wire retainers keep things nice and neat. Don't void your warranty, use those ESC heatsinks.



Keep the wires as short as possible, but within reason. Give yourself enough room to work with. Wires that are to short can send harmful heat to your speed control and damage it when hardwiring. This is a typical layout for components on a pan car.



The spliced wire cuts directly into the power wire between the battery and the speed control and goes directly to the motor. 12-gauge wire was used for maximum power transfer.



When installing motor capacitors to your stock motor remove some of the finish on the motor can to allow a proper solder connection. Be sure to use the capacitors recommended or supplied by the ESC manufacturer.

your motor.

Now, you're ready to mount your gear. Remove old servo tape and dirt from all mounting surfaces with a clean rag moistened with a shot of motor spray. Before you attach anything permanently, place each component in its perspective spot. There are three important guidelines to follow: 1) Keep the wires as short as possible; 2) Be sure the speed control has good air flow over it; 3) The location should allow for easy adjustment of the speed control. Attention to mounting location of your speed control, receiver and antenna will eliminate unwanted interference.

Try to keep components about two inches apart. Route your ESC and receiver wires away from battery connectors and power wires. Check to make sure wires aren't rubbing on any sharp edges that could cut the insulation and cause a short. If you use your radio for more than one car you may want to use Velcro strips to attach your ESC and receiver for easy removal. Put the mating pieces in your other vehicle.

Experiment with mounting positions. Some receivers, because of their high sensitivity, require special care when mounting.

It's time for a reality check: Even though we all want more speed, we also know that that's not the only answer. I've won many a race, not by being the fastest, but by being more consistent than the other person. Practice and patience are the foundation on which we can all win! Be prepared and have fun! •

SOUTHERN NATS CONT. FROM PAGE 70

many racers who tried them. Drag Dynamics showed off their fiberglass/polyester composite axle, wheelie bars and double-clamp 7075 (highest grade available) aluminum wheel hubs. BSR is entering drag racing with foam capped tires, using a soft cap over a harder form core. A technique, becoming popular, is to elevate the microswitch to bring the batteries closer to center. More custom-built trailers were seen, giving a more professional image to the sport.

The weather was sunny and warm (low 80s), but the wind became a factor for Sunday eliminations. A strong headwind, along with some dust, caused handling problems for full-bodied cars and kept the Safety Safari busy with many high-speed blowovers. Most racers who drew a single (bye) run, elected not to run their cars for risk of crash damage.

CONCOURS WINNERS

After eight hours of racing on Saturday, including four full rounds of qualifying, everyone had time to prepare their vehicles for concours the following morning. In drag racing, almost everyone enters their car(s) in concours, resulting in some difficult judging tasks. Kevin Stine won the Doorslammer category with his Ford Quality Care Pro Stocker. A super paint job earned a trophy for Kent Vahlsing in Funny Car. The most unique car was a Slingshot (front engined) dragster by Kim Kuwalik that was totally handmade.

BY THE BRACKETS

Bracket racing is the fun class where you can run almost anything. There is no tech inspection and you set your own index (handicap), which is "dialed" into the timing system. The challenge is to run consistently without running better than your index. Like other classes in drag racing, a good reaction time (RT) on the starting line is necessary. Twelve drivers sought the title which ended with Kim Kulawik getting the handicap start (slower car with larger index) on a 3.97 dial-in and Stanley Hunt on a 3.75 dial-in trying to catch him. Kim Kulawik held on for the win with 4.02 elapsed time (ET) just .05 of a second off his dial-in, while Stanley Hunt almost caught him with a 3.83 ET (.08 off his dial-in). Jody Padgett won the Consolation race, running 3.33 (3.29 dial-in) over Kenny Brown's 3.35 (3.30 dial-in).

SUPER STREET CLASS

Super Street is a fixed index (4.00) class. The goal here is to tune your car to run as close to index as possible without under (called a breakout). The final saw ten-year-old Brandon Kulawik against his eight-year-old sister Kristin Kulawik, who was racing for the first time. Kristin grabbed the lead off the starting line with a better reaction time and hung on with 4.04 to Brandon's losing 4.02 effort. The four-hour drive home would seem longer to Brandon, as his sister was likely to mention his loss—at least a few times! Kevin Stine took the consolation race, running 3.33 (3.29 dial-in) over Kenny Brown's 3.35 (3.30 dial-in).

COMP ELIMINATOR

Competition Eliminator (2.75 fixed index) ended with Rick Williams facing Jim Macquarrie, runner up at the Seminole Nationals. Jim Macquarrie got a holeshot (.04 RT) but lost his lead by the finish where the 2.76 of Rick Williams was enough to catch the 2.83 of Jim Macquarrie. Patricia Armstrong 's pink Camaro with 2.69 (breakout) won the Consolation over the red lighting 2.752 of Stanley Hunt's Camaro.

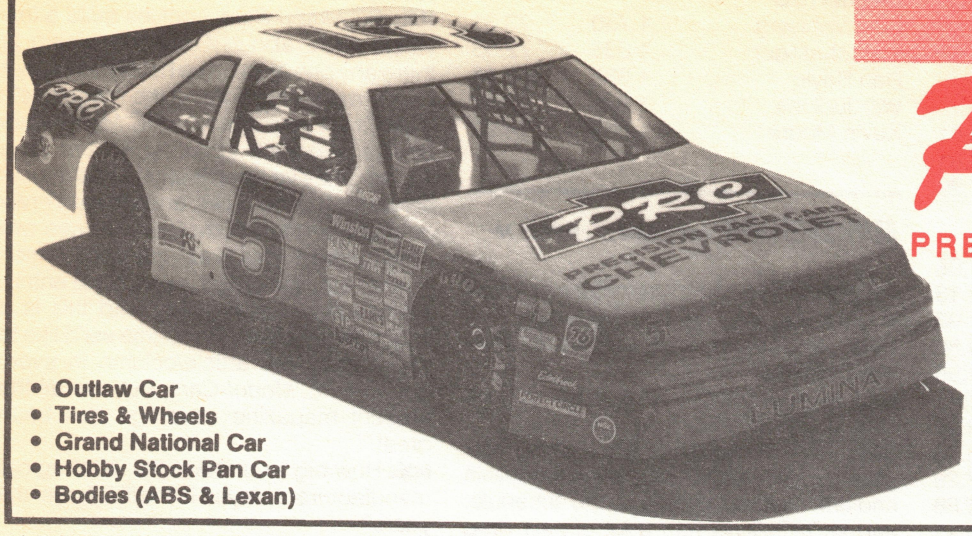
SUPER STOCK

The Super Stock (cars similar to those used in stock car racing) final promised to be good. Floridian Randy Harris having TQ'd with a new national record of 3.06 would face Kevin Stine of North Carolina who had set the speed record at 43.42 mph. Randy Harris got off the line first (.03 RT) and crossed the finish 3.10 seconds later at 39 mph to Kevin Stine's losing 3.17 at 42 mph. Once again we are reminded that ET wins races and not top end speed. Ricky Branch powered a new Hyperdrive car to 3.16 for a Consolation win over a 3.21 for Jeff Dubiel.

ECONO RAIL

Favorite in Econo Rail was Kevin Stine

QUARTER-SCALE CARS • PARTS • ACCESSORIES



Loves
PRC
PRECISION RACE CARS

- Outlaw Car
- Tires & Wheels
- Grand National Car
- Hobby Stock Pan Car
- Bodies (ABS & Lexan)

Love's
PRECISION RACE CARS
Box 251
Nuevo, CA 92567
Phone (909) 928-1518
FAX (909) 928-2268

who had set both ends of the national record at 2.89 and 49 mph. Kevin made it to the final where his opponent was William Johnston of Virginia. Kevin took a slight advantage off the line (.12 to .17 RT) and powered through for 2.97 at 49 mph while William couldn't catch him with a better 2.93 at 42 mph. Kevin Stine took the win while only .02 seconds separated the rails. Jeff Dubiel took the Consolation when Bobby Rackley failed to show.

PRO TRUCK

Pro Truck featured Maryland's Ken Dailey Jr., sponsored by Arrow Hobbies, turning 2.47 at 50 mph win over Brian Brown, sponsored by Drag Dynamics. Kim Kulawik's Dodge Ram soloed with 2.36 at 52 mph for the Consolation win.

PRO STOCK

Pro Stock had a good showing with fourteen entries. North Carolina's Greg Armstrong met up with Maryland's James Belt in the final. A red light start for James Belt looked like a wasted 2.11 at 52 mph, but Greg Armstrong crashed into the timing lights giving James the win. Another Maryland driver, Bud Bratton, took the Consolation with 2.14 (.06 RT) over a quicker 2.12 for Illinois driver Kevin Moore.

JUNIOR PRO STOCK

A new class, Jr. Pro Stock, being tested this year, had seven entries. Jim Macquarrie ran his third consecutive 2.68 (.02 RT) to defeat Kim Kulawik's better 2.64 (.08 RT) at 48 mph. Randy Harris ran 2.77 for the Consolation win over Jody Pagett.

PRO MODIFIED

Pro Modified looked strong with Greg Armstrong setting a new ET record of 1.97 and John Evans setting a speed record of 69 mph, both using the new ARC Quartermaster motors. For the trophy, it was Beetle Kendall with 2.55 (.07 RT) at 54 mph over red lighting 2.54 at 55 mph run of Michael Day. Greg Armstrong and John Evans both had problems in the first round, but met in the final of Consolation, where Greg took the win with 1.99 at 65 mph while John Evans demonstrated a blowover.

ALCOHOL FUNNY CAR

Alcohol Funny Car provided close competition. Florida's Curtis Jenkins unloaded a 2.18 at 58 mph to stop the 2.27 at 49 mph of Minnesota's Bill Schroeder. Both drivers in the Consolation final had .01 RT; Illinois' Dave Goldstein edged out Showtime Dragway's Mike Blair with 2.11 at 58 mph to 2.12 at 57 mph.

ALCOHOL RAIL

Alcohol Rail also produced a close finish as Robert Brown laid down a 2.05 (.10) at 63 mph to win over Jeff Eckard's 2.06 (.09) at 65 mph. Harry Gauch's 2.11 took the Consolation when Dave Goldstein wasted away a 2.09 to a red light.

TOP FUEL FUNNY CAR

Top Fuel Funny Car can be summed up in two words — Kent Vahlsing. For those who may not know the name, Kent has set many national records and won many national events, including the recent Seminole Nationals. In the final, Charles Williams tried for holeshot advantage with his McDonald's replica but found the red light instead. His 1.90 at 68 mph would not have stopped Kent Vahlsing's 1.83 (.05 RT) at 72.5 mph (matching his national speed record). In the Consolation, Michael Willis could not start giving the win to Joseph Hughs who finished with a dramatic 2.20 roll over at 50 mph.

TOP FUEL RAIL

Top Fuel Rail, surprisingly, had only two entries. This time it was Kent Vahlsing against Michael Day and both red lighted! Again, it was Kent Vahlsing, winner of the Seminole Nationals, taking the win with 1.88 at 64 mph over Michael Day's 2.02 at 69 mph.

Unlimited had one driver who consistently ran 1.7s, which gave him a tenth of second on the rest of the field. Again, it was Kent Vahlsing. Kevin Moore tried to stop him with a slight holeshot and 1.84 at 75 mph, but Kent Vahlsing collected another trophy with his Lockmann car running 1.74 at 73 mph. Bill Schroeder took the Consolation win with 1.83 (.03 RT) at 70 mph over the 1.81 (06 RT) at 73 mph of Will Judkins.

The IEDA trail next moves on to Darlington, South Carolina and then on to Northstar Dragway in Anoka, Minnesota for the Worlds. When the caravan returns in autumn, the track at Clinton will be reversed; not meant to confuse anyone, the idea is to determine if the track is quicker in either direction. Until next time, keep it straight and fast.

SPONSORS:

Arrow Hobbies (610)461-1481, 700 Hibberd Avenue, Collingdale, Pennsylvania 19023

Drag Dynamics (919)552-3036, 1720 Twin Lake Drive, Holly Springs, North Carolina 27540

Northstar Dragway & Speed Shop (612)427-0291, 14056 Junkite Street NW, Ramsey, Minnesota 55303

IEDA, 115 Kerr Street, Clinton, North Carolina 28328

SOUTHERN NATIONALS QUALIFYING

SUPER STREET

Kristin Kulawik	4.034	
Kevin Stine	4.096	
Brandon Kulawik	4.186	
Donald James	4.298	

COMP ELIMINATOR

Rick Williams	2.757	47.67
Brandon Kulawik	2.758	42.61
Stanley Hunt	2.760	42.34
Jim Macquarrie	2.772	43.15
John Hallman	2.837	41.82
Patricia Armstrong	2.846	39.87

SUPER STOCK

Randy Harris	3.060	40.34
Jeff Dubiel	3.120	41.07
Kevin Stine	3.125	42.88
Jason Dubiel	3.132	42.88
Ricky Branch	3.147	38.96
Bobby Rackley	3.148	39.41

ECONO RAIL

Kevin Stine	2.895	47.02
William Johnston	2.912	34.56
Jeff Dubiel	3.001	46.38
Bobby Rackley	3.058	28.05

PRO TRUCK

Brian Brown	2.241	56.81
Kim Kulawik	2.260	56.81
Ken Dailey	2.292	57.29

PRO STOCK

Garry Jarrell	2.055	61.98
Bud Bratton	2.058	63.13
John Evans	2.083	61.98
Greg Armstrong	2.107	59.80
Kevin Moore	2.108	61.98
Steve Knight	2.122	61.42
Monte Kendall	2.181	59.28
Tex Dailey	2.182	55.43
Harold Thompson	2.232	57.29
Bob Pyle	2.235	55.88
Butchie Smith	2.300	54.11
Michael Brown	2.496	52.04
James Belt	2.593	39.64
Michael Willis	———	

JR. PRO STOCK

Kim Kulawik	2.554	50.88
Jim Macquarrie	2.630	47.02
Jerry Pollard	2.650	50.88
Jack Berry	2.656	44.56
Jody Padgett	2.691	50.13
Randy Harris	2.694	48.35
Richard Rogaski	2.882	49.40

PRO MODIFIED

Greg Armstrong	1.973	67.50
John Evans	1.989	69.57
Jason Moore	2.087	65.55
Butchie Smith	2.106	68.18
Monte Kendall	2.202	57.78
Michael Day	2.291	59.28

ALCOHOL FUNNY CAR

Harold Thompson	2.070	61.98
Doug Ford	2.122	54.11
Bill Schroeder	2.131	58.27
Dave Goldstein	2.135	60.87
Curtis Jenkins	2.158	59.80
Jack Wright	2.161	61.42
Mike Blair	2.174	58.27
Jeff Eckard	2.192	62.55
Bob Pyle	2.206	60.87
Timmy Williams	2.288	55.43

ALCOHOL RAIL

Jeff Eckard	2.016	66.19
Dave Goldstein	2.045	60.33
Harry Gauch	2.065	68.87
Carlton Cole	2.071	62.55
Robert Brown	2.095	52.85

TOP FUEL FUNNY CAR

Kent Vahlsing	1.860	70.29
Charles Williams	1.922	68.87
Dan Boyle	1.932	66.19
Joseph Hughs	1.970	64.93
Michael Willis	2.664	50.13

TOP FUEL RAIL

Kent Vahlsing	1.840	69.57
Michael Day	1.972	

UNLIMITED

Kent Vahlsing	1.730	73.31
Bill Schroeder	1.836	72.53
Dan Boyle	1.837	68.18
Will Judkins	1.840	68.87
Kevin Moore	1.854	74.92

MARSHBURN CONTINUED FROM PAGE 70

bought a timing system from Race America in California, and ran on a parking lot; by 1992, we had our first Nationals at Carolina Dragway.

RE: As of right now, what is the current state of the IEDA?

CM: Right now, things are looking real good for 1995. We've got six national events and one regional already on the schedule; and we're talking with a lot of new drag tracks and clubs as well. These new clubs and tracks should add several dates to the IEDA schedule throughout the year.

The term "What wins on Sunday, sells on Monday" even trickles down to the local drag tracks from what they read in *RC Model Cars* in that they'll buy what's winning at the Nationals.

There's also been some changes made to the organization's points championship which will apply to all of the IEDA races in 1995. Overall, it's looking pretty good considering we've had a major transformation in that the IEDA has moved its office over the past few months. There's also been many management changes as well. Last year, the 1994 president and the founder of the IEDA, Richard Roth, became so restrained time-wise, he felt he wasn't able to give the IEDA the time it needed. So, we worked out a transference of the president's job to my location. My wife will act as IEDA secretary. There have been some changes in the regional directors spots, as well.

RE: Besides being a racer you're also a track owner. Has this been helpful since you became IEDA president?

CM: Yes it has. It gives you an opportunity to look at all aspects of RC racing. By being a racer, and a track owner, it just gives you the whole view of what you need to see to hopefully make things better. Better for the racer, the track owner, and the organization. It just gives you an idea of what goes on during a race and how to help other tracks with their events as well. Like with first-time race promoters you know all the ins-and-outs they can expect and can relay to them how to cure any problems.

RE: *RC Model Cars* receives quite a few letters asking about RC car drag racing. Is there any one area of the hobby/sport that needs more attention via the magazine?

