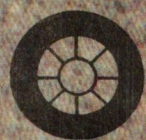


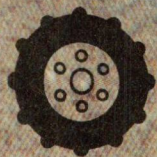
January, 1989

\$2.95

\$ 3.50 Canada



COMPETITION



PLUS

THE R/C CAR MAGAZINE

**CRP
Challenge**

BATTERIES

**VIPER
PRO 10**



World Champions

TEAM ASSOCIATED

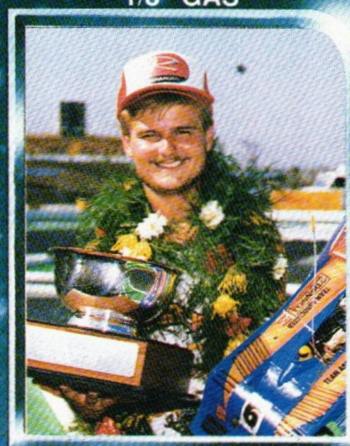
JAY HALSEY
1/10 OFF ROAD



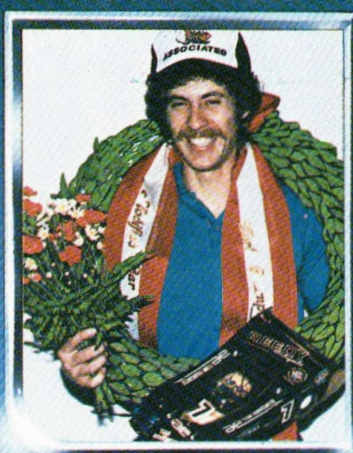
TONY NEISINGER
1/12 ELECTRIC



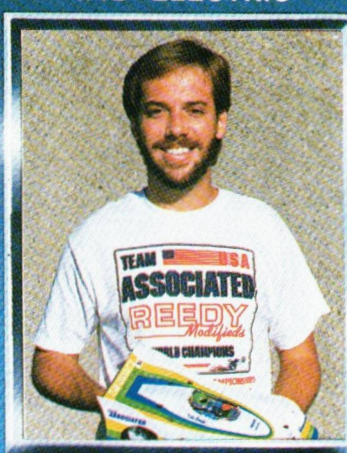
RE-PETE FUSCO
1/8 GAS



TONY NEISINGER
1/12 ELECTRIC



KENT CLAUSEN
1/12 ELECTRIC



BUTCH KROELLS
1/8 GAS



6 WORLD CHAMPIONSHIPS

FORMULA FOR WINNING

Team ASSOCIATED has won 6 WORLD CHAMPIONSHIPS. No other car manufacturer has won more than 2. To win a World Championship, it takes an exceptional driver, an exceptional mechanic, and an exceptional car. If you'd like to drive like a World Champion, drive an Associated race car, just like the World Champions do!!

SEND FOR FREE CATALOG

TEAM ASSOCIATED, 3585 Cadillac Ave., Costa Mesa, CA 92626
(714) 850-9342 - TLX 756887 - FAX 714-850-1744

ae TEAM ASSOCIATED

WHY JR-X2?

The JR-X2 is the product of my many years of R/C car racing experience. It incorporates the many little things that helped me win 4 World Championships and numerous major titles around the world. The highly tested and developed design will help you be successful against the toughest competition.

GIL LOSI JR.



BODY AND WING

Super tough and stylish Lexan® body shell form fits to chassis and covers the rear shocks for added protection from dirt.

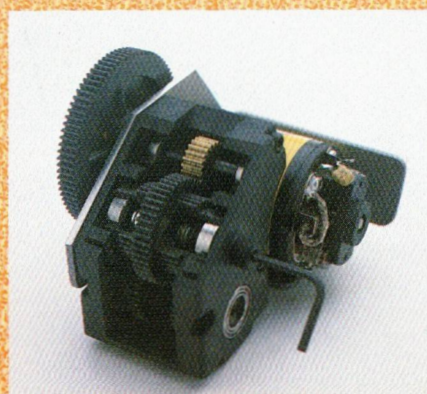


LOSI SHOCK ABSORBERS

Internally pressurized with hardened and microground shafts. Easy to replace pre-assembled cartridge and ultra smooth stainless steel springs.

LOSI 5 LINK SUSPENSION

The new LOSI 5-Link® rear suspension handles all types of track conditions ... features unique universal/slider drive shafts.

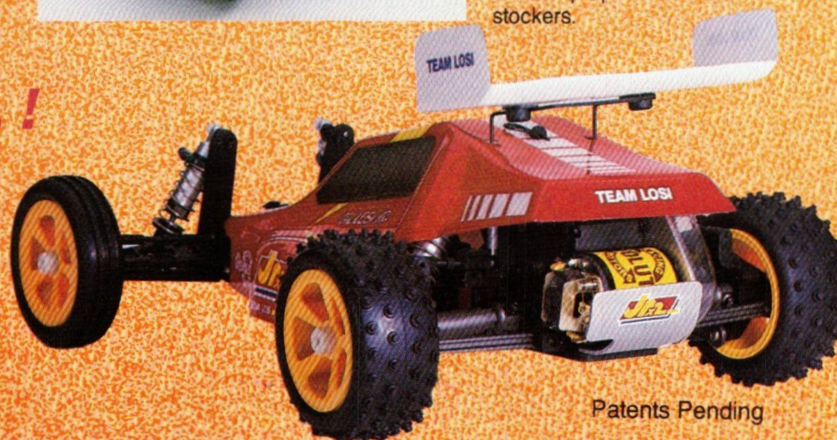


"ALL-NEW" JR-X2 TRANSMISSION

The JR-X2 is a dramatic winning edge. The L.R.M. (low rotating mass) gears are 48 pitch and molded from self lubricating materials specially formulated for low friction and durability. The 2.18 to 1 final drive ratio is lower than most others and allows selecting the correct gear ratios for the new breed of hot modified motors along with the proper ratios for stockers.

THE WINNING EDGE....!

A group of dedicated, performance minded, professionals working to develop quality products at a reasonable price. Team Losi supports their products with continuing testing, racing, and customer assistance. When you choose Team Losi you get years of World Championship experience and expertise. The JR-X2 is the new generation in 2 wheel drive performance. Team Losi has given you a kit that out of the box will give you the edge against other cars.

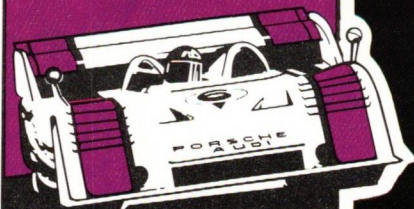


Patents Pending

TEAM LOSI 1655 E. MISSION BLVD., POMONA, CALIFORNIA (714) 620-0164

ESTABLISHED 1964

WORLD CHAMPIONS



parma

The New Look Of Performance

WARNING: There is a Cyclone in your area! Parma introduces the new Cyclone motor to their current line of explosive racing motors. State of the art wet magnet technology produces ground pounding torque and supersonic RPM's in both stock and modified versions. Cyclone modifieds are available in 11 different winds to insure superior performance from your car, boat or aircraft.



Parma's performance lineup of racing motors also includes Yokomo and K stock motors, along with 14 modified versions for your favorite form of competition. All Parma modified motors feature hand wound, diamond trued and computer balanced armatures that are carefully assembled and dyno tested to insure maximum performance right out of the package. Visit your local Parma dealer to get the New Look of Performance.

Send \$2.00 for color catalog.

* Apology-Parma regrets that we cannot supply individual orders on a retail basis. For orders and information contact your local Parma dealer.

13927 Progress Parkway
North Royalton, Ohio 44133



parma
INTERNATIONAL INC.

COMPETITION PLUS

16582-F Gothard Street
Huntington Beach, CA 92647
NEW PHONE: (714) 846-0403

If you would like to carry CP in your store please call (800) 558-1544.
Dealer inquiries only.

PUBLISHER

Peter Barana

MANAGING EDITOR

Peter Barana

MOTORSPORTS EDITOR

Bob Crane

TECHNICAL EDITOR

Eric S. Gudger

INTERNATIONAL EDITOR

Mike Reedy

PRODUCT REVIEW

F. Dale Cauthen

PRODUCT REVIEW

Jeff Palmer

ADVERTISING DIRECTOR

Samantha Ryan



Competition Plus welcomes unsolicited manuscripts and photos, but cannot be held responsible for return. However, publisher reserves the right to condense, add and edit all copy submitted according to available space and editorial style. The act of mailing material shall constitute an expressed warranty by the contributor that the material is original and in no way an infringement upon the rights of others.

Entire contents copyrighted, 1989 by Barana Publishing Company. All rights reserved. Reproduction in all or part without written permission is strictly prohibited.

Competition Plus allows its columnists the fullest expression in discussing controversial subjects, so its readers will be better informed. The views expressed may not necessarily agree with those of the magazine.

SUBSCRIBE TO COMPETITION PLUS:
\$19.95 a year third class - \$29.95 a year first class; Canada \$29.95 First Class only; Foreign Countries \$30.00 surface - \$45.00 First Class. Send Check to COMPETITION PLUS, 16582 Gothard Street, Suite F, Huntington Beach, CA 92647. Send name and address including zip code with accompanying check. All foreign subscriptions are in US dollars.

This Month's Features:

6 Mailbox

7 Estonian Soviet Republic Enters R/C Racing

11 ROAR Florida State 1/10 Dirt Oval Championships

18 Viper PRO-10 1/10 Scale On-Road Racer

27 Product Review: Tekin Speed Controls

29 Power Train: Batteries Part II

35 The 1988 CRP Challenge

43 The 8th Annual Western Off-Road Championships

55 The Bud's 1988 Halloween Classic

63 WAR!!

68 Racing Schedule

74 New Products

ABOUT THE COVER

This month's cover features Shawn Ireland who just came off his 1988 U.S. Indoor Championship victory. Shawn beat a world class 1/12 scale field capturing the top spot with his Associated/Reedy combination. Due to press time deadlines the article by Mike Reedy will follow next month.

MAILBOX

NORRCA APOLOGY

NORRCA would like to apologize for two errors made in reporting our dirt oval nationals. We regretfully neglected to thank one of our very important sponsors. Dan Moyinhan of Dan's RC Stuff was one of the big supporters of our Nationals and we neglected to thank him for his support. Dan is the sponsor of the "Best Sportsman" trophy awarded at all NORRCA events and NORRCA recently awarded to Dan a "NORRCA Best Sportsman" trophy for his understanding of our mistake. We also want to apologize to Ernie Prince whose name was omitted from the results of the 2WD Open "B" Main. The official results were Blasen Blaser in 1st, Pat Griggs in 2nd and Ernie Prince in third. We hope these two individuals accept our apology and we will

try not to let it happen again. At least not to the same people. Sincerely,
J.R. Sitman, President
NORRCA.

1989 ROAR WORLD CHAMPIONSHIP 1/10 OFF-ROAD TEAM

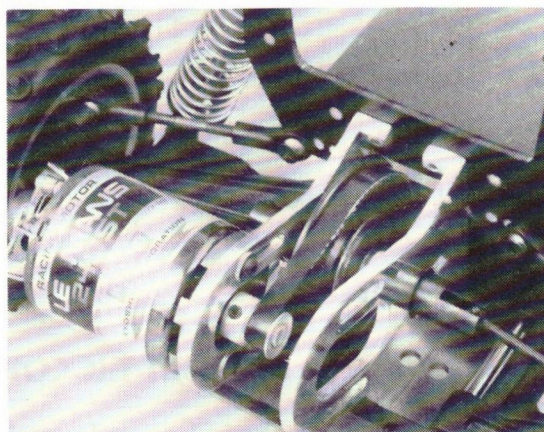
JOEL JOHNSON
ERIK SODERQUIST
KRIS MOORE
JAY HALSEY
CLIFF LETT
MIKE CHRISTENSEN
EUSTACE MOORE
CHRIS ALLEC
MIKE DUNN
JOHN KOONCE
RICK VEHLW
BUTCH KLOEBER
GIL LOSI, JR.
JIM DIETER
JACK JOHNSON
JOE SCHMITZ
KYLE REED

These are the drivers that qualified through the Nationals.



DDS TRANSMISSION

- Most Efficient
- Simplest
- Easiest to Maintain
- Lightest
- Gear or Belt
- 7.2-2.6 Ratio
- Ultima & RC10
- Uses Ultima or Thorp Diff.
- Left or Right Motor Mount



ASK YOUR LOCAL DEALER OR CALL J-CAR

52 Perkins Ave., Norwich, CT 06360, (203) 887-6476

Advertiser's Directory

ADVANCED RACING	20
ALL PRO RACING	50
ANDY'S PRODUCTS	48, 77
ARCAR	21
ASSOCIATED	2
AUTOGRAPHICS	16
BIR	16
CANADIAN RACE	52
COMPETITION PLUS	69
COMPOSITECRAFT	9
COORDINATED DATA	53
EHS	53
EMERALD	44
ERI	39
EXCEL	25
FUTABA	Inside Back Cover
GREAT PLANES DIST.	61, 67
HIGH PERFORMANCE	23
HOBBYMASTERS	28
HobbyShopper's Guide	43, 72
HY-INTEREST	64
HYPERDRIVE	45, 78
JA LEA CO.	34
J-CAR	6
JG MFG.	26
KIMBROUGH	38
MODELER'S HAVEN	25
MRC	Back Cover
PARAGON	73
PARMA	4, 17, 33
PEAK PERFORMANCE	13
PRO-LINE	36, 37
PRO SHOP	47
RC PERF. SPECIALTIES	46
REEDY MODIFIEDS	37
REGION I 1/12 CHAMPS	62
RPS DIST.	3
SEMROCC	49, 66
STAGE III	28, 19
TBS	53
TEAM PIT STOP	32
TECH TOYS	24
TEKIN	58, 59
TRACK MASTER	14
TRACK MATE	42
TRINITY PRODUCTS	40, 41
TRINITY RACE	54
TROL TECH	34
TWISTER MOTORS	22
VICTOR ENGINEERING	12
WAGONHILL HOBBIES	51

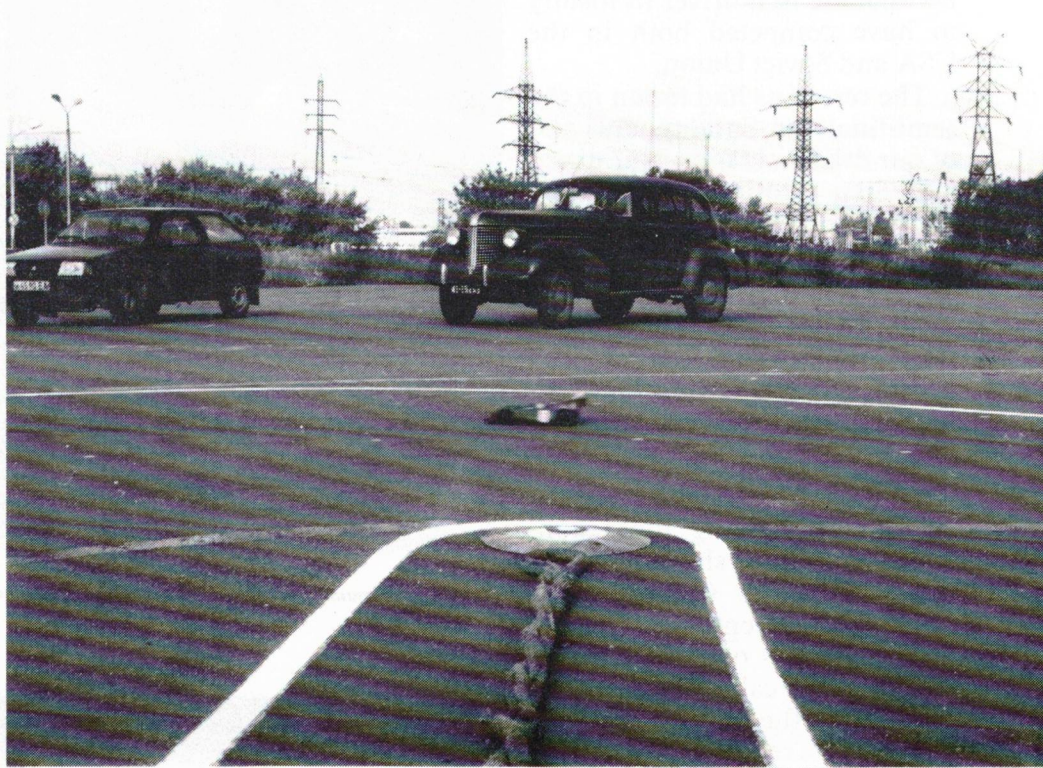
Estonian Soviet Republic Enters R/C Racing

By Ilkka Mannio

September 1988, a small group of Finnish R/C racers entered a Soviet ship "Georg Ots" in Helsinki. We were going to the first ever Finnish-Estonian R/C race in Tallinn, the capital of the Estonian Soviet Republic. After two hours in a boat plus two more hours in customs we arrived at this old former Hansa German town. It is so close to us that the Estonians regularly watch Miami Vice, Dallas and Daily News on Finnish Television. And as a result most young people there speak Finnish and English very well. No language problems but for the customs, most of the officers spoke only Russian. They took a long look at our 1/8 scale R/C cars, but we had a invitation written in Russian that cleared the way. Friendly Estonians were waiting for us in the harbour. Flowers and kisses for neighbors from abroad - so close and yet so far away. They took us to the big Olympia Hotel, built by Finnish contractors for the 1980 Olympic Sailing Regatta. Yes, they paid all our expenses plus ten Roubles a day to spend. Obviously they want the same treatment next year when they visit us in Finland. No wonder since the official exchange rate is 7 Marks per 1 Rouble and in the black market it is 1 to 1!

The Track

On Thursday we were on the track. Very nice layout on a roof of an underground storage area. Theoretically such roofs are flat but this was bumpy. The track was dusty, it had no grip. We regularly use sugar water to cure traction problems in Finland and gave this tip to the organizers. There was no sugar in Tallinn stores. Well, "pereshstroika" is working slowly they said. But



Soviet style track. Inner marking is rope, outside marking is none. Spare parts are not available and hard crashes are avoided. Background shows 50 years of Soviet auto industry: Samara '88 and Pontiac '38 a War World II license built with a Russian engine.

they had licence brewed Pepsi Cola and managed to find an old garden pump as well. Two cases of Pepsi sprayed on the track and the grip was getting slightly better.

The Cars

When we left Finland we thought they must be driving old style plate chassis cars with Russian engines. So we took only a minimum of tires, fuel and spares with us. We were going to blow their doors off - but no. Ilmar Vesiallik, two-time Soviet National Champion and a winner of the Eastern European Championship had an SG Space 4WD with a hopped up OPS. Edwin Penart had an SG Columbia 4WD. Then there were a couple of totally home made 4WD cars. It takes 20 hours to fabricate a single shock not to mention all

4WD parts, but obviously they had time to spend. It was going to be a real race after all.

Qualifications

The usual five minute races were run on Saturday in two classes; Formula and Cam-Am (or should we say Cam-Am-Sov in this case?) We had far more experience in hard race driving, generally better tires and most of all better servos in our cars. Only the Estonian champion had good western equipment all the way. The rest of the Estonians were using home made low traction tires and very slow East German servos. Their Tchechoslovakian radio sets were functioning quite well though. Finnish drivers took the two direct final places in both classes; Timo Hamalainen driving a new Serpent and Antti-Pekka Jakonen

with a PB Phoenix in Formula, Leo Hongisto and Timo Hamalainen in Cam-Am. Leo was driving the same Associated RC 500 he used to win the US Winternats C Main in Florida, 1986. So he became the first driver in history to have competed both in the USA and Soviet Union.

The rest of us had to run in the semi-finals on Sunday. Plus two of our drivers, Hannu Nurminen and Sten Nordman, who were allowed to come later and enter the semis without qualifications. This was an unusual arrangement made necessary due to the poor ship connections. Of course, this also meant that they had no track practice at all.

Cable Cars - What?

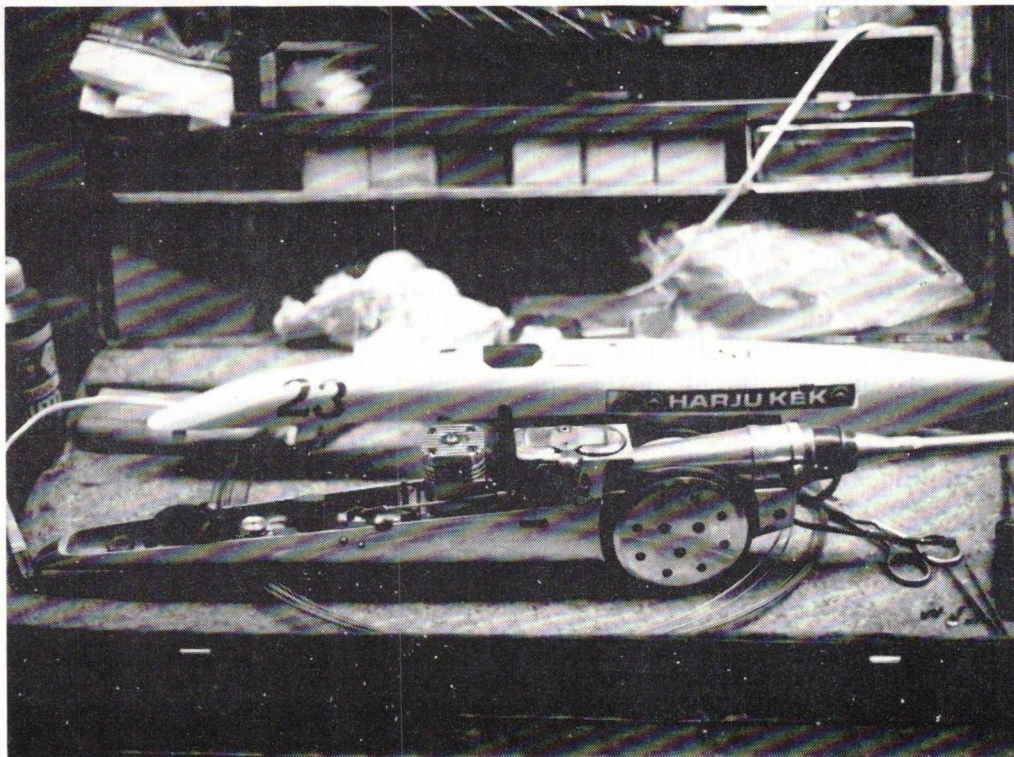
Saturday evening the Estonians gave us a show on their cable car track. Cable cars, a Californian invention of the late forties, are run on a round concrete track. A cable is connecting the car to the center pole. No driver effort required but instead skilled mechanics. Jack Ringmaa is a World Champion in this little known sport and his car hit 170 mph on a trial run. Car as well as the .60 engine was totally scratch built except for the ball bearings. I'm sure old Dick McCoy would have loved to see this.

Semi Finals

On Sunday morning we had two 15 minute semi-finals in both classes. The Finnish Team was doing quite well in the Formulas. All were in for the 30 minute final with three Estonians, a hassle in the lap counting resulted in 9 finalists. In the Can-Am I was the only unfortunate Finn not to get in the final. My engine developed serious problems during the qualifications, it was fixed but the plug was burnt in the start of my semi. No problem, we had seven drivers in the Can-Am final competing against Ilmar Vesinallik, a single Estonian.



Formula Final starting in the LeMans way. Timo Hamalainen was TQ with a Serpent 4WD.



Jaak Ringmaa works on his 170+ MPH cable car.

Finals

Formula was first on the line. A large group of spectators were watching the race along with Estonian Television. Timo Ham-

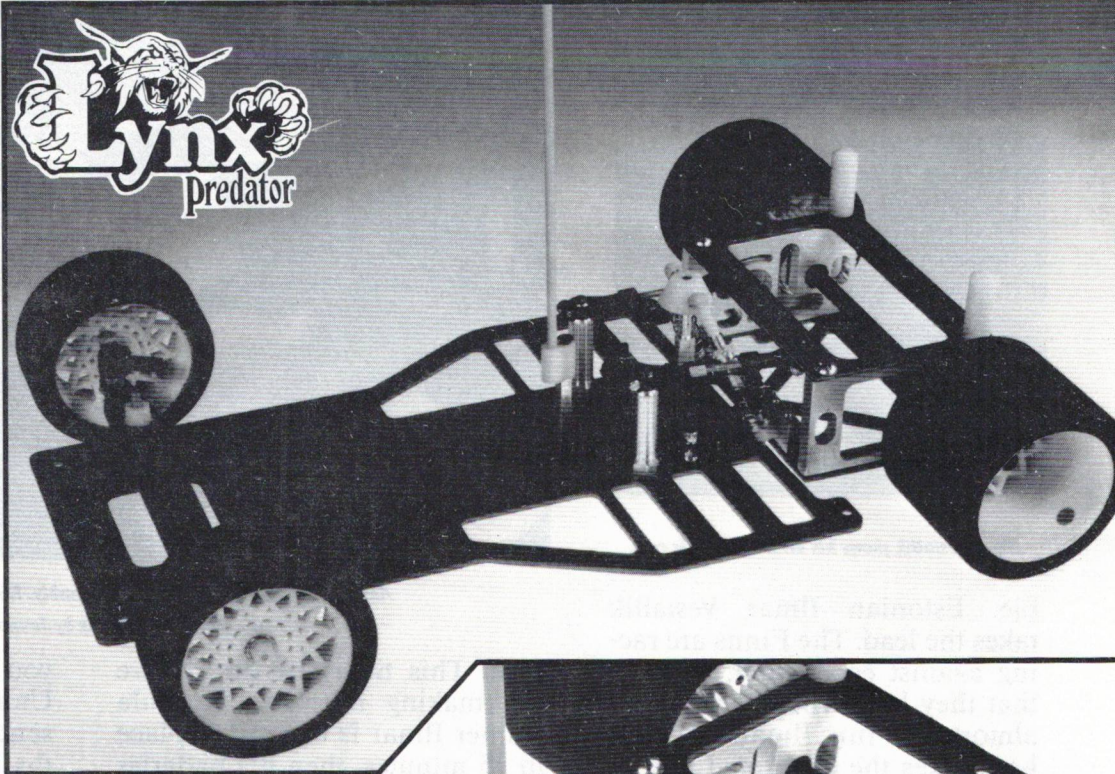
alainen, the TQ in this class takes the lead. After five minutes of racing he hits a bump, car rolls over and a ball joint in the front suspension comes loose. The rest of the Finns are also having trou-

THE BEST OF THE BEST

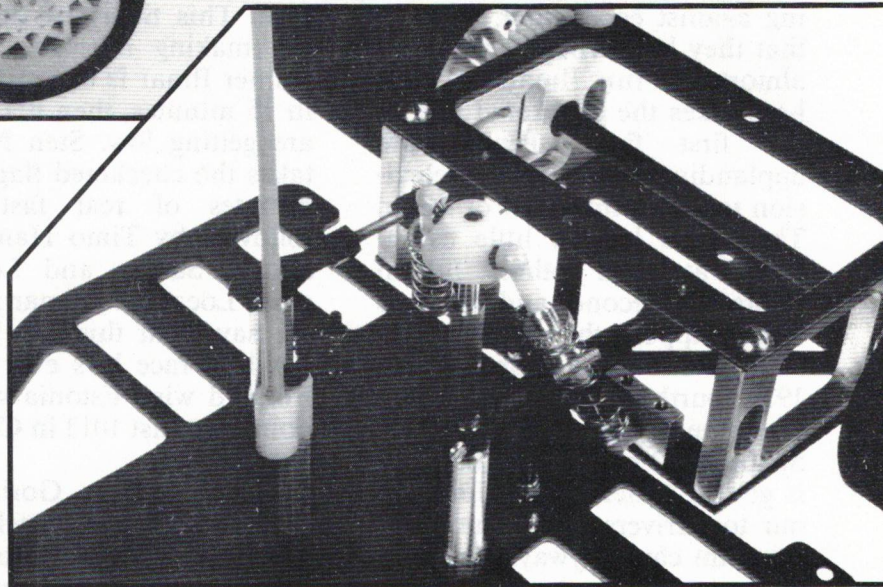
COMPOSITE CRAFT PREDATOR LYNX

THE MOST
ADVANCED 1/10 ON
ROAD CAR
AVAILABLE TODAY!
STILL YEARS AHEAD
OF THE
COMPETITION.

FEATURES
FULL FLOATING 4
LINK REAR
SUSPENSION.
ROLL AND
DAMPNING
CONTROLLED BY OIL
FILLED MICRO
SHOCKS.
GRAPHITE CHASSIS,
GRAPHITE
CROSSBAR FRONT
SUSPENSION.
GRAPHITE UPPER
AND LOWER POD
PLATES. GRAPHITE
REAR AXLE.



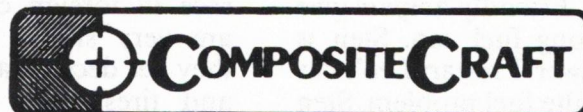
LIGHTENED ALUMINUM REAR POD
SIDES.
FRONT AND REAR BALL BEARINGS
MOUNTED AND TRUED FRONT
AND REAR TIRES.
ALL ALUMINUM SCREWS.