CM: I'll tell you right now *RC Model Cars* does a *super* job covering RC car drag racing. They've been instrumental in coverage for us, the IEDA, and we really rely on them for that. Sometimes we see two drag racing events in a single issue, which is nice; but, it seems to reduce the enthusiasm against each other and this is a minor gripe at best. Of course we'd like to see a drag car article/column in every issue of *RC Model Cars*; but overall the present magazine coverage has been great.

RE: How big a part have the RC drag car manufacturers played in the IEDA over the years?

CM: Well, up until the last two years, they were a big part by providing sponsorship, helping some of the national event racers and contributing contingency prizes to the sport. But since then, we've seen an overall slump in the whole RC car industry across the country and that's affected our type of racing as well. But the thing about RC drag racing companies is that they have stuck with us because they know this is where their products are being highlighted. The term "What wins on Sunday, sells on Monday" even trickles down to the local drag tracks from what they read in *RC Model Cars* in that they'll buy what's winning at the Nationals. So the drag manufacturers' influence has been beneficial to everyone in RC drag racing.

RE: What do you enjoy most about RC car drag racing?

CM: I think basically it would be the people and racers involved. There just seems to be a good group of individuals involved in RC drag racing. In the period of time we've been racing, we've developed a lot of friendships all over the country and that's the thing that's really important to me.

We know all of these people by their first names and it's great to go home and tell your local racers that you've got drag racing acquaintances across the whole United States. Plus, everybody looks out for one another and will help out if you break or crash your car during an event. Of course, you see that all over the RC car racing scene; but there seems to be so many good friendships in RC car drag racing. The over-competitiveness you see sometimes in other types of racing just doesn't show up here maybe because we're not a close-contact kind of racing. Of course, it is racing; but a lot of it depends on individual effort; and I think it's still not as aggressive as some types of competition.

RE: If someone wanted to get into RC car drag racing, what IEDA class would you recommend starting in?

continued on page 59

The YANKEES Are COMING!
The YANKEES Are COMING!

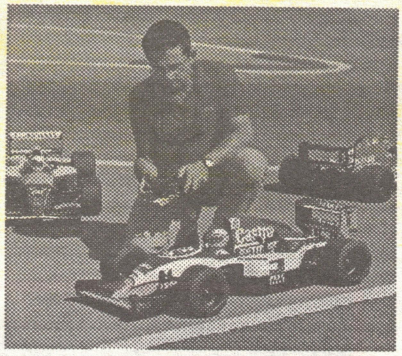
37 MODELS!

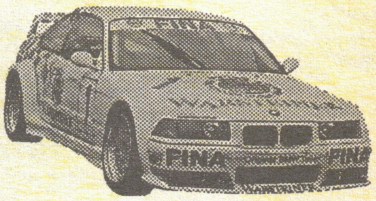
The most USER-FRIENDLY gas 1/4 Scales in the World!!
All Yankees feature composite injection molded parts, making them most definitely, virtually INDESTRUCTABLE!

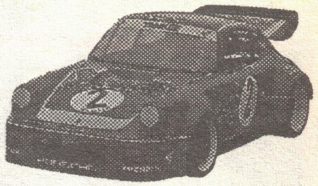
Guaranteed Parts Availability, and Pro-Excessories. *"All Parts Sold Seperately"*

"All Yankees Feature:"

- Highly detailed Lexan Bodies
- Pure rubber racing tires - one piece *(13 different styles)*
- Steel Heavy duty gears in Drive Train
- Heavy Duty 10mm dogbones
- Over 85% Factory assembled, ready to race
- Full ball bearings
- Oil-filled aluminum high-volume shocks
- Fully race-ready planetary (steel) differential*
- Fully tunable suspension, 95% race ready out of the box
- 30 minute run time on 8 cents worth of gas
- Dependable, easy pull start Zenoah 22cc engine
- Racing carbuerator with high and lower needle value
- Optional detailed driver's suits, helmets, mirrors, steering wheels, wings and drivers, carb's, teflon clutches, tuned pipes...And More!













CEC

CALL (914) 342-8697 TODAY!

2 North St. Middletown, NY 10940 FAX: 914-344-5266

— Imported by CEC —

*20 page color book - detailed pictures Only $5.95

GAS

Grand National	$1395
Porsche 930 Turbo	1395
BMW-M3	1395
Super Porsche	1695
ALFA Romeo 155	1395
BMW-M 3-DTM	1395
Mercedes 190	1495
Opel Calibra	1395
Bentton F-1	1695
F-1	1595
Jaguar XJR-12	1595
Peugeot 905 Spider	$1495
Ferrari 330-P4	1595
Ford Mustang GT	1495
Super Truck	1395
Renault Twingo	1295
Mini Cooper	1295
Off Road Bugster	1295
Off Road Preditor	1200
Off Road VW	1295
63 Corvette	1495
Pro-Stock Drag	1595

ELECTRIC

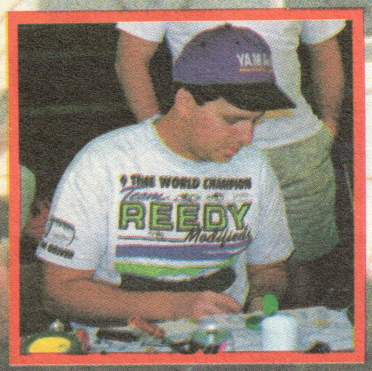
Grand National	$425
Super Truck	425
Porsche 930	525
BMW-M3	525
Indy	425
Viper Coupe	595
Mustang GT	595
East Coast Mod.	425
Pro-Stock Drag	695
Pro-Mod.-Drag	795
T/F Rail Drag	895
Volkswagon	425



Masami Hirosaka receives his trophy from Sylvie, for winning the 4WD class. Masami TQ'd with his Reedy Modified-powered Yokomo YZ10.



Just part of the pit area. For the World's, this will be a bleacher area, and then a larger pit area will be available behind the drivers' stand.



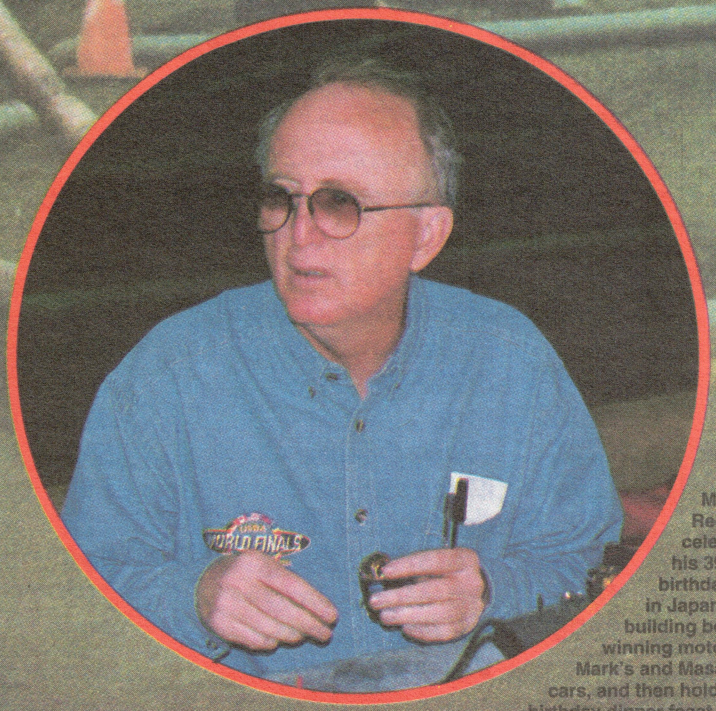
Without enough time to break his own tires in, Mark Pavidis, borrowed Masami's tires and TQ'd.



Craig Drescher, from England, is saying, "I hope I heard you wrong. How many runs did you say it would take to break these tires in?"



The fast group from Team Losi USA, with the fastest, Greg Hodapp, on the left, who took third in the class.



Mike Reedy celebrates his 39th birthday, again, in Japan, by building both of the winning motors in Mark's and Masami's cars, and then holding a birthday dinner feast at the track for everyone.



The Yatabe hobby shop is very well-stocked with all the major brands.



Masami drives and his father, Masaki, builds and maintains his cars. Quite a strong combination.

BY GENE HUSTING

REEDY INTERNATIONAL RACE OF CHAMPIONS

Goes to Japan



The Yatabe Arena in Tsukuba, Japan was the site of the 1995 Reedy International Race of Champions.

This Reedy Race was more commonly being referred to as The World Champs Round-Up Race, because it was held on Yokomo's Yatabe Arena in Tsukuba, Japan. This is the location of the upcoming IFMAR Offroad World Championships this summer. With the chance to run on the World's track, racers from team Associated and Los in the USA came, as well as racers from England, Germany, and Gary Briant and Marc V.D. Zon from South Africa. Gary and Marc receive the longest distance traveled award for their journey, which actually took 24 hours.

The Yatabe Arena is a first-class raceway, complete with a fully stocked hobby shop, as well as a brand new, beautiful 1/10 outdoor scale onroad track, right next to the Arena, and future plans call for the arena to be expanded to include an indoor carpet track. Onroad racing is growing quite fast in Japan.

When you first walk into the Arena, the track looks very similar to many other indoor tracks that I've seen.

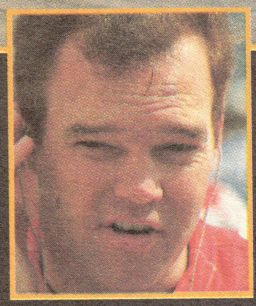
continued on page 59



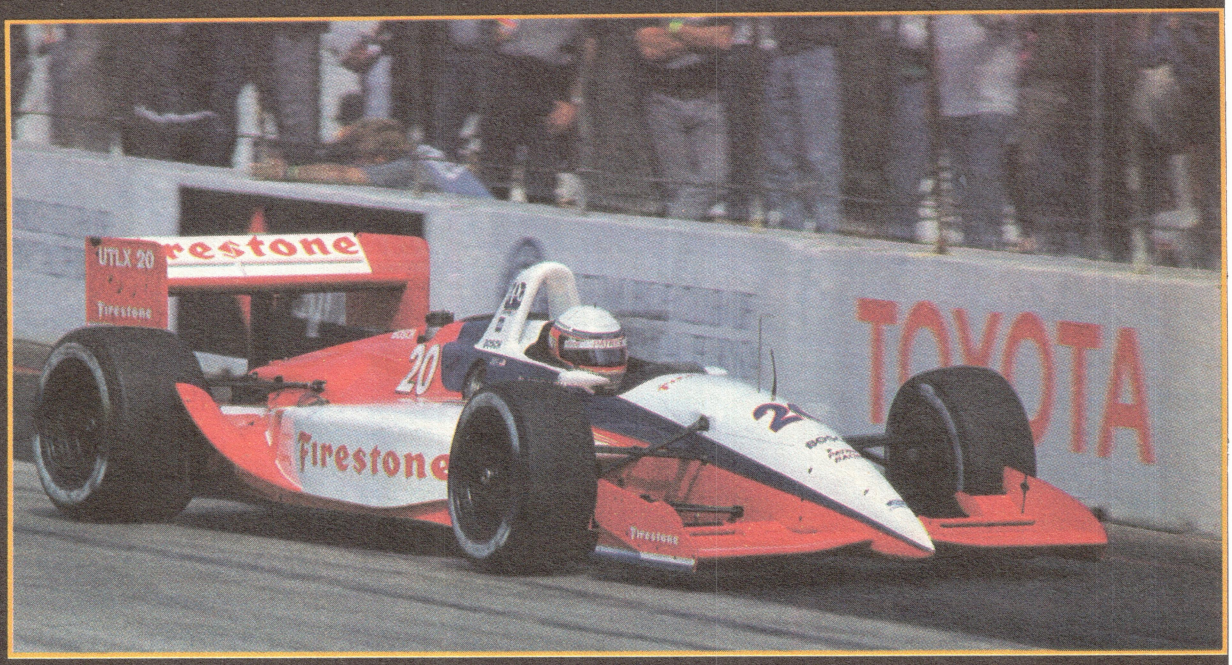


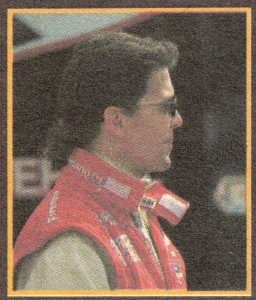
Mark Pavidis' RC10 World's Car uses Reedy modifieds and Orion batteries for power, LRP ESC, Airtronics radio and Yokomo tires. Lovely Sylvie, Miss Orion, presents the first-place trophy to Mark Pavidis for winning the class at the Japanese Reedy International Race of Champions. Mark was also Top Qualifier with his Reedy Modified-powered RCI0.



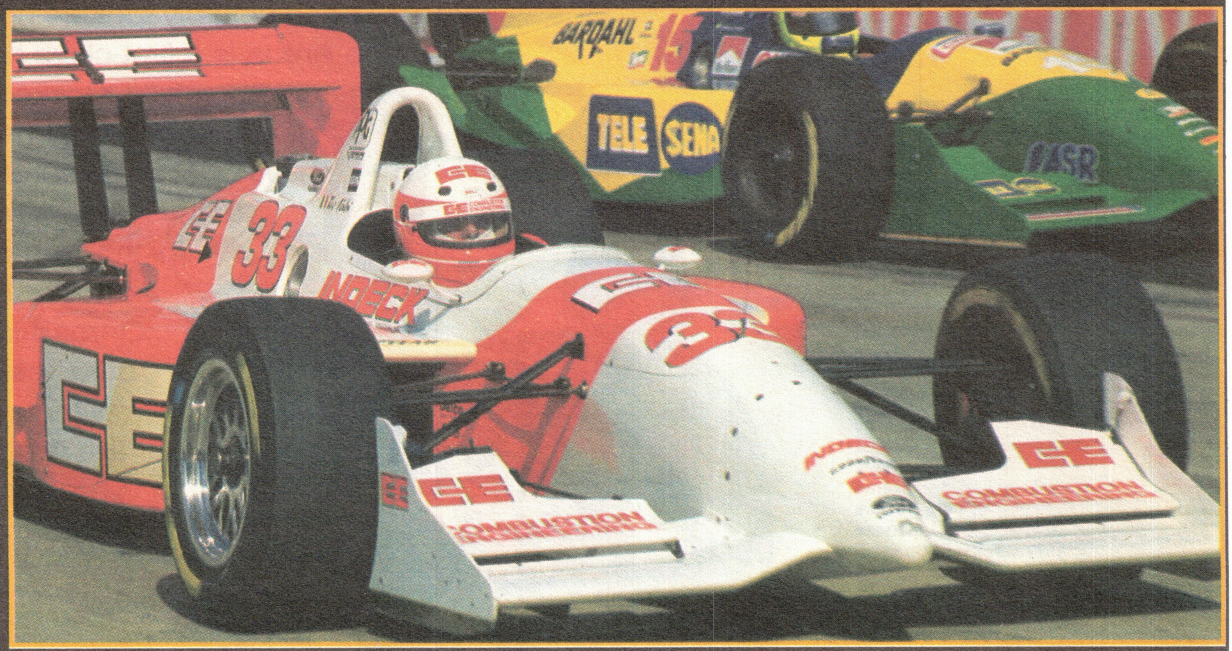


Six-time Long Beach winner Al Unser recorded the Penske team's first victory for 1995.





Second-place went to popular driver Scott Pruett, whose Lola-Ford, running on Firestone tires ran strong all day



Teo Fabi contested for the lead throughout the day, finally bringing his Reynard-Ford car home in third.



Former Formula One driver Mauricio Gugelmin qualified fifth and finished fifth in his second season as an Indycar driver. Gugelmin's Reynard-Ford, backed by the PacWest team, is a hot contender for the series championship.



True Colors

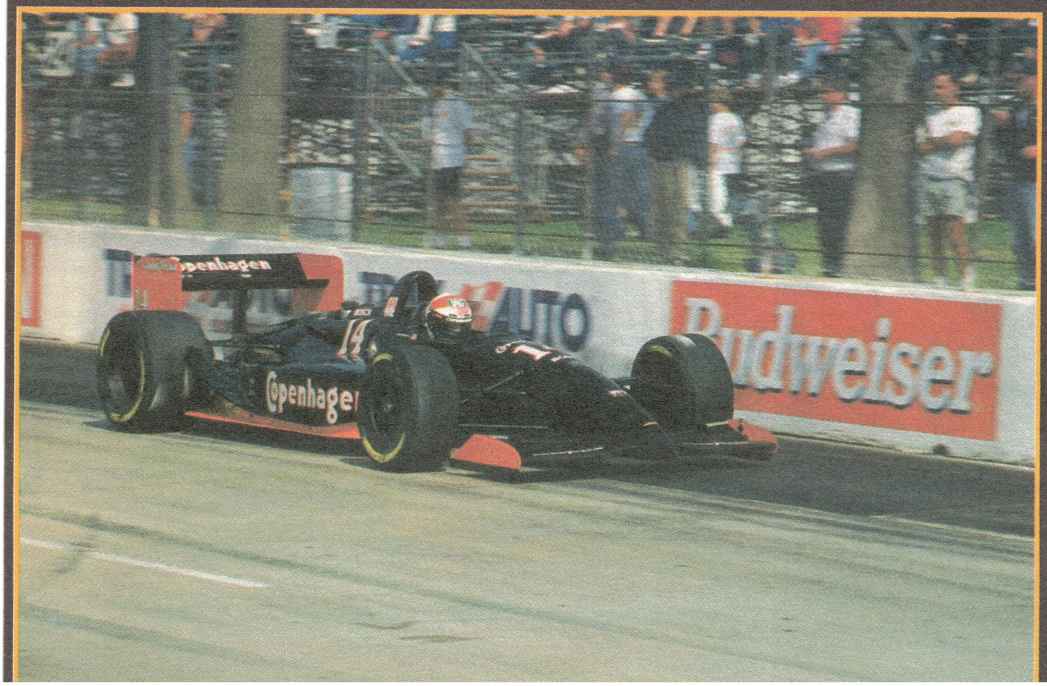
Indycars at Long Beach

BY RICHARD DOWDY

The Indycars blew into Long Beach for a fast-paced weekend that drew a record number of spectators to the temporary racetrack by the sea. Pre-race favorites? Take your pick: The Penske boys, Emmo and Little Al, had to be near the top of the list, with the edge going to Unser, as he had won this race five times before. Emerson Fittipaldi had come off a near-win the week before in Phoenix, so he would be considered a top-runner, along with Phoenix' winner Robby Gordon. In the first three races of the year, there were three different winners, making it difficult to zero in on a sure thing.

A real surprise in qualifying was Gil de Ferran, who held pole position until late Saturday when Michael Andretti and teammate Paul Tracy dropped the Pennzoil team's driver to third on the grid, next to Al Unser Jr.

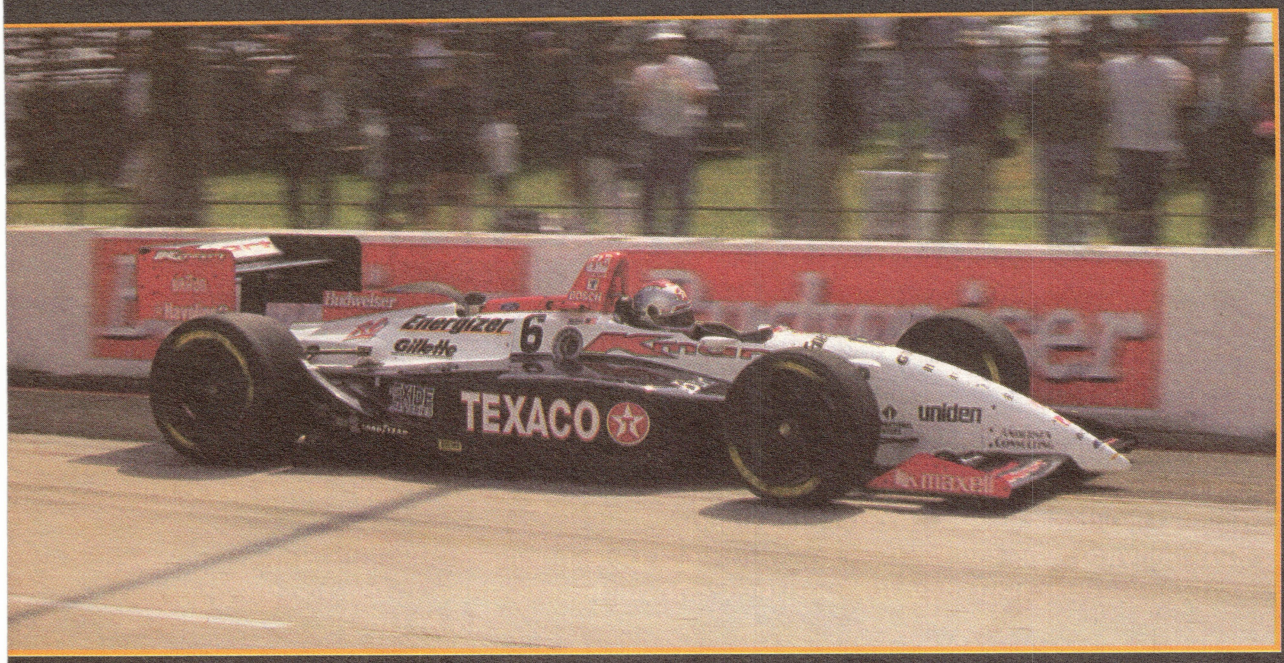
When the race began Sunday afternoon, eager-beaver Tracy jumped the start, which led to a yellow flag and a restart. On lap 16, de Ferran made a bold move on Tracy and passed the Newman-Haas team driver. Tracy wouldn't let the move go unchallenged and tried to re-



Racing for A.J. Foyt's Copenhagen Racing Team, former F1 driver Eddie Cheever battled fuel metering problems throughout the race, and eventually stopped on the course on the last lap, out of gas but in fourth place.

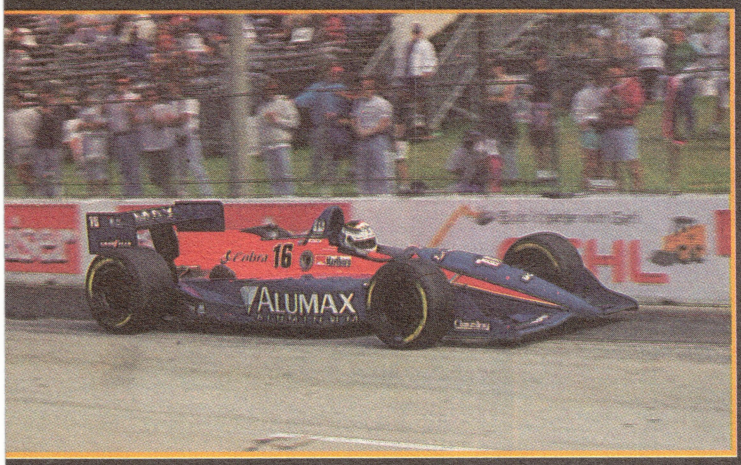


Christian Fittipaldi, a Formula One driver in '94 and nephew of Emerson Fittipaldi, has joined the Indycar ranks this season and promises to be a serious competitor with a lot of talent.



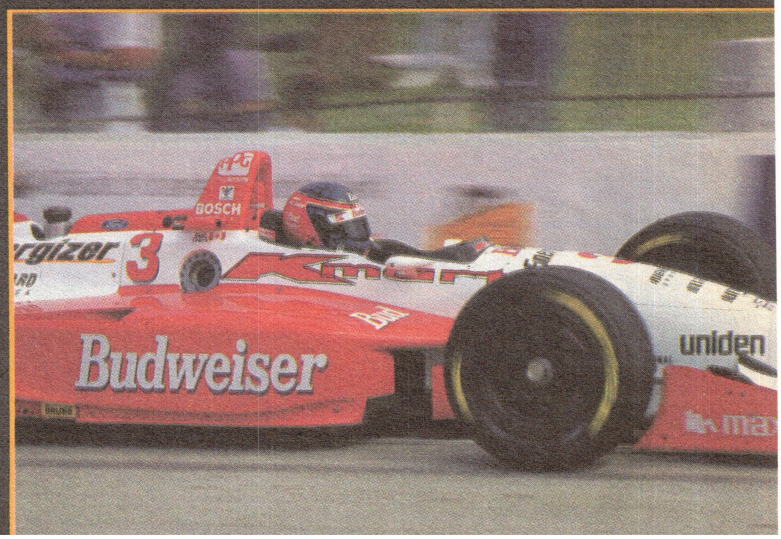


Pole-sitter Michael Andretti drove his usual aggressive and fast race, leading for the first 16 laps. Two incidents where he left the course after entering turn six too hot cost him dearly. He finished the day in ninth place.



Sweden's Stefan Johannson drove an intelligent race in his 1994 Penske-Mercedes, finishing in sixth place at Long Beach.

Newman-Haas driver Paul Tracy began on the front row, but an ill-considered confrontation with Gil de Ferran put both cars out of the running early on.

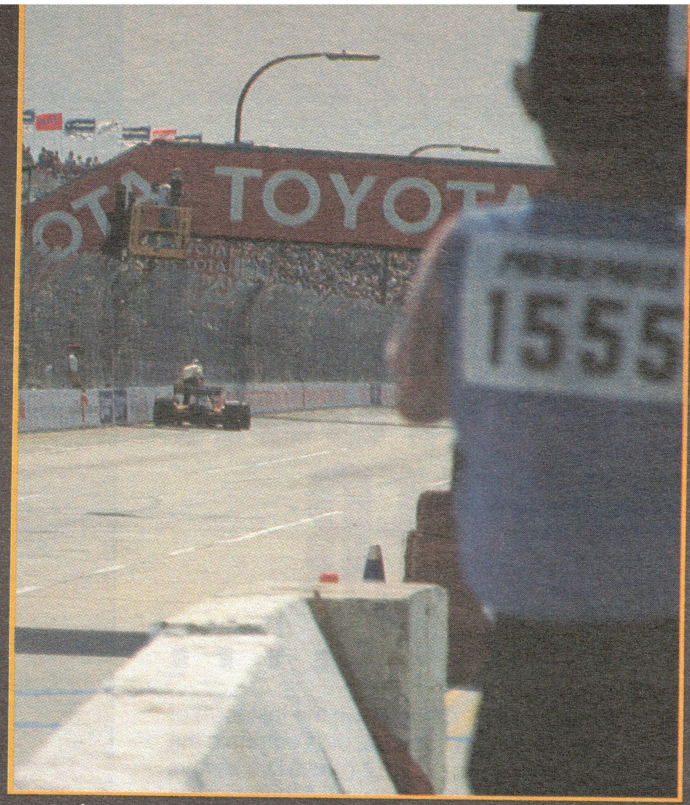


take de Ferran, centerpunching the Pennzoil car into the tire barrier, which retired both cars from the race.

Al Unser took the lead on lap 66 and continued to the checkered flag for his sixth victory at Long Beach, and the season's first Penske win. His teammate Fittipaldi retired with engine failure after 85 laps.

Scott Pruett, who returned to Indy racing this year after winning the Trans Am championship last year, finished a strong second with his Lola-Ford, running on Firestone tires. Pruett was followed across the line by Teo Fabi, who is racing with a new team and a new car, a Reynard-Ford. Fourth place went to Eddie Cheever, racing for A.J. Foyt, who stopped on the last lap after his Lola-Ford ran out of gas. Ironically, the next race on the schedule, an oval event at Nazareth, Pennsylvania, would have been Cheever's first Indycar victory, but he ran out of fuel with four laps to go—both incidents attributed to a faulty gas gauge.

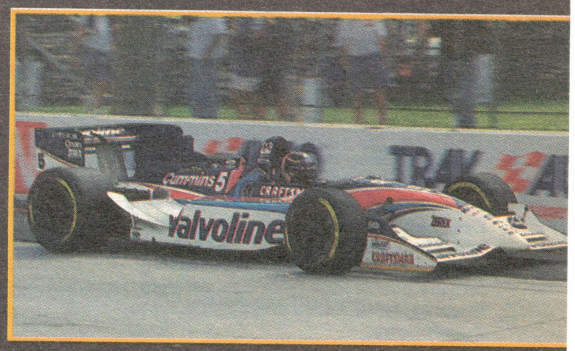
Long Beach, as usual, provided enough spectacle, close racing and color to satisfy the more than 200,000 fans who showed up for the three-day event, including RC fans who were looking for new paint jobs to replicate with their own models. If you missed the race, here's your opportunity to see the latest in team colors for the '95 season. Next in view: the Indianapolis 500! •



Bobby Rahal steps from his disabled Lola-Mercedes after the transmission failed on lap 77.



Brazilian Andre Ribeiro drove the all-new Honda-powered Reynard to a respectable 12th place. Watch this engine-chassis combination in future races: it has possibilities for success that eluded Bobby Rahal last year!



Local boy Robby Gordon suffered engine failure and finished a disappointing 22nd in front of the hometown crowd at Long Beach.

Jacques Villeneuve had transmission problems with his Reynard-Ford, driving from competition early on. He is a strong contender for the Indycar title this year.

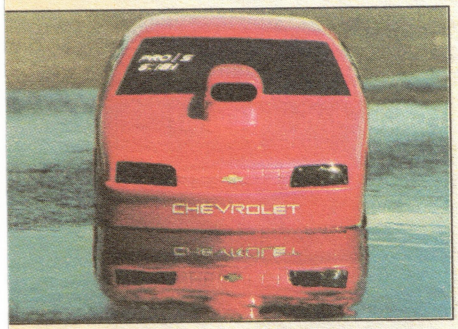




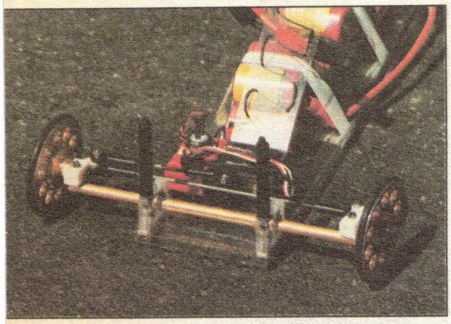
He's back...Danny Sullivan sat out the '94 season without a ride. He's back with a hot new team (PacWest) and a renewed commitment. Can he put his Reynard-Ford (and his career) back on top?



John Davis's excellent photography work is usually pretty good at scrutinizing my paint jobs. He had a tough time finding any flaws in this photo. No airbrush needed here.



Staged and ready to rock. Limo tinting courtesy of Dahm's Instant Window Tint. Detail work on the front end was done with black Coverite for the headlight covers and blower intake. The lettering and the bowtie logo were also cut from Coverite. I also added class and E.T.s to the windows.



Up front, the steering utilizes Associated steering blocks. Caster is easily adjusted with an Allen wrench and threaded axles make wheel removal quick. Wheels on the rolling chassis include bearings. Randy used a Futaba 9601 servo for the steering. Steering linkage also comes with the car.

How-to Special

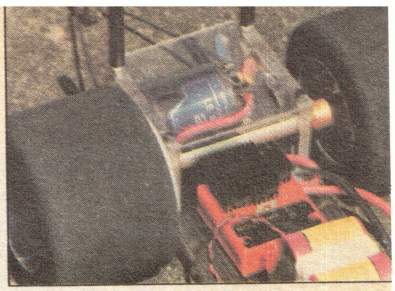
BUILDING A PRO STOCK RACER

BY KEVIN MEYER

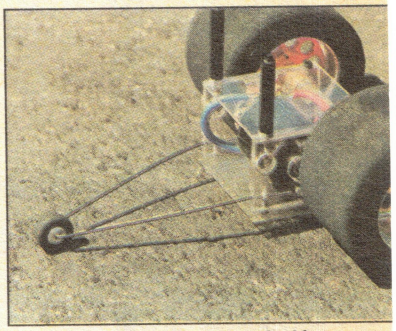
Only when it was evident that offroad was the last form of RC racing remaining in the Denver area, did I entertain the thought of getting into RC drag racing. I guess I've always discarded the idea because a quick trip down the strip was only fractional compared to the time spent in a four-minute oval race. But until I was given the chance to make some passes down a 1/10-scale drag strip, I didn't know what I was missing. The adrenaline rush was there and I was just making practice runs. It was for this reason that I decided to explore RC drag racing much closer.

In the process of checking into drag racing I discovered R.C.A.R. (Radio Control Auto Racing). Owner Randy Ray, has several interesting products which I'll take a look at during the course of this article. The convertible polycarbonate chassis is unique in that it can be used as a funny car or pro stock chassis simply by moving the motor pod forward. It's ultra-light with a very basic construction and a very narrow rear end (less flex). The rail's chassis on the

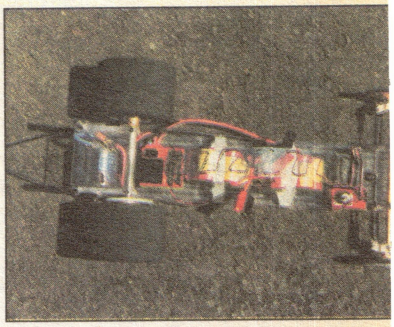
continued on page 64



Rear motor pod can be removed for set up as Pro Stock or Funny Car class. Bearings, aluminum axle, and hubs are standard in the assembly. Depending on the motor pod location, the motor may be mounted either for or aft of the rear axle. A 96-tooth, 48-pitch spur gear is also included.



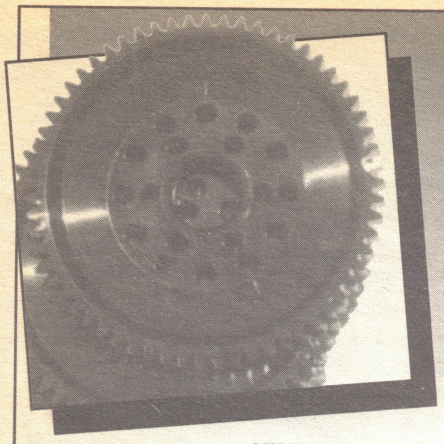
Wheelie wheel helps a great deal in controlling lift-offs at the line.



Rolling chassis is ultra-light, weighing in at just over 39 oz. with radio installed, as shown here with a 10-cell pack.



With the very fine detail evident on the Beretta Pro Stock body from Bolink I was compelled to match that standard with a paint job equal in quality. This looks to be one wicked ride and it's ready for business. The R.C.A.R. also comes with an unpainted Lumina T-bird, or Stealth Funny Car body. I had other plans and lined up my own Lexan.



TOUGH GEARS for GAS TRUCKS!