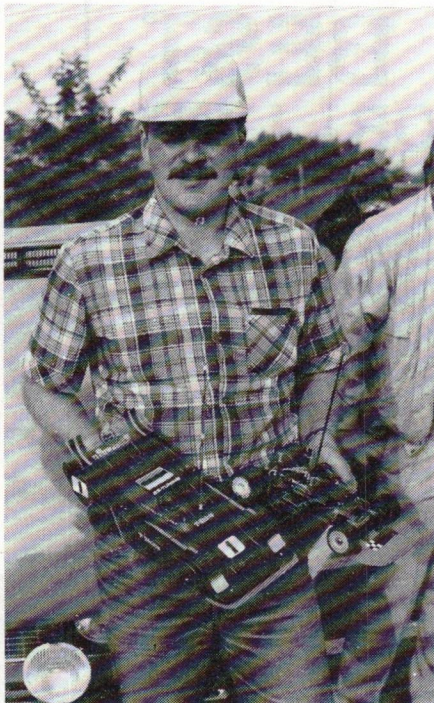
RACE READY OUT OF THE BOX

THE PREDATOR IS DESIGNED
AND BUILT TO RACE. THERE IS
ABSOLUTELY NO NEED FOR
YOU TO ADD ANY AFTERMARKET
"TRICK" PARTS. JUST ASSEMBLE
AND RACE TO WIN.

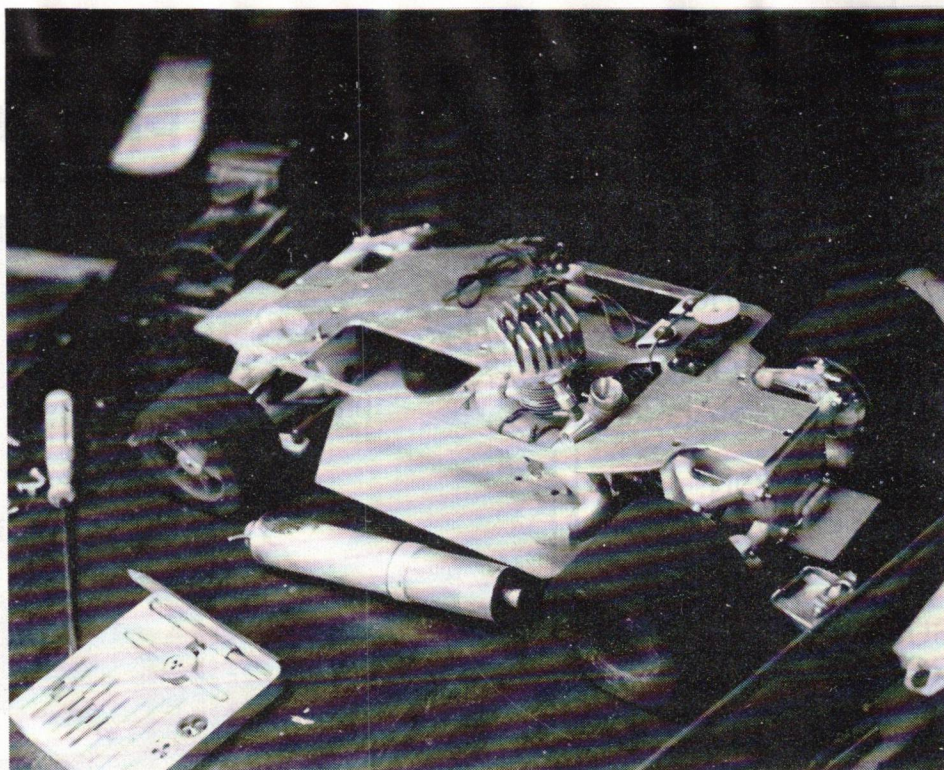
THE SAME CAR USED BY TEAM TRINITYS
BOB "BULLIT" LIGHT TO T.Q. AND WIN THE
1987 1/10 ON ROAD CHAMPS.
1ST AND 2ND PLACE WINNER OF THE
FLORIDA STATE SERIES.



2400 SAND LAKE ORLANDO, FL 32809



Ilmar Vesiallik shows his 4WD 1/12 scale cars.



Another scratch built car in final assembly. It was raced for the first time the following morning by Janno Pohjakas.

ble. Estonian Ilmar Vesiallik takes the lead. The Finns are racing against each other, so busy that they leave Ilmar driving an almost solo run. Ilmar, the local hero takes the checkered flag in the first final. People are applauding and shouting, television takes an interview of Ilmar. The Finns look a little astonished at each other. Juhani Suorsa is second and third is Pekka Sippola, the very first Finnish National Champion in 1973, fourth place goes to Hannu Nurminen. All four drive SG Space 4WD cars. Well, the track is getting better all the time and our top drivers prefer the faster Can-Am cars anyway. No panic in our team. Can-Am final starts. I have to pit for two cars as well as to shoot video tape of the race. Sten Nordman with a Serpent takes the lead followed by Leo Hongisto. Leo's motor burns a plug. Must put the camera away. Change the plug. Sten comes in for a refuel. Friendly helpers give me the wrong fuel can. Sten is notably slower. I restart Leo's car and notice the fuel problem. Sten is still leading. Next time he comes for fuel he gets the right

stuff. This time our drivers are not making mistakes. Formula winner Ilmar is out of top place in 15 minutes, then his batteries are getting low. Sten Nordman takes the checkered flag after 30 minutes of real fast racing, followed by Timo Hamalainen, Juhani Suorsa and Leo Hongisto. Local hero Ilmar is eighth. He says that this has been the toughest race he's ever been in. Finland wins Estonia with 1619 points against 1013 in Combined Team Results.

Thank you Mr. Gorbatschew. In the evening we watch Tallinn Television Motorsports News. They show our R/C racing and Ilmar Vesiallik's interview, Sten Nordman and the Finnish Team victory is mentioned before full scale Monza Formula 1 World Champion Race results. We discuss with the Estonian drivers. They would like very much to race in foreign countries. They are very skilled mechanics. If they get decent radio equipment and tires, then perhaps "The Russians Are Coming" as an old film title said. But remember if

you want drivers from the Soviet Union to your race, be sure to send invitations at least six months in advance. Contact addresses are available at C/P. And don't mix Estonians with Russians, they do not like it. By the way they also race 1/12 scale electrics - with high output silver-zinc batteries in scratch built 4WD cars!

FORMULA CLASS

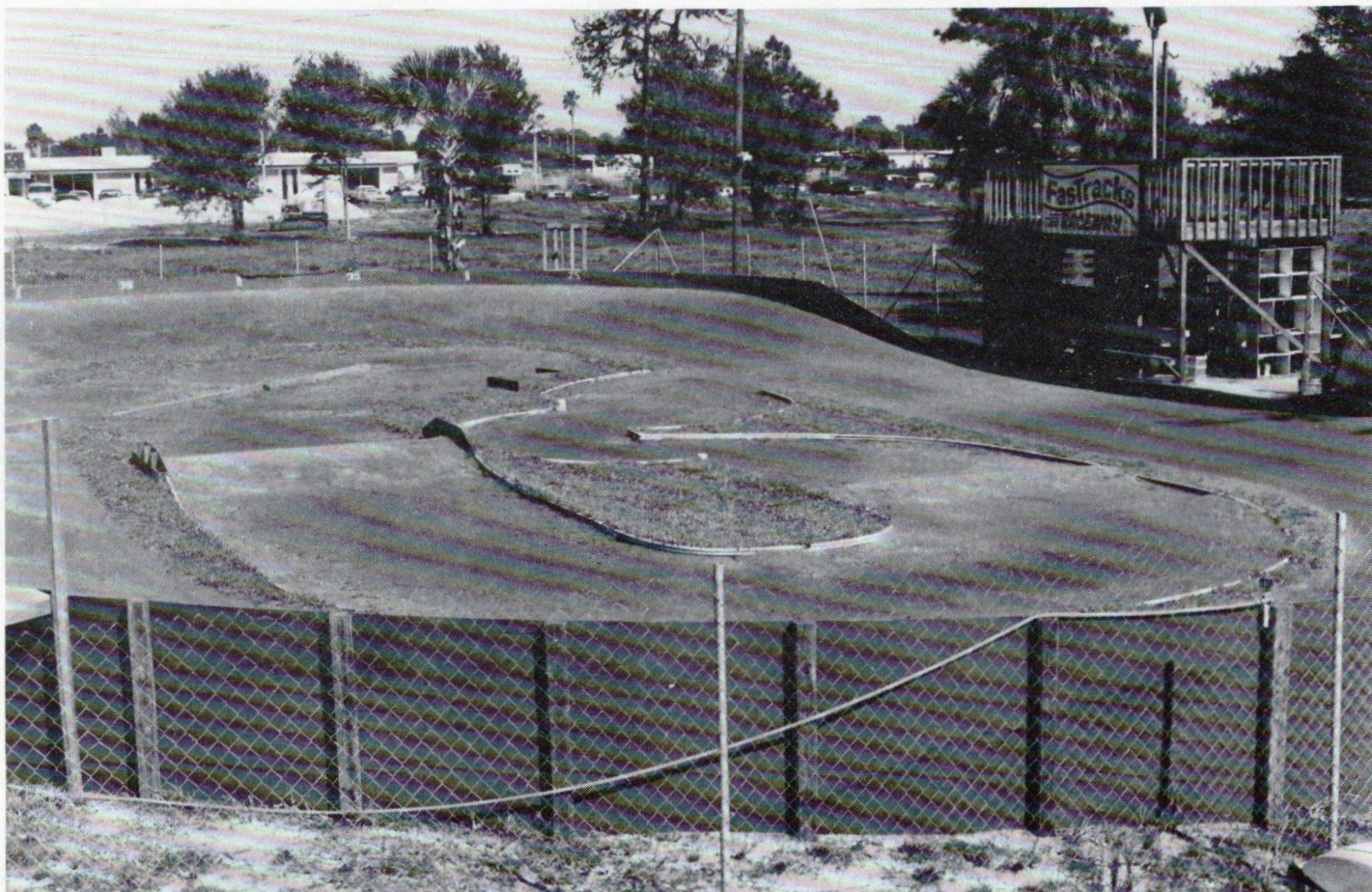
- 1st - Ilmar Vesiallik/Estonia
- 2nd - Juhani Suorsa/Finland
- 3rd - Pekka Sippola/Finland
- 4th - Hannu Nurminen/Finland
- 5th - Timo Hamalainen/Finland
- 6th - Janne Lindstrom/Finland
- 7th - Antti - Pekka Jakonen/Finland
- 8th - Tiit Pohjakas/Estonia
- 9th - Edvin Penart/Estonia
- 10th - Ando Rohtmets/Estonia
- 11th - Janno Pohjakas/Estonia
- 12th - Villu Luidalep/Estonia

CAN AM CLASS

- 1st - Sten Nordman/Finland
- 2nd - Timo Hamalainen/Finland
- 3rd - Juhani Suorsa/Finland
- 4th - Leo Hongisto/Finland
- 5th - Antti-Pekka Jakonen/Finland
- 6th - Pekka Sippola/Finland
- 7th - Janne Lindstrom/Finland
- 8th - Ilmar Vesiallik/Estonia
- 9th - Edvin Penart/Estonia
- 10th - Ilkka Mannio/Finland
- 11th - Hannes Virunura/Estonia
- 12th - Tiit Pohjakas/Estonia
- 13th - Heikki Gross/Estonia
- 14th - Janno Pohjakas/Estonia

ROAR Florida State 1/10 Dirt Oval Championships

By Jim K. Lyle



A view of the FasTracks Raceway.

Crisp and clear, cool October weather came to Largo, Florida, along with 179 entrants in the 1988 1/10 scale Florida Dirt Oval Championships hosted by FasTracks R/C Raceway on October 8th and 9th. Invigorated by the first real taste of Fall, racers geared up (or down as the case may have been) to compete for titles in five classes — Sprint, 2WD Modified, 2WD Stock, 4WD Modified, and 4WD Stock.

FasTracks' regular Friday night race gave the drivers who came from around the state, as well as Georgia, a chance to get the feel for this 1/10 scale, half mile, high-banked oval. Track conditions were good for all events - the weather proving to be

an ally. A new layer of clay with a light mix of sand was churned into the old clay surface during the prior week to provide for a smooth, hard-packed surface that could be easily dampened. This preparation made interim track maintenance minimal and made for an optimum driving surface.

John Swanson's "Red Hot and Rollin" sprint car took first place in the Concours judging held during intermission on Saturday with Jim Shea's "Cheers" late model coming in a close second. Matt Blazo came in third with his "Hans' Racing Team" late model. The competition was tough with 18 outstanding entries trying for these honors.

Qualifying began early Saturday afternoon, the drivers having had a chance after morning registration to get in a practice round. Driving a mid-engine RC10 Sprint car, Doug Laurent of Team Pit Stop and current Florida Off-Road Champion in 2WD Modified emerged first in the standing after one qualifier only to lose TQ to Case Fessler sponsored by Fessler Insurance of Largo, Florida. Case turned 30 laps in 4:06.9 with a Houge RC10, a Trinity oval motor, and Progressive Technology Stage III batteries. The main was hard fought. Doug Laurent jumped back into first early in the race while the real action was in the battle for second between Case

ONLY

HI-IQ

CAN UNLEASH THE DEMON IN YOUR NI-CAD

BY PRECISION CHARGE, DISCHARGE, CYCLING,
GRADING/MATCHING, AND MORE.

• MICRO-COMPUTER STRUCTURE.

EXTREMELY USER FRIENDLY.

NO NEED TO READ MANUAL for most functions

even first time used

• socketed EPROM I.C. for easy do-it-yourself software version exchange

• **EXPANDABLE** - two piggyback modules** - to be announced:

1) AC to DC Converter to allow use of AC house current

2) **MULTI-FUNCTION MODULE** to allow hook-up and auto-switching of up to 8 packs cell equalizing without splitting packs, serial port for printer or host PC interface, tachometer, dynamometer, lap counting and more

• DIGITAL KEY PAD for function

selection and data entry. **NO OTHER SWITCHES OR CONTROLS**

• HEFTY HEAT SINK for VERY HIGH POWER CAPACITY

• **POWER INPUT** (reversed polarity protected) - car or motorcycle battery or suitable power supply

• **DIGITAL VOLTMETER** probes. Also for remote volt sensing during test-discharge for increased accuracy

• **THERMAL PROBE**** can be connected to METER for Thermal Charge*, THERMOMETER* function & COOL-OFF auto cut-off

• **MOTOR CURRENT TEST** up to 30A cont. / 100A peak for fine tuning of gears (props), bearings and commutators

• new **MOTOR / GEAR BREAK-IN** cycling

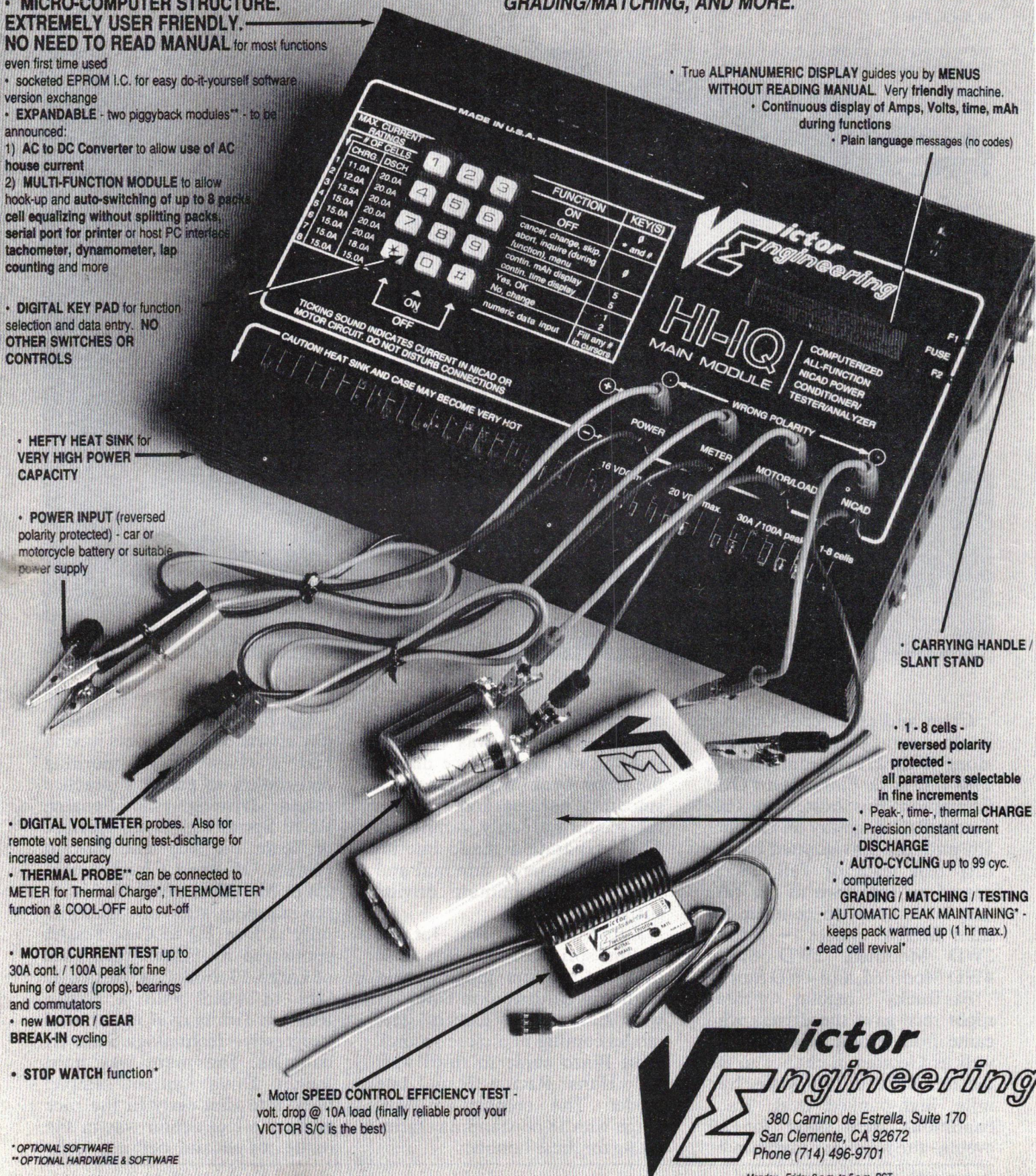
• **STOP WATCH** function*

• **Motor SPEED CONTROL EFFICIENCY TEST** - volt. drop @ 10A load (finally reliable proof your VICTOR S/C is the best)

• True **ALPHANUMERIC DISPLAY** guides you by **MENUS** WITHOUT READING MANUAL. Very friendly machine.

• Continuous display of Amps, Volts, time, mAh during functions

• Plain language messages (no codes)



• **CARRYING HANDLE / SLANT STAND**

• **1 - 8 cells** - reversed polarity protected - all parameters selectable in fine increments

• **Peak-, time-, thermal CHARGE**

• Precision constant current **DISCHARGE**

• **AUTO-CYCLING** up to 99 cyc.

• computerized **GRADING / MATCHING / TESTING**

• **AUTOMATIC PEAK MAINTAINING*** - keeps pack warmed up (1 hr max.)

• dead cell revival*

Victor Engineering

380 Camino de Estrella, Suite 170
San Clemente, CA 92672
Phone (714) 496-9701

* OPTIONAL SOFTWARE

** OPTIONAL HARDWARE & SOFTWARE

Monday - Friday 9 a.m. to 5 p.m. PST
- Phone or write for more information.

Fessler and John Grubb. Doug finished in the lead turning 30 laps in 4:07.00 (0.1 over the TQ) followed by John in second and Case in third.

2WD Modified proved to be a fast and furious race. Nathan Wincek, sponsored by Tightwad Hobbies of Holiday, Florida, captured the TQ trophy having turned 31 laps in 4:03.3 with a Twister motor in his RC10 with Houge chassis. Nathan held the lead in the main to win and was followed by Doug Laurent of Team Pit Stop in second, and 15 year old Mike Boylan, a local champion also sponsored by Tightwad Hobbies, in third. Mike drove an Ultima with a Hurricane motor.

Keith Abbott sponsored by Team Pit Stop brought home the TQ in 2WD Stock with 28 laps in 4:06.9; but like Case in the Sprint class, slipped back in the main and landed in third position.



TQ Champions: (L. to R.) Art Wilson, 4WD Stock; Case Fessler, Sprint; Nathan Wincek, 2WD Modified; Keith Abbott, 2WD Stock; Paul Wynn, 4WD Modified.

Mark Ford, Jr., of Davies, Florida, and fourth in the standings, triumphed with the first place trophy. Jim McCallum of

Boca Raton, Florida, followed in second.

Art Wilson of Miami won the TQ trophy in 4WD Stock with 29

1986, 1987 and 1988 R.O.A.R. NATIONAL CHAMPIONS

PEAK PERFORMANCE

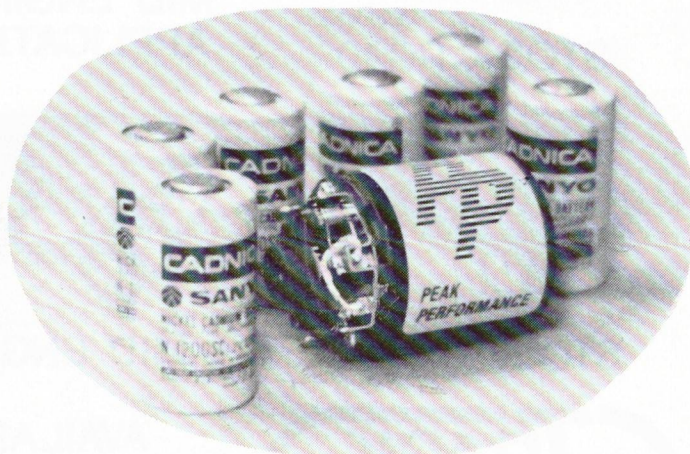
Featuring:

Motors, batteries and accessories for all your racing needs. Our progressive custom winds and prototype battery matching system are proven winners.

CONGRATULATIONS!
JOHN (The Hammer) SMITH
1988 ROAR Dirt Oval Sprint Car
National Champion!



1362 E. Edinger, Suite B
Santa Ana, CA 92705
(714) 667-6865



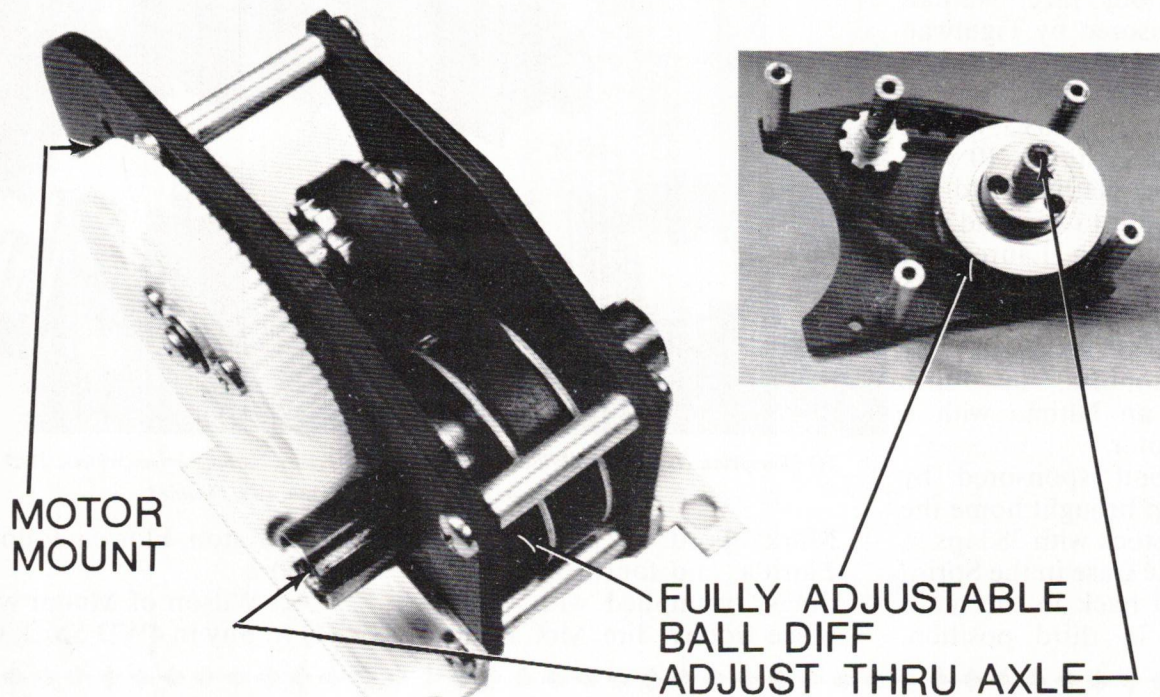
Just say "Yes"
Get "High" on Peak Performance

ASK YOUR LOCAL DEALER FOR PEAK PERFORMANCE PRODUCTS

BELT DRIVE

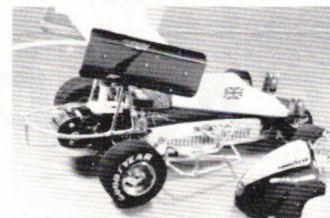
TURBO GLIDE

TRANSMISSION

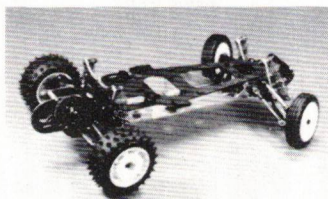


STOCK RC 10

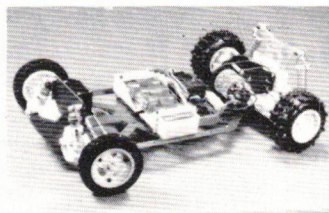
REVERSABLE
SIDE PLATES
FOR REAR OR
MID ENGINE
APPLICATIONS



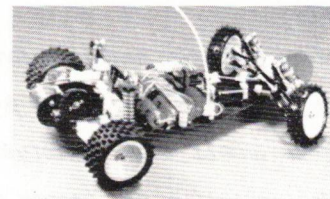
SPRINT CAR



STOCK ULTIMA



MID ENGINE



OFF ROAD



AVAILABLE AT YOUR LOCAL
HOBBY STORE

TRACK MASTER MFG, 10450 FRIARS RD., STE P,
SAN DIEGO CA., 92120 (619) 562-6331

laps in 4:07.1 but slipped into second place in the main with 28 laps in 4:03.4. Dean Vince of Hans' Hobby Shop, Tampa, running a Reedy motor placed first in the main, followed by Art in second, and Dave Mottin of Orlando, Florida, in third.

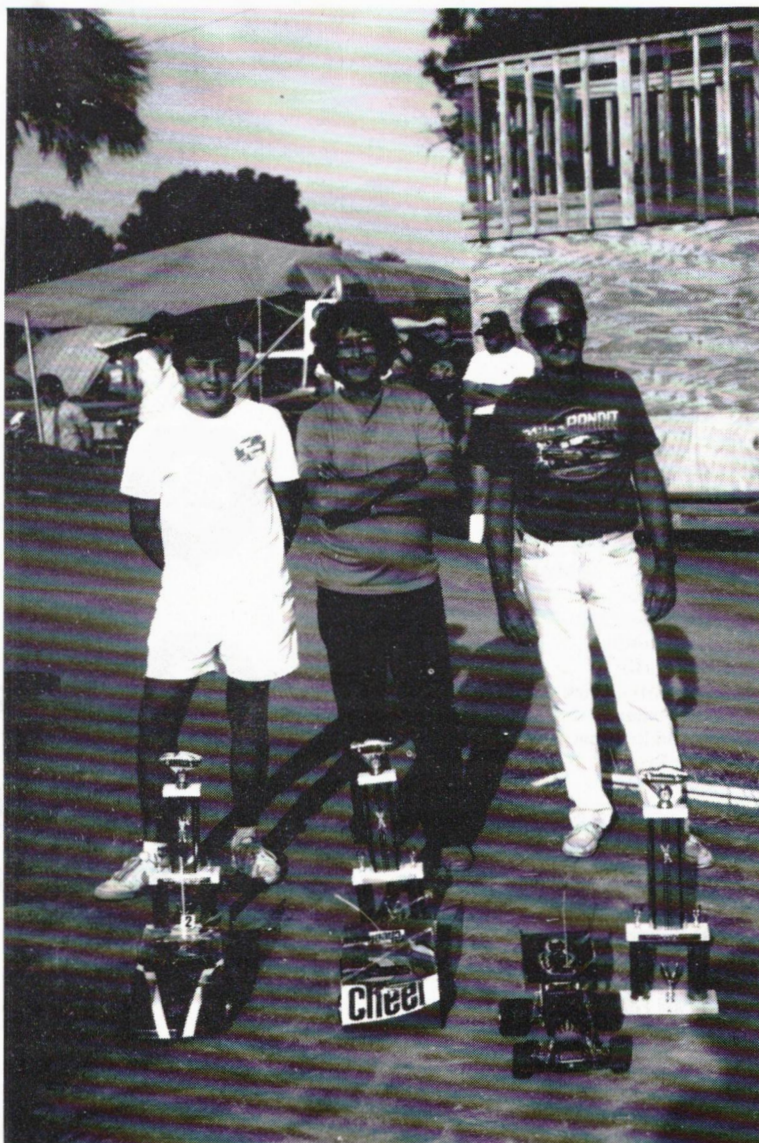
4WD Modified can only be described as "awesome." The speed of these cars was phenomenal. Paul Wynn of Team Pit Stop TQ'd with 4:00.0 but placed second in the main behind Stephen Miniea also of Team Pit Stop. Stephen set the track record with 32 laps completed in 4:04.9. Jim Fuller brought in third place with 31 laps in 4:06.1.