FOR HYDRA-DRIVE....
#245- **64 T**, 32-Pitch for Losi HYDRA-DRIVE.....$3.00
#246- **66 T**, 32-Pitch for Losi HYDRA-DRIVE.....$3.00

FOR ASSOCIATED GT...
#247- **62 T** For Associated RC10-GT.....$3.00
#248- **64 T** For Associated RC10-GT.....$3.00
#249- **66 T** for Associated RC10-GT.....$3.00

High-powered gas trucks need a gear that's up to the task... and Kimbrough's 32-Pitch gears are the toughest! Made of super-strong 4/6 Nylon, these gears will withstand temperatures 50 to 100 degrees higher than other manufacturer's gears. Don't take chances... get Kimbrough Gears!

KIMBROUGH Products

KIMBROUGH Products • 1322 Bell Ave., Unit 1-C • Tustin, CA 92680 • FAX: (714) 258-7426

MARSHBURN CONTINUED FROM PAGE 70

CM: Well, actually, the good point about your question is that we have about four classes right now that would be great for anyone to get started in. The bracket division allows you to compete with any RC car, truck, onroad, offroad, whatever and you basically run against the clock; not another racer per se. You make runs and have a dial-in time. So if you beat the other car to the finish line and don't run under your dial-in time, you win. The next class would be super stock which is an oval class 1/10-scale RC car which weighs 42 ounces and uses six cells and a stock motor for power. The third would be the Econo dragster class. It too is a stock-motored division, but with seven cells and a 36 ounce weight limit.

The final startup IEDA class is now in the experimental stage. It's called junior pro stock which requires a six-cell pack, 42 ounce weight limit, a modified motor (no cobalt) doorslammer class. Those are our basic entry-level divisions.

RE: Is there any ONE area of the country right now that has seen the biggest growth in IEDA racing?

CM: I would say the East Coast. That's where the IEDA is concentrated right now. We've got so many sanctioned tracks New England, Carolinas. etc.) along the East Coast holding events right now that it's definitely the biggest area by far. Plus, more new clubs are starting to hold drag races as well. The 1995 IEDA Worlds will be held at Minnesota's Northstar Dragway plus the West Coast, particularly California and Arizona are again looking up. This is in part due to Race America's Timing systems being used right now. I receive phone calls every week asking about new clubs, tracks, and info on the Race America lights.

RE: Do you see any major advances in RC drag racing and the IEDA within the next one-three years?

CM: I think so. As interest grows I think were going to see the manufacturers commit more to the sport. The commitment would be new motors especially in the area of their magnets. There are also new sleeker bodies coming on the market, and I believe there will be a lot more RC car drag racing products on the shelves.

RE: With the current state in RC drag car technology, what would you say is the lowest E.T. and fastest top speed now attainable?

CM: In the top fuel unlimited class you could see possibly some 1.6 second runs this year.

Now we're talking high sixties. Two IEDA racers ran 1.71 at the 1994 Northstar Nats; and the 1995 IEDA Worlds are returning to that Minnesota drag strip. So, the sixties could be run at that event. As far as speeds go, the current high mark is Chris Fine's 87.41 mph run. So, my guess would be to look again for a new record at the Worlds event.

RE: Is there any certain direction you'd like to see RC drag racing and the IEDA go in the future?

CM: Just a general growth from now on, mostly. RC car drag racing is a great sport for just about anybody that loves racing in general. By design, it's simple; but, there's still a challenge there to attain quick times and fast speeds with your car. And, it's just not going straight down the strip; there are a lot of little things that make a competitive RC drag racer. Of course the speed itself has always been a major draw with all RCers, and with the entry-level bracket, super stock, Econo dragster and junior pro stock classes, it's easy to get into RC drag racing. We've had first-time racers come to a national event, ask the experienced racers about setup, etc., and end up making the finals! It takes a lot of dedication; but it can be done in IEDA competition.

RE: Any final thoughts, ideas, or comments you'd like to touch on concerning the IEDA and RC car drag racing?

CM: The IEDA is taking off in an all-new direction this year mostly in the area of communication with it's membership.

This was lacking somewhat in the past few years; so, we're really putting a lot of effort towards that goal. The IEDA newsletter, *RC Dragster*, will play a major part in this; and I hope no one will hesitate to contact the IEDA for any information from now on. I think the organization will have a good 1995. The positive interest is growing right now, as is the general attitude of the racers themselves. That's the idea of the new IEDA—that there is a new fresh attitude in RC car drag racing; and we're looking to go forward with our present members and new folks as well.—*RE.* •

REEDY RACE CONTINUED FROM PAGE 53

It has a large drivers' stand, a separate lap-counting room, and the track layout is similar to tracks in Southern California, with wide lanes and jumps and a tabletop. The sides of the building are actually made of canvas that can be rolled up for ventilation during the summertime. The metal framework roof is also covered with canvas that can be rolled open.

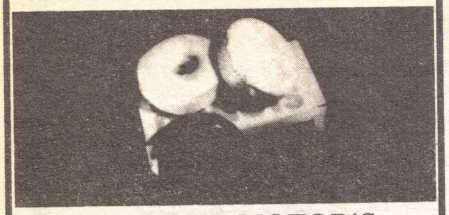
However, the biggest difference about the track is something you can't see. It's the dirt. It looks the same as most indoor track's dirt, but it's definitely not the same as any other dirt we've ever seen. We were told that only one tire works on it—one of Yokomo's tires.

Of course, we started by running all of our normal tires on it, and sure enough, all we were doing was slipping and sliding around the track. We put on the Yokomo tires, but we were still slipping and sliding around the track. Masami then told us that we had to run the tires at least 10 times before they started to break in! He also said the local drivers only have one set of tires because they don't wear out—unbelievable!

So, while we were slipping and sliding around the track breaking in our tires, the Losi team was flying around the track glued in. We then found out that they had gotten some of the Yokomo tires ahead of time, and broken them in at home. Way to go, guys.

What was also strange about the track was that it didn't get all pockmarked from heel prints, the way our tracks do. It started out perfectly smooth, and it stayed that way all day long, every day. However, the

GLAZE BELONGS ON
DONUTS



NOT YOUR MOTOR'S
COM AND BRUSHES

PREVENT GLAZE, CARBON BUILDUP AND FLASHOVER.

USE AERO-CARS CONDUCTA MOTOR DROPS!!
AC-3003
ADD POWER AND SPEED. INCREASE MOTOR AND BATTERY LIFE.

Send $2.00 for
information and decals
Aero-Car Technology, Inc.
P.O. Box 336
Western Springs, Illinois 60558



Mark Pavidis wins the class, with Atushi Hara second and Greg Hodapp third. From the left, Rick Hohwart tenth, Masami Hirosaka ninth, Hiroshi Suzuki sixth, Shinnosuke Adachi fifth, Patrick Feschtschenko eighth, Joel Johnson seventh, and Brian Kinwald fourth.

traction did change during the day, depending on the temperature and humidity, but there was no clear pattern.

Our cars did get better and better each day, as we kept running the same set of tires. However, after the three practice days, we still didn't have the same traction as the local Japanese team running RC10's had. So, I asked Masami how many runs he had on his tires. He said well over 30. We were in trouble.

Mark Pavidis also realized this, and after the qualifying rounds were posted, asked Masami if he could run Masami's tires too, in qualifying. Masami was in the second round and Mark was in the fourth round, so they could both run the same tires. Masami agreed.

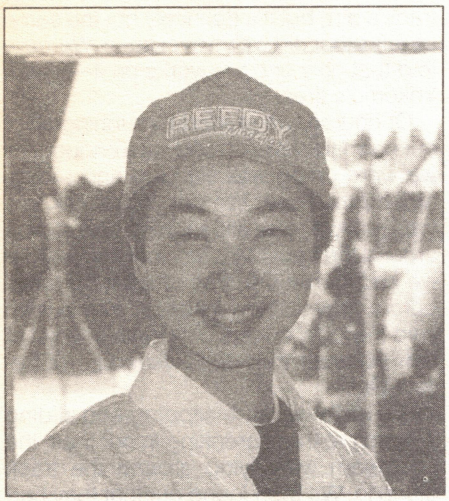
2WD QUALIFYING

Greg Hodapp led the first round of qualifying with a super-smooth 15 laps in 5 minutes 11.82 seconds or 15-5.11.82. Local driver Atushi Hara was right behind with 15-5.12.67, followed by Masami with 15-5.13.35, Mark Pavidis 15-5.13.94 and Brian Kinwald with 15-5.14.

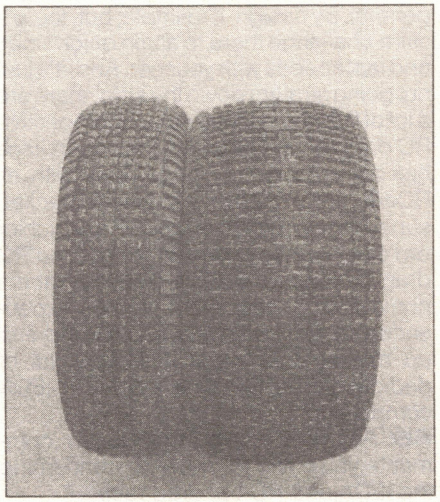
The next round turned out to be the quick one as Mark Pavidis took Top Qualifier honors with a quick 15-5.06.53. Hodapp followed with 15-5.08.43, then Shinnosuke Adachi with 15-5.10.29 and Masami at 15-5.10.92. The track was never as fast again, so no one bettered their times in the next three rounds. Because of Mark's TQ, Masami graciously allowed Mark to run Masami's tires in the mains, while Masami ran Mark's tires.

2WD QUALIFYING

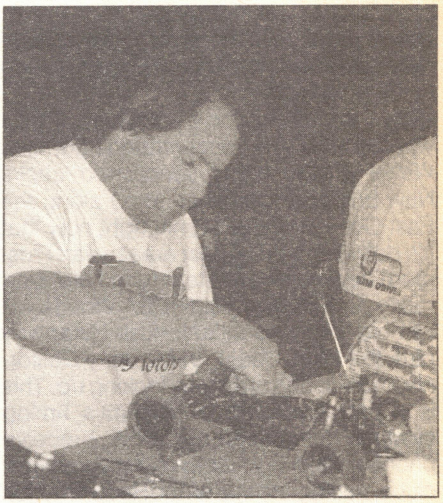
Place, Racer	Laps	Time
1 Mark Pavidis	15	5.06.53
2 Greg Hodapp	15	5.08.02
3 Atushi Hara	15	5.10.16
4 Shinnosuke Adachi	15	5.10.29
5 Masami Hirosaka	15	5.10.92
6 Rick Hohwart	15	5.13.54
7 Joel Johnson	15	5.13.89
8 Hiroshi Suzuki	15	5.13.98
9 Brian Kinwald	15	5.14.00
10 Patrick Feschtschenko	15	5.15.08
11 Matt Francis	15	5.15.39
12 Mark Francis	15	5.16.34
13 Akira Suzuki	15	5.17.00
14 Barry Baker	15	5.18.61
15 Craig Drescher	15	5.19.64
16 Derek Furutani	15	5.20.20
17 Jurgen Lautenbach	15	5.20.96
18 Tatuya Sanpei	14	5.00.04
19 Gil Losi Jr.	14	5.01.32



Masami says, "Yes, now we get to run 4WD!"



These are the infamous Yokomo tires that are the only tires that work on the Yatabe track.



Rick Hohwart was looking good in the 4WD class, taking a great second place finish to Masami, with his Peak/Orion-powered Yokomo YZ10.

20 Akio Kawamata	14	5.02.25
21 Arron Biner	14	5.02.75
22 Toshiaki Kato	14	5.03.72
23 Akihiko Yoshimura	14	5.03.73
24 Yukio Wakasugi	14	5.05.59
25 Marc V D Zon	14	5.08.16
26 Jon Leonard	14	5.08.24
27 Takashi Kato	14	5.08.52
28 Hiroshi Kamibayashi	14	5.13.78
29 Gary Briant	14	5.15.84
30 Satoshi Maezumi	14	5.18.05

One thing I haven't mentioned yet, which, at the right moment, is the most important survivability item of all. There's a McDonald's one block from the hotel, with a Colonel Sanders across the street, and a Pizza Hut about a mile away. And, there's an arcade two blocks away from the hotel. We survived.

4WD QUALIFYING

This was Masami's class, and he wanted to leave no doubt about it. He led the way in the first round with a quick 15-5.04.40, with Shinnosuke Adachi close behind at 15-5.04.46 and Atushi Hara equally close with 15-5.04.85. But, in the next round

8 TRACK RECORDS FROM THE DEMON!



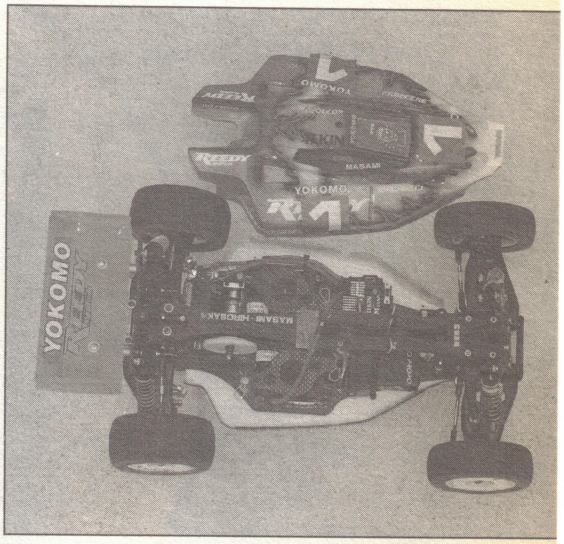
New Demon Motor Drops are race proven by drag racers, oval racers and on-road racers — 8 Track Records in six states! One drop on each brush will increase RPMs, lower the motor's amp draw and increase torque. Motors run longers and cooler, with reduced wear on the comm. Demon Motor Drops can be used on Stock or Modifified motors with the same results. For unsurpassed horsepower and performance, ask for the Demon!

T.M. R/C RACING COMPONENTS

T.M. R/C Racing Components - 49679 Leona Drive
Chesterfield, MI 48051 - Phone (810) 949-3506 - Fax (810) 949-3506



Masami Hirosaka TQ's and wins the 4WD class, with Rick Hohwart taking second, and Hiroshi Suzuki third. From the left, Craig Drescher sixth, Mark Pavidis ninth, Matt Francis fifth, Shinnosuke Adachi seventh, Atushi Hara tenth, the amazing Joel Johnson eighth, and Brian Kinwald fourth.



Masami's Yokomo YZ10 features Reedy Modifieds for power, with Yokomo batteries, Tekin ESC, KO Propo radio and, of course, Yokomo tires.

Masami turned the only 16-lap run with a perfect 16-5.19.81, taking Top Qualifier honors.

Place, Racer	Laps	Time
1 Masami Hirosaka	16-5	19.81
2 Hiroshi Suzuki	15-5	3.78
3 Shinnosuke Adachi	15-5	4.46
4 Brian Kinwald	15-5	5.53
5 Atushi Hara	15-5	4.85
6 Rick Hohwart	15-5	5.23
7 Craig Drescher	15-5	5.52
8 Mark Pavidis	15-5	5.88
9 Matt Francis	15-5	7.08
10 Joel Johnson	15-5	7.71

2WD A-MAIN #1

Mark Pavidis took off from his number-one starting position in the lead, closely followed by Greg Hodapp for a couple laps. Then Mark started pulling away from the field. Meanwhile Greg was being pressured by Atushi Hara, who was also being pressured by Brian Kinwald.

Mark now had a straightaway lead, but Hara got to Greg, dropping Greg to fourth, as Hara and Brian both got by Greg. Mark ended up winning by five seconds, and as hard as Brian tried, he couldn't get by Hara, who beat Brian to the finish line by 1/10 of a second, or one car's length. Really good racing.

2WD A-MAIN #1 RESULTS

1 Mark Pavidis
2 Atushi Hara
3 Brian Kinwald
4 Greg Hodapp
5 Hiroshi Suzuki
6 Shinnosuki Adachi
7 Patrick Feschtschenko
8 Rick Hohwart
9 Masami Hirosaka
10 Joel Johnson

2WD A-MAIN #2

Mark Pavidis took off in the lead again, followed by Greg, but after three laps Greg had a problem and dropped out, moving Hara to second, with Shinnosuke Adachi moving to third, and Brian fourth. The order stayed that way to the end. Mark kept just enough distance ahead of Hara, so that there wouldn't be any problems, and won by a couple seconds, which also gave him the overall win.

2WD A-MAIN #2 RESULTS

1 Mark Pavidis
2 Atushi Hara
3 Shinnosuke Adachi *continued on page 63*

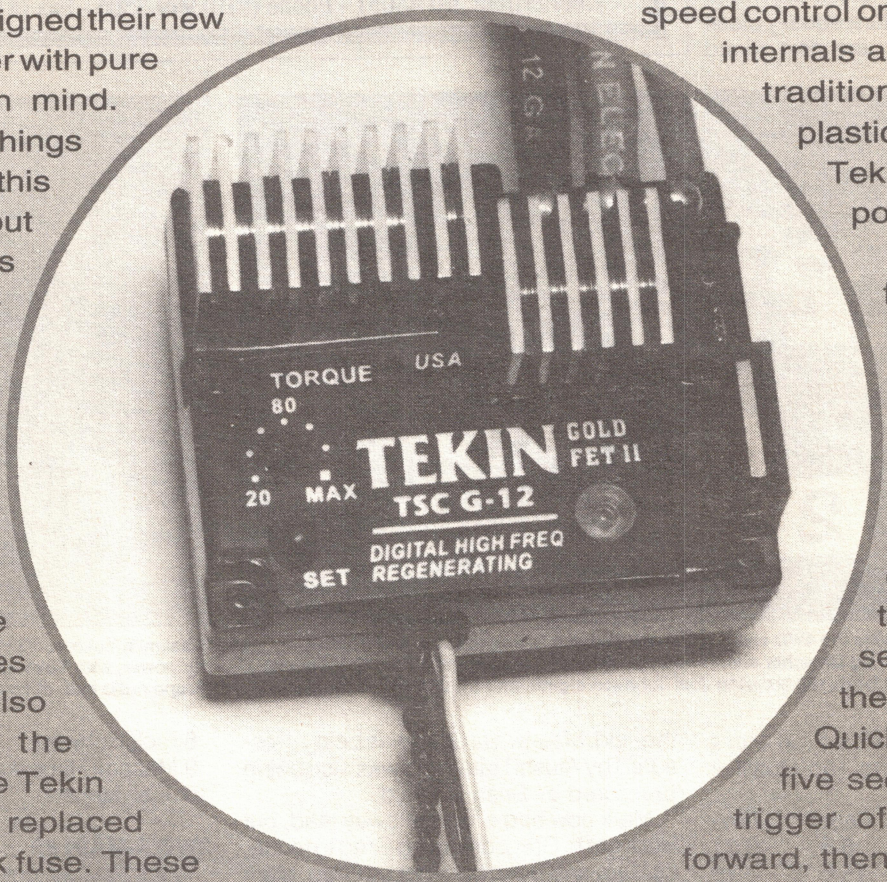
BY ROB TUCK

INSIDE TEKIN'S G-12 SPEED CONTROL

In the continuing evolution of electronic RC components, Tekin has released a new speed control that is worthy of investigation. If you're a racer who takes racing seriously, then you will want to check this out.

CONSTRUCTION AND FEATURES

Tekin has designed their new speed controller with pure performance in mind. One of the first things I noticed about this unit is the input and output wires are giant 12-gauge wire. The wires are also user-replaceable. No more sending the controller back to the factory because you cut the wires too short. I also noticed that the usual plug-type Tekin fuse has been replaced by a solder-link fuse. These fuses are "zero-loss" meaning they don't create any resistance in the controller.



Checking out the specs also proves further that Tekin designed the G-12 to win. It has a phenomenally low .00125 ohms of "on" resistance, which translates into less interference from the internal circuitry of the speed control, and all but a tiny fraction of the power makes it from your battery pack to the motor. The G-12 also boasts 120 amps of tire-stopping, braking power.

The G-12 weighs in at 1.7 ounces, one of the lightest in it's class, and measures 1.7" X 1.4" X .6". Not tiny, but compact nonetheless. The G-12 takes up about the same amount of space as any comparable speed control on the market. The internals are housed in the traditional Tekin black plastic case and sports Tekin's exclusive test point.

The G-12 is the first Tekin design to utilize the Tekin Quick-TUNE-technology. To set the controller up, all that has to be done is set your transmitter to the settings outlined in the manual, push the QuickTUNE-button for five seconds, move the trigger of the transmitter forward, then back, and that's it. Your transmitter is now ready to run your new speed control.

Included in the package is a set of Deans Power Plugs, zip ties, double-sided tape, Tekin decals, motor resistors, receiver plugs and a comprehensive instruction manual.

USE AND ABUSE

Reading through the instruction manual gives a detailed description of how to install,

continued on page 65

REEDY RACE CONTINUED FROM PAGE 61

4 Brian Kinwald
5 Joel Johnson
6 Masami Hirosaka
7 Patrick Feschtschenko
8 Rick Hohwart
9 Hiroshi Suzuki
10 Greg Hodapp

2WD A-MAIN #3

Mark had already won the overall, so he decided not to run this race. This gave the front starting position to Greg. This turned out to be the best race, because the top four drivers were all so close. Greg had the lead and Brian was chasing him, while Suzuki was right behind Brian, with Hara right there in fourth. It was a four-car freight train flying around the track, as if hooked together. If anybody bobbled, they would immediately get passed, so everyone did a great job, with Greg winning, and everyone else within a second of each other. There's some fast Japanese drivers on this track.

2WD A-MAIN RESULTS #3

1 Greg Hodapp
2 Brian Kinwald
3 Shinnosuke Adachi
4 Atushi Hara
5 Hiroshi Suzuki
6 Patrick Feschtschenko
7 Joel Johnson
8 Rick Hohwart
9 Masami Hirosaka
10 Mark Pavidis-DNR

OVERALL 2WD A-MAIN RESULTS

Place, Racer	Points	Car	Motor
1 M. PAVIDIS	1	RC10	REEDY
2 A. HARA	4	LOSI XX	LRP
3 G. HODAPP	5	LOSI XX	MEC
4 B. KINWALD	5	LOSI XX	TRINITY
5 S. ADACHI	6	RC10	REEDY
6 H. SUZUKI	10	RC10	REEDY
7 J. JOHNSON	12	LOSI XX	TRINITY
8 P. FESCHTSCHENKO	13	LOSI XX	TRINITY
9 M. HIROSAKA	15	RC10	REEDY
10 R. HOHWART	16	RC10	PEAK

2WD B-MAIN RESULTS

1 MATT FRANCIS
2 MARK FRANCIS
3 DEREK FURUTANI
4 BARRY BAKER
5 TATUYA SANPEI
6 AKIRA SUZUKI
7 JURGEN LAUTENBACH
8 GIL LOSI JR.
9 AKIO KAWAMATA
10 CRAIG DRESCHER

Masami took the lead with Hiroshi Suzuka following. Masami started opening up a small lead over Hiroshi, while everyone behind Hiroshi were running into each other trying to catch up. Joel Johnson just drove a smooth clean race, driving around wrecks, to move up to third, with Masami taking his first win, with Hiroshi finishing second.

DIRECTORY of DRAG RACING CLUBS AND ASSOCIATIONS

ARIZONA
G&S Hobbies
967 Hancock #17
Bullhead City, Arizona 86442
Bob Olsen (602) 758-1100

Hobbytown USA
1915 E. Baseline Rd.,
Gilbert, Arizona
Rob Zoeller (602) 598-5282

CALIFORNIA
Northern California Drag Assn.
Sunnyvale, California
Mitch Williamson (415) 966-1681

Penfield Raceway
Chatsworth, California
Al Herbst (818) 407-0633

COLORADO
Scale Rails
Denver, Colorado
Randy Ray (303) 469-4914

FLORIDA
Drag Racing Club
Ft. Meyers, Florida
Steve Ralston (813) 369-8892

Showtime Dragway
North Miami Beach, Florida
Charles Williams (407) 737-9635
Mike Blair (305) 948-3451

Southwest Florida RC Speedway
1920 Elsa
Naples, Florida 33942
(813) 597-6866

HAWAII
Windward Hobby
Kaneohe, Hawaii
(808) 247-7720

Hawaii Electric Drag Racing Club
Pearl City, Hawaii
Mark Silva (808) 455-4824

ILLINOIS
Windy City Drag Racers
David Goldstein
Lansing, Illinois
(708) 474-8120

LOUISIANA
The Hobby Shop
Sulphur, Louisiana
(318) 583-4082

MARYLAND
Maryland RC Dragway
7901 Poplar Hill Dr.
Clinton, Maryland 20735
(301) 856-8326

MINNESOTA
Northstar RC Dragway
14056 Junkite St. N.W.
Anoka, Minnesota 55303
(612) 427-8648

NEVADA
Taylor Motor Sports
1027 S. Rainbow #364
Las Vegas, Nevada 89128
Ken Hidgon (702) 258-8513

NEW JERSEY
Kim's RC Pit Stop
357A Union Blvd.
Totowa, NJ 07512
(201) 942-5955

NEW MEXICO
Four Corners RC Drag Racing
Farmington, New Mexico
Bob Clark (505) 310-0473

Hobbytown USA
Famington, New Mexico
(505) 325-5156

NEW YORK
Brooklyn Q-Scale Drag Assn.
Brooklyn, NY
Bob Curto (914) 668-0843

Northside RC Speedway
2550 Two Mile Creek Rd.
Tonawanda, NY 14150
(716) 875-3435

RC Drag Racing Assn.
Monticello, NY
Ronald Hodgson (914) 796-2277

NORTH CAROLINA
Carolina Dragway
907-C Warsaw Rd.
Clinton, NC 28328
(919) 592-9489

Winston RC Drag Assn.
Winston-Salem, North Carolina
(919) 983-9416

PENNSYLVANIA
Pro Challenge Raceways
23 S. Highland Ave.
Lansdowne, Pennsylvania 19050
(215) 622-7651

Tri-State Electric Drag Racing Club
138 So. Springfield Rd.
Clifton Heights, Pennsylvania 19023
(610) 586-4817 (after 5:00 p.m.)

PUERTO RICO
Juncos RC Dragway
Farjado RC
Bayamon RC Speedway
Caguas RC Drags
(Rotating Schedule)
Miguel Valentin
(809) 887-3723

SOUTH CAROLINA
Hobbies and More
1570 S. Main St.
Darlington, South Carolina 29532
(803) 393-0355

Sidewinder's Raceway
North Charleston, South Carolina
Jimmy Closson (803) 863-9032

VIRGINIA
Tempest Productions
Fairfax, Virginia
Rick Blouin (703) 263-9464

CANADA
SOAR
Sudbury Organized Auto Racing
Hanmer, Ontario Canada
(705) 969-5044

Racine Drag Racing
875 55th Ave.
Lachine, Quebec, Canada
H8T 3B5
(514) 631-1360

Note: If you know of a drag club or track that should be listed here, send the information to the Editor at RCMC, Box 2459, Capistrano Beach, California 92624. If you sell drag racing-related parts and equipment, we'd like to hear from you too.

4WD A MAIN #1 RESULTS

1 Masami Hirosaka
2 Hiroshi Suzuki
3 Joel Johnson
4 Matt Francis
5 Brian Kinwald
6 Shinnosuke Adachi
7 Mark Pavidis
8 Craig Drescher
9 Rick Hohwart
10 Atushi Hara

Masami got hammered at the start, and dropped to last place, while a lot of the following cars also got tangled. Rick Hohwart took over the lead, by driving around the wrecks, with Craig Drescher following in second. Hiroshi Suzuki was in third.

4WD A-MAIN #2 RESULTS

1 Rick Hohwart
2 Craig Drescher
3 Hiroshi Suzuki
4 Shinnosuke Adachi
5 Masami Hirosaka
6 Mark Pavidis
7 Matt Francis
8 Atushi Hara
9 Brian Kinwald
10 Joel Johnson

4WD A-MAIN #3

This time Masami wasn't taking any chances. He jumped in the lead and made everyone else play catch up. Brian took up the challenge, and worked his way up to second, but there was no way he was going to catch Masami. Matt Francis was following in third with Hohwart close in fourth.

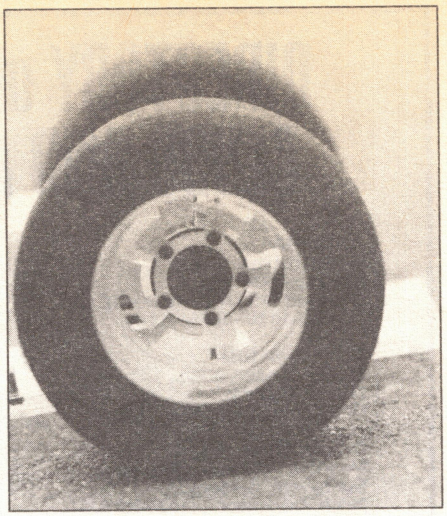
OVERALL 4WD A-MAINS

Place, Racer	Points	Car	Motor
1 M. HIROSAKA	2	YOKOMO	REEDY
2 R. HOHWART	5	YOKOMO	PEAK
3 H. SUZUKI	5	YOKOMO	REEDY
4 B. KINWALD	7	YOKOMO	TRINITY
5 M. FRANCIS	7	YOKOMO	REEDY
6 C. DRESCHER	10	SCHUM.	REEDY
7 S. ADACHI	10	YOKOMO	REEDY
8 J. JOHNSON	11	YOKOMO	TRINITY
9 M. PAVIDIS	13	YOKOMO	REEDY
10 A. HARA	13	KYOSHO	LRP ●

PRO STOCKER CONTINUED FROM PAGE 58

other hand is a complex frame work yet still manages to be light. Both of these racers are available in a rolling chassis. Included with the rail is a custom-cut Lexan body, unpainted so the customer can create his or her own masterpiece.

Speaking of masterpieces, the third item is the masterful work on a large variety of wheels available. There are more than half a dozen design and finish combos to choose; custom made to fit your offset specifications. The idea is to get as much foam on the ground and still fit inside the body shell. If you want that personal look



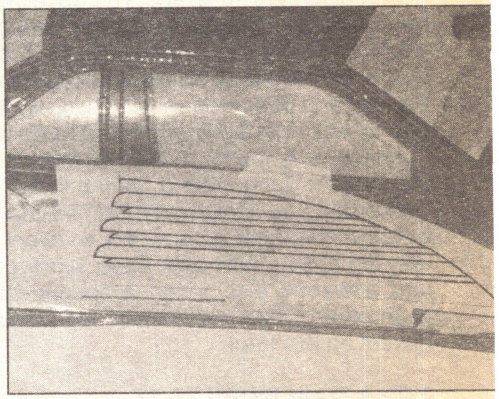
A number of different wheel patterns and finishes are available from R.C.A.R.

at an affordable price, this man has the wheels for you and he's got that concours-winning ride also.

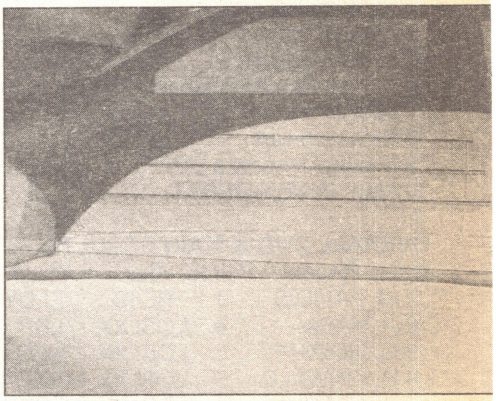
I picked up one of the polycarbonate chassis from Randy, hoping to create my own Pro Stock drag racer. All I needed was a radio system and a body. Actually the body, a Lumina or T-Bird, is included in the price of the car but I had another body in mind. It came in the form of the Beretta Pro Stock by Bolink.

My drag racing reference material is limited, so I was on my own in that area. I experimented with a few different designs for the paint job—something simple and bright was in order with lots of contrast. After a design and color scheme was decided upon, I masked off the windows and the area that later would be Pearl White. My first Lexan paint job was a Bolink Beretta. So I wanted to work with the same colors. The main design was masked with Dahm's Pro Mask. I knew this would guarantee a very clean paint line with no bleeding. If possible, always try to apply the darkest color first.

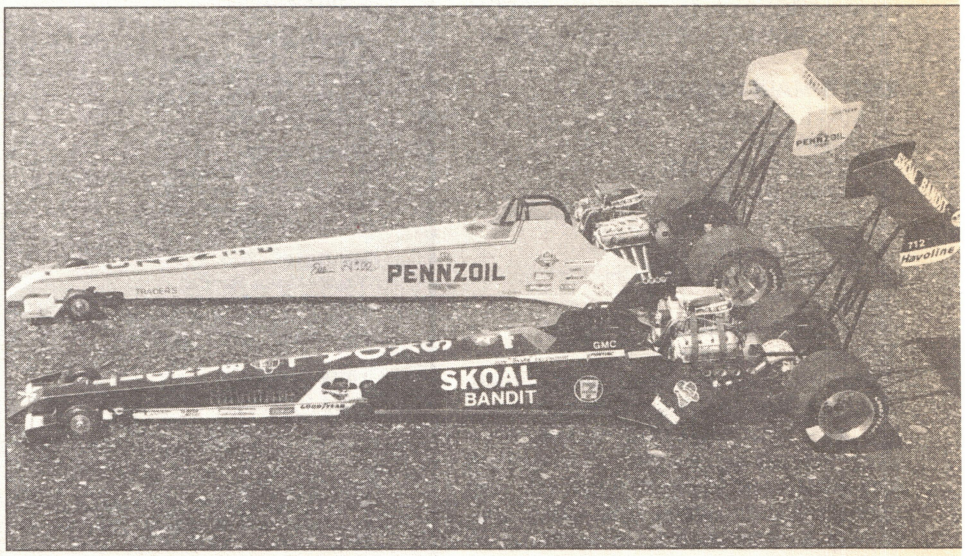
The first color I used was Metallic Burgundy. (Start with a light mist to seal the edges of the masking tape.) This prevents the following coats from bleeding under the mask. Four even coats, 15 minutes apart will do. Check the coverage around the blower intake to avoid any thin areas. Next, I shot three coats of silver. This made the Metallic Burgundy opaque and accented the metalflake in the paint. I removed the



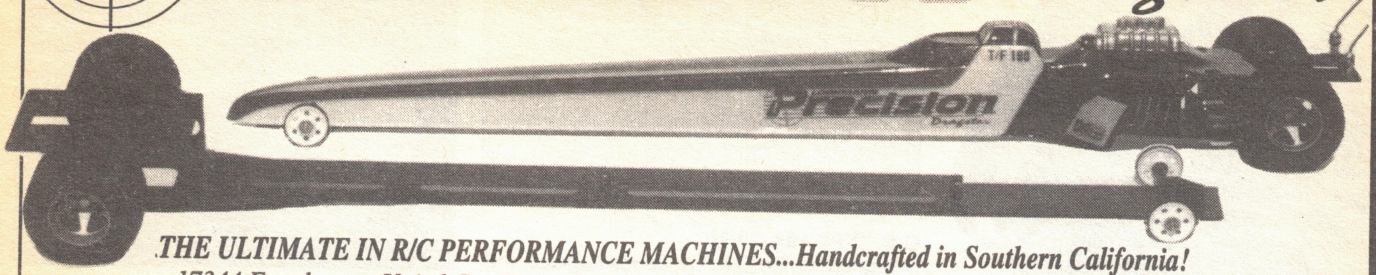
To aid in applying the design straight, place the tracing on the outside of the shell.