FasTracks Hobbies and Raceway, sponsors of the FasTracks R/C Raceway, would like to thank the many R/C manufacturers and distributors who donated a multitude of high quality door prizes for this race. It heightened the already high level of enthusiasm evident over this two days of racing. Among those who donated prizes were Boca Bearing Co., Liberty Hobby Distributors, Litespeed Performance Products, REH Distributing, Southern Art Supply, Speed/Sport, Team Pit Stop, TRC, Inc., Trinity Products, Inc., Varta Batteries Inc., Zep Manufacturing Co., Horizon Hobby Distributors, Inc., ERI Associates, Inc., Advanced Race Case, BoLink R/C Cars, Inc., Associated Electrics, Team CRP, Auto-graphics, and Twister Motors.

FasTracks would also like to thank all those who worked tirelessly to make for a smooth running weekend of racing. Except for a bad connector/loose connection that plagued the AMB computerized lap counter during the 4WD C Main on two separate occasions, and in a few other qualifiers, lap counting went smoothly. Many thanks are deserved for FasTracks who kept the hobby shop open all weekend to all hours supplying the competitors with a place to make repairs, to get badly needed parts, or to just handout and run a few rounds on the "slot car" track to kill time between heats. But most of all, thanks to the the workers—Miles Nelson and his daughter, Sandie, Matt Mikelonis, Dick and Tana Gillette, Greg Chubboy, Carolyn Bush, Case Fessler, Scott Snyder, Jim and Ginger Lyle, and the many others who put in many hours. We couldn't have done it without you!

SPRINT A MAIN

- 1st - Doug Laurent
- 2nd - John Grubb
- 3rd - Case Fessler/TQ
- 4th - Ken Canniff
- 5th - Arthur Rice
- 6th - Dave Mottin



Concours Winners: (L. to R.) Matt Blazo, 3rd; Jim Shea, 2nd; John Swanson, 1st.

- 7th - Bob Hall
- 8th - Keith Abbott
- 9th - Verne Humphrey
- 10th - David Willems

B MAIN

- 1st - John Wong
- 2nd - John Swanson
- 3rd - Fred Scadron

C MAIN

- 1st - Travis White
- 2nd - Stephen Miniea
- 3rd - Roger Dale Brogan

D MAIN

- 1st - Orville Coates
- 2nd - Dave Vince, Jr.
- 3rd - Craig Engle

2WD MODIFIED A MAIN

- 1st - Nathan Wincek/TQ
- 2nd - Doug Laurent
- 3rd - Mike Boylan
- 4th - Cliff Guest
- 5th - David Willems
- 6th - Scott Snyder
- 7th - John Wong
- 8th - Gary Crumb

- 9th - Jim Shea
- 10th - Darrin Stump

B MAIN

- 1st - Paul Wynn
- 2nd - Troy Robinson
- 3rd - Steve Maurici

C MAIN

- 1st - Bill Wallace
- 2nd - Denise Canniff
- 3rd - Stephen Feinland

D MAIN

- 1st - Randy Colvin
- 2nd - Buck Rogers
- 3rd - Kevin Mandeville

E MAIN

- 1st - Mark Ford, Jr.
- 2nd - Shawn Dickinson
- 3rd - Paul Schaub

2WD STOCK

A MAIN

- 1st - Mark Ford, Jr.
- 2nd - Jim McCallum
- 3rd - Keith Abbott/TQ
- 4th - Michael Myers
- 5th - Stephen Miniea

6th - Denvil McCallum
 7th - Bob Talbert
 8th - Art Wilson
 9th - Pat LeMeau
 10th - Jimmy Nelson

B MAIN

1st - Justin McNeal
 2nd - Robert Cooper
 3rd - Carl Zaniboni

C MAIN

1st - Bill Tillman
 2nd - Ed Fontaine
 3rd - Jeff Gauthier

D MAIN

1st - Steve Platt
 2nd - Bruce Cohen
 3rd - Samuel Sutton

E MAIN

1st - Chip Reed
 2nd - Drew Waters
 3rd - Cary Auld

**4WD STOCK
 A MAIN**

1st - Dean Vince
 2nd - Art Wilson/TQ
 3rd - Dave Mottin
 4th - Donald Hill
 5th - Denvil McCallum
 6th - Paul Fontaine
 7th - Donald Brimmer
 8th - Brian Brogan
 9th - Tony Wahlay

**4WD MODIFIED
 A MAIN**

1st - Stephen Miniea
 2nd - Paul Wynn/TQ
 3rd - Jim Fuller
 4th - Art Wilson
 5th - Bob Serra
 6th - Fred Scadron
 7th - Donald Hill
 8th - Bob Hall
 9th - Tony Wahlay
 10th - William Tommolino

B MAIN

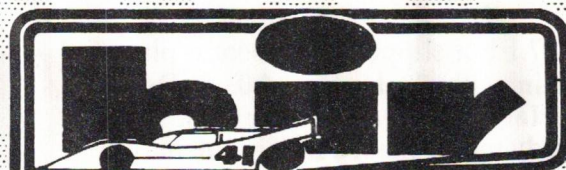
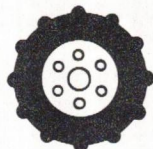
1st - John Robinson
 2nd - Jose Vera
 3rd - Cliff Guest

C MAIN

1st - Dong Laurent
 2nd - Dave Mottin
 3rd - Carl Zaniboni

D MAIN

1st - Jim Terry
 2nd - Justin McNeal
 3rd - Mark Richardson



TONY P & BOB EMOTT

HOBBY SHOP

**"THE R/C RACERS
 PARTS CONNECTION"
 ONLY R/C CARS
 ALL THE 'TEAM' PARTS
 AT DISCOUNT PRICES**

!!THIS MONTHS SPECIALS!!



"PACKAGE DEAL" YOKOMO 4wd kit w/
 DELTA slipper, KYOSHO shocks, CRP
 coil overs, bearings, & TRINITY
 'graphite' chassis GREAT PRICE!!

ae ASSOCIATED

"NEW RC-10" Strong & fast! BEST
 2wd in racing! NOW IN STOCK!!

DELTA

"NAT'S CHAMP SUPER PHASER" BEST
 12/14 car! PLUS YOKOMO 4wd parts.



ALL the cars AND PARTS IN STOCK!! HOLIDAY
 SUBSIDY rear tires! S/S front tires! AND all
 the 'go fast' parts!! CHECK OUR PRICES

TRINITY

UNDISPUTED #1 for MOTORS & MATCHED
 SANYO BATTERIES! The NEW off-road
 TRINITY/KYOSHO motors and freshest
 code SANYOS ALWAYS IN STOCK! WE'RE #1 with TRINITY!

& THE 'BEST' PARTS FROM THE 'BEST' COMPANIES!!

Futaba

AIRTRONICS



NOVAK

AutoGraphics



Total Racing
 Connection



**"WE'RE MAIL ORDER
 SPECIALISTS"**

**SAME DAY UPS SHIPMENT
 CALL FOR ORDER
 OR FREE CATALOGS**

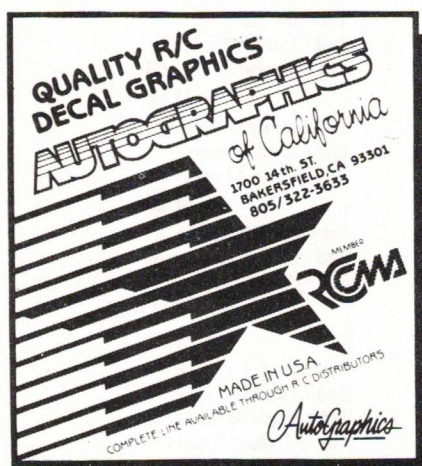


**INDOOR 1/12 & 1/10
 RACE TRACKS!!!**



**HOME OF TRINITY R&D!
 550 NORTH AVENUE
 UNION, NJ, 07083
 (201) 352 6955**

SHOP OPEN 4-11 MON-FRI, 11-11 SAT, 2-9 SUN
 FROM OUR HOBBY SHOP TO YOU! ONLY THE "BEST IN RACING"!



Hot Off The Line - Parma Parts!



#1855 \$165.00

Parma's announces the release of the Pro Panther 12 in a graphite version! The Pro Panther 12 features a rockerball/flexplate rear suspension and a wide front end for superior handling. Also included are ready to race tires and complete ball bearings. Begin your winning season with the Pro Panther 12.



#10647 \$3.00

#10648 #10649

#10650 #10651 #10652

\$3.50

Parma adds six new decals to their extensive selection! These colorful, high quality mylar decals add the finishing touches to any car. When it comes time to detail your latest concourse winner, insist on Parma decals.



#12038 #12039 \$12.00/pr.

#12042 \$18.00/pr.

New tires from Parma! Pictured at left are new pin-spiked monster truck tires. Designed for superior traction, they fit Blackfoot/Monster beetle-type rims. Pictured at right are new Yokomo replacement tires. Available in soft and hard compounds, they fit 2"-2 1/8" rims.



#20013 \$ 79.50

#20014 \$129.50

#20015 \$189.50

Parma is proud to announce the introduction of their newest fast electric boat kit, the Follansbee Hydro. This 1/10 scale replica features revolutionary lexan construction for strength and ease of painting. Available in basic, deluxe and supreme kit versions. Create your own waves with Parma boat kit.



#1350 \$5.50

#1351 \$6.00

#1352 \$6.50

#1353 \$6.50

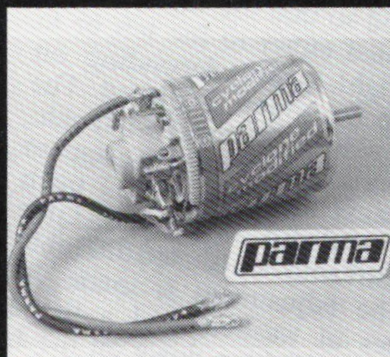
Parma releases new, large 9"x12" decal sheets. Usable for 1/4, 1/8 & 1/10 scale, these are perfect to use where a regular 6"x8" decal just isn't large enough. Initial releases include Hardee's, Folgers, Oval (not shown) and NASCAR. These and other fine Parma decals are now available at your local hobby dealer.



#17025 \$16.00

Parma's latest 1/10 on road wheels can now be purchased with mounted and trued "green" race rubber. These lightweight wheels and tires fit all 1/10 on-road cars, and are now available!

Get the "New Look Of Performance" at your local Parma dealer. Parma's new Cyclone modified motors are now approved for R.O.A.R. competition. Parma's Cyclone is available in twelve different winds for all forms of competition. Start your winning season with Cyclone motors from Parma.



Parma Performance Parts

Will Keep You

Hot Off The Line



parma
INTERNATIONAL INC.

• Send \$2.00 for color catalog.

Apology - Parma regrets that we cannot supply individual orders on a retail basis. For orders & information contact your local Parma dealer.

Viper PRO 10 - 1/10 Scale On-Road Racer

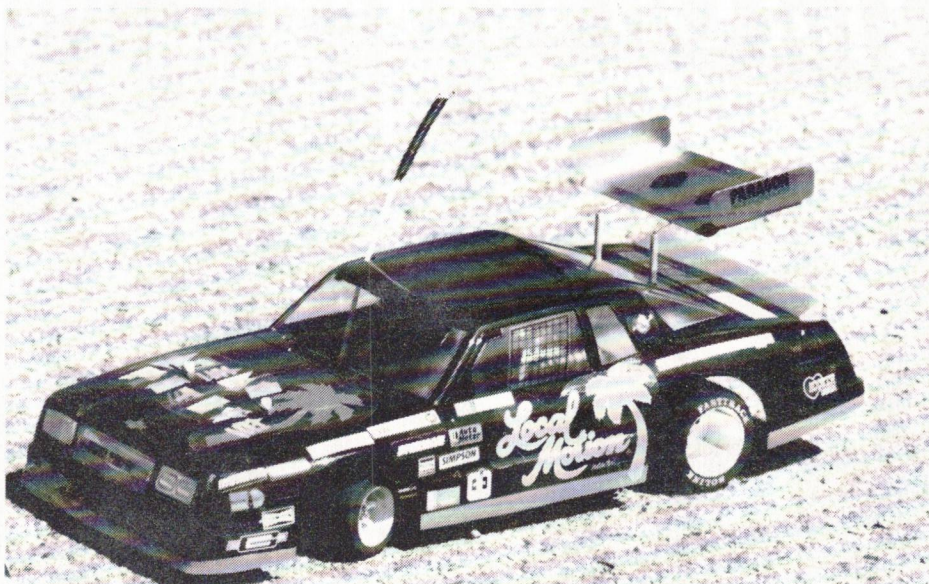
By Bob Crane

Silent and deadly comes the "Viper Pro 10." You drive your line on the track and the car responds to your every command. The power is fantastic with your "Reedy" modified oval motor. The lap times are mesmerizing. The "Viper" attacks and comes out victorious every time.

The "Viper Pro 10" is the creation of Inter-Fab Custom Machining of Cherry Hill, New Jersey. The car comes completely built with a lightweight fiberglass chassis, front tee bar and steering blocks, 1/12 scale axles, rear pod with an extremely smooth differential. The car has been designed to be an easy to adjust race car. You will need the following items to complete the "Viper Pro 10."

1. A motor of your choice.
2. 4 - 1/8 x 5/16 (1/12 scale front wheel bearings)
3. Bolink E-Z mount body post kit - 3 inch for the front of the car, 5 inch for the rear of the car, (for NASCAR type bodies).
4. Double back servo tape.
5. Parma heavy duty rod ends.
6. Tecnacraft titanium turnbuckles
7. Parma roll over antenna mount.
8. Bolink front and rear tires.
9. Lexan body (Parma NASCAR Monte Carlo, fastback).
10. Nylon tape for mounting battery pack.
11. Choice of rear wing. Use Bud's Racing double wing.
12. Associated rear wing tubes and screws.

The radio gear is your preference as is your electronic speed control. The Viper itself has some very interesting features. The differential is the smoothest that we have seen on an on-road car. No effort has been spared in assembling this unit. The motor may be mounted



The "Local Motion" Viper Pro 10 with Hot Trick Titanium Wing.

either on the left or right side of the pod, depending on weight distribution for your track conditions. The rear pod is attached to the car via a tee-plate. The tee-plate is fiberglass and sits atop a chassis spacer. The tee-plate comes in either a hard or soft version depending on how you want to set up your car and the track configuration. The softer tee-plate will add more left to right responsiveness to the car.

Attached to the rear pod is a shock absorber with the other end of the shock attached to a shock mount that is affixed to the tee-plate. There are two holes in the pod so that the shock can be mounted either to the left or to the right, again depending on where the motor is placed. The right side of the axle or left side, depending on motor placement contains the 54 tooth, 32 pitch gear and diff adjustment. Lube the diff with Associated diff lube.

The adjustment is made via series of washers and a thrust bearing. Tighten down on the 1/4-28 loc-nut and the diff stiffens up. The rear hubs are machined and the quality is fantastic. Now

on to the front end. The front axle is machined aluminum and uses stock RC12 steering blocks and axle studs. The king pin post is adjustable by tightening down on the 5-40 loc-nut, thereby increasing the pressure on the suspension spring. You may purchase a set of soft springs for the car from Inter-Fab.

I used Parma heavy duty rod ends and Tecnacraft titanium turnbuckles for the front steering. Be sure to use a steering servo saver on the front. Mount the servo with double sided servo tape. I usually rub the fiberglass chassis with alcohol to insure that not oil film is present on the surface. If a film is present this would cause the servo to come free during operation of the car.

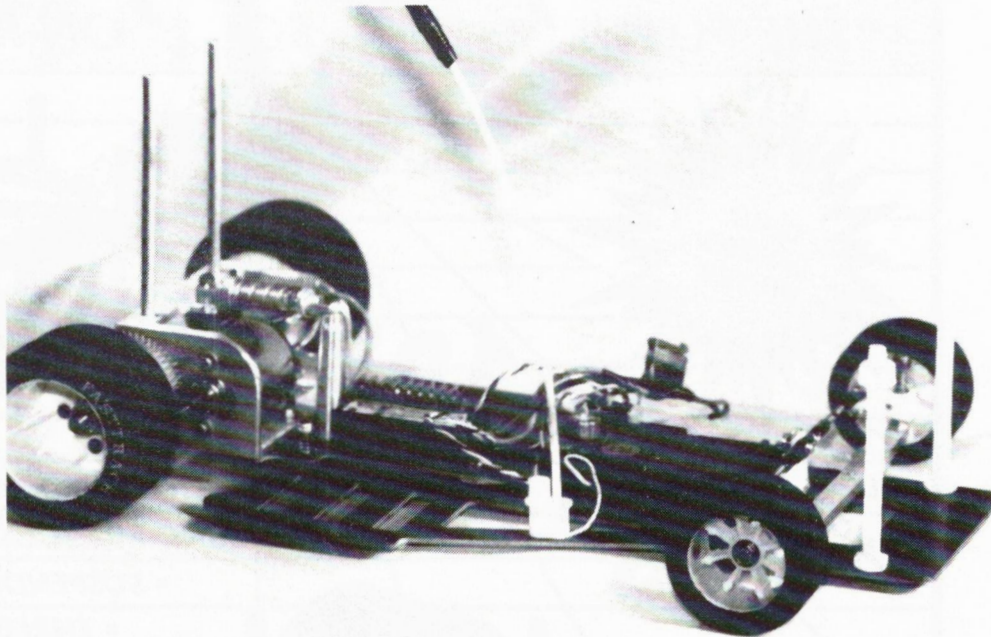
The turnbuckles allow you to fine tune the front end of the car as far as toe-in or toe-out adjustments. Mount the Bolink tires to the rear hubs and front axle stubs. Blue tire compounds are recommended for carpet, while orange front and blue rear are recommended as a starting point for asphalt surfaces. Use liquid traction on the rear tires

only to start and add or subtract the amount of tire traction in the rear by 1/3 tire width.

I clean the tire with lighter fluid before I apply any type of tire traction or between heats. Apply lighter fluid to the tire and wipe off with a clean rag. Allow to dry for a couple of minutes and apply the tire traction. Follow the instructions on the can as to how to use the specific tire traction.

The Viper will turn on a dime and give change. So try to use a lower amount of steering travel, as this car is very sensitive to steering input. It will turn inside most cars. I also dial in some dual rate on my Futaba transmitter, after I have run a few laps on the specific course. The Viper will work well with a slight amount of trailing throttle oversteer, ie. it likes to coast, slide and drift going into a corner. Full power, neutral steering coming out of the corner is its forte.

As I previously mentioned you



The chassis and rear pod - extremely smooth differential.

can adjust the rear spring on the shock and also the front springs. Spring rates to suit your driving preference can be adjusted by clipping 1/2 to 1 coil off at a time

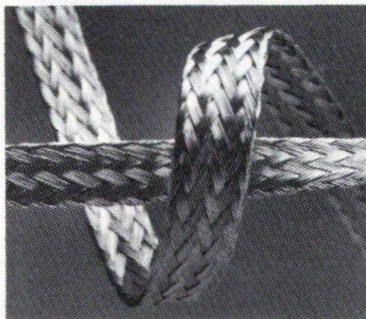
until the desired feel is achieved. The front springs may also be changed from soft to hard and then adjusted.

Lowering the ride height of the

STAGE III

"PRODUCTS FOR POWER"

ULTRA BRAID



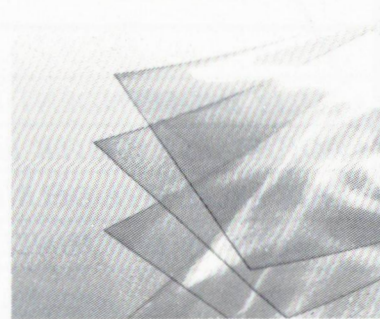
Ultra Braid is now a full 12 gage of fine electronic grade tinned copper braid. Capable of easily handling constant 55+ amp loads, Ultra Braid transfers power between cells with no measurable voltage drop or resistance. Ultra Braid actually has 35% less resistance than 14 gage wire. When nothing but the best will do, connect your cells with **STAGE III's** Ultra braid. Push it to the limits!

SUPER 13



Our new **Super 13** is absolutely the finest, most flexible silicone coated 13 gage (not 16 or 14) wire available for R/C racing. Super 13 has more than 800 strands (not 200-300) of certified "oxygen free" pure copper wire capable of handling constant 50+ amp loads. The strands have been tinned to resist corrosion and allow for easy soldering. With 20% less resistance and voltage drop than 14 gage wire, Super 13's pure, flexible strands are protected with a thin, high heat resistant silicone insulation (not PVC). Available in orange, black, and blue, Super 13's total diameter is no thicker than most 14 gage wire. When it is time to get all of your cells' power to the motor, Super 13 is the only pure way to go.

CELL SHRINK



Cell shrink is the best way to protect your cells' original shrink while allowing total freedom in pack assembly with the use of "hot glues". Easily applied with a hair dryer, cell shrink is a super thin (3-4 mil), strong, light weight, clear heat shrink which is precut for individual cells. When it is time to assemble your next pack of new or used cells, there is no better way than with **STAGE III** cell shrink.

STAGE III is committed to technology and products that enable the racer the power to push it to the limits...

Ask your dealer to carry **STAGE III** products.

STAGE III

1189 Chicago Rd.
Troy, Michigan 48083-4292
(313) 585-1150

"THE FUTURE" IN 1/10 SCALE ON-ROAD RACING!

DEALER
INQUIRIES
WELCOME

THE

Lucas

AGITATOR

- FULLY ARTICULATED DUAL-AXIS REAR MOVEMENT
- FIVE BEARING MODULAR GRAPHITE DIFFERENTIAL
- SUSPENDED DIAPHRAGM STIFFENER
- THREE POINT REAR SUSPENSION

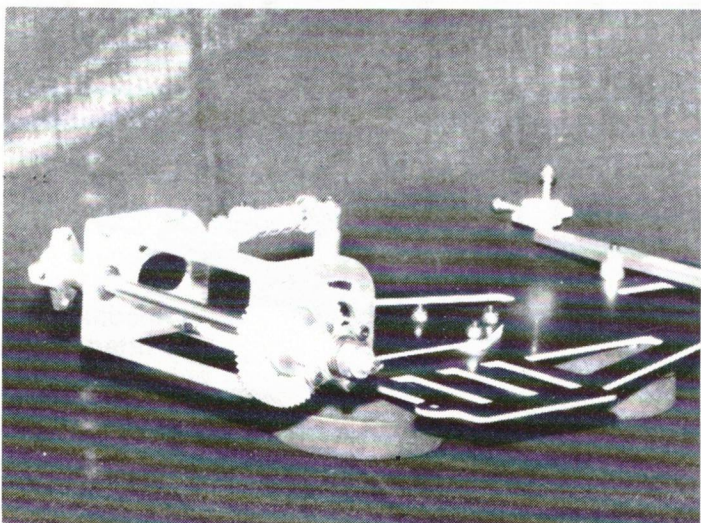
INQUIRE ABOUT OUR
"SPONSORED DRIVER" PROGRAM!

- FULLY INDEPENDENT FRONT SUSPENSION
- ADJUSTABLE CASTER & CAMBER UTILIZING
OUR EXCLUSIVE DELRIN SADDLEBLOCK PIVOT
- PRECISION MACHINED DELRIN COMPONENTS

SEND SASE FOR INFORMATION REGARDING BATTERY PACK RECONDITIONING, UTILIZING THE LATEST COMPUTER ENHANCED "REFLEX" TECHNOLOGY.
YOUR NEW SOURCE FOR GRAPHITE & FIBERGLASS COMPONENTS.

ADVANCED
RACING TECHNOLOGIES

460 CYPRESS LANE, SUITE F
EL CAJON, CA 92020
(619) 441-8595



The pre-assembled rear pod - all ball bearings with shock.

car is a personal choice and should only be done after all other adjustments are completely tested. "O" rings or silicone tubing above or below the tee-plate can also effectively change the handling characteristics of the car. Be sure that all suspension parts move freely without any binding or drag whatsoever. Time spent in blueprinting the front suspension to operate freely and smoothly will pay off in absolute consistency in handling.

The car is now ready for the installation of the battery pack, radio gear, speed control, body posts, rear

wing and antenna mount. I used Bolink 3 inch body posts for the front and five inch for the rear. Mount the posts in the holes provided in the chassis. On the inside of the painted lexan body put a strip of electrical tape over the body mounting hole and cut the hole out of the tape. This will insure that your paint finish will not chip off when taking the body on or off.

Set the radio gear, speed control in your car and batteries to determine where the Parma rollover antenna will go. Drill the chassis and screw the antenna mount in place. You may have to thread your antenna in first.

Mount the speed control and receiver in-line in the center of the chassis. My speed control is mounted via double sided servo tape to the tee-plate. The batteries are mounted three on the left and three on the right or four on the right and three on the left, as you face the car. You will have to run a jumper wire from the last right cell to the first left cell. Wrap cells with nylon tape thru the chassis slots to hold the batteries in place. Be sure to check this tape after every run as the chassis road clearance is only 1/4 inch. The car may bottom out on uneven road surfaces and scrape the tape and loosen the battery packs.

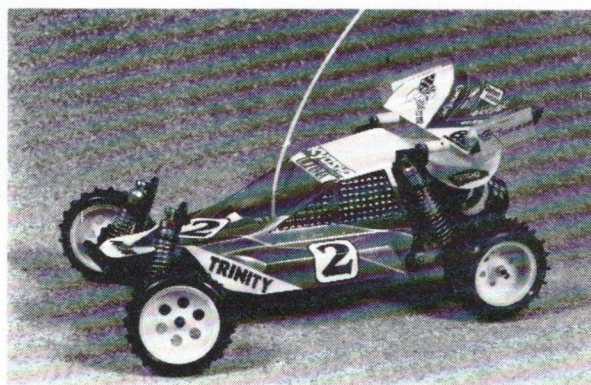
To mount the rear wing you must drill into the rear pod. Be very careful when doing this as not to let the drill shavings get into any moving parts on

THE BEST PARTS FOR ULTIMAS AND RC-10s

- All types of graphite chassis
- Thorp and Kyosho ball differentials
- Team Pit Stop chain-drive transmissions
- Houge lightweight steering cranks
- Titanium turnbuckle sets

THE BEST BATTERIES

- 1700 mAh sub-C matched packs
- 600 mAh 2/3 sub-C drag racing cells
- 8-cell AA transmitter packs (standard or high capacity)
- 2000 mAh C packs for Blackfoot (6 or 7-cell)

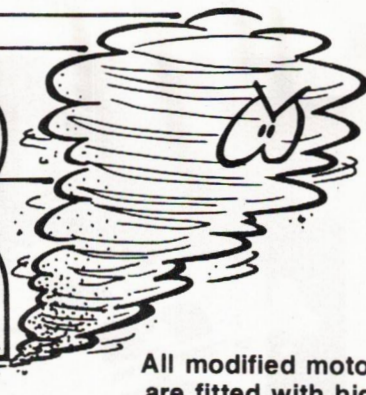


Mike Burnette's 1988 Winter Championship Ultima



10% OFF FOR NEW OUT-OF-STATE
CUSTOMERS ON RETAIL PRICED ITEMS

Twister



New from Twister "Wet Magnet" Motors

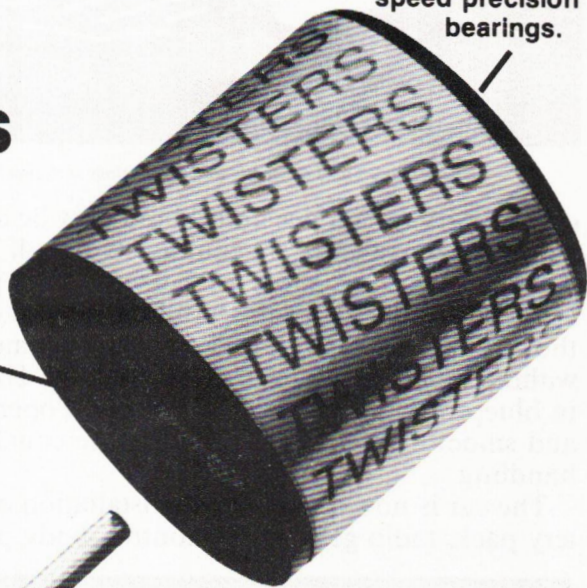
Whether you're an experienced champion, a promising novice, or just having fun in your back yard, there's an ultra hot **Twister** wet magnet motor for you.

Wet magnets and heat sink endbells extend the life of your motor by reducing heat (the #1 R.C. car motor killer). They give increased run time because of their low amperage draw, and their wide torque band makes them easy to gear. Whether your running a 12th scale car or a monster truck, **Twister** wet magnet motors will give you the edge on your competition.