Before spraying the next color check for bleed-through by placing a white piece of paper inside the body and inspect for possible clean up.



In a future article I'll show you how Randy makes these 1/10-scale dragsters. You can almost smell the nitro.

LOCKMANN Precision
TOP ALCOHOL, TOP FUEL & TOP FUEL UNLIMITED Dragsters

THE ULTIMATE IN R/C PERFORMANCE MACHINES...Handcrafted in Southern California!
17344 Eucalyptus, Unit 1-B • Hesperia, CA 92345 • (619) 947-3684 • FAX: (619) 947-3689

mask and checked for any bleeding or over-spray. (To help check for bleeding, hold a piece of white paper inside the body shell and check for any necessary clean up.)

Here I did the mask for the design work. To help locate the mask, the tracing of design was taped to the outside of the car. I drew some guidelines on the outside of the shell, as this would be my cutting line after the next paint step is complete. Next I sprayed Pearl White, three even coats 15 minutes apart. To back that up, I sprayed four coats of Sprint White. When the last coat had dried completely I laid a straight edge along the guide line and cut off that mask (this will be the shadow area for the black). Three coats of Outlaw black were then applied. (Try to spray only the area were the mask is cut away.) I got the three-color fade by peeling up the mask a little at a time. (Be sure to keep peeling the mask back, doing light coats as you go to eliminate a hard mask line as you paint.) I started with Fluorescent Red and blended into Fluorescent Orange then Fluorescent Yellow. I finished up with 3 coats of Sprint White to make the florescent solid. Let the paint cure overnight before doing any more work on the body.

The process of trimming the body came next. The pre-formed lines on the body are very helpful in making a nice, smooth cut. Just score the lines with a light cut and then bend at the cut and the excess will snap right off.

After all the trimming is finished, a Dremel with a grinding wheel can be used to go over any rough spots. Because the paint turned out so nice I refrained from putting a lot of detail lines on the car so as not to detract from the design. That was a hard decision considering the excellent line work on the Beretta body.

For the photo shoot I didn't mount the body (for added realism). At this point because I haven't transferred my electronics from my pan car. As of this writing (April '95) the drag racing season is just starting. In a future issue I'll look at what goes into building a rail from R.C.A.R. I'll also give an update on how the polycarbonate chassis holds up in competition. Until next time, may your passes be fast and your red lights few! •

SPEED CONTROL CONT. FROM PAGE 62

set up, and optimize the speed control for your type of racing. I used the supplied Deans Power Plug to install the G-12. Installation is no different than installing any other electronic speed control.

Setup is as easy as described above for the transmitter. Then you will need to set up the torque limiter for your style of racing. Tekin includes a test point to allow a digital voltmeter to be used. This allows the most accurate setup. The voltmeter is attached at the test point, and at the battery negative. It can be set without turning on the transmitter, making it convenient for setting in the pits.

Tekin recommends setting it at around 75 amps (you can refer to *RCMC*, July '94 "The Battery Dump" for more torque setup information). I used the factory recommended setting for starters.

I installed the unit in my Losi XXT for testing. It easily fit up against the rear shock tower with the help of some strategically placed Velcro.

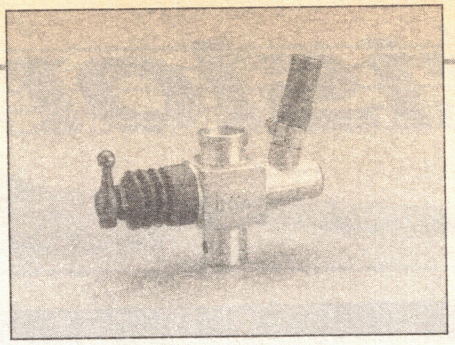
I ran the first battery pack through it without making any adjustments from the factory-recommended setup. My first impression was, "Brakes From Hell!" Wow, this thing had enough brakes to lock up the rear tires on an offroad truck on a high-bite surface. It seemed to have good punch out of the corners and off the starting line. With a modified motor, throttle response was smooth and even. It didn't seem to have a "sweet spot." It took what

continued on page 72

SUBSCRIBE
NITRO MODEL CARS

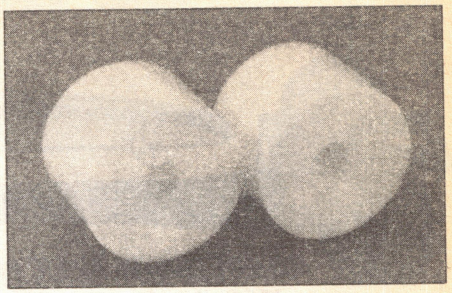
Venom Racing Cells
"The Deadliest Cells Available"
1700 SCRC Batteries
350-359..$42.00 370+..Call for avail.
360-369..$47.00 Sportpacks..$32.00+
Buy 3 or more and save $2.00/pack!
Resumes being accepted.
Available at:
Bob's American Raceway (908) 446-3737
Transit Speedway, Buffalo, NY (716) 684-7368
Also: Trinity cars & parts, Super Critical mods, tuned stock motors, foam tires, caps, etc...!
Watch for new products!
Thanks:
Bob Lake, Charlie Masters.
Venom Racing, 204-4 Crittenden Way, Rochester, NY 14623 (716) 427-8992

AWESOME '95 WHAT'S NEW PRODUCTS



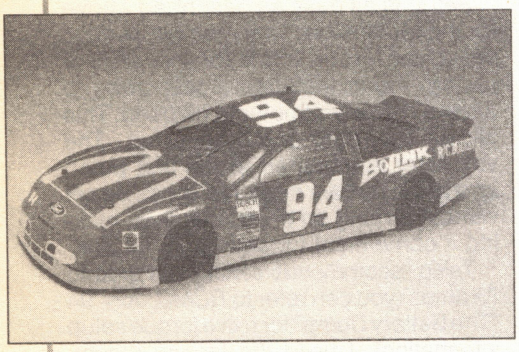
O.S. TYPE 10A CARB

Designed for the O.S. CZ Series engines, the new Type 10A slide-throttle carburetor releases the full potential of these engines, providing instant throttle response, rapid acceleration and high-peak output. An asset to competition racers for achieving high performance, the Type 10A features the same 5mm bore as the Type 2BK carb for smooth throttle response. Available from your O.S. Engines dealer or contact: Great Planes Model Distributors, Box 9021, Champaign, Illinois 61826.



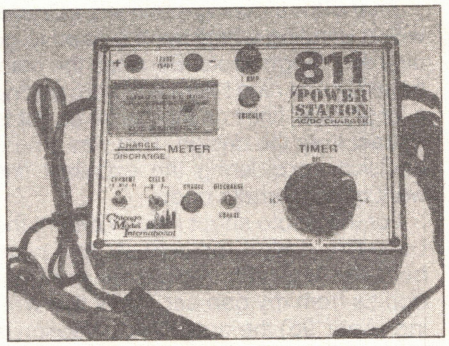
1/12-SCALE FRONT WHEELS

Associated has developed a new front wheel with dish styling. It incorporates their new unflanged ball bearings, which are less expensive. In addition to the cost reduction, you will also have a slightly lighter front wheel assembly due to the bearing and improved wheel design. The front wheel has the same benefit of improved strength and rigidity, providing a better-handling and smoother-running tire. Wheels are available in white, black and fluorescent yellow. From Associated Electrics, 3585 Cadillac Ave., Costa Mesa, California 92626. (714) 850-9345.



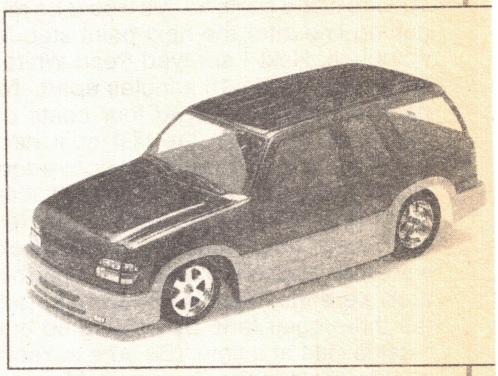
BOLINK'S '95 THUNDERBIRD

The new '95 T-Bird has the least frontal area of all the Bolink superspeedway bodies available, giving it the least amount of drag. It has the latest style front detail, roof flaps and cowl flaps. Also included is a decal sheet with window net, hood pins, brake ducts and more. For a complete catalog, send $3.00 to Bolink RC Cars, 420 Hosea Rd., Lawrenceville, Georgia 30245. (404) 963-0252.



POWER STATION CHARGER

This inexpensive charger can handle six or seven cells, has an amp meter, amp adjust switch, input jacks for external power source, and output terminal posts with connection cables. A 15-minute precision timer and Kyosho and Tamiya connectors are included. Tamper-proof screws are used to secure the charger so that service is only done by qualified personnel. For details, contact Chicago Model International, 611 Rockland RD., Suite 1, Lake Bluff, Illinois 60044. (708) 735-8500.



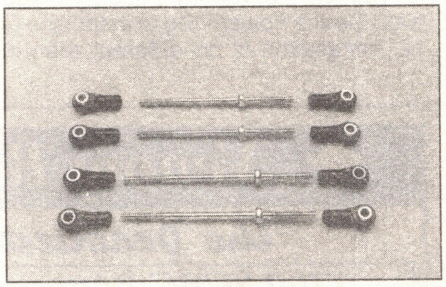
'95 FORD EXPLORER BODY

A clear .040 Lexan body that replicates the '95 Ford Explorer. It will fit the popular Parma Goodtimes Kit. It will also fit most monster truck chassis. Parma International, 13927 Progress Pkwy., North Royalton, Ohio 44133.

SKIN COAT

This product is a unique blend of organic substances that combine with the protein on the surface of the skin to form a revolutionary protective barrier. Skin Coat is effective in protecting your skin from wood products, epoxies, glues, paints, cleaning compounds and other chemicals and irritants encountered in modeling tasks. Skin Coat is non-toxic, non-allergenic and biodegradable. Skin Coat lasts from four to 24 hours and leaves the skin through natural processes. Cleanup after work is easy with ordinary soaps and hand cleaners. For information or to order, call (800) 600-1881, or send $6.95 plus $3.00 to: Skin Coat, Box 533, Verdugo City, California 91046.



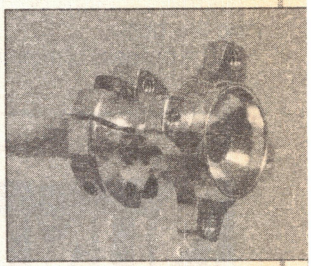


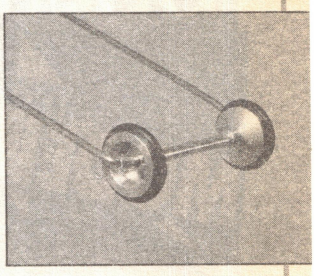
METAL TURNBUCKLES

These turnbuckles replace the non-adjustable camber links on your Traxxas Rustler or Stampede. Adjusting the camber angle can improve performance when racing competitively on oval and offroad tracks, or when the ride height has been altered from stock. Rod ends and ball connectors are required to complete the turnbuckle installation. Traxxas Corp., 12150 Shiloh Rd., Dallas, Texas 75228. (214) 613-3300.

DRAG DYNAMICS PRODUCTS

Drag Dynamics has introduced a line of drag racing parts with lightweight and standard weight aluminum wheelie bars, fiberglass/polyester composite axles and double-clamp 7075 aluminum 1/10-scale wheel hubs. Contact Drag Dynamics, 1720 Twin Lake Dr., Holly Springs NC 27540. (919) 552-3036.





R/C MODEL CARS DECALS ARE HERE!



Now you can show your true allegiance to the Number One R/C car magazine with these brilliant new pressure-sensitive decal sheets. Each large 7 x 10-inch sheet has four sizes of *R/C Model Cars* logos in full color, ready to stick on your car, truck, or toolbox. Get yours now! Only $2.50 a sheet, including postage and handling, direct from *R/C Model Cars* magazine.

Order now: Send $2.50 by check or money order to: Decal Deal, c/o *R/C Model Cars*, 34249 Camino Capistrano, Capistrano Beach, California 92624.



Bob Pyle and Kent Vahlsing test the new track with their Funny Cars.

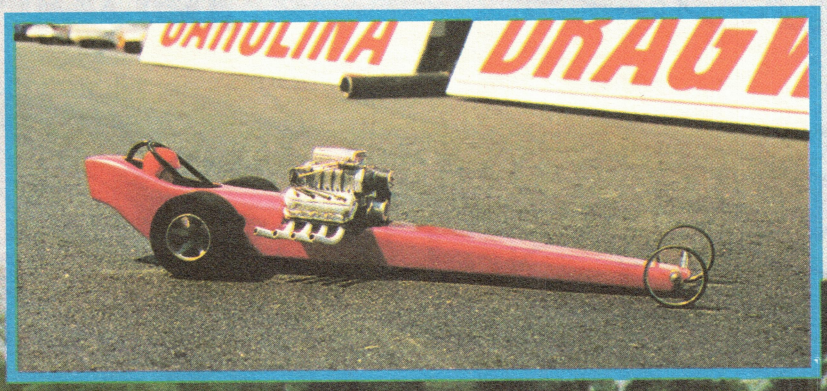


Northstar members Bill Schroeder, Kent Vahlsing and Dan Boyle promote the Northstar Nationals, coming in July.

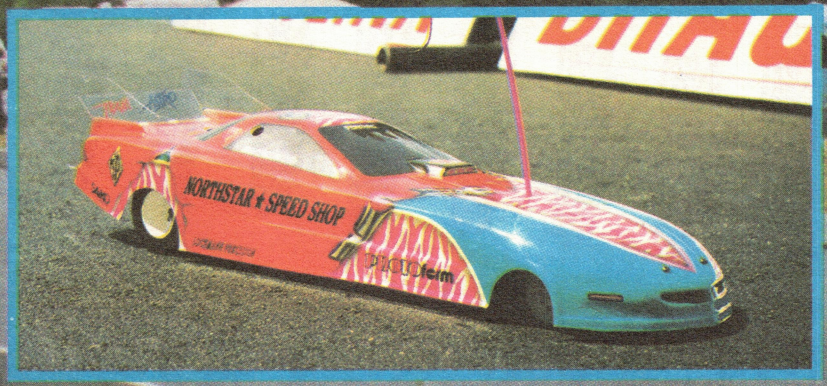


Carolina Hobbies racers: Kim Kulawik, Jeff Eckard, Kevin Stine, Kristin Kulawik and Brandon Kulawik.

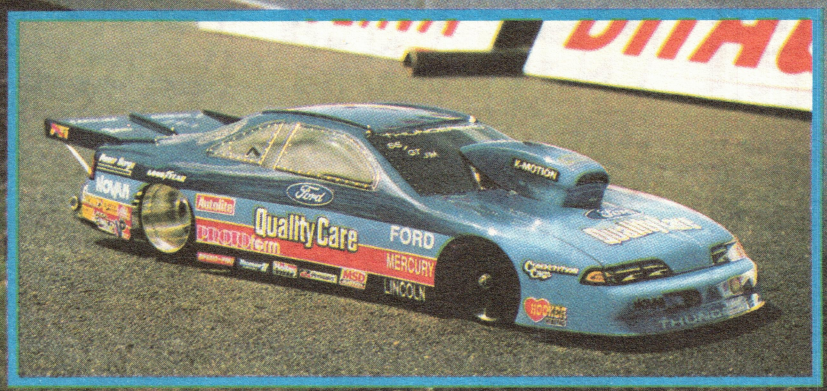
1995 SOUTHERN NATIONALS



Kim Kulawik's outstanding custom Nostalgia Slingshot rail won the dragster concours category.



Kent Vahlsing's fine Funny Car ran as good as it looks, taking concours and Top Fuel Funny honors.

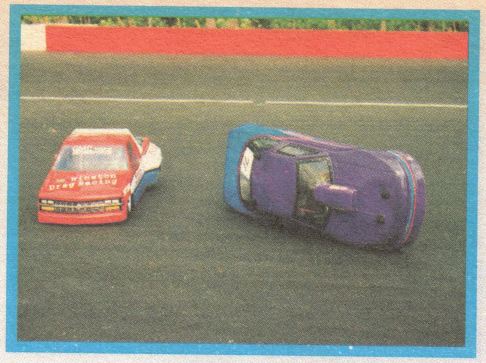


Quality care and craftsmanship went into Kevin Stine's Pro Stock concours winner.