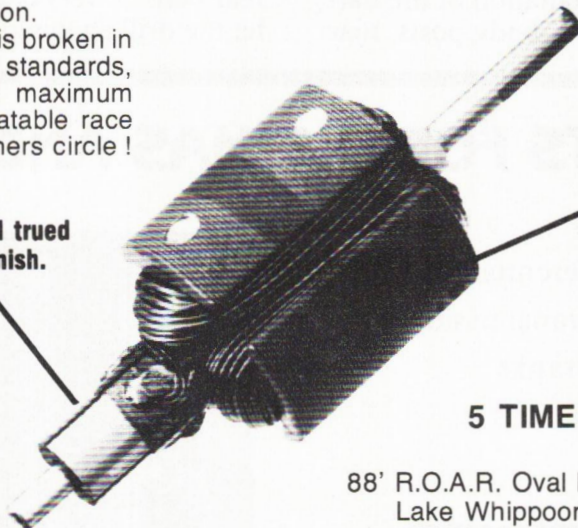
Every **Twister** wet magnet motor is broken in and fully tested to meet rigid factory standards, which include amperage draw and maximum R.P.M. **Twister** reliability and unbeatable race performance can put you in the winners circle!

All Twister motors now have High Performance "wet magnets"

All modified motors are fitted with high speed precision ball bearings.

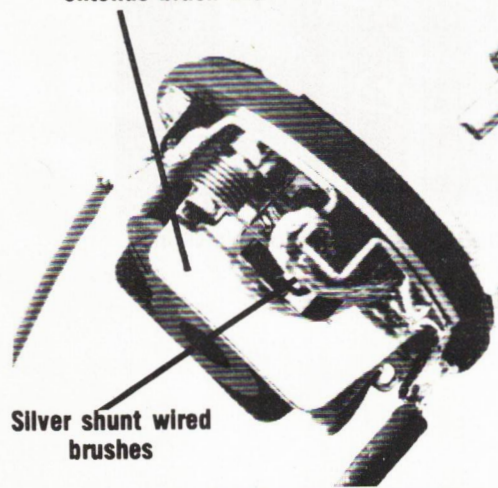


Dynamically balanced armature ensures smooth vibration free performance.



Commutator is diamond trued to a micro smooth finish.

Heat sink endbell extends brush life



Silver shunt wired brushes

5 TIME NATIONAL CHAMPIONS

- 88' R.O.A.R. Oval National Champions and Track Record at Lake Whippoorwill Speedway, the worlds fastest paved 10th scale oval.
- 88' N.O.R.C.C.A. Off-Road National Champions.
- 88' N.O.R.C.C.A. Oval National Champions in sprint, 2 wheel and 4 wheel at Del Mar, the worlds fastest dirt oval.
- 88' N.O.R.C.C.A. Manufacturers Oval Team Championship.
- 88' Reedy Oval Invitational Champions.
- 88' Trinity Shoot Out Champions.
- 88' Reedy Off-Road Invitational Champions.
- 88' Hawaiian Open Champions.
- 88' Winner West Coast Truck Championships, 4 out of 5 classes.
- 88' C.R.P. Challenge 4 Wheel Champions.
- 88' R/C Car Action Weekend at Whippoorwill Champions.



THE UNFAIR ADVANTAGE !

YOUR DISCOUNT RC PARTS OUTLET *with* PRICES **TOO HOT** TO MENTION

CALL TOLL FREE!
1-800-433-1883

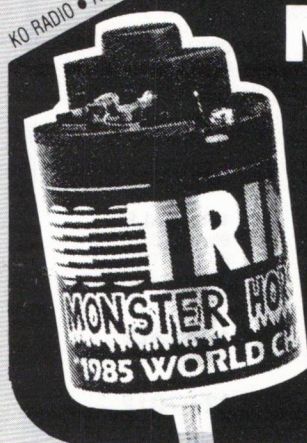
HIGH PERFORMANCE HOBBIES, INC. (Tues-Fri 2:PM-9:PM / Sat. 11:AM-7:PM)
799 ABBOTT BLVD. FORT LEE, NEW JERSEY 07024 ☎ (201) 599-1125

OUT OF STATE
CALL TOLL-FREE
1-800-433-1883



HIGH PERFORMANCE

THE
ULTIMATE
IN RC
CARS



**CAPTURE THE
HORSEPOWER WITH**

TRINITY MOTORS

**THE PRODUCTS OF
WORLD CHAMPIONS**

- **MODIFIED WINDS**
(Including Pure Gold, Sprint,
Oval, Drag, Enduro, Big Daddy,
Lake Whipperwill)
- **TURBO BLAST**
- **STOCK MOTOR**

PLUS

**4, 6, 7 CELL MATCHED
BATTERIES**

AA's



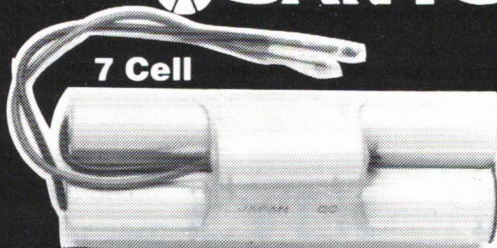
**IN-STOCK, RACING
BATTERIES**



6 CELL

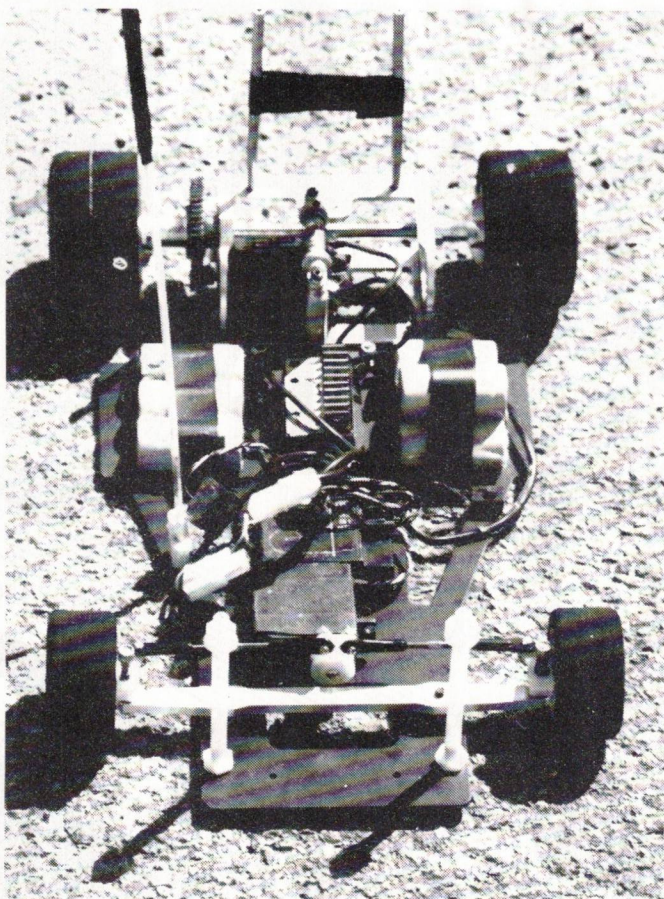
SANYO

7 Cell



SUB C

KO RADIO • AYX RADIANT • RPS • JG MFG • BUD'S RACING • MIP • ASSOCIATED • SANYO • N.M.B. • TRC • FUTABA • AUTOGRAPHICS • NOVAK • RACE PREP • AIRTRONICS • TRINITY • REEDY • TEKIN • PRO-LINE • DELTA



The completed Viper Pro 10 - A very quick and responsive on-road car.

the rear pod. I measured 1/4 inch from the corner of the pod and centered the holes to accept the Associated screws. Use Loctite on the screws and tighten them down. You will have to drill holes in the rear window of your body to accommodate the wing tubes.

Mount the wing way near the wing mount. This will insure adequate down force on the rear of the car. The wing should be high enough so that it rides in clean air above the car. Mounting the wing lower would cause the wing to ride in turbulent air as it passes over the car body.

I have been experimenting with another method of applying down force to the rear of the car. The wing tubes may have to be cut down to completely fit inside the body shell. Bend the wing wire to encompass the entire rear of the car. Use Associated wing buttons to attach the wing to the car body. Now the entire rear of the body acts like a spoiler. Now take a small piece of flexible, thin sheet metal 1/2 inch high by the length of the plastic spoiler, drill pilot holes in the sheet metal and car body and using screws and nuts mount the spoiler to the body. Be sure to use Loctite on the screws.

This is the same set up that is used on the full scale NASCAR cars. To adjust the spoiler take a piece of wood the same size as the spoiler and cut a small groove into the end of the wood to accommodate the sheet metal that protrudes above the plastic spoiler.

Winning Cars Aren't Bought...They're Customized!

Are you ready to be a winner?

Then make your car the best it can be. **CUSTOMIZE IT!**

Trick shocks, faster motors, better tires, slicker bodies.

Max speed & tighter handling means more WINS!

We'll help you. We're Tech Toys... Your Speed Shop for R/C Motor Sports!

We're experts who sell the best products in the business. We stock everything in specialty and racing parts. If you know what you need, we'll get it to you fast! **Orders are in and out the same day!** We ship to all 50 states, Puerto Rico and Military Bases! We accept VISA, Mastercard and Discover cards!

We cover all vehicle types: **On and Off Road, Cars, Trucks & Boats, 1/4, 1/6, 1/10, 1/12, 1/24.**

And don't forget, we specialize in 1/4 and 1/6 Scale!

**TECH TOYS HAS
TRIPLED IN SIZE TO
BETTER SERVE YOU.
PLEASE NOTE OUR NEW
ADDRESS.**

A&L PRODUCTS
ACOMS
ACTION MAGS
ADVANCE
ADVANCED RACE CASE
AEROTREND PRODUCTS
AIRTRONICS
ANDY'S
ARISTO CHALLENGER
ASSOCIATED
ASTROFLIGHT
AUTOGRAPHICS
BADGER AIR BRUSH
BLACK MAGIC MOTORS
BLUE RIBBON
BOLINK
BONDUS
BOXES PLUS
BUDS R/C
CAM MOTORS
CARL GOLDBERG
CHAMPION

CHECKPOINT MOTORS
CICHON
COBRA INTERNATIONAL
COMPOSITE CRAFT
CONCEPT II PAINT
COUNT CHRISTOPHER PRODUCTIONS
COX
CRP
CUSTOM WORKS
DAHMS
DEANS
DELTA
DREMEL
DUBRO
DURATRAX
FIVE STAR
FLEXAN PAINT
FLOQUIL
FOX
FUTABA
GONZO
HIGLEY

HI POINT
HOT TRICK
HOUGE ENTERPRISES
JG MFG
K&B
KIMBROUGH
KO PROPO
KYOSHO
LABELLE
LAVCO
LEISURE
LIGHT SPEED
LITE SPEED
M & M
MAJOR DECALS
MARUI
MCALLISTER
MCS PRODUCTS
MIP
MONOGRAM
MPE
MRC/TAMIYA

MRP
NICHIMO
NIKKO AMERICA
NMB
NOVAK
PACTRA
PANASONIC
PARAGON
PARMA
PDI SPEED CONTROLS
PERFECT
PERFORMANCE RACE PRODUCTS
PREMIER DESIGN
PRO CUT STICKERS
PROLINE
PRO-SHOP
PRO-TECH
PRO-TRACK
RACECO
RACE MASTER
RACE PREP
RACE TECH

RACING SILKS
RAM
RCH
RCRC PRODUCTS
R/C PERFORMANCE SPECIALTIES
REV-TECH
ROBART
ROBBE
ROBINSON RACING PRODUCTS
RPS
SANYO
SCHUMACHER
SCOTCH-3M
SRS PRODUCTS
SULLIVAN
TEAM LOSI
TEAM PIT STOP
TECNIACRAFT
TEKIN
TESTORS
32ND PARALLEL
THORP

TIGER'S MILK
TRC
TRINITY
TUF-GRIND
TWINN-K
TWISTER
UNGAR
UNIVERSAL ENGINES
VARICOM/GRIZZLY
WORLD ENGINES
X-ACTO
YOKOMO
YOU-G
ZAP-PACER TECH

1/4 SCALE

B&L TIRES
PACE SETTER
RACO
WCM

1/6 SCALE

MK ENGINEERING

TECH-TOYS

Speed Shop For R/C Motor Sports!

Dept. 10F, 370 Rt. 46 W, Parsippany, NJ 07054 (201) 227-7012

This is your adjusting tool for the spoiler. You can give yourself more or less spoiler on the track very simply.

I have this set up on my "Wrangler" NASCAR Monte Carlo body and it works very well. I have more spoiler area and more adjustment, without the added drag of an external wing. Try it and see how it works for you!

To sum up our review of the "Viper Pro 10" I would use the one word, AWESOME! This car is a contender in the battle of the open road. Whether on a twisty road course or super high-bank oval this car is right at home. The adjustments are limitless to satisfy every racer for every track and every road course. This car gets a well deserved thumbs up from me. Total cost of the car from Inter-Fab is \$230.00. Replacement parts are available.

When you are contacting Inter-Fab, tell them you read about it in "Competition Plus."

Till next time . . . tight cornering!!!

Inter-Fab Custom Machining
12 Springdale Rd.
Cherry Hill, N.J. 08003
609-424-7530

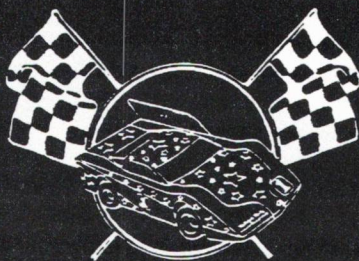
Modeler's Haven

Specializing in Radio Control Electric Cars

**Call Us First On Those Hard To Find
PARTS AND ACCESSORIES**

Prompt Same Day U.P.S. Shipping

(216) 499-6000



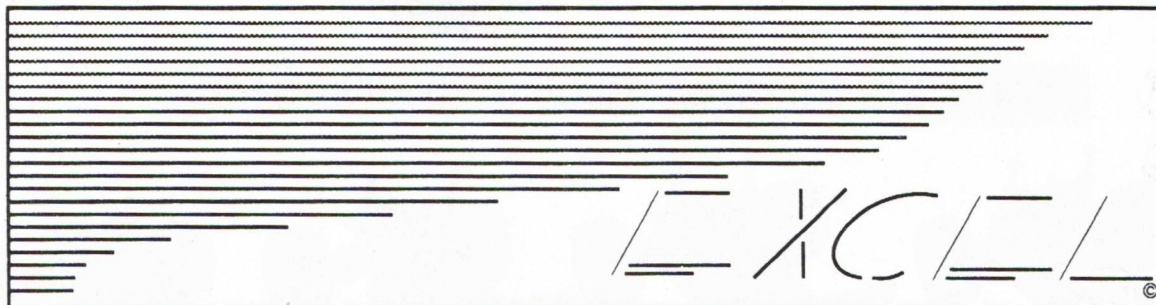
YOKOMO, GONZO, TWISTER, LOSI, CUSTOM WORKS, PRO-LINE, CAM, TEAM PIT STOP, DAHM'S, R & R, COMPOSITE CRAFT, BUD'S, MRC, T & A, ASSOCIATED, PARMA, AUTO-GRAPHICS, AND MANY MORE!

Monthly Sales and Specials

4255 Portage St. N.W.

North Canton, OH 44720

"Experience You Can Trust"



Excel—the only performance journal exclusively for the RC-10

Name _____

Address _____

City _____ State _____

Zip _____

Send \$2.50 for the
premiere issue to:

Excel Publications
P.O. Box 3211
Wayne N.J.
07474-3211

Subscription Rates
Quarterly (4 times per year)

U.S. \$10/year third class

Canada \$14/year first class

Foreign Countries \$18/year surface only

All payments are to be in U.S. Dollars

"Excel...in performance"

Featuring:

performance parts
electronics
product reviews
performance tuning
motor clinic
body painting

From J.G. The Innovators of The Monster Truck Conversion

GIVE YOUR JR-X2 ULTIMA RC-10 OPTIMA A LIFT!

Race Proven! ... Choose JG's "Basic" or "Complete" Monster Truck conversion kits available for JR-X2, Optima Mid, Ultima and RC-10.

The Basic Kit — includes front and rear rim and tire adapters for Blackfoot or JG rims, front and rear truck body mounts, body post kit, foam body post spacers and 3-D instructions.

The Complete Kit — includes all parts listed above ... Plus-lexan truck body, front and rear rims and tires and front wheel bearings (except Optima Mid).



COMPLETE MONSTER TRUCK CONVERSION KITS



JR-X2

Basic #1809
Complete #1811

Ultima

Basic #9016
Complete #9021

RC-10

Basic #A-17
Complete #A-22

Optima Mid

Basic #1518
Complete #1522



Distributor Inquiries Invited

John gudvangen manufacturing

P.O. Box 6014, Dept. CA, Whittier, CA 90609-6014

Telephone: (213) 947-1206 Fax: (213) 693-2577

For brochure send \$1.50 cash or money order.

Tekin Speed Controls

By Jim McLelland

This month we're going to take an in depth look at the Tekin speed controls. It's been nearly five years since Tekin engineers built the world's first MOSFET speed control, and although they basically do the same thing still, they have definitely evolved. Tekin has two new models of speed control, the ESC300 PRO and ESC600 PRO X. The standard model has been done away with, as all units now get high performance PRO MOSFETS. Also, all units now have TEMFET thermal overload protection circuitry. With Tekin's TEMFET circuitry, even if the motor wires are shorted together and full throttle is applied the ESC will not be damaged. It can, however, ruin your battery, and motor if connected. Also there is no fuse needed.

The ESC300 and ESC600 are similar in appearance and performance. The main difference that the ESC600 (PRO X) model has not only the very highest grade of MOSFET on the planet, but the MOSFETS are selected, much as the way you would select for the best batteries. It also has large diameter silicone wire, to deliver maximum amperage to the motor. Performance exceeds anything else previously available in a unit this size, and even exceed some larger, heavier units with more MOSFETS.

Probably the best place to start is to take a look inside at the integrated circuit, the master "brains" of the ESC. The integrated circuit on the new Tekin speed controls is a custom made circuit, meaning all the little transistors and resistors (840 total) in the IC have been hooked up and designed specifically just to be a speed control. All other speed controls currently use an IC designed to be a servo



amplifier, which has been reworked into a speed control. By investing in an IC created just to be a speed control, Tekin gains several subtle but worthwhile advantages. One of the more obvious things you notice is that most of the circuit is built into the IC, where it is hermetically sealed against dirt and water. Water cannot do permanent harm to the ESC, unless it is corrosive. (The ESC may temporarily malfunction until dried). Along the same lines, even though the ESC is more sophisticated and complex, it is smaller and lighter than most any other, even stripped down economy units. The Tekin has a 3 function L.E.D. (Light) that is used to precisely set high speed, neutral, and indicates brake intensity. The light stays out if there is no signal

from the transmitter present. The adjustment pots are high quality, better than most, and are also hermetically sealed. All very mechanically durable.

Electrically, there are several neat little tricks in the circuit. One very worthwhile thing is the compressed brake band. This means a relatively small amount of trigger movement on the transmitter produces a relatively large change in braking action. You don't waste a lot of trigger movement getting out of the brake band and into the throttle range, plus there is much more reserve braking when pushing forward on the trigger. This really helps your driving. Once into the throttle area the response is smooth. This is guaranteed to help increase your running time as well as help cut

your lap time. The custom IC really shines here. Of course, you can always adjust the unit for radical on-off response if you like. For fine adjustment the mid-range may be effectively tuned by the way the transmitter is adjusted, and is explained in the instructions.

Another point of interest is the super low internal power draw, lowest **ANY** ESC, for the longest running time. A new, special, B.E.C. circuit allows much lower operating voltage than even before, lower than **ANY** other B.E.C. this is important because you don't want the receiver to "cut out" when you accelerate hard. This happens especially with hot motors or SCE type cells. It shows up as "stuttering" or "missing," and is caused because the battery voltage temporarily drops down when accelerating, and there is not

enough power for the receiver. The new Tekin B.E.C. works about 1.5 volts lower than others, quite a difference. If you want to run hot motors it is highly recommended. There is a 2 wire pigtail coming out of the unit that is connected together to bypass the B.E.C. for 4 cell use.

In review, the new Tekins unquestionably have the most advanced circuitry of any speed control currently available. They are well made, and have no shortcomings at all. The TEM-FET circuit makes it impossible to overheat or burn out (unless hooked to battery backward), and the 120 day warrantee shows they really believe in the product. These ESC's represent a sound racing investment.

TEKIN ELECTRONICS, INC.
1027 Trepadora, No. 3
San Clemente, CA 92672

HOBBYMASTERS

62 White Street
 Red Bank, New Jersey 07701

**MAIL-ORDER
 PRICES** with a
 Personal Touch
 We **Care** that you get
 the Equipment that's
 Right for **You!**

OPEN 7 DAYS
1-201-842-6020
 All Major Credit Cards

**FULL-LINE
 FULL SERVICE
 HOBBY CENTER**

R/C Parts Specialists

Also Featuring:
TRAINS, PLANES, ROCKETS
HELICOPTERS, MODELS,
SCIENCE, SKATE &
SNOWBOARDS, PAINT,
COLLECTIBLES & MORE.

STAGE III

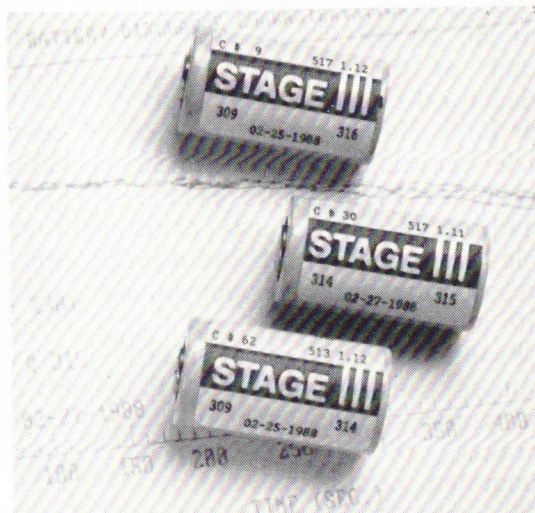
"THE ULTIMATE CELL TEST"

HAD A BAD WEEKEND? CELL TAKE A DUMP? Then it's time to demand a **STAGE III REMATCH**

STAGE III is an independent cell testing lab exclusively designed to match/rematch both team and non-sponsored racers ni-cad cells.

Using **STAGE III** match "Shadow Pro Cells" and Sanyo SC's and SCR's, teams have already proven our results . . . at the Cleveland Indoor 1/12 scale championships, the Franklin Institute Challenge Cup, the Grand Rapids Winter Nationals, Florida 1/10 scale Winter Championships and the Lake Whippoorwill International Speedway.

Our desire is to provide you with an honest, impartial evaluation of your cells. With the use of our state-of-the-art technology **STAGE III** gives you the data to discover and use your cells' full potential for race winning results. **STAGE III** has invested over 18 months of extensive research and development into designing, constructing and programming the "Ultimate Cell Test."



Call Or Write For **Free** Information Regarding
STAGE III - "The Ultimate Cell Test"
 Dealer and Team inquiries welcome

STAGE III
 1189 Chicago Rd.
 Troy, Michigan 48083-4292
 (313) 585-1150

POWER TRAIN: Batteries Part II

Article and Photos by Jeff Palmer

In the first article, we discussed some fundamentals of how NiCds provide electricity. Let's open this article with a quick review of a couple of key deductions you should be forming:

1. Internal resistance is the measure of a battery's potential.
2. Internal resistance decreases as temperature increases.
3. Internal resistance increases with age and lower temperatures.

In this article we're going to discuss various battery types and charging and discharging techniques. As you read along, you'll find a few surprises.

CHARGING

Battery manufacturers, like Sanyo, Panasonic or others will tell you, in order to recharge a cell to 100% capacity, 140% of the amount of energy discharged must be used to recharge the cell. In other words, if a 1200mAh cell was completely discharged, 1480mAh of energy will be required to recharge it to 100% capacity. Most of the chargers on the market are of the "constant current" type. "Constant current" chargers maintain a preset level of current flow for the duration of the charge. The maximum charge rate recommended by manufacturers is the "C/1" rate - remember Part I. Designers of rapid chargers for R/C cars use what is termed a "1 amp/hour" rate which is not the same as a "C/1" rate (1.2 amp/hour). At the "1 amp/hour" rate, a 20 minute charger would deliver 3 amps; a 15 minute charger would deliver 4 amps, etc. The "C/1" rate for a 20 minute charge would deliver 3.6 amps or 4.8 amps for 15 minutes. Neither of those rates will allow a cell to recharge to the 100% capacity level. Keeping in mind the "140% rule," chargers which are designed to give a 1



Several Sanyo SC, SCR and SCE cells - "The Legend Grows!"

amp hour charge will not allow a battery to be replenished to the 100% capacity level. In fact, most timed chargers will only replenish about 80-90% of the original capacity without some kind of intervention. To overcome this problem, many racers have turned to "peak detection" chargers or temperature sensing chargers. If you remember our discussion on the chemical reactions of a NiCd, when a cell starts to overcharge, the temperature of a cell will reach 45°C and the voltage used to charge the cell will begin to drop (peak detection) due to the decrease of internal resistance. Chargers designed to detect either of these conditions will allow the racer to restore about 99-100% of the original capacity. A racer on a budget who owns a digital voltmeter and a "constant current" charger can detect the "peak" charge. He would simply monitor the voltmeter looking for the drop in charge voltage. The voltage will start off climbing and will continue to climb up to the point of overcharge. When

the overcharge (peak) has been reached, the voltage will begin to drop, .02-.5 volts. At this point the battery is charged. When you pick up the pack, make a mental note of the temperature, it should feel warm but not hot. If the pack isn't warm to the touch and you were using a "peak detection" charger, you may have incurred a false peak. False peaks are rare but they do occur. Normally the false peak problem can be resolved by cycling the batteries 2-3 times.

One of the problems common to all racers is NiCd "memory." Many racers don't recognize the problem. Many times the racer feels the pack has "dumped" when, in fact, the pack reached its "memory" point. This effect is a phenomenon which can be prevented or corrected. "Memory" in a NiCd takes 3 forms:

1. Overcharged - pack/cell voltage drops prematurely. May result in the damaging of the pack/cell.
2. Not completely discharged - voltage drops at the point of previous discharge level; i.e. on the previous charge the pack was

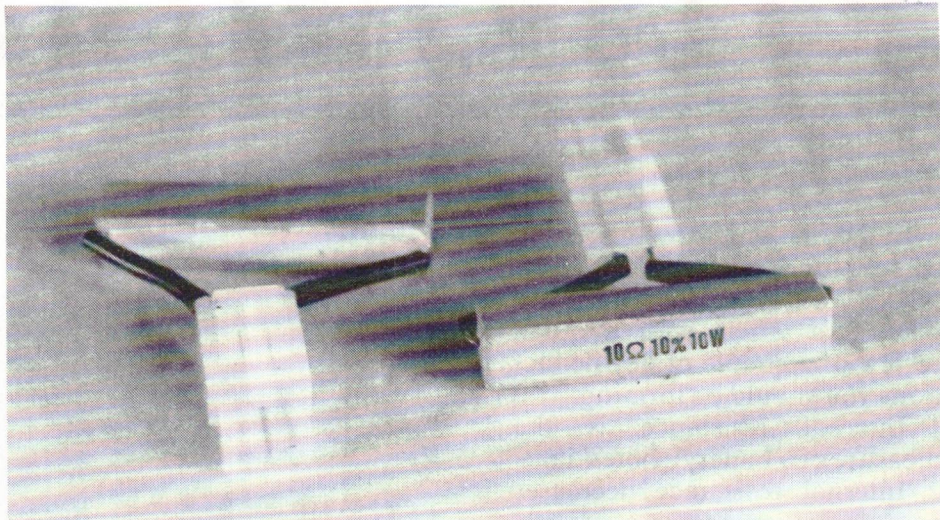
only discharged for 3 minutes when 4 minutes is required. On the next race, the pack "dumps" at 3 minutes.

3. Recently charged - the pack delivers a higher voltage at the start (peak charging).

The third "memory" effect is a benefit to those who have learned to take advantage of it. This effect when planned for is called "topping off." To "top off" a pack, a racer will have previously charged a pack for 15 minutes. In the heat prior to the one the racer is to run in, the racer will charge the pack to its "peak" level. The NiCds will remember it was recently charged and deliver 1.2-1.3 volts per cell at the start. For the serious racer, this is the edge needed to jump out into the lead at the start of the race. To solve the first two "memory" problems, discharge the pack completely and charge it to its capacity. Do this 2-3 times before using the pack again in racing.

There seems to be some confusion on how to cool a freshly discharged racing pack. In an effort to cool the packs quickly, some have done things like put the pack in ice or in a freezer. Instead of going to the extreme, lower the temperature gradually. Let it sit or be cooled by a fan. There is usually ample time to allow a pack to cool gradually between heats. Gradual cooling allows the cell to return to normal operating temperatures and stabilize its chemical reaction process and catch up, so to speak. A shock of cold causes the metal components of the battery to contract (opposite of expand) quickly, chipping the coated nickel plates and reducing capacity. In some cases, racers have frozen the electrolyte in the battery, shorting it out.

Trickle charging is the only safe and sure way to bring every cell in a pack up to 100% "nominal capacity." The trickle charge process takes 20-30 hours of charging. Although the time is long, all new packs should be



Discharge resistor assembly - "It's a hot job, but this will do it."

trickle charged the first time the pack is charged. This will allow you to determine the true capacity of the pack prior to the real world of fast charging takes over. For the serious racer, trickle charging will never achieve maximum capacity.

DISCHARGING

This may seem like an unusual topic, but the correct discharge of a battery pack is crucial to recharging. As we discussed in the previous topic, you can create your own cell "memory" problems. To avoid this problem, a racer who has a charger with a charge/discharge switch, should discharge the pack to 1 volt per cell; i.e. 6 volts for a 6 cell pack. If you discharge the pack to less than 1 volt per cell, you are beginning to approach the point where a weak cell in the pack may experience "cell reversal." As it becomes over-discharged, its polarity is reversed and prolonged discharging will cause the gas pressure within the cell to rise, resulting in the activation of the safety device - "venting." Excessive "venting" can dry out the cell and eventually degrade the cell or destroy it.

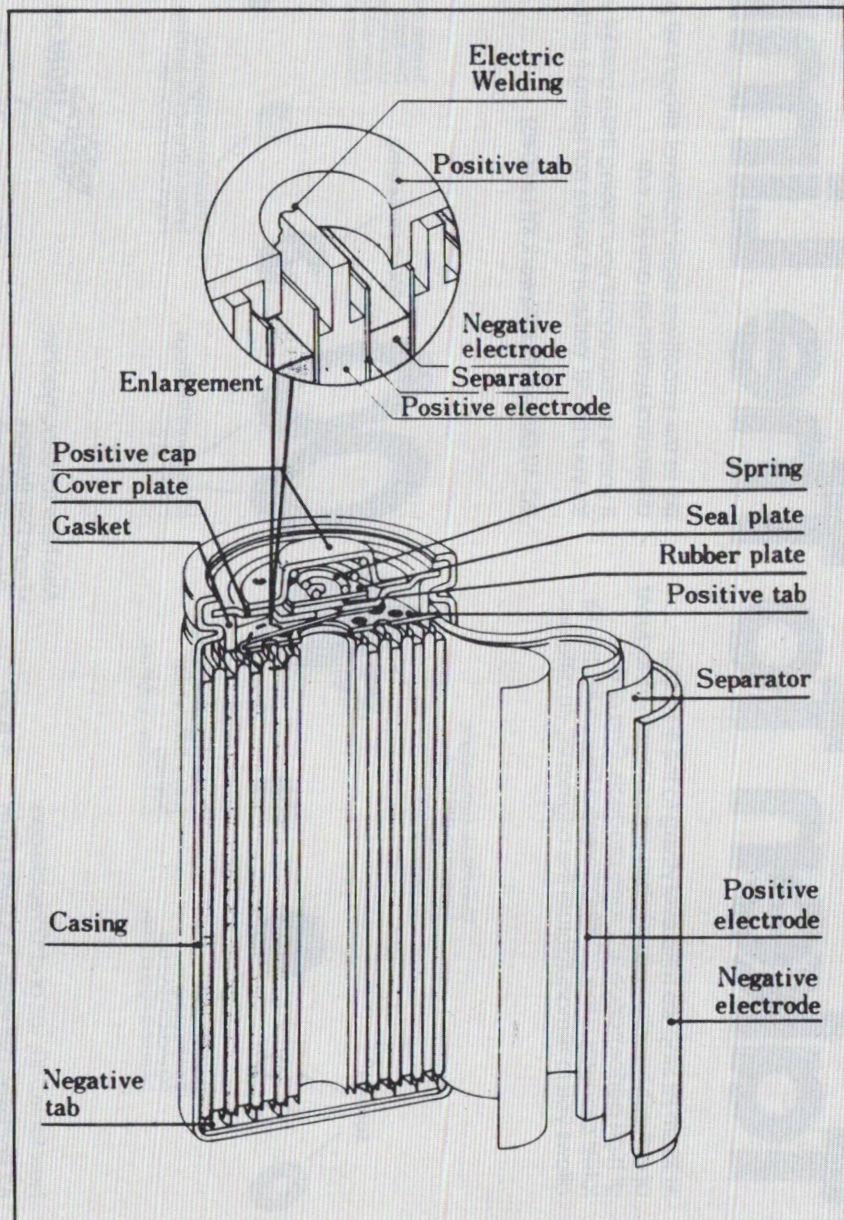
For those of us who can't tie up our chargers with discharging duties, buy some 1 ohm 50 watt or greater resistors and mount them in the appropriate plug to discharge the battery. These resistors will get HOT!! Carefully

check the discharged level from time to time using the discharge side of charger. Another alternative is to use a 12 volt auto lamp. This has the added benefit of having a visual aid to determine the discharge level of the cell. Check the discharge level. Most discharge lights will not drain the pack to the 1 volt per cell level before going dim.

SC BATTERIES

These cells have been the mainstay in racing for years. One of the drawbacks with the SC cells is, they are good for one race per day with a maximum life of approximately 40 races before they will no longer reach 100% capacity on recharge. In the 4 minute 10th scale races, these cells are being replaced by the SCR line of batteries. For 12th scale and enduro races, these cells will continue to be the battery of choice until you can re-battery with SCEs. If you will dig out the first article you'll understand why. In a 4 minute race, the SCR will deliver a higher voltage for a longer period of time than the SC. The same concept holds true for longer races, like 12th scale 8' minute races, the SCE will sustain a higher voltage longer. Higher voltage translates to higher RPM for the motor. In this modern day of specialists, SCRs and SCEs are replacing the SCs. A side note for those who have SCs to burn, you can

Structural Design of CADNICA Battery



Structural Design of Safety Vent Cell

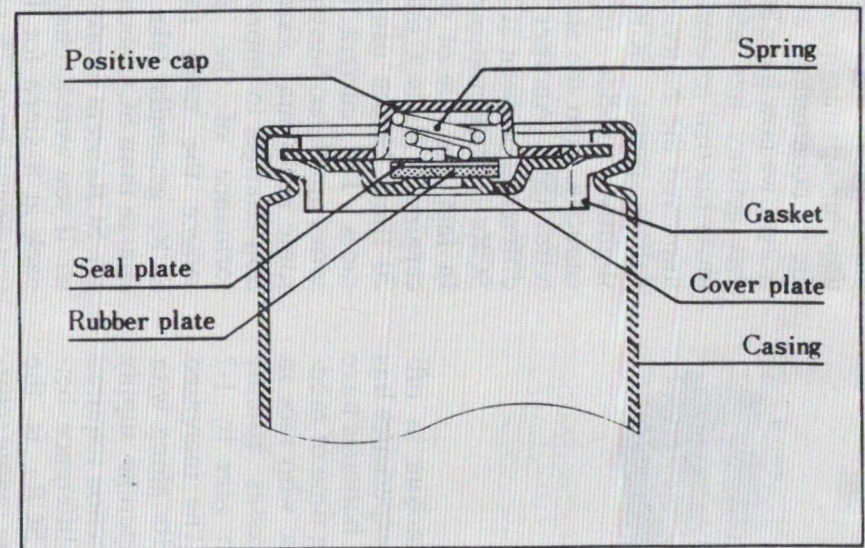
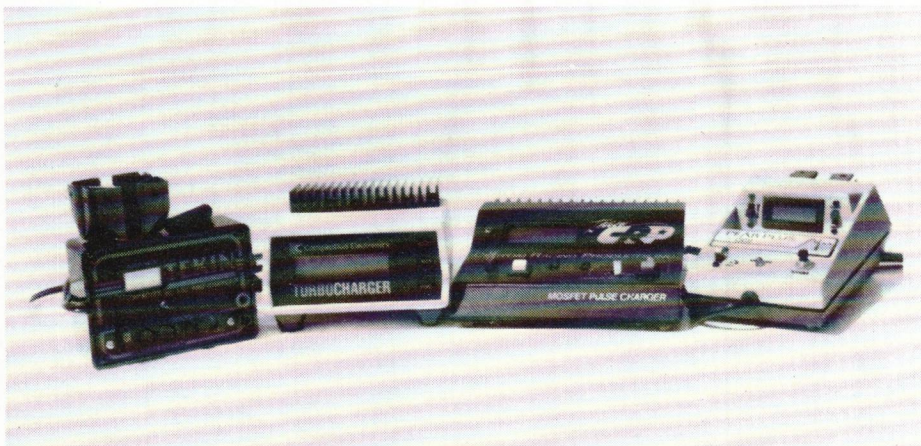


Figure 5: Structural Drawing of Sanyo SC
Courtesy: Sanyo Energy Corp.



Various types of peak detection chargers.

"power charge" SCs and cause them to act like SCRs by overcharging them with 6.5-10 amps for 10 minutes. This will greatly shorten the life of the cells but the energy gain for the serious racer may be the edge necessary to win. BE CAREFUL.

SCR BATTERIES

These are the batteries of choice for 10th scale. They were introduced in 1987 as the batteries to improve the perfor-

mance of stock motors in off-road and oval. As experience has been gained, these batteries have moved into the big time of modified motors. Those who race in the modified classes usually reduce the pinion gear by 1-2 teeth (32 pitch). The increased voltage of the SCRs along with the increased amperage supply offset the gear reduction required by the car. The difference between SCs and SCRs is the improvement in the manufactur-

ing process. By lengthening the plates, improving oxygen absorption during charging and altering the concentration of the electrolyte, we now have SCRs. All of this activity has resulted in a lower internal resistance and has improved the batteries ability to deliver power. SCR cells are slightly smaller in nominal capacity, than the standard batteries (SC). Another interesting difference between SCs and early SCRs is, they improve with use. In fact, the rule of thumb concerning SCRs is: Cycle them 15-20 times before using them in races. The current SCRs, SA series and later, Sanyo has made some additional plate construction changes to improve the performance of the SCRs and reduce the need for cycling. SCRs generally take longer to charge than SCs, about 20% longer. SCRs seem to take abuse better. If you were to charge an SCR pack at 8 amps for 10 minutes you would gain .7% voltage and

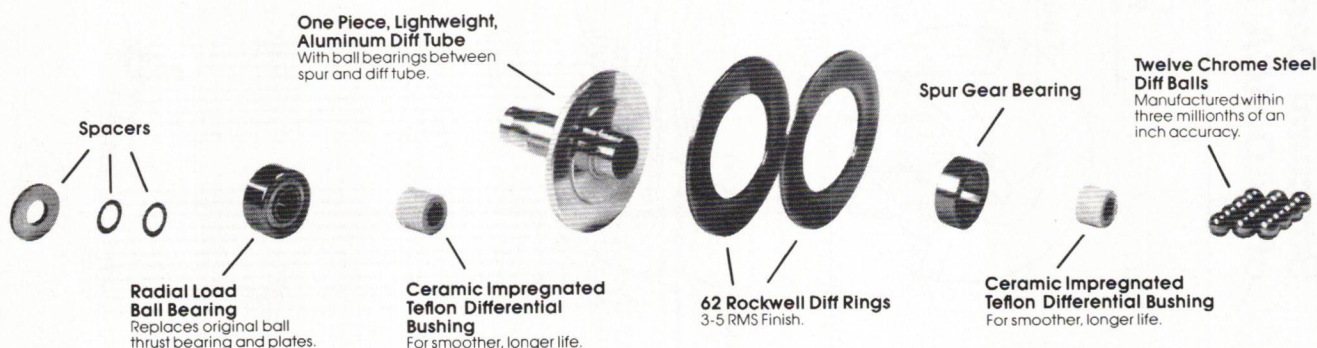
Taken To The Limit!

At Team Pit Stop we take everything to the limit. Our approach has allowed us to become a leading producer of high performance R/C race products. One of our latest products is the RC-10 Differential Rework Kit. This kit allows you to remanufacture the original RC-10 differen-

tial to the smoothest, least frictional, straightest pulling differential system on any R/C car.

If you're serious about your racing this is one kit you need for your RC-10. Without it, you're not taking it to the limit.

RC-10 Differential Rework Kit (#9040)\$37.99



New for RC-10, 10th and 12th scale cars:

62 Rockwell Diff Rings 3-5 RMS Finish . . . \$ 5.99

Titanium Dog Bone for RC-10 \$12.99

Also New for Schumacher:

- Front Diff Rework
- Rear Diff Rework
- Rear Integrator Rework



12233 S.W. 132nd Court Miami, Florida 33186
305/255-2887 FAX: 305/255-2970

Street Wise

RACE PROVEN

From the big track to your back alley, Parma's 1/10 on road Pro Panther Series dominates all territories.

Whether it be Oval, Drag, or Road racing, these race proven designs are not only fun and exciting, but competitive in any environment. Easy to build, maintain and drive. Pick up a basic or deluxe kit at your local Parma dealer and get STREET WISE.

Apology — Parma regrets that we cannot supply individual orders on a retail basis. See your local Parma dealer. Send \$9.00 for full color catalogs.



13997 Progress Parkway
North Royalton, Ohio 44133

lose only 2% of capacity. This is not a recommendation to charge your SCRs at 8 amps but it does raise questions about the changes we're going to see in charging techniques in the future. Higher ampere chargers, 6-10 amp range, are beginning to come on the scene.

SCE BATTERIES

SCEs have the longest plates of all the sub-C cells. The negative plate processing of oxygen is different from SCs and SCRs. These changes increase the weight by .1 ounce per cell and the internal resistance of the cell is higher. SCEs contain a capacity that is 20-30% greater than the standard cell (SC); i.e. a 1200mAh SCs counter part in SCEs is 1700-mAh. With the increase in internal resistance, SCEs will not deliver the "on demand" amperage of an SCR but it's not bad. As

with the SCRs, the charge time for SCEs will be twice as long as SCs. These calls are touted to be 12th scale batteries but, like SCRs, "Give us some experience and we'll decide how they should be used." A couple of special notes need to be made concerning SCEs.

1. SCEs DO NOT like charge rates above "C/1" (2 amps).
2. SCEs require 48 hours recovery time before recharging.

Conclusion

At this point we've discussed how a NiCd works, how to keep them working at capacity and talked about the different battery alternatives. Always remember, batteries do not compensate for good driving skills. A good driver using SCs will beat an average driver using SCRs. It's when the drivers are evenly matched that the batteries makes a difference.

Next time we'll do some cell matching and pack construction. "Til then GOOD RACING!!"

Panasonic Industrial Co.
Battery Sales Division
P.O. Box 1511
Secaucus, NJ 07094
Sanyo Energy Co.
200 Riser Rd.
Little Ferry, NJ 07643

the
D E A L E R ' S
SOURCE.
Competitive
Prices

JA LEA CO.

11999 Plano Rd Dallas TX 75243 214/238-0929

BUY FACTORY DIRECT AT BIG SAVINGS



Trol-Tech offers quality High Performance products at factory direct prices...

Check out our track record... We're HOT!

WINNER Atlanta National Championships
WINNER Reedy Race of Champions
WINNER West Coast Monster Truck Natls.
WINNER SCORE Off Road Natl. Champs.
WINNER Norrca Summer Series

Speed Control Specifications

S/C	Mosfets	Peak Current	Constant	Loss	Cells
TS-1	8	240	120	.0006	4-10
TS-2	8	360	180	.0005	4-10
TS-3	8	500	250	.0004	4-10

30 Day Warranty Parts Included — 2 Day Turn-Around for Service

TS-1 Standard S/C	\$ 75.00
TS-2 Standard S/C	\$ 95.00
TS-3 Standard S/C	\$115.00
Newest & Fastest Models available!	
MONSTER TRUCK Wheels	\$ 10.00
Set of 4 (Available in Pink & White)	
RC-10 Graphite Chassis	\$ 55.00
RC-10-S Graphite Chassis	\$ 75.00
JRX-2 Graphite Chassis	\$ 49.95
(70% Graphite 30% Glass)	
Lighter & Stronger than any other chassis on the market!	
Heat Sinks	\$ 9.95
14 or 16 Gauge Silicone Wire	\$ 3.00
Red 2' / Blue 2' / Black 2' = 6'	
On/Off Micro Switch	\$ 4.00

Qty.	Description	Total
	Sub-Total	
	Calif. Add 6% Tax	
	TOTAL	

Order Now!
And receive a
FREE
Heat Sink
with purchase
of any S/C!

NAME _____
ADDRESS _____
CITY _____

Send check or money order to: **Trol-Tech R/C Products, P.O. Box 4748, Garden Grove, CA 92642, (714) 539-0606**

The 1988 CRP Challenge

By Leo Barana

In the past the CRP Challenge has been the showcase for new cars on the market to make a statement and this year was no different. The new car this time was the Team Losi JRX2. In the 2WD Modified A Main nine out of the ten cars were JRX2s.

The schedule for this race was 2WD qualifying on Friday and 4WD qualifying on Saturday, with all mains on Sunday.

Like every year in the past, the CRP Challenge featured an Invitational Class with the top drivers in the country invited. However, this year there was a bit of a disappointment, in the fact that only 12 Invitational drivers competed.

Friday the 2WD Modified qualifying saw two 14 lap runs. The faster of the two turned in by Ron Williams with his JRX2 with a TQ time of 14, 4:14.0. The other 14 lap run was Jimmy Wright's with his Revolution powered JRX2. His time was 14, 4:14.4, an unbelievable four-tenths of a second off the TQ run. Your third qualifier was Kyle Reed with a 13 lap run of 4:04.0 driving a Trinity powered JRX2.

Saturday started with 4WD Modified qualifying. The man to beat was Rick Hohwart. Rick took his Peak Performance powered SRS Optima Mid to a TQ time of 14, 4:05.5, almost six seconds ahead of the second qualifier. Joe Hifco was the second TQ with his Revolution powered Yokomo with a time of 14 laps in a 4:11.1. The third TQ, with a great weekend, was Jimmy Wright, who turned in 14 laps in 4:13.4.

The 2WD Invitational's TQ was Mike Dunn. Dunn placed his Race Prep powered JRX2 in the TQ spot with 14 laps in 4:10.7. Dunn's TQ time was more than three seconds faster than Ron



Rick Hohwart was the 4WD Modified TQ and won the event.

Williams' non-Invitational TQ run. Second qualifier was Jack Johnson driving a JRX2/Revolution combination with a time of 14 laps, 4:12.9. Steve Dunn took the third qualifying spot with a 14, 4:16.3.

The 4WD Invitational saw some close qualifying in the middle of the pack. The fourth, fifth, and sixth qualifier all had the same times. Everybody felt you could go 15 laps, but it was just a question of who? That who was Erik Soderquist after an unproductive 2WD qualifier on Friday, Erik had to make something happen in 4WD, and he did! Erik Soderquist was the only person to go 15 laps the whole weekend. He was elated! Soderquist turned in 15 laps with a 4:16.4 making him the TQ with his Twister powered Yokomo. The second qualifier and not too far off a 15 lapper was Jack Johnson. Jack

took his Optima Mid/Revolution to a time of 14, 4:01.8. Third qualifier was Gary Kyes. Kyes turned in a 14 laps with 4:06.4.

Starting things off on Sunday was the Concours competition. Taking top honors in Concours was Rick Houle, Second Ron Rossetti and third was Paul Williams.

2WD Modified started off the A Mains. A favorite combination in this main was a Peak Performance motor with the JRX2, as there were nine JRX2s and four Peak Performance motors. The start saw the TQ Ron Williams get off to a bad start and fall back in the pack. The whole shot went to Jimmy Wright with Kyle Reed second and Floyd Trajuillo third. Soon it became a two car battle between Wright and Reed. Wright at the two minute mark had about a thirty foot lead over Reed, with the third place car



Jack Johnson was the overall winner of the CRP Challenge Invitational Class with his JRX2/Revolution combination.

about a half lap behind them. Wright's lead over Reed was not great, but enough for him to hold it. However, with 45 seconds to go Wright tangled with a back marker and Reed closed up the distance. The two battled to the end. On the last lap Reed went by Wright to take the win, and his second CRP 2WD Modified non-invitational title in three years.

The next event up was the 2WD Modified Invitational. Jack Johnson got the lead with Ron Rossetti second and the TQ, Mike Dunn third. After the first lap Johnson rolled it and allowed Rossetti to get out front with Mike Dunn passing for second and Johnson now in third. In a close fourth and fifth was Kris Moore and Rick Vehlow. Rossetti was stretching his lead and Dunn,



CHOOSE YOUR WEAPON

You've dared to take the R/C challenge. Your mission is clear: Load your hottest car with high-powered Pro-Line tires.

Hit the trigger.

Now hold tight and watch the

fun go off.

See Pro-Line tires blast through racing's roughest battlefields; dirt, sand, asphalt, faster than a speeding you-know-what.

Their outer shell casing is

strong and tough, for dead-on durability.

And Pro-Line tires come in a range of styles, sizes, widths and tread patterns, each born to blow the other guy's doors off.

REEDY

Modifieds

Reedy Modifieds Are Bursting Through With New Technology

Reedy Modifieds uses advanced R & D computer systems to develop and improve motor performance. Race developed and tested, Reedy motors are 4 TIMES IFMAR WORLD CHAMPIONS, leaping ahead of all competition.

**Reedy Modifieds.
The Outburst of
New Technology.**



3585 Cadillac Ave.
Costa Mesa, CA 92626 USA

Phone (714) 850-9342 Telex 756887

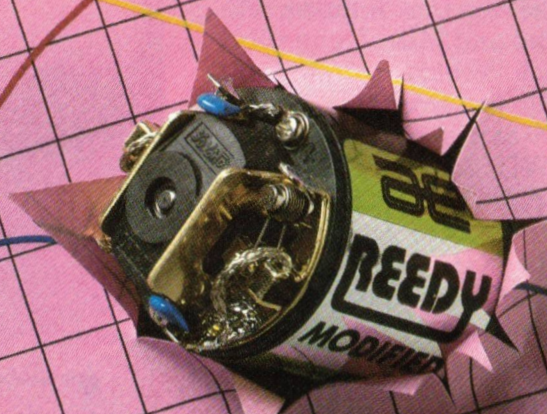
FAX 714-850-1744

CURRENT

TORQUE

POWER OUTPUT

OVERALL EFFICIENCY



(Graph shown represents actual computer readout of Reedy Modifieds motor.)



Likewise, Pro-Line accessories, from wheels to bumpers to bodies, have what it takes to zero in on the finish line.

So set your sights on surefire fun. Aim for your local Pro-Line dealer. Or shoot us a call for

more information. For our current catalog, send a check or money order for \$2.00 (U.S. Currency). If you would like more information on Pro-Line products designed to fit your favorite R/C car, include the make and model.

Pro-Line, P.O. Box 456,
Beaumont, CA 92223,
714/849-9781.

PRO-LINE
The Best Parts
Of Winning.

Johnson, Moore and Vehlow were battling it out for second, third, fourth and fifth. At the two minute mark Rossetti had everything under control and was cruising in front. The battle for second had diminished some as Johnson held a little lead over Rick Vehlow and in fourth was Mike Dunn. At the horn we had Rossetti taking first, Johnson taking second and Mike Dunn third with Rick Vehlow falling into fourth. In the Invitational class Rossetti was now on top.

The 4WD Modified A Main had the pole sitter Rick Hohwart and his Peak/Mid get the whole shot with Kyle Reed jumping into second and Jimmy Wright was third. After a few laps Hohwart already had a quarter of a lap lead and wasn't looking back. Meanwhile a battle for second started to shape up between Kyle, Jimmy and Curtis Strawn. While the three were battling Nichelle Rivera moved up



Kyle Reed was the 2WD Modified CRP Challenge champion driving a JRX2 with Trinity power.

and joined the battle for second. At the two minute mark Jimmy Wright was having problems and fell off the pace. Rick Hohwart now had a half lap lead over the

field and was still stretching it. A three-way battle was still going on for second place. And I do mean battle, each corner there was a new second place car. When the horn blew, Rick Hohwart had almost a lap lead and truly outclassed the field. The battle for second ended with Kyle Reed second, Curtis Strawn third and Nichelle Rivera fourth.

The last main of the day was the 4WD Modified Invitational. The leader Ron Rossetti was starting eighth, with second spot Jack Johnson starting second. The third place driver, Mike Dunn was starting sixth. The TQ in the 4WD Modified Invitational class was Erik Soderquist. It was almost impossible for Soderquist to win the overall event because in 2WD he finished eleventh. At the start Erik Soderquist jumped to first with Jack Johnson second and Rick Vehlow in third. The lead was never challenged from Soderquist, after he got the whole shot. For the first minute the top three positions remained the same. However, the man with a mission in this race was Ron Rossetti. Ron started eighth and had to finish only one spot behind Jack to tie this event. Back-up times would decide the winner. Ron

The True Facts About R/C Car Gears

Kimbrough Products Precision Differential Gears are the best because:

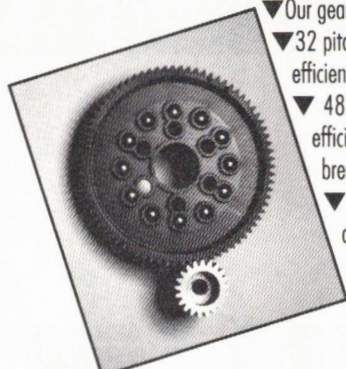
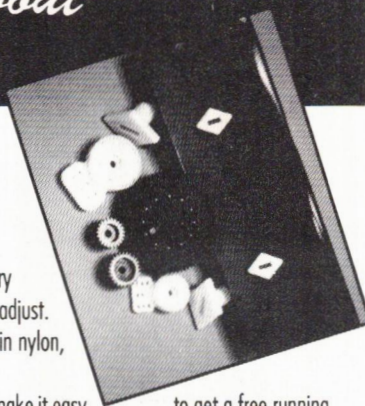
- ▼ We do our own injection molding and control the quality, every gear we sell is round and concentric, so the gear mesh is easy to adjust.
- ▼ They are molded from high temperature Teflon lubricated virgin nylon, to last longer and run friction free.
- ▼ The twelve 12 ball bearing hole circle and Teflon lubrication make it easy to get a free running differential adjustment, so your car gets more tire bite when powering out of the corners.
- ▼ Our gears can be purchased with or without 12 ball bearings pre-installed.
- ▼ 32 pitch gears for high strength and long lasting off-road use with good efficiency.
- ▼ 48 pitch gears for oval or on-road racing at high speeds with high efficiency, and still tough enough to take a banging without breaking.
- ▼ These gears fit the R/C 10, R/C 12 and other compatible ball differentials.

Sold through Distributors & Dealers only

KIMBROUGH PRODUCTS



1420 East St. Andrew Pl., Unit F • Santa Ana, CA 92705 • FAX (714) 557-4609



was now in fifth. At the two minute mark it was Soderquist in front with a comfortable lead, Johnson in second, Vehlow third, and Rossetti in fourth, just behind Vehlow. Rossetti and Vehlow battled it out. With thirty seconds to go it could have gone either way. With ten seconds to

go it looked as though it was going to come down to the extra lap. At the horn Vehlow got the extra lap and Rossetti did not. Vehlow was third, with Jack Johnson coming in second and taking the CRP Challenge Invitational class win. The winner of the 4WD Modified was

Erik Soderquist, who unfortunately had bad luck in the 2WD, taking him out of contention.

Everyone had a great weekend of racing and Competition Plus wishes to congratulate all the winners. See you next year at this Classic!

QUALIFYING GRID FOR THE 2WD MODIFIED A MAIN

ROW 1

1 - Ron Williams
Losi JRX2/?
14, 4:14.0

2 - Jimmy Wright
Losi JRX2/Revolution
14, 4:14.4

ROW 2

3 - Kyle Reed
Losi JRX2/Trinity
13, 4:04.0

4 - J.D. Beckwith
Losi JRX2/?
13, 4:04.3

ROW 3

5 - Floyd Trujillo
Losi JRX2/?
13, 4:04.4

6 - Rick Hohwart
Losi JRX2/Peak Perfor.
13, 4:04.6

ROW 4

7 - Scott Dunlap
Losi JRX2/?
13, 4:04.8

8 - Tym Wells
Losi JRX2/Peak Perfor.
13, 4:05.2

ROW 5

9 - Cleve Mason
RC10/Race Prep
13, 4:06.8

10 - Steve Chamberlin
Losi JRX2/Peak Perfor.
13, 4:07.1

QUALIFYING GRID FOR 2WD INVITATIONAL A MAIN

ROW 1

1 - Mike Dunn
Losi JRX2/Race Prep

2 - Jack Johnson
Losi JRX2/Revolution
14, 4:12.9

ROW 2

3 - Steve Dunn
RC10/Race Prep
14, 4:16.3

4 - Ron Rossetti
Losi JRX2/Revolution
14, 4:17.0

ROW 3

5 - Kris Moore
RC10/Twister
13, 4:00.0

6 - Rick Vehlow
Losi JRX2/Trinity
13, 4:01.5

ROW 4

7 - Gil Losi, Jr.
Losi JRX2/Revolution
13, 4:04.9

8 - Gary Kyes
Losi JRX2/Revolution
13, 4:05.4

ROW 5

9 - Dennis Taylor
Losi JRX2/Revolution
13, 4:05.8

10 - Joe Schmitz
Losi JRX2/Twister
13, 4:08.2

QUALIFYING GRID FOR 4WD MODIFIED A MAIN

ROW 1

1 - Rick Hohwart
SRS Optima Mid/Peak Perf.
14, 4:05.5

2 - Joe Hifco
Yokomo/RevTech
14, 4:11.1

ROW 2

3 - Jimmy Wright
Optima Mid/Revolution

4 - Kyle Reed
Cat/Trinity
14, 4:14.4

ROW 3

5 - Nichelle Rivera
Yokomo/Peak Perfor.
14, 4:15.7

6 - Greg Dee
MIP RC10/Twister
14, 4:15.8

ROW 4

7 - Randy Hunter
Optima Mid/Revolution
14, 4:17.0

8 - Scott Dunlap
Yokomo/Revolution
14, 4:17.8

ROW 5

9 - Curtis Strawn
Cat/Premier Designs
13, 4:00.3

10 - Cleve Mason
ProRadiant/Race Prep
13, 4:00.8

ERI
assoc. inc.