STRAIGHT-LINE F



Alcohol Funny Cars from Mike Blair (McDonald's) vs. Curtis Jenkins (Winn Dixie).



The Safety Safari, shown here assisting Kenny Brown, was kept busy during eliminations.

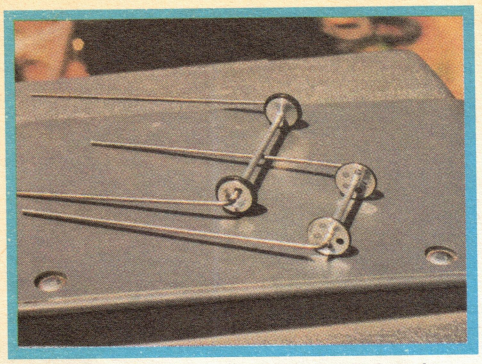


A caravan of gypsy drag racers followed the IEDA trail on their annual spring migration northward. They parked their trailers and made camp at the familiar grounds of Carolina Dragway in Clinton, North Carolina. Some used shelter provided, while others preferred their own brightly colored tents. Many told tales of their experiences in Naples, Florida, two months earlier. There were

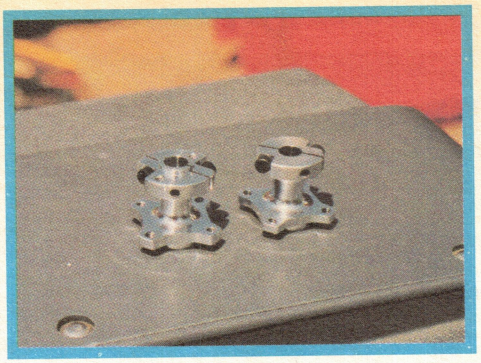
Butchie Smith vs. Beetle Kendall during Pro Stock qualifying.

BY RICH LACHARITE

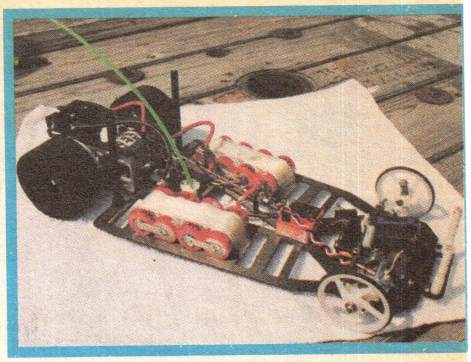
N DOWN SOUTH



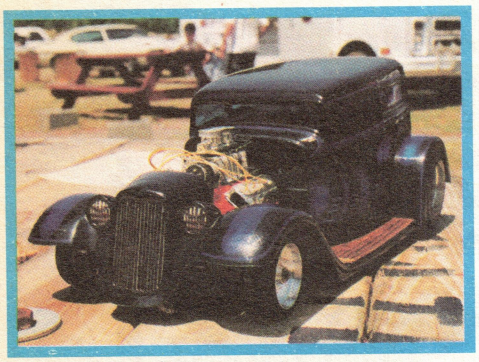
Lightweight and standard weight wheelie bars by Drag Dynamics.



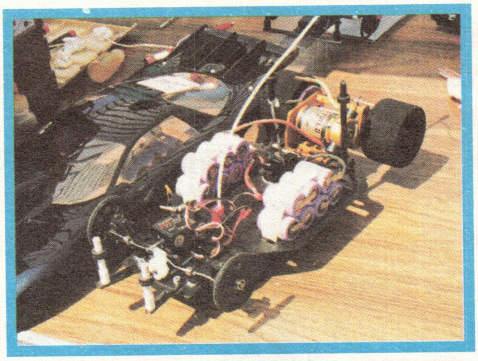
Double-clamp, 1/10-scale bolt pattern 7075 aluminum wheel hubs by Drag Dynamics.



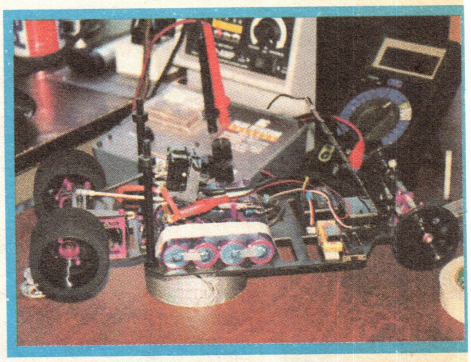
PTI/Hyperdrive Pro Stock graphite chassis T-plate design, pull-bar setup and angled battery slots for weight transfer.



Bracket racer by Beetle Kendall.



Greg Armstrong's Pro Mod, ARC batteries, FDM chassis, Astroflight motor, Futaba electronics.



Bud Bratton's (Arrow Hobbies) Pro Stock with levitated microswitch, lightweight steel axle (Arrow Hobbies), Futaba electronics, FDM 1200 batteries.

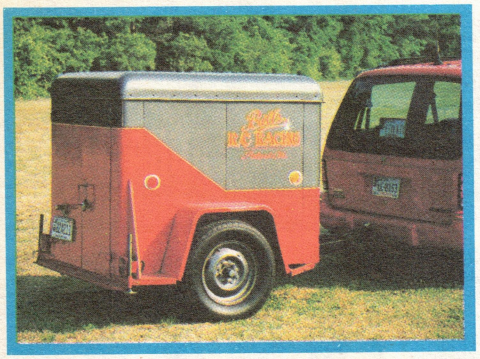
bound to be many new stories to tell of this weekend at the Southern Nationals.

This gathering of racers was surprised to find a new drag strip. Completed two just days earlier, the new track is near the old covered track area, which now serves as a spacious pit and radio impound. Time had not allowed relocation of the lighting, causing some to be disappointed not to have the traditional Saturday night Bracket Bash, but all were pleased with the new, smooth racing surface.

Sponsored by Arrow Hobbies, Drag Dynamics and Northstar Dragway and Speed Shop, this year's race drew a good turnout. Many seasoned racers were on hand, along with some new faces. The annual event drew racers from as far away as Minnesota, Texas, Florida and Pennsylvania. Besides the trophies, many contingency prizes were given away by Boca Bearing, Bolink, Kimbrough, Protoform, Pro-Line and Tekin, which added more hardware to many racer's boxes.

In touring the pits to find out "watts hot," many new items could be seen. PTI/Hyperdrive's Pro Stock car, using a graphite T-plate chassis with pull-bar setup, has angled battery slots for better weight transfer (toward center) during acceleration. Advanced Racing Components introduced its new line of Quartermaster drag motors and received good reports from

continued on page 48



Many of the competitors have set up custom trailers to transport equipment and to serve as garage areas.



Quartermaster motor by Advanced Racing Components.

A TALK WITH THE IEDA'S CORBITT MARSHBURN

BY RICK EYRICH

36-year-old Corbitt Marshburn hails from Clinton, North Carolina where, with his family, he runs a local motel and a nationally known RC racetrack, Carolina Dragway. Having raced and run many RC car drag racing events plus holding the current championships in the super stock and pro stock truck classes, Corbitt has stepped into the president's seat of the IEDA—the NHRA of RC car drag competition. At the recent Seminole Nationals, I was able to sit down with Marshburn and discuss the IEDA, the president's position and RC drag in general. Here's what he had to say.



RE: What got you interested in RC car drag racing?

CM: I've been drag racing for about ten years now mostly in a full-sized NHRA-IHRA stock eliminator class cars. So, when I learned about RC car drag racing in 1991 it of course caught my eye. At that time, I already had the RC car oval and offroad tracks. So since I loved drag racing, I added a RC drag strip. At first before the strip was built, we

continued on page 50

RADIO CONTROL MODEL CARS

TEAM ASSOCIATED

NOVAK ELECTRONICS, INC. RACING TEAM

PARMA

PSE PRO SERIES EQUIPMENT

OCTOBER 6-8

1995 Super Oval

1995 Super Oval

WINTER FEST

TRC

DAHM'S RACING BODIES

STEALTH BATTERIES

BOLINK® R/C CARS INC.

KIMBROUGH Products

BSR Racing TIRES

CROWE Enterprises

Wolfe Motorsports For the PROS

Racing

PRO SHOT MOTOR CLEANER

S.C.A.T. RACING PRODUCTS

Schedule: **Pre-Entries close September 15th. Entries received after the 15th will be charged an additional $10.00 and will not receive shirts.** Oct. 6 gates open at 6am, controlled practice from 9am to 2pm. Oct 7th gates open 7am practice till 8:30, racing at 9am. Oct 8th gates open at 7am practice till 8:30, Speed Runs at 9am. 1 qualifier on 6th, 3 qualifiers on 7th, mains on 8th. Super Speed Run on 8th. **Schedule may change.**
Track Address: Dominguez Hills College, 1000 Victoria Blvd, Carson, CA.
Entry Fees: All classes except the Speed Run are $40.00 if pre-entered. Speed Run Entries are $25.00. To enter the Speed Run you must be entered in another class. Free shirt for all pre-entries. 1 shirt per racer. **All heats and mains will be 20 cars. Bring extra frequencies.**
Hotel Info: Holiday Inn, 310-781-9100. **Rooms are 1st come 1st serve. Make your reservations before September 1st. Ask for the NORRCA Race Rate.**
Tables and chairs will be available to rent for out of state racers only. **No phone or fax entries.** Power will be provided at the event. Bring your own extension cords, power strips, tables and tarp. **Each racer Must have 3 sets of frequencies prior to race day.**

Mail entry form with check to NORRCA 1651 W. FOOTHILL BLVD. #225, UPLAND, CA 91786. 909-944-5381

EXPERTS ARE ALLOWED TO RACE IN THE SPORTSMAN MODIFIED NASTRUCK CLASS FOR 1995 ONLY.

1995 WINTER FEST ENTRY FORM

NAME_____ PHONE # _____
CAR#_____ NORRCA # _____

(For a confirmation, enclose a self addressed stamp envelope.)

(1) SPORTSMAN STOCK____ (2) EXPERT STOCK ____ (3) SPORTSMAN MOD. ____ (4) EXPERT MOD. ____
(5) SPORTSMAN STK NASTRUCK ___ (6) SPORTSMAN MOD. NASTRUCK ____ (7) SUPER SPEEDWAY ____ (8) SPEED RUN ____

FREQUENCIES 1._____ 2._____ 3._____ FREQUENCIES 1._____ 2._____ 3._____

SUBSCRIBE NOW AND SAVE!
MODEL BUILDER
WORLD'S MOST COMPLETE MODEL AIRCRAFT PUBLICATION
❑ New ❑ Renewal
Name_____
Address_____
City_____
State_____ Zip_____
❑ $25 for one year (12 issues) ❑ $47.00 for two years (24 years)
MC/Visa#_____
Exp. Date_____
Signature_____
For subscriptions only, call (800) 243-9593
Canada subscriptions $35 for one year, $66 for two years, inc. GST. Other foreign, $33 for one year, $63 for two years inc. postage. All payments in U.S. funds drawn on U.S. Bank.
GALLANT MODELS
P.O. Box 2459, Capistrano Beach, CA 92624-0459

TEKIN CONTROLLER CONT. FROM PAGE 65

ever throttle commands I gave it and responded smoothly.

The throttle can be adjusted with the QuickTUNE-to deliver a hair trigger, or have no brakes at all. The manual best explains the procedure. The brakes are also adjustable from your transmitter. In my case, I use a Futaba Magnum FM. The throttle ATL knob controls the amount of coast brake that can be dialed in.

For the second pack, I adjusted the torque limiter to deliver 85 amps. That proved to be a little more power than I needed. The wheels spun with force through the corners to the point that I had to adjust the slipper clutch to compensate.

I noticed that since the G-12 had such smooth throttle response, I spent less time compensating for my sloppy throttle finger. I also found that the G-12 was capable of handling nearly any motor/gearing/battery setup I chose. Another great feature is the Throttle Priority Circuitry (TPC); it made the difference out of the hole, and out of the corners. For you truck pullers out there, Tekin claims this speed control is capable delivering over 1000 amps peak if the torque control is turned to the max setting.

CONCLUSIONS

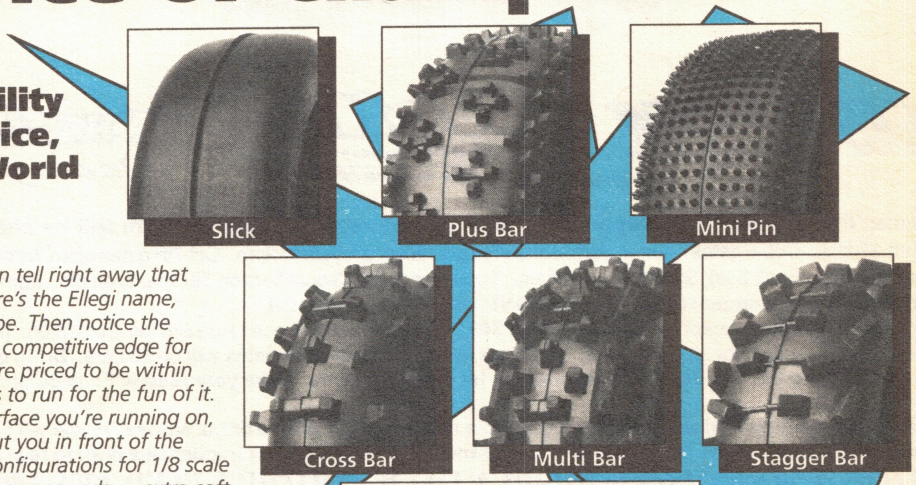
I used this control for a period of three months and found only one item of contention, the speed controller tended to "drift." My throttle setting would have to be reset after maybe eight to ten runs, a minor inconvenience in light of the QuickTUNE's easy set-up. Apart from that, I genuinely like this speed control. I continue to use it as my primary control. Anybody want to buy my old one? Better yet, go see your local dealer and ask for the Tekin TSC G-12.

PRODUCT SOURCE

Tekin Electronics, 940 Calle Negocio, San Clemente, California 92673. •

The Choice of Champions

For superior traction and durability at an affordable price, choose DuraTrax World Class Performance racing tires.



One look at these tires, and you can tell right away that they mean business. For starters, there's the Ellegi name, legendary throughout Italy and Europe. Then notice the extremely high rubber content, a big competitive edge for serious gas off-road racing. Yet they're priced to be within reach of any modeler who just wants to run for the fun of it.

And no matter how rugged the surface you're running on, DuraTrax has a tread design that'll put you in front of the pack. Choose from 6 turf-grabbing configurations for 1/8 scale vehicles, each available in 3 different compounds — extra-soft for maximum traction, a soft, all-purpose compound, and medium for increased durability.

So if you're looking for the winning combination of super gripping power that stands up to the rigors of off-roading, look no further than DuraTrax World Class Performance racing tires. They'll take you where the traction is!

TEAM DURATRAX®

There's no better tire for the money!

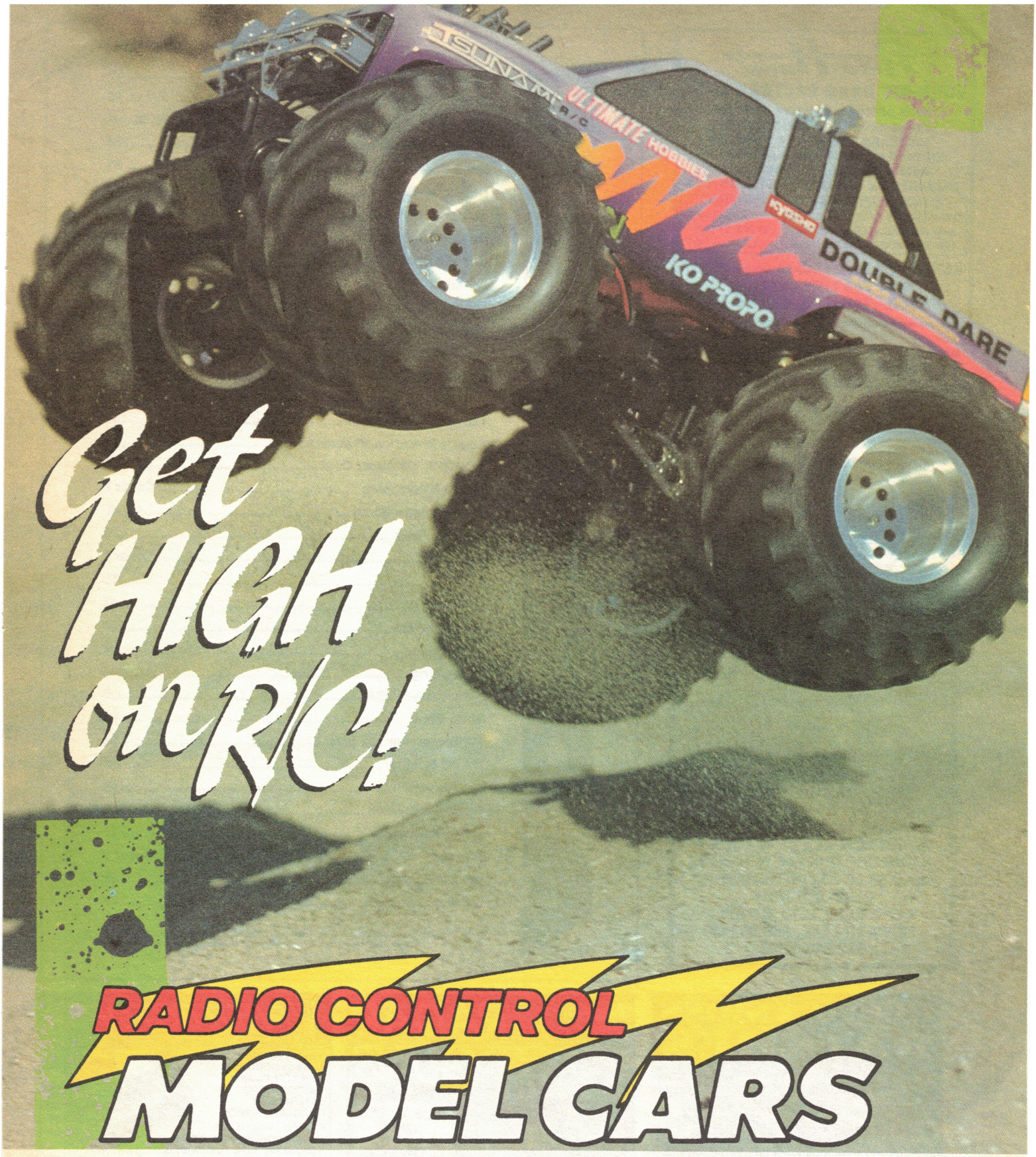
Match up your racing tires with quality foam inserts. *Contour-molded to fit perfectly inside DuraTrax tires, these one piece foam inserts add strength and rigidity, and come in 3 compounds — X-soft, soft and medium — to help you fine tune tire performance to conquer any track condition.*

ELLEGI® Technics
EUROWORLD CHAMPION

For the location of the dealer nearest you, please call 1-800-682-8948, ext. 096H.