**CALL
MICHAEL!**

**FOR FAST
1st RATE SERVICE
(914) 268-5090**

**DEALERS
ONLY!!**

Andy's Aristo-Craft Ascot
Associated Astro Flight
Autographics Big Boy Toys
Composite Craft CRP
Bolin Bud's
Checkpoint
Cichon Gonzo
Five Star Hot Trick JG
Leisure Litespeed MRC
MRF Mura McAllister
M&M MP
MPE Novak
Kimbrough KO Propo
Pactra Paragon Parma
Power Pak Proline Pro-Cut
Pro Shop Protech

Protrack Ram Raceco
Race Master Race Prep
Racing Silks RCH
RC Performance Specialties
Revtech RPS/Losi
R&R Sanyo Sermos
Team Pitstop Tekin
Thorp TM Traxxas
TRC Trinity
Twister Twinn-K
Vancom Victor
You-G(Panda)

NEW COMPANIES:
Blue Ribbon C & M

Airtronics A&L
Cobra CMW
Compos. Craft
Delta Dubro
Cheetah
Houge
Peak Perform
RC Perf. Spec.
Rochester Rc
Schumacher
Sermos SRS
Traxxas
Zeta Dahm's
and more...

The shelves are
stocked with over
80 companies
just for radio
controlled cars.



50 NORTH HARRISON AVE. UNIT #12, CONGERS, NY 10920



SLY, SLEEK, SWIFT,

SCHUMACHER CAT™ XLS
THE PURRRRRFECT 4WD MACHINE!



OK — so you're tired of those "All Blow And No Show" kits. You know the ones, they claim to blow anything off the road, from the Turbo-this to the Nitro-that, but when you take them out of the box and run 'em a few laps you soon see that somebody was just blowin' a lot of smoke to sell another kit!

Our performance history speaks for itself!

- Current IFMAR World Champion
- Current U.S. ROAR National Champion
- Current British National Champion
- Current Australian National Champion
- ... The List Goes On And On!!!!

Not only have we WON all these races, but we've done it stock!

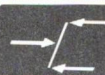
DISTRIBUTED TO LEADING HOBBY SHOPS
NATIONWIDE EXCLUSIVELY BY:

TRINITY
1901 E. LINDEN AVE. #8
LINDEN, NJ 07036
201-862-1705/1708
TELEX #4971468
FAX #201-862-6875

ERC
2211 CHARTER ST.
ALBERMARLE, NC
28002
704-982-0507
FAX #704-982-0672

Soon to be revealed the secret of success!

The all new



Schumacher

TOP CATTM

bred for success by World Champions

TOPCAT 2 W.D. OFF-ROAD RACER

Now, from the team that designed the world's most successful 4 W.D. off-roader, comes a new challenger for 2 W.D. honours.

The Topcat uses many innovative features to leave the opposition far behind. The secret of success will soon be revealed, see it, buy it, be part of it.

SCHUMACHER —

4 W.D. WORLD CHAMPIONS U.S. NATIONAL CHAMPIONS

DISTRIBUTED TO LEADING HOBBY SHOPS
NATIONWIDE EXCLUSIVELY BY:

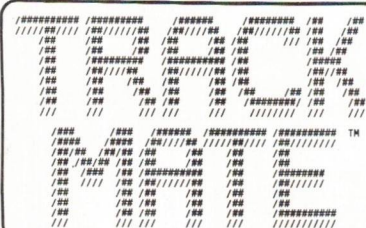
TRINITY

1901 E. LINDEN AVE. #8
LINDEN, NJ 07036
201-862-1705/1708
TELEX #4971468
FAX #201-862-6875

TRC

2211 CHARTER ST.
ALBERMARLE, NC
28002
704-982-0507
FAX # 704-982-0672

Performance and technology that YOU CAN BUY!



AT LAST... computerized race track administration for non-computer people. From initial registration to main results, TrackMate lets *you* be in control.

AT LAST... a computer program that actually helps out during the race event. Registration, organizing qualifying heats, race scoring, class standings, and main assignments are standard features. And if you have the Bolink/AMB lap counting system, TrackMate enhances its operation.

AT LAST... over 2 years in the making, TrackMate was designed at trackside to quickly and easily handle all the exceptions that occur during a normal race day. Dropped cars, scratched cars, frequency changes, class changes, and heat changes are routine.

TrackMate runs on IBM compatible computers, includes an illustrated manual and a one hour training video.

TrackMate Systems

508-435-6008

TrackMate is a trademark of TrackMate Systems

QUALIFYING GRID FOR 4WD INVITATIONAL A MAIN

ROW 1

1 - Erik Soderquist
Yokomo/Twister
15, 4:16.4

2 - Jack Johnson
Optima Mid/Revolution
14, 4:01.8

ROW 2

3 - Gary Kyes
Optima Mid/Revolution
14, 4:06.4

4 - Steve Dunn
ProRadiant/Race Prep
14, 4:10.6

ROW 3

5 - Gil Losi, Jr.
Optima Mid/Revolution
14, 4:10.6

6 - Mike Dunn
ProRadiant/Race Prep
14, 4:10.6

ROW 4

7 - Kris Moore
Yokomo/Twister
14, 4:11.5

8 - Ron Rossetti
Optima Mid/Revolution
14, 4:12.2

ROW 5

9 - Rick Vehlou
Cat/Trinity
14, 4:13.7

10 - Joe Schmitz
Yokomo/Twister
14, 4:14.0

FINAL RESULTS

INVITATIONAL OVERALL

- 1st - Jack Johnson
- 2nd - Ron Rossetti
- 3rd - Rick Vehlou
- 4th - Mike Dunn
- 5th - Joe Schmitz
- 6th - Erik Soderquist
- 7th - Gil Losi, Jr.
- 8th - Gary Kyes
- 9th - Kris Moore
- 10th - Steve Dunn
- 11th - Dennis Taylor
- 12th - Eustace Moore

4WD MODIFIED A MAIN

- 1st - Rick Hohwart
- 2nd - Kyle Reed
- 3rd - Curtis Strawn
- 4th - Nichelle Rivera
- 5th - Joe Hifco
- 6th - Greg Dee
- 7th - Randy Hunter
- 8th - Jimmy Wright
- 9th - Scott Dunlap
- 10th - Cleve Mason

B MAIN

- 1st - Tym Wells
- 2nd - Tem Raskin
- 3rd - Rob Robinson
- 4th - Jeff Schwartz
- 5th - Hobie Kaptan
- 6th - Floyd Trujillo
- 7th - Joe MacGregor
- 8th - Jeffrey Benmoin
- 9th - Tony Maganuco
- 10th - John Wheeler

C MAIN

- 1st - Paul Williams
- 2nd - Tom Clark
- 3rd - Eddie McKay
- 4th - Jason Christensen
- 5th - Eddie Mondragon
- 6th - Derek Furutani
- 7th - Alan Krosnick/DNS
- 8th - Gerald Tea/DNS
- 9th - Suzanne Krosnick/DNS
- 10th - Andy Jacobsen/DNS

D MAIN

- 1st - Irving Norwood
- 2nd - Robert Ahulii
- 3rd - John Gudvangen, Sr.
- 4th - Greg Sellwood
- 5th - ?
- 6th - Tom Cox
- 7th - C. Bruno
- 8th - Tomy Chaisawasen
- 9th - Shane Passoth
- 10th - Glenn Glass

2WD MODIFIED MAINS A MAIN

- 1st - Kyle Reed
- 2nd - Jimmy Wright
- 3rd - Floyd Trujillo
- 4th - J. D. Beckwith
- 5th - Tym Wells
- 6th - Scott Dunlap
- 7th - Cleve Mason
- 8th - Steve Cahmberlin
- 9th - Ron Williams
- 10th - Rick Hohwart

B MAIN

- 1st - Barry Hedrick
- 2nd - Jim Gouge
- 3rd - Curtis Strawn
- 4th - Rick Young
- 5th - Derek Furutani
- 6th - Scott Sherburn
- 7th - Tyree Phillips
- 8th - Mike Demay
- 9th - Fire Hawk
- 10th - Mark Gray

C MAIN

- 1st - Jason Wright
- 2nd - Randy Hunter
- 3rd - Tem Raskin
- 4th - Nichelle Rivera
- 5th - Pete Gamari
- 6th - Rob Robinson
- 7th - Tomy Chaisawasdi
- 8th - Tony Manganuco
- 9th - Robert Ahulii
- 10th - Jon Anderson

D MAIN

- 1st - Eric Beier
- 2nd - Glenn Glass
- 3rd - Gary Gray
- 4th - Jeff Schwartz
- 5th - Roger Tibbetts
- 6th - Beau Benninghoven
- 7th - Zac Wheatcroft
- 8th - Peter Martin/DNS
- 9th - Bob Novak/DNS
- 10th - Ross Brandt/DNS

E MAIN

- 1st - Ian Wedertz
- 2nd - Sean Matherson
- 3rd - Tom Clark
- 4th - Joe Hifco
- 5th - Eddie Mondragon
- 6th - Jeff Abrams
- 7th - Shane Passoth
- 8th - Paul Williams
- 9th - Irving Norwood
- 10th - Joe MacGregor

F MAIN

- 1st - John Smith
- 2nd - John Schultz
- 3rd - Kenny Gray
- 4th - Bill Carter
- 5th - Rick Watchorn
- 6th - Dino Mowreeder
- 7th - Phil Ryan
- 8th - Rick Houle
- 9th - Phred Gebaver
- 10th - Tom Cox

G MAIN

- 1st - Charles Brigance
- 2nd - Vic Wall
- 3rd - Phil Perdue
- 4th - Les Peterseon
- 5th - Manny Portillo
- 6th - Shawn Young
- 7th - Doug Gilliland
- 8th - Paul McMullen
- 9th - Holli Dodge
- 10th - Brian Benson

CP

The 8th Annual Western Off-Road Championships

By Leo Barana

One of the oldest off-road races in the country is the Western Off-Road Championships. I can remember when the dominating force was the Tamiya Rough Rider. Back then there weren't any worries about batteries or motors, just whether your car was going to hold together before the end of the race. Oh, how much things have changed! The cars have gone from moving models to full blown off-road racing machines. Now batteries and motors have become a science. The one thing that will never change no matter how advanced we become, is the spirit of competition!

The Eighth Annual Western Off-Road Championships were to be run as follows: Friday practice, Saturday three rounds of qualifying, and Sunday one round of qualifying and the main events. The mains would be eight cars, seven qualifying and one bump up. Six classes were run: Stock classes were Monster Truck, 2WD and 4WD; Modified saw the same three categories.

QUALIFYING

STOCK MONSTER TRUCK:

The first class to qualify was the Monster Truck Stock Class. I will not be going into great detail in this class because there was only one main, so qualifying was only for the grid. The starting grid was, TQ, Richard Dee with a time of 12 laps, 4:19.4, second was Mark Grotsky, followed by Ron Anthony, Don Arndt, Van Butler, Christian Durand, Dave Marco, Bob Gold, and Jennifer Kortz.

2WD STOCK: The fast man in the 2WD Stock Class was the National Champion Ron Rossetti. Rossetti took his Losi JRX2 to the TQ spot with a time of 13 laps in 4:09.4. The second qualifier after the first round was Dennis Taylor. Taylor had a time of 13 laps, 4:14.3. The third qualifier was Gary Kyes with a time of 13, 4:19.0. The first two qualifying times could not be improved upon. The third quickest qualifying time went to Gil Losi, Jr. in the second round with 13, 4:16.5, bumping Gary to fourth. The fifth qualifier was unchanged from the start with that spot being filled by Mark Pavidis. Sixth qualifier after two rounds was Steve Chamberlin.

Chamberlin got bumped back to seventh when Jack Johnson slid into the sixth spot with a time of 12, 4:00.3 in the third round. The fourth round of qualifying saw no changes whatsoever.

4WD STOCK: The first round of 4WD Stock qualifying saw Treg Willis click off a rocket TQ run of 12 laps, 4:01.3. That run was twelve seconds ahead of the second qualifier, Jeffrey Benmoin, who turned in a 12, 4:13.4 and the third qualifier after round one was Tom Clark with a time of 12, 4:15.7. In round two it became apparent that it was almost going to be impossible to beat the TQ time of Treg Willis. The second qualifying time of Benmoin was overtaken by Nichelle Rivera. Rivera turned in a 12, 4:11.0. Jeffrey Benmoin improved his time also with a 12, 4:11.1 to put him third, only one tenth of a second behind Rivera. The third round only had one quick run. Tom Clark moved up from fifth to second with a 12, 4:10.3 run, dropping Rivera back to third. In the fourth and final round of qualifying the TQ was still Treg Willis with nobody coming close to his time.

○ HobbyShopper's Guide ○

R/C CARS & PARTS

PLASTIC MODELS



R/C BOATS · PLANES · HDWE

INT'L BOOKS & MAGAZINES

3601 Shepherd
Balch Springs, TX 75180

(214) 557-5290

BUFFALO, NY

When Visiting Niagara Falls - Visit Us Too
I-90 Thruway Exit 52 E

Niagara

Hobby & Craft Mart

3366 Union Rd. (at Walden), Buffalo, New York 14225
R/C Cars - Parts & Accessories

Our OVAL BLACKTOP R/C Track Open Everyday

716-681-1666

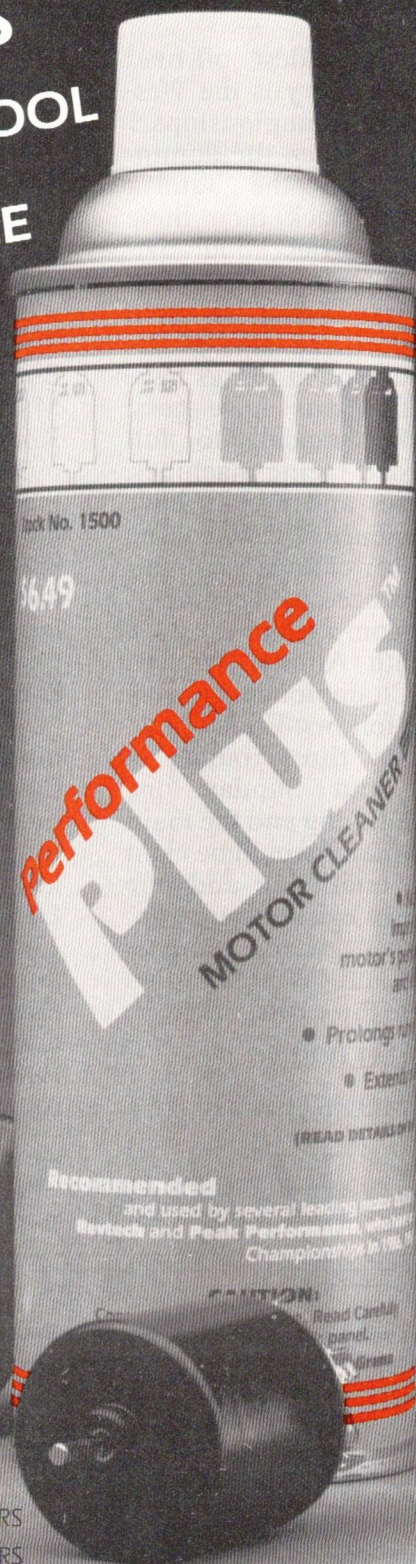
INTRODUCING PERFORMANCE PLUS™

THE NEEDED MAINTENANCE TOOL
THAT NOTICEABLY IMPROVES
YOUR MOTOR'S PERFORMANCE
AND EFFICIENCY!

- PROLONGS
RUNNING TIME!
- EXTENDS MOTOR
LIFE!

Performance Plus™ has been developed specifically to aid in maintenance, cleaning and conditioning of all stock and modified electric motors. It is a needed prevention maintenance tool that will noticeably improve your motor's performance and efficiency. This is done by eliminating power-robbing resistance and arcing caused by accumulated and unwanted carbon deposits on the commutator. The **Performance Plus™** formula removes accumulated brush dust and impurities caused by the wearing of moving parts within the motor. As a result, your batteries and entire system will benefit from the use of **Performance Plus™** and experience longer running times. This also means less cost to you in maintenance and motor repair, lowering the likelihood of total replacement of these expensive motors. This small precaution saves you money both now and in the long run, so invest wisely in **Performance Plus™** today.

Recommended and used by several leading motor builders, including **Revtech** and **Peak Performance**, who have won national championships in 1986, 1987 and 1988.



DISTRIBUTORS
AND DEALERS
CONTACT:

T.A. EMERALD INDUSTRIES // 18361 ENTERPRISE LANE, HUNTINGTON BEACH,
CA 92648 (714) 841-2750

AT YOUR LOCAL DEALER FOR ONLY \$5.75

Hyperdrive and RC-10

Ralph Burch wins
1988 Whippoorwill
Race of Champions,
TQ's, and sets new
track record using
Hyperdrive!

**Made for
each other.**



patent pending

The Associated RC-10. One of the most popular RC off-road race cars of all time.

Hyperdrive. Quickly establishing itself as the hottest new bolt-on high performance item for off-road ever! Ask the guys on the east coast about the new track records set with Hyperdrive on dirt.

Hyperdrive survives in the toughest off-road racing environments.

Rocks, grit, and grime that can quickly kill gear drive simply sling off Hyperdrive.

Hyperdrive handles more horsepower, higher R.P.M., runs with far less friction,



and is easier to set up and maintain than other systems.

Cost is comparable to gear drive. (Actually less expensive if durability and finishing races means anything.)

6 motor pulleys and 3 differential pulleys are available plus belts giving you a complete range of ratios for competition.

Hyperdrive is available for the RC-10 and most other popular off-road race cars and practically all $\frac{1}{10}$ and $\frac{1}{12}$ on-road applications. Ask for our RC-10 full race kit.

Contact us for our new catalog and ordering information today!

Hyperdrive
Belt Drive Systems™



18312 Gifford Street
Fountain Valley, CA 92708
Phone: 714-962-6928

WHOLESALE ONLY

- THE MIRAGE SS 1/10 OFF ROAD BODY (Clear or Painted)
- RC10 TITANIUM SUSPENSION HINGE PINS
- NEW!** • ULTIMA TITANIUM SUSPENSION HINGE PINS
- NEW!** • OPTIMA MID TITANIUM SUSPENSION HINGE PINS
- FOAM MOTOR COVER THAT BREATHES
- RC10 RETAINING RING SETS FOR HINGE PINS
- RETAINING RING PLIERS
- YOKOMO/KYOSHO MOTOR MOUNT GASKET
- SF3 ANTI-FRICTION LUBRICANT
- RCPS DECAL SHEETS

RC Performance Specialties are available from the following quality distributors:

AKS • ERI • HORIZON EAST AND WEST • H.R.P. •
JA-LEA CO. • NATIONWIDE • PACIFIC MODEL • RACE PREP •
RPS • RCS • SPEED AND SPORT • TRINITY • UNIVERSAL •
W.K. LOVELESS • SRM • FAST TRACKS

"Performance is our middle name"

Nichelle was not one to lie down and die as she turned in a 12 lap 4:08.0 moving her back into second, dropping Clark to third with Jeffrey Benmoin fourth, Ruben Falcon fifth, Stephen Chen sixth, and Tim Boggess seventh.

MODIFIED MONSTER TRUCK: This class seems to be gaining in popularity. The field of Modified Monster Trucks had several top drivers in it, Kris Moore, Steve Dunn and Rob Robinson. To start the first round off with a bang in the first heat Gary Guest clocked a 12, 4:11.3, the only truck to go 12 laps in the first round making him the TQ. The fastest 11 lapper was Greg Dee with an 11, 4:02.0, putting him momentarily second on the grid. The third fastest of the round was Brandy Dreifus with an 11, 4:02.5. The second round, like the first, saw one 12 lapper turned in by Rob Robinson. Robinson's time was a 12, 4:11.0. It was three tenths of a second faster than the present TQ mark

set by Gary Guest in the first round putting Robinson on top in this class. The third round was a quick one as there were two more 12 lappers turned in. That was a little odd as the track had been run on all day and showed to be slower. The faster of the 12 lap runs was Kris Moore with a 12, 4:15.6 putting him third behind Guest and Robinson. John Gudvangen, Jr. turned in the other 12 lap run with a 12, 4:19.5 putting him fourth. The fourth round of qualifying saw nobody improving his times, nor did anyone else bump into the A.

2WD MODIFIED: The first round of 2WD Modified was an extremely fast round. To everyone's surprise the A Main would be decided in this round. The other three rounds of qualifying didn't produce a driver for the A Main. In round one the TQ was set by the man who was unbeatable this year, Cliff Lett. Lett took his Reedy powered RC10 to the TQ mark with a 13, 4:05.2. The second qualifier, and a man on

the upscale, is Randy Locken. Randy took the second qualifying spot with a 13, 4:02.3. The third qualifier was Chris McElroy. McElroy took his Peak Performance/Ultima combination to a time of 13, 4:08.2. In the second round some drivers in the A improved their time and position. The first driver to do this was Kris Moore. Moore's first round time was 13, 4:12.1 putting him fifth. In the second round his time was 13, 4:09.7 still leaving him fifth. The most significant fast run was turned in by Cliff Lett. Lett improved his TQ time by turning in a 14 lap run. His time was 14, 4:18.7, making him the only 2WD Modified driver to go 14 laps. As I said earlier there were no other changes in this class.

4WD MODIFIED: The 4WD Modified qualifying was very similar to the 2WD Modified qualifying. The first similarity was the TQ. Yes, Cliff Lett was the TQ in 4WD Modified also. He has set the TQ record in 6 of the 7 major races he entered. Lett took his Reedy/Yokomo combination to a TQ time of 14, 4:15.9. The second qualifier and recent CRP Challenge winner, was Jack Johnson. Jack took his Revolution powered Optima Mid to a time of 14 laps in 4:17.5. The third qualifier and fastest of the 13 lappers was Peak Performance's Rick Hohwart. Rick took his Optima Mid to 13 laps in 4:01.1. In round two we had few of the A Main drivers improve their times, but not their positions. The first being the seventh qualifier Gary Kyes. Kyes went from a 13, 4:12.1 to a 13, 4:10.6. Lett improved his TQ time to a new TQ time of 13, 4:07.7. There were no other changes in the last two round of qualifying.

MAINS

STOCK MONSTER TRUCK: The start of the Stock Monster saw a big pile up in the first turn. Getting out of the pile first was your sixth qualifier Christian Durand. Second was your third

qualifier Ron Anthony and in third was Van Butler. After the first minute it was still Christian Durand in front with Ron Anthony in second, a half straight back, and moving into third was Mark Grotsky. At the two minute mark it was Christian Durand in front, second was a battle between Ron Anthony and Mark Grotsky. With a minute to go it was Durand with a comfortable lead in front. Second was close but it looked like Anthony had the upper hand for the moment, and third was Grotsky. With thirty seconds to go Anthony, your second place car, got tied up with back traffic costing him second place as he fell back to third. At the horn it was Christian Durand taking first, Mark Grotsky second and Ron Anthony finished third.

2WD STOCK A MAIN: The 2WD Stock A Main had six Losi JRX2s and two Associated RC10s. The start of the main saw your TQ, Ron Rossetti, get the whole shot with Steve Chamberlin second and Gary Kyes in third. After the first lap it was Rossetti stretching his lead with Chamberlin second and Losi, Jr. third with Kyes right behind in fourth. At the one minute mark it was Rossetti in front with a straight lead and Losi and Kyes second and third respectively. At the two minute mark Rossetti was in command with Losi, Jr. a strong second and Kyes in third. Moving up in fourth was your bump up from the B Main, Gary Demory. With one minute to go it was Rossetti still in front with Gil Losi, Jr. moving up slightly but not enough for Rossetti to worry. Meanwhile the battle for third and fourth started to shape up between Kyes and Demory. The two of them battled it back and forth right up to the end but Demory just didn't have enough to get by Kyes for third. Rossetti took the gold with Losi, Jr. second and Kyes taking third.

4WD Stock: The 4WD Stock A Main consisted of four Optima Mids, 2 MIP RC10 conversions,

one Yokomo YZ10 and one AYK Radiant. The start of the main saw a big pile up and getting out in front was Tom Clark with Treg Willis second and Tim Boggess third. At the end of the first lap they were still in that order. At the one minute mark it was Clark in front, Willis still second and in third, it was the bump up Geoff Meudt. At the two minute mark it was shaping up to be a real battle for the top spot between Clark, Willis and Meudt with Nichelle Rivera not too far back in fourth. With all the battling going on in the front of the pack, it enabled the rest of the field to catch up. With one minute to go, you had seven cars with a chance to take the win. With thirty seconds to go Treg Willis and Geoff Meudt tied up and caused a massive traffic jam. With that tangle up your first placed car, Tom Clark, was able to stretch out the lead and cruise to victory. Moving into second was Nichelle Rivera and third Ruben Falcon. At the horn this was the final line-up.

MODIFIED MONSTER TRUCK: The start of the Modified Monster Truck A Main saw your TQ, Rob Robinson, get spun around making Gary Guest

the leader with John Gudvangen, Jr. in second and Brandy Dreifus third. Robinson started to work his way back up through the field and by the end of the first lap Robinson had moved into fourth. At the one minute mark it was Guest, JG, Jr. and now Robinson third with Dreifus fourth. Just short of the two minute mark JG, Jr. rolled it and dropped back. Guest was in front with a nice lead followed by Robinson and Dreifus. As Guest was cruising in the lead a problem struck from inside the transmission and his car started to chirp like a canary. Guest doing the best job he could to keep his truck going was still in front. With one minute left Robinson was right on Guest's tail and went by as Guest's truck could go no further. With Guest out, Robinson had opened up a big lead between him and the second place car of Brandy Dreifus. In third was Steve Dunn with Kris Moore not too far behind. With seconds to go Dunn's truck broke down and Moore went by for third. So ended the Modified Monster Truck with Robinson first, Dreifus second and Moore taking third.

Pro Auto Peak - \$34.95

A Revolutionary Concept in Charging Technology

Δ Peak Detection Converter

- Instantly Converts ANY DC. Fast Charger (even charge cords) to a Peak Detection Charger
- Provides Increased Power & Run Time
- 100% Safe and Automatic
- Compact Size 3 x 2 x 1 1/4"



Both Units Feature:

- Use with Cars, Boats, Planes
- Tamiya Connectors
- One Button Operation
- LED Indicator
- Electronic Detection Circuitry
- Built In Self Test Routine • Automatic Switch to Trickle Charge

Available thru local dealers or from The Pro Shop, P.O. Box 5382, Parsippany, N.J. 07054
Include \$2.00 P&H-N.J. residents add 6% sales tax-check or money order only-no C.O.D.

Distributor Inquiries Invited



Pro Power Peak - \$49.95

- Self Contained DC. Peak Detection Charger for 6 or 7 Cells
- Transistor Current Regulator
- Pulsating LED Charge Indicator

R/C PRODUCTS

LEADS RC-10 INTO THE NEXT EVOLUTION!



ANDY'S® MONSTER TRUCK
CONVERSION KIT (#3425),
comes complete as shown.
Individual parts also available.

The team of ANDY'S® R/C
PRODUCTS, who are dedicated
to designing and manufacturing
the highest quality, race-tested
performance products, is leading
the RC-10 in the next evolution!

With ANDY'S® MONSTER TRUCK KIT
(#3425), converting your standard
RC-10 into a Monster Truck or Stad-
ium Offroad Racer is simple! Of
course, you are assured the precision,
performance, and quality that has
made ANDY'S® National Champions.
Even if you're not a pro, you will enjoy
the thrill when you buy ANDY'S® R/C
PRODUCTS!

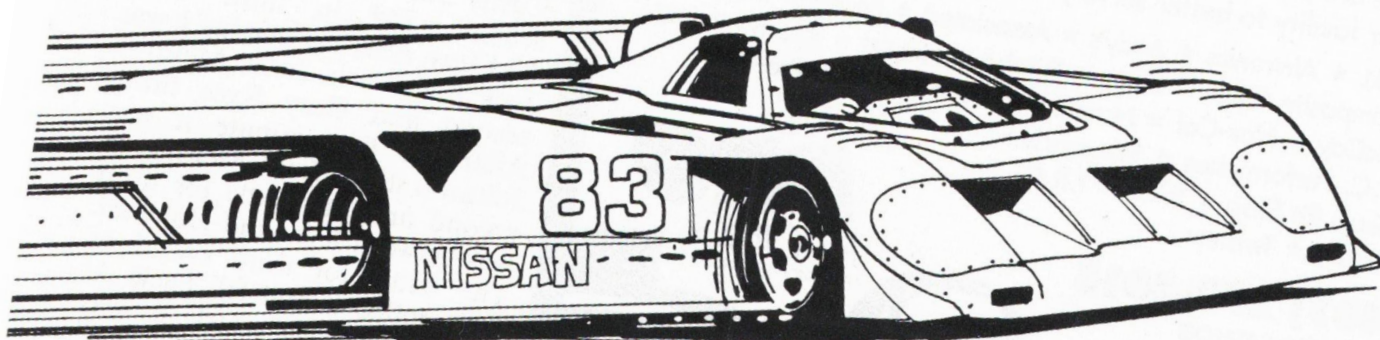
R/C PRODUCTS
466 W. ARROW HWY., UNIT K
SAN DIMAS, CA 91773
(714) 592-4737

Send \$2.00 for Catalog.



ANNOUNCING

Michigans largest indoor racing facility • Large 85' x 36' carpet track
Complete pro shop with a full line of R/C cars and speed accessories
Over 100 pit benches with AC power



Wednesday

TEAM **SEMROCC** RACING Presents

1/12 Road Racing Series

Stock • 4 cell • Stock motor

Modified • 4 cell • Modified motor

All heats 8 minutes

ROAR Membership required

Sign in closes 6:30 p.m.

Entry fee:

SEMROCC Members\$6.00

Non-Members\$8.00

Friday

JJ'S R/C SPEEDSHOP Presents

"Oval Madness"

1/10 **Sportsman** • Tamiya Buggies 6 cell • Stock motor

1/10 **Stock** • Gear Box cars 6 cell • Stock motor

1/10 **Modified** • Gear Box cars 6 cell • Modified motor

1/10 **Superstock** • Solid Axle cars 6 cell • Stock motor

1/10 **Unlimited** • Solid Axle cars 6 cell • Modified motor

1/12 **Unlimited** • 4 or 6 cell • Open motor

All heats 4 minutes

Sign in closes 7:00 p.m.

Entry fee\$ 7.50

Saturday

JJ'S R/C SPEEDSHOP Presents

"Stadium" Off-Road Racing

1/10 **Sportsman** • Tamiya Buggies 6 cell • Stock motor

1/10 **Stock** • 6 cell • Stock motor

1/10 **Modified** • 6 or 7 cell • Modified motor

All heats 4 minutes

Sign in closes 4:00 p.m.

Entry fee\$ 7.50

Sunday

TEAM **SEMROCC** RACING Presents

Championship Road Racing

1/12 **Stock** • 4 cell • Stock motor

1/12 **Modified** • 4 cell • Modified motor

1/10 **Stock** • Gear Box cars • 6 cell • Stock motor

1/10 **Unlimited** • Solid Axle cars • 6 cell • Modified motor

All classes require full bodies

All 1/10 Scale heats 4 minutes

All 1/12 Scale heats 8 minutes

ROAR membership required

Sign in closes 10:00 a.m.

Entry fee:

SEMROCC Members\$ 7.00

Non-Members\$9.00

CLASSES ARE SUBJECT TO CHANGE BASED ON PARTICIPATION

JJ'S R/C SPEEDSHOP and TEAM **SEMROCC** RACING

Located in the "Green Acres" Shopping Center, 5645 13 Mile Road at Mound in Warren, MI 48092
for more information call **JJ'S R/C SPEEDSHOP** (313) 977-0420

Fine Tune Your RC Car.

If you're looking for the latest in up to date racing parts and racing tips call All Pro and compare (407) 273-4015.

We are pleased to announce that we have moved to a larger facility to better serve you.

★ A&L ★ Airtronics ★ Andy's ★ Associated ★ Bolink ★ Bud's
★ Composite Craft ★ Delta ★ Futaba ★ Houge ★ Kyosho ★ Losi
★ McCoy ★ Nor-Cal ★ Novak ★ Paris ★ Parma ★ Pro-Line
★ R.C. Performance ★ Schumacher
★ Team Pit Stop ★ Tekin ★ T.R.C.
★ Trinity ★ Twister

(407) 273-4015

S.A.S.E. FOR CATALOG
P.O. BOX 14172
ORLANDO, FL
32857-4172

ALL
PRO ★ ★ ★
RACING
FROM RACERS TO RACERS

tions, 2 Peak Performances, one Reedy, one Twister, and one Premier Design. The start of the A Main saw one of the worst starts imaginable for the TQ, Cliff Lett. Lett had rolled it and by the time a marshall was able to get to his car he had lost a quarter lap. The whole shot did go to the second qualifier, Jack Johnson, with Curtis Strawn, the bump up in second, and in third Chris McElroy. After the first lap it was Jack Johnson in front, McElroy second and Gary Kyes third. After the first minute it was Johnson still in front, McElroy in second and the battle for third was between Kyes and Hohwart. The battle for third ended as Kyes rolled it and fell back. At the two minute mark it was Johnson stretching his lead, Chris McElroy second and third was Rick Hohwart. Moving up to fourth and charging hard was Cliff Lett. With one minute to go it was Jack Johnson in front, Chris McElroy moving up and trying to make a last minute charge was in second. Third spot was still Hohwart with Lett a close fourth. With 30 seconds to go the order was the same, only tighter, as McElroy was almost in striking distance. Lett was close enough to Hohwart that if Hohwart rolled it, Lett would go into third. With about 15 seconds to go Rick, indeed, rolled it allowing Lett to take third. The battle for first ended with the horn, and Jack Johnson become the Western Off-Road 4WD Modified Champion. Chris McElroy took a respectable second and Cliff Lett's winning streak only faltered slightly as he finished third.

STOCK MONSTER TRUCK A MAIN

1st - Christian Durand/RC10 Conv.
2nd - Mark Grotsky/RC10 Conv.
3rd - Ron Anthony/RC10 Conv.
4th - Richard Dee/RC10 Conv.
5th - Dave Marco/RC10 Conv.
6th - Don Arndt/RC10 Conv.
7th - Van Butler/RC10 Conv.
8th - Bob Gold/Ultima Conv.

2WD STOCK

A MAIN

1st - Ron Rossetti/JRX2

2WD MODIFIED: The 2WD Modified A Main had four Losi JRX2s, three Associated RC10s, and one Ultima. The motor war went as follows: three Revolutions, two Peak Performances, two Reedys, and one Twister. The start of the A Main saw the TQ, Cliff Lett, get the whole shot with Rick Hohwart second, Jack Johnson third, and Losi, Jr. fourth. In the corner Johnson went to the inside of Hohwart and moved into second. After the first lap it was Lett already moving out. The battle for second was a good one, as you had Johnson second, Losi, Jr. third, Randy Locken fourth and Rick Hohwart fifth, all within a straight. Losi, Jr. moved into the inside of Johnson and now he was second. Locken and Johnson tie up, letting Hohwart into third. At the one minute mark Lett was over a straight ahead followed by Losi, Jr., Hohwart and Locken. Losi rolled it and Hohwart moved into second. Losi stayed in third with Locken right behind in

fourth. Locken, a little anxious to get by Losi, hit Losi, causing Losi to fall back two spots to sixth. Locken, now in third, took himself out putting Kris Moore in third with Chris McElroy fourth and Locken and Losi, fifth and sixth. Meanwhile, in front it was Cliff Lett continuing to stretch his lead to almost a half lap. Rick in second couldn't challenge Lett but also was not going to be challenged. The only battle was for third between Moore and McElroy. The two of them dived it out for third with that position changing hands between the both of them many times. At the end it was Moore taking third. Rick Hohwart driving a brilliant race took second. The winner, and most winningest driver of 1988, Cliff Lett came away with the gold.

4WD MODIFIED: The line up for the 4WD Modified looked as follows: five Optima Mids, two Yokomo YZ10s, and one Schumacher Cat. The motor situation was as follows: three Revolu-

- 2nd - Gil Losi, Jr./JRX2
- 3rd - Gary Kyes/JRX2
- 4th - Gary Demory/RC10
- 5th - Jack Johnson/JRX2
- 6th - Steve Chamberlain/JRX2
- 7th - Mark Pavidis/RC10
- 8th - Dennis Taylor/JRX2

B MAIN

- 1st - Gary Demory
- 2nd - Eric Beier
- 3rd - Derek Furutani
- 4th - Larry Gold
- 5th - Rick Boggess
- 6th - Garrett Ertel
- 7th - Chris Chakires
- 8th - Mark Beier

C MAIN

- 1st - Rick Boggess
- 2nd - Dieter Kutz
- 3rd - Chris Cuthill
- 4th - Todd Wilson
- 5th - Lee Groon
- 6th - Gary Gray
- 7th - Jeffrey Reed
- 8th - Arron Carlson

D MAIN

- 1st - Chris Cuthill
- 2nd - Barry Bates
- 3rd - Craig Wiekamp
- 4th - Paul Williams
- 5th - Dave Groon
- 6th - Mike Reed
- 7th - Bob Forsyth
- 8th - David Pisarski

E MAIN

- 1st - Paul Williams
- 2nd - John Stephens
- 3rd - Geoff Meudt
- 4th - Albert Sikorsky
- 5th - Victor Chico
- 6th - Doug Brown
- 7th - Sean Masterson

F MAIN

- 1st - Danny Sanchez
- 2nd - Mike Brunette
- 3rd - Allen Berger
- 4th - Jim Walker
- 5th - Phil Ramsey
- 6th - Terry Leese
- 7th - Ron Cloutier

G MAIN

- 1st - Dale Kelly
- 2nd - Tou Lee
- 3rd - John Rodriguez
- 4th - Chris Campbell/DNS

A MAIN

- 1st - Tom Clark/AYK Radiant
- 2nd - Nichelle Rivera/Yokomo YZ10
- 3rd - Ruben Falcon/RC10 MIP
- 4th - Geoff Meudt/Optima Mid
- 5th - Jeffrey Benmoin/RC10 MIP
- 6th - Treg Willis/Optima Mid
- 7th - Tim Boggess/Optima Mid
- 8th - Stephen Chen/Optima Mis

B MAIN

- 1st - Geoff Meudt
- 2nd - Jeff Arndt
- 3rd - Victor Chico
- 4th - Ron Hite
- 5th - Hobie Kaptan
- 6th - Chad Harris
- 7th - Ron Gregorian
- 8th - John Keck

C MAIN

- 1st - Ron Gregorian
- 2nd - Gary McCaine

WAGONHILL HOBBIES

ON-ROAD 1/10 & 1/12 SPECIALISTS

FREE
UPS
SHIPPING

FREE
UPS
SHIPPING

225 S. Broad St., Grove City, PA 16127



R/C10

TEAM ASSOCIATED
with or without bearings
CALL FOR SPECIAL PRICE

Graphite Chassis & Oval
lowering kits.



The most advanced 1/10 scale
car available today. Get a Lynx
and finish first!

In Stock At Great Prices

SPECIALS:

- *Trinity SCR matched batteries
- *Trinity SCE matched batteries
- *Tekin Peak Chargers
- *Novak Speed Controls, & Servos.

GEAR SETS

48 pitch or 64 pitch. Gears from
Team Losi, Trinity & Robinson

Mastercard/Visa
Free Shipping

1-800-874-6229

C.O.D. add \$2.00
PA customers add 6%

- 3rd - Al Sikorsky
- 4th - Casey Stone
- 5th - Mike Cloutier
- 6th - George Johnson/DNS

MODIFIED MONSTER TRUCK

A MAIN

- 1st - Rob Robinson
- 2nd - Brandy Dreifus
- 3rd - Kris Moore
- 4th - Greg Dee
- 5th - John Gudvangen, Jr.
- 6th - Chuck Puma
- 7th - Steve Dunn
- 8th - Gary Guest

B MAIN

- 1st - Steve Dunn
- 2nd - Gil Losi, Sr.
- 3rd - Mark Grotsky
- 4th - Ron Williams
- 5th - Wylder Barrows
- 6th - Jeremy Kortz
- 7th - John Peterson
- 8th - Tem Raskin

C MAIN

- 1st - Jeremy Kortz
- 2nd - Larry Gold
- 3rd - Rick Boggess
- 4th - John Smith
- 5th - Gary Kortz
- 6th - Eddie Mondragon
- 7th - Rob Dunlap
- 8th - Don Arndt

D MAIN

- 1st - Don Arndt
- 2nd - Rick Houle
- 3rd - Dennis Hill
- 4th - Jeff Turner

- 5th - Ron Anthony
- 6th - Victor Torres
- 7th - Dave Nouri
- 8th - Mike Walker

E MAIN

- 1st - Mike Walker
- 2nd - John Gudvangen, Sr.
- 3rd - Andy Jacobsen
- 4th - Al Bridges
- 5th - Victor Chico
- 6th - John Keck/DNS

2WD MODIFIED A MAIN

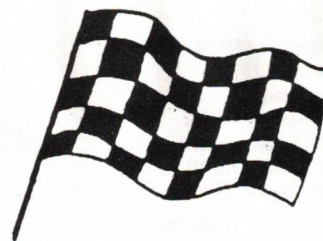
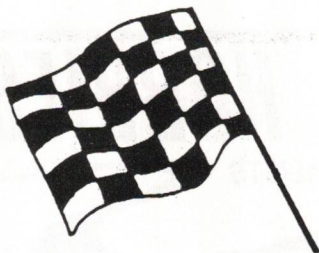
- 1st - Cliff Lett
- 2nd - Rick Hohwart
- 3rd - Kris Moore
- 4th - Chris McElroy
- 5th - Ron Rossetti
- 6th - Randy Locken
- 7th - Jack Johnson
- 8th - Gil Losi, Jr.

B MAIN

- 1st - Jack Johnson
- 2nd - Steve Chamberlain
- 3rd - Gary Kyes
- 4th - Gary Demory
- 5th - Dennis Taylor
- 6th - Steve Dunn
- 7th - Rob Robinson
- 8th - Joe Schmitz

C MAIN

- 1st - Gary Kyes
- 2nd - Chris Allec
- 3rd - Mike Dolan
- 4th - Cleve Mason
- 5th - Brad Thorn
- 6th - Mark Pavidis



METRO SPEEDWAY

PROUDLY PRESENTS

THE FIRST ANNUAL R.O.A.R. 1/10 OFF-ROAD
CANADIAN WINTER CHAMPIONSHIPS

R.O.A.R. SANCTION # 10 89 01

FEBRUARY 18TH AND 19TH, 1989

FREE T-SHIRT TO EVERY PARTICIPANT

CLASSES

2 WHEEL DRIVE STOCK - 6 CELL, MOTOR WILL BE SUPPLIED
2 WHEEL DRIVE MODIFIED - UP TO 7 CELL, R.O.A.R. APPROVED MODIFIED MOTOR ONLY
4 WHEEL DRIVE STOCK - 6 CELL, MOTOR WILL BE SUPPLIED
4 WHEEL DRIVE MODIFIED - UP TO 7 CELL, R.O.A.R. APPROVED MODIFIED MOTOR ONLY
CONCOURSE TROPHY
R.O.A.R. RULES APPLY, MEMBERSHIP IS REQUIRED



ENTRY FEES

STOCK - \$ 40.00 PER ENTRY (INCLUDES MOTOR)
MODIFIED - \$ 25.00 PER ENTRY

ENTER EARLY AS REGISTRATION WILL BE LIMITED TO 80 ENTRIES PER CLASS.
MUST RECEIVE ENTRY WITH FULL PAYMENT BY JANUARY 31ST. 1989.
YOU WILL RECEIVE ADDITIONAL INFORMATION UPON RECEIPT OF YOUR ENTRY.

FOR MORE INFORMATION CALL: (416) 769-2019

SPONSORED BY

CO-SPONSORED BY



Black Magic
Team
Racing Motors

Metro Speedway



CHECKPOINT



TEAM LOSI
HIGH PERFORMANCE

STRATE
R.C. PARTS

R.O.A.R. #

NAME..... ADDRESS.....

CITY..... POSTAL CODE.....

PLEASE CHECK ONE OR MORE CATEGORY:

SATURDAY FEBRUARY 18TH 1989

2 WHEEL DRIVE STOCK ☐

2 WHEEL DRIVE MODIFIED ☐

SUNDAY FEBRUARY 19TH 1989

4 WHEEL DRIVE STOCK ☐

4 WHEEL DRIVE MODIFIED ☐

FREQUENCIES

1.....

2.....

3.....

4.....

MAKE CHEQUE PAYABLE TO: METRO SPEEDWAY

SEND IT TO: METRO SPEEDWAY 3701 DUNDAS ST. W. TORONTO, ONTARIO, M6S 2T3

NEW!

Computerized Lap Counting

NOW: Version RCC5.V4 will run your races from sign-up to trophy awards! Using compatible PC's or TRS-80's.

From simple sign-up sheets and quick data entry, the CDS program will make up the entire qualifiers and mains racing schedules, resolve frequency and car number conflicts, print racing schedules and save all data to disc.

Race director has options to select number of cars per race for all classes, and sequence of racing class events.

The actual racing program can run automatically by sequence or be selected by event number from the event schedule. The mains will be automatically made up from quickest qualifying times and laps.

All the extensive features of existing RCC5.V3 program have been retained and enhanced to run quicker and easier. Watch for the greatest Total Automatic System Announcement. We at CDS have done it! The fully automatic system, RCC5.V5, will be provided as an integrated system including software, lap counting devices, computing, displaying and printing equipment. A complete across-the-counter line of components will be available for retail sales.

We are tooling up to have RCC5.V5 on the market very soon.

Suggest you purchase the RCC5.V4 system now so that you will be computer-wise when the remaining hardware will be available.

**Coordinated Data
Service Co.
(805) 295-0232**

7th - Rick Rohde

D MAIN

- 1st - Chris Chakires
- 2nd - Bobby Drummond
- 3rd - Sean Masterson
- 4th - Barry Bates
- 5th - Gary Gray
- 6th - Paul Williams
- 7th - R. W. Brooks

E MAIN

- 1st - Rick Toso
- 2nd - David Rosen
- 3rd - Doug Brown
- 4th - Erik Soderquist/DNS
- 5th - Pete Gamari/DNS
- 6th - Kyle Reed
- 7th - Bob Novak
- 8th - George Johnson

4WD MODIFIED A MAIN

- 1st - Jack Johnson
- 2nd - Chris McElroy
- 3rd - Cliff Lett
- 4th - Rick Hohwart
- 5th - Ron Rossetti
- 6th - Kris Moore
- 7th - Gary Kyes

SUPER BELTS



Belt drives offer the serious racers more run time, higher top speed, less friction and maintenance on their high performance four wheel drive machines.

We are now offering super durable, flexible and friction free super belts for these high performance belt driven machines. We also offer standard replacement belts and custom belts.

Super belts available for: the Kyosho Optima family of cars, Schumacher C.A.T. XL and XLS, RC10 converted to MIP 4WD.

Standard replacement belts available for: the Kyosho Optima family of cars, Schumacher C.A.T. XL and XLS, Yokomo super dog fighter and RC10 converted to MIP 4WD.

Available from: EHS Trading, Ltd.
400 Hualani Street, Bldg. 13E
Hilo, Hawaii 96720
(808) 935-9009, for ordering only (800) 634-6229

8th - Curtis Strawn

B MAIN

- 1st - Curtis Strawn
- 2nd - Erik Soderquist
- 3rd - Mike Dolan
- 4th - Steve Dunn
- 5th - Nichelle Rivera
- 6th - Joe Martin
- 7th - Chris Allec
- 8th - Rob Robinson

C MAIN

- 1st - Joe Martin
- 2nd - Cleve Mason
- 3rd - Brad Thorn
- 4th - Bobby Drummond
- 5th - Bill Shumate
- 6th - Tom Clark
- 7th - Tem Raskin
- 8th - Jeffrey Benmoin

D MAIN

- 1st - Tom Clark
- 2nd - Ruben Falcon
- 3rd - Mike Reedy
- 4th - Andy Jacobsen
- 5th - Jason Christenson
- 6th - Stephen Chen
- 7th - Derek Schmitz
- 8th - Tim Boggess

E MAIN

- 1st - Stephen Chen
- 2nd - Jeff Arndt
- 3rd - Hobie Kaptan
- 4th - Rick Toso
- 5th - Chad Harris
- 6th - Wylder Barrows

Don't Make A Move Without Us!

Subscriber: Please notify us of your new mailing address four weeks prior to moving.

Name
Address
City

ATTENTION MID OWNERS KYOSHO BROUGHT YOU THE CAR NOW WE BRING YOU THE PARTS TO MAKE IT A WINNER

- SEMI TRAILING ARMS \$64.95
"By The Touch" the ultimate in rear suspension modifications
- A REDESIGNED TRANSMISSION \$64.95
Chain drive with changeable gear ratios
- ANTI-SQUAT SUSPENSION KIT \$7.95
The economical way to improve performance

For more information on these and other performance parts, please contact:

TBS
2477 Kingfield Way
San Jose, CA 95124
(408) 356-3601 (after 6:00 p.m.)



TRINITY
WORLD CHAMPIONS
PRESENTS

Speedworks **SPORTSMAN CUP RACE**



MARCH 23, 24, 25, & 26, 1989
at the PLYMOUTH HILTON, DETROIT, MICHIGAN

TRINITY, maker of world champion racing motors and other quality r/c racing products, is pleased to announce the first "SPEEDWORKS SPORTSMAN CUP" race. In the true spirit of the sportsman, the same spirit behind the development of the SPEEDWORKS line of motors, this is a race created for the true sportsman driver. Absolutely **NO FACTORY TEAM** drivers will be allowed to participate.

Whether participating in 1/10 scale or 1/12 scale, all racers will receive the same hand-out

SPEEDWORKS motor. Both classes will be for six cell batteries. A special 120' x 48' carpet track has been designed to provide a true test of driving skill. Horsepower will not be the deciding factor! SPEEDWORKS is dedicated to distinguishing the best sportsman driver in North America.

Special seminars will be presented, featuring 10 of the best expert drivers in the country. These talented men will share their race secrets in group and one on one sessions. Special attention will be given to motor care and tuning,

chassis set-up, and driving tips. SPEEDWORKS wants you to learn how to go faster.

These same 10 drivers will also compete in a special 10 car event using the same SPEEDWORKS motors used in the "SPORTSMAN CUP". You

will see the secrets they have shared, in action!

If you are truly a sportsman driver, don't miss the 1989 "SPEEDWORKS SPORTSMAN CUP"

ROAR sanction #038844

Name: _____
Address: _____
Phone: _____
Freq. Choice: 1. _____ 2. _____ 3. _____
ROAR No. _____ Entry Fee \$35.00
No. of years driving: _____ T-shirt size: _____
Class: 1/10 _____ on road S M L XL XXL
Class: 1/12 _____ Age (optional) _____
All entries are subject to refusal based on Mfr. support/Deadline March 15, 1989
Make checks payable to John Thawley and mail to:
John Thawley/SPORTSMAN CUP 288 E. Maple #266 Birmingham, MI 48009

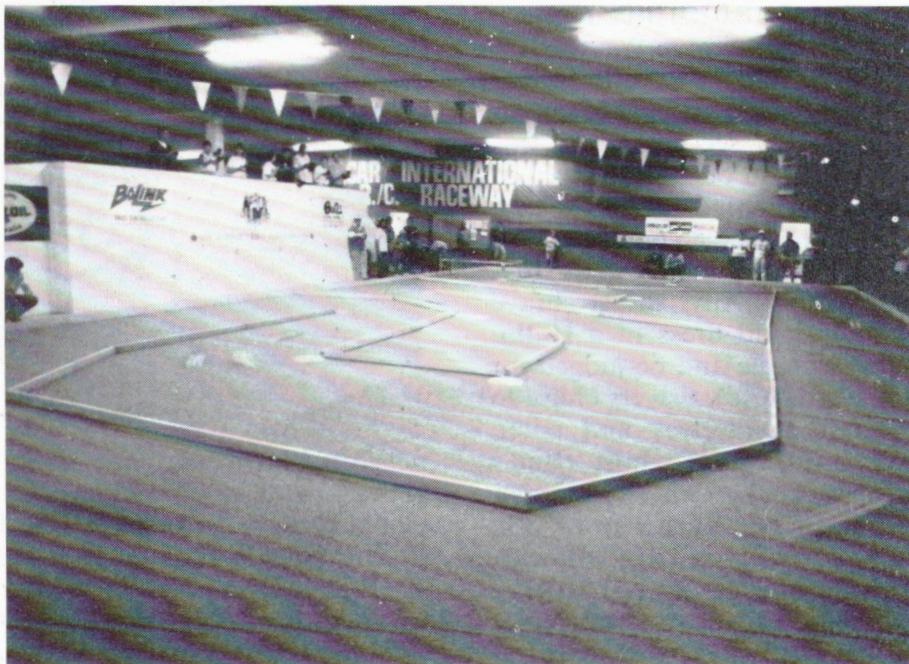
Spooks-Tacular Finish To The Bud's 1988 Halloween Classic!

By Linda Carrubba - Photos by Dan McCool

At the 7½ minute mark, Bud Bartos leading the pack became entangled with the third place car of Joe Lawrence. Chris Doseck, at that time in second place, who was obviously driving with psychic powers, steered around the carnage to win the First Annual Bud's Halloween Classic. But I'm starting at the end of the 3-day race. Let's go back to day one.

Alcar International Speedway, Avon Lake, Ohio, hosted the First Annual Bud's Halloween Classic October 28, 29, and 30, 1988. Race officials for this event were Race Director, Chuck Mackin; Race Central, Don Holub (Don also announced most of the racing); Tech, Dwight Smith and Steve Sexton; Radio Impound, Dave Thompson and Cheryl Suchy and Registration, Linda Carrubba. Alcar's brightly-lit facility had an enormous 45' x 90' carpeted track laid out similar to last year's Indoor Champs' track. The facility is HUGE: it was originally a roller skating rink and has been transformed to a racer's paradise. Alcar also contains a large pit area, fully stocked, independently-owned hobby shop (American Modeler Pro; owner Don Smolik), small snack bar and a dirt (1/10 scale) oval/off-road track. The track is high banked and awesome if you like dirt racing. Lock-ups were available to store equipment, so racer did not have to carry supplies back and forth all weekend.

Day one of the Classic was perfect for drivers - especially Chris Doseck. He was the first on the track at 11:00 a.m. for open practice and the last to leave the track at night - after 11:00 p.m. Most drivers took advantage of



Partial view of the track layout for Bud's Halloween Classic.

the all-day/night practice. There were cars on the track the entire 12 hours it was open! No one had long to wait for practice time. During Day One the trophies were brought out. The trophies for first place in the A Sportsman and A Modified were gigantic. Even Jim Hoffman wasn't taller than the trophies. At the very top of the trophy was a plastic Jack-O-Lantern, in the spirit of the holiday. I'm sure the winners won't soon forget this race.

Day Two began with the doors opening at 7:00 a.m. for late registration and mose practice. Again, most drivers took advantage of the track time until the 10:00 a.m. drivers meeting. All officials were introduced and rules refreshed. Turn-marshalling was stressed. The first qualifier of the day began at 11:00 a.m.

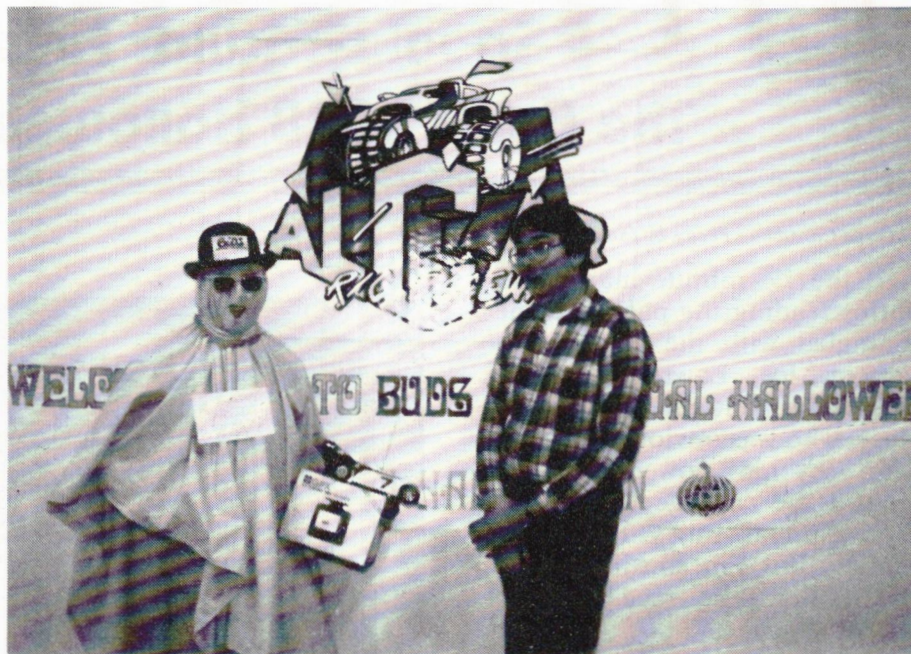
Races ran smoothly, the AMB lap counting system worked perfectly and Don Holub's new

record-keeping computerized system kept track of all results. Immediately after marshalling you could see the results of your race posted next to the track.

Everyone was expecting a GREAT racing weekend with top drivers on hand. The ROAR 1988 1/12 scale Stock Champ, Scott Smith, was on hand for (or should I say the target of) the Sportsman Class. With everyone thinking about the Thanksgiving race, NORCAR's U.S. Indoor Champs, it wasn't hard to picture any or all of our A qualifying heat in the A Main in November. A and B qualifying drivers were Bud Bartos, Mike Blackstock, Carl Christie, Chris Doseck, Andy Dobson, Wayne Gerber, Jr., Jim Hoffmann, Andy Holub, Joe Lawrence, Dan Louis, Paul Martin, Dave Pulfer, Steve Radecky, Terry Rott and Mike Seubert. The field did not stay the same for long!