Distributed exclusively through Great Planes Model Distributors Company, P.O. Box 9021, Champaign, Il 61826-9021

© Copyright 1995 – 3075074
Ellegi Technics is a registered trademark of GRP Gandini Racing Productions srl



SUBSCRIBE TODAY!

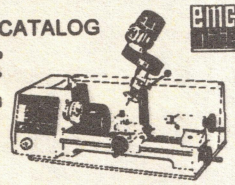
A full year (12 issues) of RC MODEL CARS is only $25, a savings of 33% over newsstand price. Two years, $47.

Card #_____ Card Exp._____
Name_____
Address_____
City_____State___Zip_____
Canadian orders, $35; Mexico & Foreign orders, $33 per year

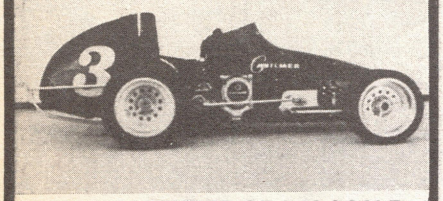
❑New ❑Renew ❑Bill Me ❑Payment Enclosed:
❑Check ❑Money Order or Charge to: ❑Visa ❑Mastercard ❑Discover

Send To:
RC Model Cars, Box 2459, Capistrano Beach, CA 92624
Order toll-free: (800) 243-9593. In California: (714) 496-5411

Arrow Hobbies
YOUR R/C DRAG RACING STORE
FINE DESIGN + CORDITE MOTORS
LIGHTZ PRODUCTS + TRINITY/WEBB
LOCKMANN PRECISION + TWISTER
NIFTECH + DRAGWORKS + ARROW S/W
NEW PRODUCTS, DRAG DYNAMICS
RACEAMERICA + QUARTERMASTER MOTORS
CONGRATULATIONS TO HARRY GAUNCH FOR BREAKING THE T/AD MPH RECORD WITH A 68.87 MPH AND KEN DAILEY ON WINNING PRO TRUCK AT THE 1995 IEDA SOUTHERN NATIONALS IN CLINTON, NC
25% OFF ALL 1/10 SCALE DRAG PARTS
CALL FOR FREE CATALOG
(610)461-1481 - FAX (610)586-3455

EMCO MAIER COMPACT 5 LATHE PACKAGE
FREE CATALOG
Package Includes: Top Slide, Automatic Feed, 6 Turning Tools, Revolving Center, MT1 Arbor, Live Center, 3-Jaw Lathe Chuck, Drill Chuck
CALL FOR PRICING


BLUE RIDGE MACHINERY AND TOOLS, INC.
PO BOX 536-MC • HURRICANE, WV 25526
Your Complete Machine Shop Supplier!
(304) 562-3538


MANUFACTURER OF 1/4 SCALE RADIO CONTROLLED MIDGETS.
SEND $3.00 FOR INFORMATION.
GILMER HOBBY
DEPT. RCM 1213 4th AVE.
HOWARD LAKE, MN 55349
612-543-2395

AD INDEX

Aero-Car Technology	60
Arrow Hobbies	74
Associated Electrics	37, 38, 39, 42
Blue Ridge Machinery	74
Boca Bearing	31
Bolink RC Cars	25
Custom Electric Cars	51
Conley Engines, Inc.	47
Dahm's Racing Bodies	35
Duratrax	72
Gilmer Hobby	74
Hitec/RCD	19
Kimbrough Products	59
Kyosho	7, 23, 36
Litespeed	6
Lockmann Precision	65
Love's Precision Racecars	49
NORRCA '95 Super Oval	73
Novak Electronics	Cover 2
Parma International	41, 45
Quarter Flash	6
PTI	Cover 4
QSAC	15
RPM	47
RaceAmerica	34
Radar Sales	74
SEI Racing	36
Schumacher USA	5
Shop Task	34
TD Enerprises	74
TM RC Racing	61
Tamiya America	40
Tekin Electronics	9
Thorp Racing	11
Traxxas	Cover 3
Venom Racing	65
WCM	29

Note: The Ad Index is published as a service to our readers and is revised as late as possible to include ad changes. Gallant Publications is not responsible for errors or emissions.

REPLICA SWISS WATCHES
LOWEST PRICES! Best Quality & Service
Guaranties! 2 Year Warranty!
Exact Weight! 18KT Goldplated! Waterproof!
Submarine & Daytonas available!
Fast delivery!
Phone (404) 682-0609
Fx (404) 682-1710

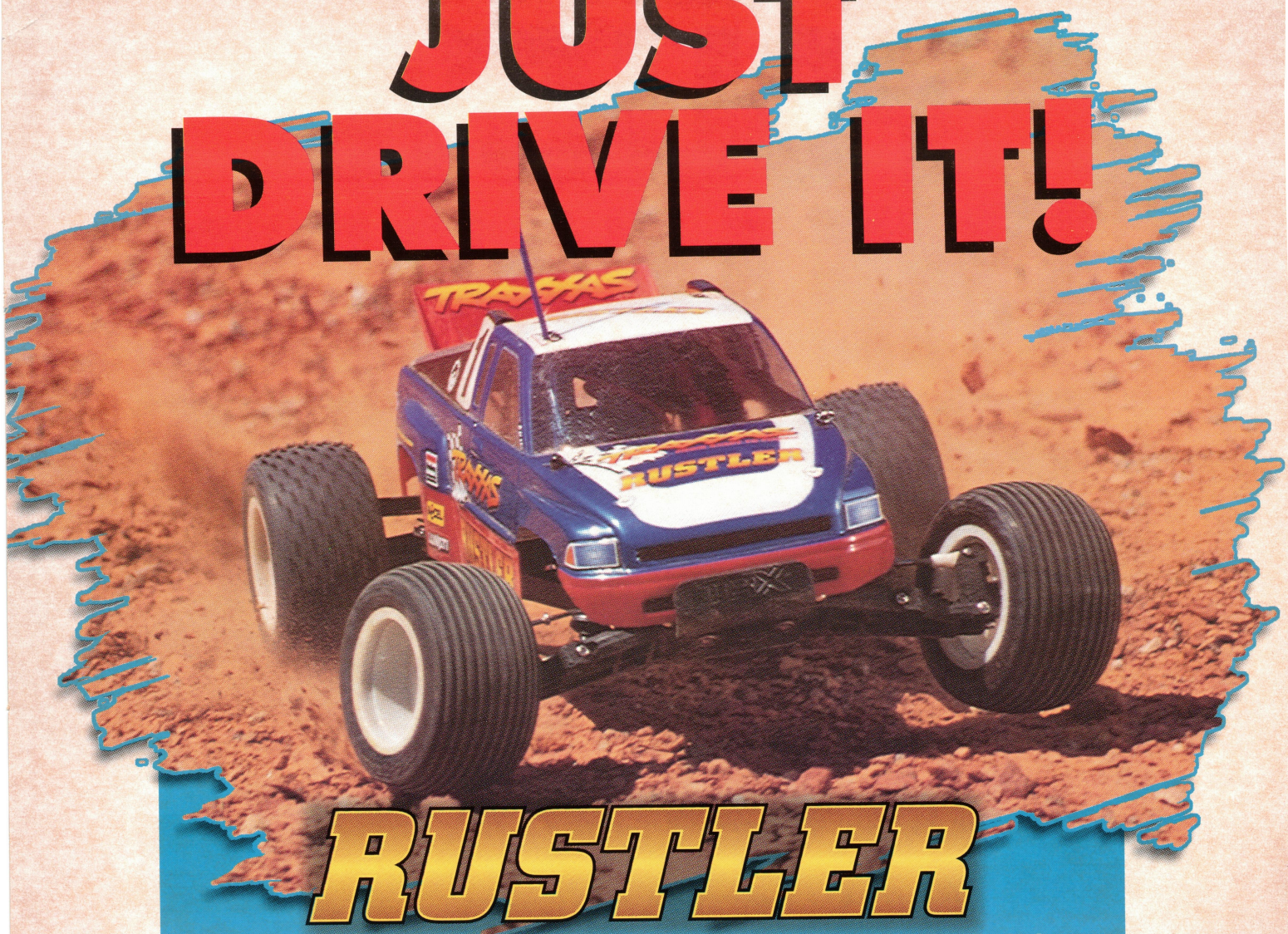
New and Refurbished RADAR GUNS

Call for Our FREE Catalog
Over 20 Different Guns
Great for Lots of Sports
Ideal Tool for the Racer
Rental Program Available
Priced From $395 - $2000
RADAR SALES - 5485 Pineview Ln. - Plymouth - MN - 55442
Phone (612) 557-6654 - Fax (612) 550-0454

THE T.D. PROTECTOR™
THE BEST BUMPER FOR ON-ROAD CARS!
"GET THE T.D. PROTECTOR AND KISS GOODBYE THE BROKEN PARTS AND CRACKED BODIES OF YESTERYEAR"
Leo Hill / R/C Model Car

• Lighter and stronger than conventional bumpers
• Bodies last more than twice as long
• Raises the durability of on-road cars to a new level
• Over-sized for trimming to fit any on-road car
1:12 - $5.95 1:10 or 1:10ss - $6.95 1:8 - $7.95
...ALSO AVAILABLE THE PROTECTOR/PT™
Pre-Trimmed to fit any 1:10 NASCAR body.
Trim only the rear of the bumper to fit any chassis.
1:10 or 1:10ss - $6.95
DEALER / DISTRIBUTOR INQUIRIES INVITED! Free shpng. contnll. USA, no C.O.D.'s
TO ORDER CALL: 800-253-7229
VISA/MSTRCRD ONLY
Or send chk or MO to:
TD Enterprises, Box 3301
Lexington, OH 44904
FREE SHIPPING!
For info call: 419-884-2004

JUST DRIVE IT!

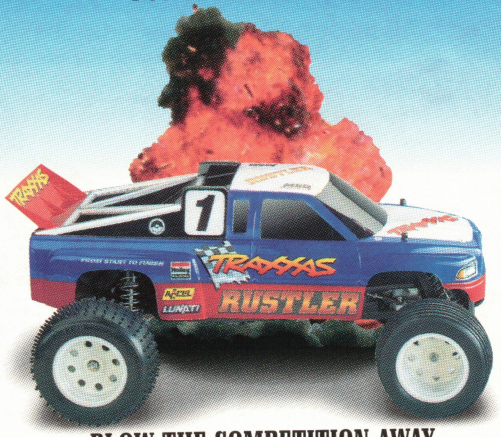


RUSTLER

This is it...the one you have been waiting for. The one with superior performance. The highest quality. The lowest price of any 1:10 scale truck kit in its class. There are loads of hop-up parts, a fully-assembled version that's ready-to-go right out of the box, and the Traxxas Test Drive™ program so you can drive it before you buy it. That's genuine value. That's Rustler!

PUT IT ON THE TRACK.







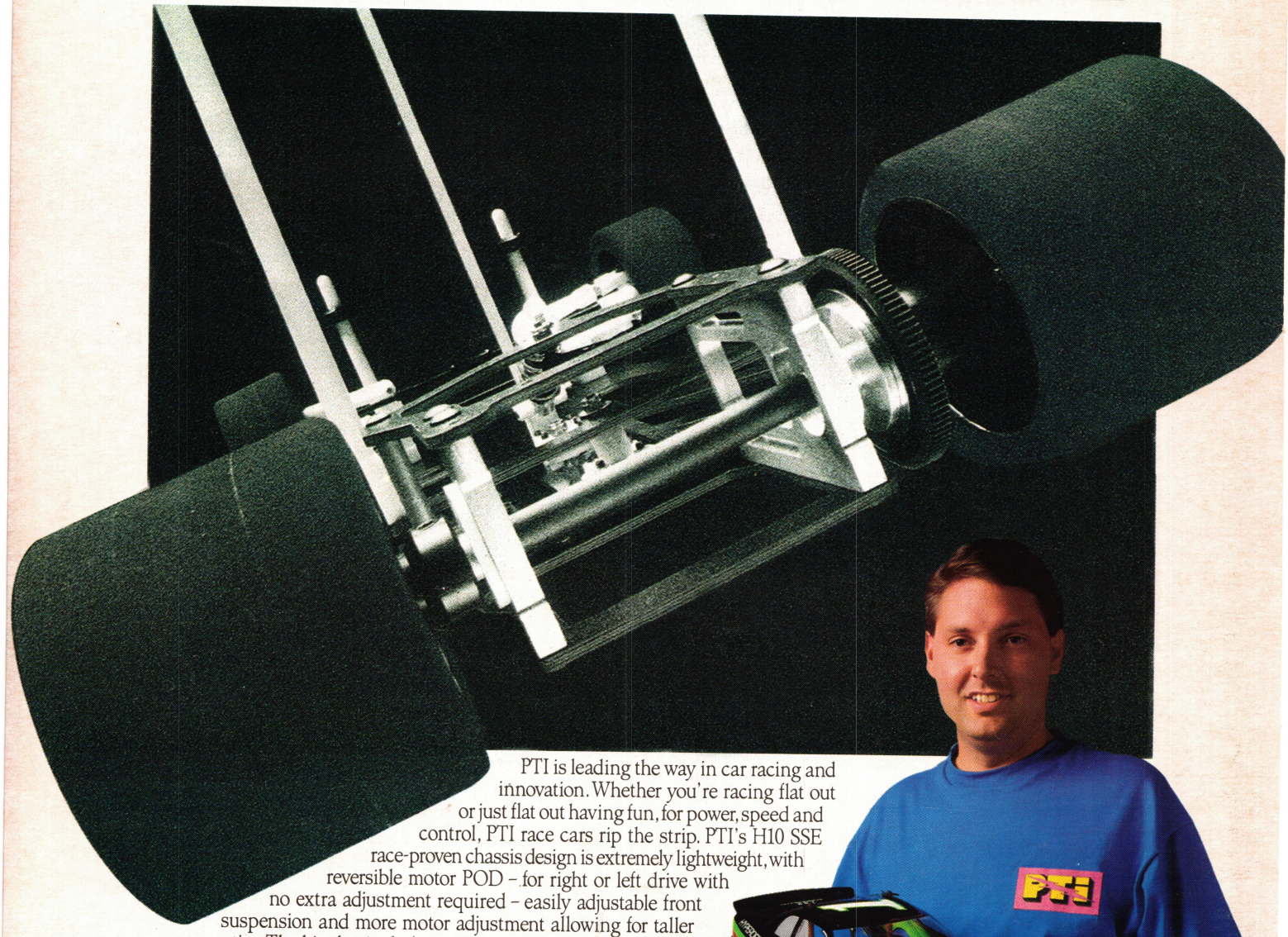
TRAXXAS
FROM START TO FINISH

BLOW THE COMPETITION AWAY.

READY-TO-RUN WITH RADIO SYSTEM. NO ASSEMBLY!

Traxxas Corp. 12150 Shiloh Rd., Dallas, TX 75228 Ph. (214) 613-3300 Fax (214) 613-3599. Traxxas U.K., P.O. Box 1128, Winterbourne, Bristol, BS17-2SH, England. 441-454-250441
Copyright Traxxas Corp. 1995. Write for a complete catalog.

FOLLOW THE LEADER



PTI is leading the way in car racing and innovation. Whether you're racing flat out or just flat out having fun, for power, speed and control, PTI race cars rip the strip. PTI's H10 SSE race-proven chassis design is extremely lightweight, with reversible motor POD – for right or left drive with no extra adjustment required – easily adjustable front suspension and more motor adjustment allowing for taller gear ratios. The kit also includes a 45° bias t-plate. PTI is radical, controlled chaos. It's speed on top of speed. If you won't take our word for it, ask PTI racing champion Ralph Burch, Jr. if you can catch him.

hyperdrive PTI

Hyper Drive, Division of Progressive Technologies, Inc.
PO Box 950, Pilot Mountain, NC 27041-0950
Phone (910) 368-1375, Fax (910) 368-1380