Sportsman Class was dominated by local favorite, American Modeler's Dwight Smith. After round one, Dwight was TQ with 37 laps; 8:08.9. Mike Pulfer was just behind him with 37 laps; 8:11.2. We knew Sportsman Class would be interesting - with the times so close. Modified TQ after round one was Chris Doseck with 41 laps, 8:01.5. Second place and third place were Wayne Gerber, Jr. and Terry Rott. Both had 40 laps, but Wayne was faster by 3/10ths of a second. Chris was the "dude" to beat, but it looked like a dog-fight for second.

Bud's Halloween Classic added a new feature to the third qualifying round. Any driver brave enough could dress in a Halloween costume and be judged for an award. A few drivers chose to costume themselves and enter. We saw a green ghost (Bud's green, of course) who wore a sign asking "Whoo's faster now?" He had a ball walking through Alcar, in silence, letting everyone guess who IT was! Other creepies were a witch, the grim reaper and several assorted strange monsters. We even had a driver dressed as a driver, complete with driving suit. Winner of the event, the green ghost (in reality Neal Everhart) was pleased with his award, a portable black and white 12" TV. He couldn't wait to watch the Browns beat the Bengals! The "grim reaper" (Dave Pulfer!) wore a long black gown with Trinity labels. He kept trying to kiss everyone - or bite them. It was hard to tell the difference since the mask had no teeth. You were cute, Dave. Only two youngsters dressed for the event. Mike Pulfer followed in his Dad's footsetps and dressed as some sort of creepy-crawly. Vicky Carrubba dressed as a witch with Bud's green stockings. Maybe you should market them, Bud? The other good spirits were Dave Biller and Paul David. If I missed mentioning anyone, I apologize. We did have one more "costumed" driver, but he didn't enter the contest. He wore a flan-



I think Bud is scarier than the Green Ghost!

nel shirt, blue jeans, tennis shoes, glasses and a beer(?) belly. Claimed to be dressed as Bud Bartos! Needless to say, Richard A. Zbin did not win a prize for his questionable outfit!! Judges for this event were Bud Bartos, Don Smolik and Dave Thompson - one of Alcar's owners. Thanks, guys. A special thanks to Steven DiFranco of DiFranco Jewelers for donating the three plaques.

At the end of the third qualifier on Saturday, all heats were reshuffled. Sunday's two qualifiers would have drivers seeded in different heats, adjusted by Saturday's performance. Alcar kept the track open for practice Saturday after the third qualifier until 10:00 p.m. Chris Doseck again closed the track.

Sunday morning's action started at 8:00 a.m. with an hour of open practice. The fourth round of qualifying began at 9:00 a.m. All Sportsman drivers were trying their best to catch Dwight Smith; but after 5 rounds, Dwight remained in the top spot. His top qualifying performance was 38 laps in 8:03.0. Now could he, an unknown young man from American Modeler/Alcar, win the event!? I'm sure Dwight was a nervous wreck. Chris

Doseck remained on top of the modified class after the fifth round. His 42 laps in 8:05.9 were the best of the weekend. He sure didn't appear nervous. Must have been all that practicing!

During the break while Don Holub and the computer set up the mains, Alcar's Race Director, Chuck Mackin, announced a surprise concours. Several people still had nicely painted car bodies and were able to enter. Three plaques were presented by Alcar's Dave Thompson. Winner of the event was Derek Smith, Avon Lake, OH. Alcar thanks judges Steve Smith, Dwight (T.Q.) Smith and Phil Case.

Alcar's Dave Thompson then drew names for prizes donated for the race. Many thanks to the following for their gracious donations. The racers really appreciate the prizes. Stage III, Advantage, Bud's Products, Power Push, Norcal Avionics, and Scale Racing Products.

The mains were posted at 2:30. Race Director, Chuck Mackin, announced that the mains would start at 3:00 with the B Modified Main, followed by the B Sportsman main, followed by Sportsman Classes from G through C, then Modified D and C, then the

Sportsman A and Modified A. The reason the B classes ran first was because the winner of each B Main would advance (or bump-up) to the A in their category. Tension became thick. B Main drivers really thrashed to be ready on time, even though we had said we'd grant a few minutes grace time if needed.

The moment had arrived. The B Modified main was called to the line in qualifying order: Paul Martin, Dan Louis, Dave Pulfer, Steve Radecky, Mike Seubert, Bernie Piatt, Carl Christie, Clayton White, and Ralph Duncan. The A Modified drivers were called to marshall and the Mains began.

Mike Seubert took off with the early lead, closely followed by Carl Christie and Ralph Duncan not far behind for third. Carl crashed on his second or third lap and flew over several boards. He waited for the leader to pass, then continued, but by then Ralph had closed the gap. Ralph Duncan was able to overtake Carl for second. After one minute of racing the leader was Mike Seubert, with Ralph Duncan second and Carl Christie third and closing. Dave Pulfer had been running fourth, just biding his time, and was able to pass all three lead cars for the first position for a short time. Dave and Mike battled it out with Carl Christie in third for several laps, but Mike finally passed Pulfer for the lead. Two minutes had passed with the leaders changing position almost every lap. Mike Seubert turned on the Turbo and took a commanding lead. The race was then for second between Carl Christie, Dave Pulfer and Bernie Piatt. Unfortunately for Carl, he hit a dot and both Dave and Bernie passed him. Dave and Bernie battled for second for the rest of the race. With 15 seconds to go, Mike Seubert hit a dot, but had a big enough lead that he was able to hang on for the win. Dave Pulfer kept Bernie Piatt at bay and took second, with Bernie



A Sportsman Main: (l. to r.) Chuck Mackin, Rob Fisher, Mike Pulfer, Dean Smith, Dwight Smith, Mike Overbay, Jim Baugh, and Rick Knapp.

having to accept third. It was a hard fought race! The top 4 drivers were within 5.22 seconds of each other. That's a GREAT RACE! Mike Seubert is to be congratulated on an exciting victory. All drivers in the B Main deserve a pat on the back for putting on such a good show.

Next up was the Sportsman B. The field, in qualifying order, was Bill Worrel, Neal Everhart, Rob Fisher, Dave Monegan, Curtis Menard, Ted McCarthy, Neil Easterday, Ralph Middaugh and Matt Mackin.

Rob Fisher was the first under the bridge, Curtis Menard behind and Dave Monegan in third. Approximately one minute into the race, Bob hit a dot which allowed Curtis to take the lead; Rob dropped to second and Dave held onto third. Ted McCarthy was right behind Dave in fourth, but trying to get around him. Ted and Dave battled for third; Ted gained advantage over Dave and had second place. Curtis was involved in two massive crashes, not his fault, and lost the lead. After two minutes of racing, Rob Fisher was the new leader with Ted McCarthy in second and Dave

Monegan quite a way back in third. Rob was hit by another car, Ted McCarthy took over the lead, and Dave Monegan went to second. Monegan caught up to Ted but hit a board. Somehow Dave was able to make up the lost ground again and pass Rob and Ted. At half time, Dave Monegan had the lead, Rob Fisher was second and Ted McCarthy in third. Bill Worrel, from seemingly nowhere, passed Ted for third at the six minute mark. At the same time Dave Monegan started to slow, Worrel gained on the leader. With one minute to go, Ted and Worrel collided. After the carnage was cleared, the leader remained Dave Monegan (running rather slowly), second place belonged to Rob Fisher and Ted McCarthy had third place. Because of the collision, Curtis Menard and Bill Worrel wound up battling for fourth right behind Ted. With 30 seconds to go, Rob passed Monegan for the lead. Curtis, Bill, Ted and Dave were all fighting for second and still hoping to catch Rob. Final outcome was Rob Fisher in first and eligible to bump-up to the A Sportsman Main. Curtis Menard won the



NEW CIRCUITRY

BC 100 HIGH OUTPUT CHARGER

AN INTERNATIONAL FAVORITE FROM THE ORIGINAORS AND LEADERS OF PEAK DETECTION TECHNOLOGY.

The BC 100 (2-9 amps adjustable) and BC 870 (1 - 4.5 amps) now have new zero offset variable slope time integrated peak detection circuitry. This exclusive new design is twice as sensitive and 50% more accurate than before. Instead of cutting off at a fixed voltage drop, like all other brands, the Tekin senses the **shape** of the peak. An example would be an unmatched pack where the voltage never really peaks due to cell imbalance. The Tekin will detect if the voltage stays flat too long. This means dependable performance with all the new type cells. Also with a wide range of charging current, and a wider range of cell match and history. It also means improved performance when using a 12 v automatic battery charger as the supply. Most peak chargers won't work at all under this condition. This also allows Tekin peak chargers to detect the peak earlier than other chargers, before the cell temperature and pressure rise significantly. This is important because once the cells get hot they stop taking more charge. This allows you to repeak the cells 2-5 times, each time puts more energy into the cell. This means more running time. After several repeaks the cells will begin to heat up, and are ready for racing then.

Other features include:

- Small size 4" X 4" X 2"
- New molded slant case is rugged and very compact.
- 2 to 9 amps adjustable current for use with all cells.
- 9 amps output for the highest, strongest peak.
- Use with SCR, SCE, SC and other type cells. 100-4000 mah
- Use with 4-7 cells, 8 cells with strong supply.
- Fully protected against overloads and shorts.
- Plug in jacks allow you to use an inexpensive external voltmeter to monitor volts and amps if desired.
- 1 minute lockout to prevent false peaks.
- Current adjust knob is easy to set, but won't get bumped.
- Designed, engineered and made in the USA to give years of dependable use.
- Use on 12 v battery or 12 v automobile battery charger or power supply.
- From the reigning offroad world champion charger builders.
- At dealers everywhere.
- Built-in voltmeter jacks allow using inexpensive external voltmeter to monitor both volts and amps.
- 90 day warranty.
- #BC100 - \$102.00, BC870 - \$88.00

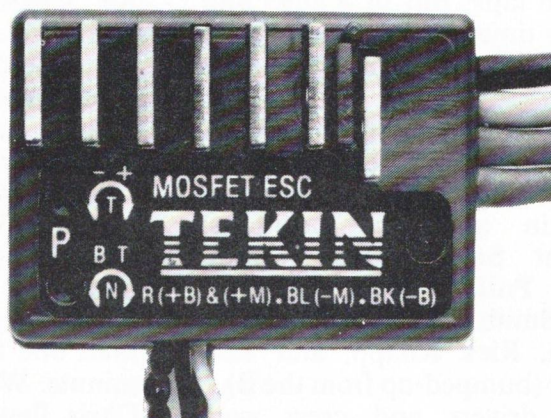
**CLUBS CONTACT US FOR
STOCK MOTOR NEEDS**

SPEED CONTROL TECH SHEET

#ESC PRO-T (PT) Tempfet \$115.00

#ESC 600 PRO XT (PXT) Tempfet \$150.00

- Trouble free operation with all popular radios on all frequency bands.
- Smaller than the competition.
- Tempfet® circuitry totally eliminates overheated speed controls.
- Heatsinks included with tempfet® ESC's.
- Large diameter 14 guage silicone wire. (600 PXT Model)
- PRO Speed Control Performance for \$115.00 (previously \$175.00).
- Throttle won't stick on at end of charge.
- 50% stronger brakes than Brand N.
- Built-in 3 function L.E.D. - easy to adjust.
- High quality pots and circuitry stays once set.
- A real speed control - not a "Hairpin Trigger."



Special exclusive Tekin custom IC. Not a reworked Servo amp. Twice as many components, built into the IC reduce space and improve reliability, gives smoother response (for faster laps and longer runs), mid range tuneability for faster laps and longer runs, more brakes, lower operating voltage, smaller size, lighter weight and less current than competitive brands. Use on all frequency bands. For a high performance, high quality, easy to set, glitch free, impossible to overheat and reasonably priced speed control, go with Tekin.

Special advanced B.E.C. eliminates "motor cut out" and "turning left" when accelerating with high power motors. 1.5 volts lower operating voltage than the competition on 7 cells. A Tekin exclusive helping to keep you ahead of the pack.

SIZE: 1.47" X 1.25" X .56"

WEIGHT: 1.2 oz less wires

VOLTAGE

DROP: .04v at 10 amps (ESC300 PT)

Short circuit duration, continuous - Tempfet® models - impossible to overheat throttle or brakes.

VOLTAGE: 4-10 cells

BEC: 5.5 volts - The competition is only 5 volts, Tekin gives you 10% faster steering Servo response.

WARRANTY: 120 days - superb reliability.

ALL POPULAR PLUGS - Futaba (J), Futaba (G), KO (KO), Airtronics (A) and Kyosho (KY).

If you have an ESC 120 it may now be updated for 75mhz operation. We also upgrade to 6 pro mosfets for more power and install Tempfet circuitry to eliminate any chance of overheating with the hottest motors, as well as put on new wires and switch for \$30.00.

Tekin Service Keeping You Ahead

battle for second and Ted McCarthy claimed third.

After all that excitement I can't see how Rob was able to settle down by the time of the A Main. You can tell the drivers all wanted to bump up into the A. First place Rob Fisher had 36 laps in 8:12.31, Curtis had 36 laps in 8:12.32! Ted's third place time was 36 laps in 8:14.92. Bill Worrell and Dave Monegan also had 36 laps; Bill in 8:17.93 and Dave's time was 8:18.66. Sure am glad I wasn't hand counting that race!

Time finally arrived for the A Sportsman Main. Tension was in the air. All drivers were announced, in qualifying positions: Dwight Smith, Dean Smith, Mike Pulfer, Mike Overbay, Scott Smith, Chuck Mackin, Jim Baugh, Rick Knapp, and Rob Fisher (bumped-up from the B).

All drivers and crew were reminded not to pick up the cars at the end of the race since the top three motors would be torn-down. Cars were gridded and Don Holub started the race. Dwight (the home-town favorite and TQ of the weekend) took an early lead. Mike Overbay was second and just waiting for the right time to take over first. Rob Fisher wound up in third. Mike Overbay was able to pass Dwight for a few laps, but at the 3 minute mark, Dwight was first, Mike second and Dean Smith in third. Racing continued in single file line until the 6 minute mark. Dwight had caught up to slower traffic and had to slow down. Mike Overbay turned on the speed and gained some ground. Rob Fisher passed Dean for third. In a very clean, accident-free race, Dwight Smith won.

Mike Overbay really did a great job of racing this weekend, but the edge went to Dwight. Mike should be very proud of second - good job, Mike. Robbie Fisher held on and finished third. Rob really showed his abilities in this race. Many were hoping that the B Main bump-up driver would win. He sure tried.

Third place isn't all that bad! Congratulations, Robby! It was totally Dwight's weekend. We're all happy for you Dwight. Remember his name - he'll be in more articles, I'm sure.

Time for the A Modified Main. Everyone in the facility was crowded around the track. Drivers were introduced in their qualifying order: Chris Doseck, Andy Dobson, Wayne Gerber Jr., Joe Lawrence, Jim Hoffmann, Terry Rott, Mike Blackstock, Bud Bartos, and Mike Seubert (bumped-up from the B). The track was cleared, marshalls were warned to stay alert and the race began.

Joe Lawrence took the early lead with Wayne Gerber, Jr., and Chris Doseck fighting for second/third right behind. Joe, Wayne Jr., and Chris stayed less than one foot apart for the first minute. Wayne Jr. hit a dot and Chris flew passed him for the second spot. Bud Bartos was then right behind Wayne in fourth. For two more minutes the four leaders stayed impossibly close together, looking like a train. Joe Lawrence hit a dot and found himself in fourth place. New leader, Chris Doseck, settled down to try to keep the lead. Wayne remained second and Bud moved into third. At halftime Wayne hit a dot, but passed him for second and Joe overtook third. Wayne had dropped to fourth. Bud was right behind and pushing Chris for the lead. At the five minute mark, Bud was able to pass Chris under the bridge for the lead. Bud was flying! He has almost a $\frac{3}{4}$ lap lead on Chris, but with 15 seconds to go, Bud began to slow. Doseck passed Bud, Bud and Joe tangled and Chris ran away to win the event. Joe Lawrence took second and Andy Dobson, who ran a beautiful race but stayed away from trouble, came in third.

What a finish! Had to happen on Halloween Eve! Bud, it was a great race. Can't wait until next year. I, for one, hope it's an annual event. Thanks to all who participated. Special thanks to

all Alcar members and employees who helped run the race. Good job!

MODIFIED

A MAIN

- 1st - Chris Doseck
- 2nd - Joe Lawrence
- 3rd - Andy Dobson
- 4th - Bud Bartos
- 5th - Wayne Gerber, Jr.
- 6th - Mike Seubert
- 7th - Jim Hoffmann
- 8th - Mike Blackstock
- 9th - Terry Rott

B MAIN

- 1st - Mike Seubert
- 2nd - Dave Pulfer
- 3rd - Bernie Piatt

C MAIN

- 1st - Eric Whitrock
- 2nd - Steven DiFranco
- 3rd - Frank Calandra

D MODIFIED

- 1st - Mike Mitzel
- 2nd - Dave Biller
- 3rd - Dan McCool

SPORTSMAN

A MAIN

- 1st - Dwight Smith
- 2nd - Mike Overbay
- 3rd - Rob Fisher
- 4th - Mike Pulfer
- 5th - Dean Smith
- 6th - Scott Smith
- 7th - Rick Knapp
- 8th - Chuck Mackin
- 9th - Jim Baugh

B MAIN

- 1st - Rob Fisher
- 2nd - Curtis Menard
- 3rd - Ted McCarthy

C MAIN

- 1st - Jeff Roberts
- 2nd - Gary Kral
- 3rd - Tom Manson

D MAIN

- 1st - Jim Hirsh
- 2nd - Craig Stiwald
- 3rd - Derek Smith

E MAIN

- 1st - Richard A. Zbain
- 2nd - Marty DiFilippo
- 3rd - John Metyk

F MAIN

- 1st - Ron Shonk
- 2nd - Charles Keehn
- 3rd - Vicky Carrubba

G MAIN

- 1st - Dean Titas
- 2nd - Ryan Noble
- 3rd - Tracy Hoffman

KILLER MOTORS

Motors designed to give you the winning edge.



NEW

The R/C racing world belongs to those who go the fastest. Drivers are constantly searching for the all-important "racer's edge" that will result in the most laps around the track. As a world leader in R/C car technology, **Kyosho** has the knack for discovering the racer's edge and putting it to good use – which translates into first place finishes for you.

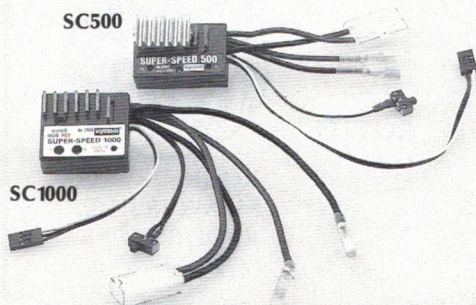
The track-burning **LeMans 240T Speed** motor is the newest in off-road dynamite from Kyosho. Equally hot in 2WD and 4WD racing machines, the 240T Speed produces top results on 1/10 scale tracks with long straightaways. It features a completely redesigned can with wet magnets for greater output, improved heat resistance, and increased durability. End bell air

ducts also allow more efficient cooling for the motor. A dynamically balanced armature yields maximum power with minimum vibration. The high-powered 16-turn, single wind 240T Speed delivers 29,100 RPM and is the latest from Kyosho in high-level 4-minute sprint racing motors.

New Kyosho Competition Series Super Stock 20 and 34 Motors

Kyosho is also proud to introduce their new **Competition Series** line of motors with the **Super Stock 20** and **34**. These brand new motors are ROAR legal for stock classes and give the stock driver the power needed for the most competitive heats. The Super Stock 20's timing is set at 20° for longer run times and greater durability and the Super Stock 34 is set at 34° for high speed.

With one of the most complete line of hop-up and replacement motors available, there is a Kyosho LeMans or competition series motor for virtually every R/C application, and they're all at prices that make high performance most affordable. You've known for years that Kyosho has the ultimate in cars – and now they've got the hottest motors, too!



Give your models quick response with the new Kyosho SC500 and SC1000 electronic speed controls.



For added power in 4-5 minute sprints, use the Kyosho's 1200 mAh Sprint SCR pack. Extend run times for 1/12 scale racing with the 1700 mAh Speed SCE pack.

DISTRIBUTED TO LEADING RETAILERS
NATIONWIDE EXCLUSIVELY THROUGH
GREAT PLANES
MODEL DISTRIBUTORS COMPANY
P.O. BOX 4021, CHAMPAIGN, IL 61820

For an inside look at the hottest Kyosho R/C models, send to the address above for your free copy of the Kyosho Mini Catalog from Great Planes.

1989 R.O.A.R

Region One 1/12 Scale Championships

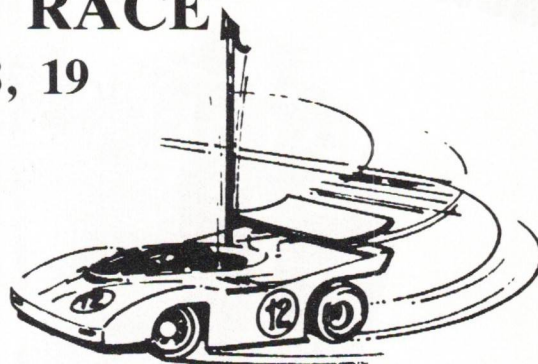
4 CELL ROAD RACE

February 17, 18, 19

HOSTED BY: GP Racing
C.N.Y.R.C.A.R.
6785 Martin St.
Rome, NY 13440
Jct. Rt. 233 and Rt. 69
315/336-5140



SANCTION #
412881 MC



R.O.A.R. LEVEL 4 EVENT
R.O.A.R. RULES — Can-Am or GTP Bodies

Friday, February 17 — Practice 10:00 AM - 10:00 PM
Saturday, February 18 — Modified 9:00 AM
Sunday, February 19 — Stock (with hand out motor) 9:00 AM

TROPHIES AWARDED TO: 1st - 10th A Main
1st - 5th B Main
1st - 3rd All Other Mains
Concours - Best Paint

SPECIAL DOOR PRIZES FROM THE TOP R/C MANUFACTURERS!

Entry Fees: Stock \$30.00 Modified \$20.00 Both \$45.00

ENTRY FORM

Limit to 75 entrants in each class
DEADLINE - FEBRUARY 10, 1989

NAME _____ PHONE _____

ADDRESS _____

ROAR NUMBER _____

CLASS _____ STOCK _____ MODIFIED _____ BOTH _____

FREQUENCIES 1. _____ 2. _____ 3. _____

MAIL TO: GP RACING, 6785 MARTIN ST., ROME, NY 13440

Regional drivers only please.
No refunds on pre-entries.

More information will be sent upon receipt.



ROAR
MEMBERSHIP
REQUIRED
(available at race)

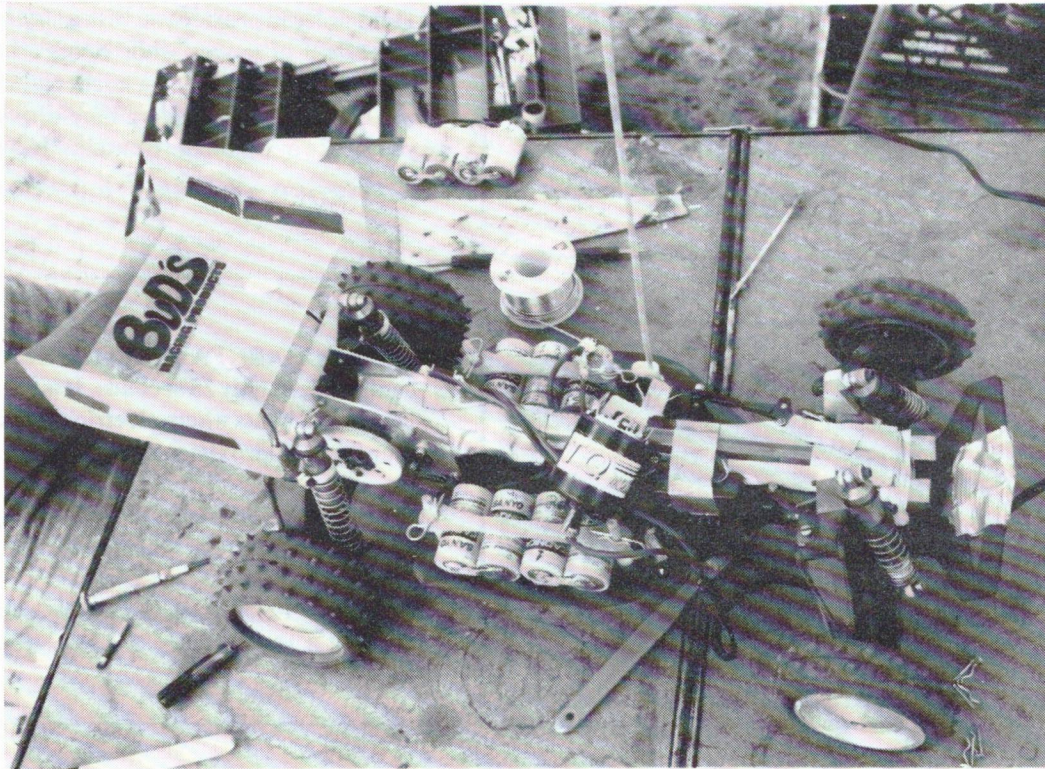
WAR!

By Dale F. Cauthen

When Team SEMROCC (South East Michigan Radio Operated Car Club) puts on a race, they can always be counted on to provide a fun and exciting weekend. Located in a north Detroit suburban park, the track is often difficult and sometimes frustrating but always an interesting challenge. For this race, SEMROCC scheduled only the 2WD and 4WD modified classes and planned to pit the modified motor manufacturers against one another to let everyone show off their big horsepower and see which drivers could actually translate all that power into real performance on the track.

The popular track surfacing for major races in this area has been a smooth straightaway and main turns with a very bumpy infield curvy section to challenge the drivers to the max. This having been the case at every major race we attended this summer, I was more than a little surprised to see that the entire SEMROCC track was very smooth and ooked to be impeccably groomed. But then this was a horsepower war wasn't it. I decided maybe this made sense for an all out speed race and quickly got my car ready for the first Friday practice run to check out the bite. Really excited about getting to make a high speed blast around this totally smooth track, I mounted up my newest Trinity "Pure Gold" motor with a well charged matched SCR pack and headed for the driver's stand.

I grabbed the frequency clip for my channel, turned on the transmitter, plugged in the car's battery, picked a spot near the center of the driver's stand for my first practice run and punched the throttle. I've never seen hard "Cats" totally break loose before to the point of spinning the car in



Curt Demar's 4WD A Main winning Schumacher CAT featuring "TQ" motor, 7 cell "SC" pack and Tekin Pro Speed Control.

a donut off the starting line. These tires would bite on a baked brick. But not on a sand covered piece of glass. Oh well, I thought. Everyone has to race on the same track. We sure did and despite the best efforts of SEMROCC's very concientious track crew, the track resisted every effort to create a reasonable traction surface. It was "marbles" all the way around all weekend long. SEMROCC being the club that it is, and having a well deserved reputation for putting on some of the best racing in R/C, this deteriorated track surface was most frustrating for them and they worked on the track all weekend long. In this difficult situation, they did the only practical thing they could and tailored their track maintenance toward keeping the track conditions constant. In this way, the competitors were able to dial in

without the additional complications of shooting at a moving target.

So the ultimate motor war turned into the ultimate driver's war. The most common remark heard around the track was, "If I'd only brought my stock motors, maybe I could get in a good run." Since this was an out of town race for us, we were camped in a nearby hotel and I didn't have access to my workshop and the twenty or so stock motors there, in various states of tune. So I was one of those guys making that statement. As it was, I had taken the advertising for this race quite literally and had brought only my hottest modified motors. I tried overgearing, running my worst batteries, dialing the exponential full up on my Magnum. Nothing worked. Modified motors were just too much power to ever hook up in a two

AFTER CHRISTMAS SPECIALS

FROM
HY-INTEREST PRODUCTS

HOW TO MAKE A FORTUNE FROM YOUR HOBBY

This book will provide you with a step by step guide showing you how to make a great deal of money while doing what you love most. It will allow you to become financially independent and stop living from pay-day-to-pay-day. You will be able to spend more time with your family and purchase the "TOYS" you've always wanted. Contains 160 pages of facts and great ideas.

ORDER #104 Reg. Price \$ 9.95 ea. XMAS SPECIAL \$ 6.95



This RECHARGEABLE SOLDERING IRON HEATS UP TO 400 degrees centigrade in only 25 seconds. It is great for using on remote control cars, airplanes and boats where electricity is not available. The ni-cad batteries can be recharged approximately 300 times.

Comes with batteries, charger, charger stand, and protective cap for transporting. A sponge is included for cleaning the tip when using.

ORDER # 105 Reg. \$ 25.95 ea. soldering iron XMAS SPECIAL \$ 14.95
ORDER # 106-RT Reg. \$ 4.95 ea. replacement tip XMAS SPECIAL \$ 3.95

THE REMOTE CONTROL RACE CAR BIBLE

Especially for the 1/10 scale off-road enthusiast.
WITH

- Beginning Basics
- Trouble-Shooting Guide
- Hop-Up Ideas
- Speed Secrets
- Color Frequency Chart
- 1/10 Scale Off-Road Rules
- Track & Club Locations
- Tire Mounting Procedures
- Auto-Lap Counting System
- How to Paint and Mount Bodies
- And Much More!!

This is a much needed book for the rapidly expanding remote control car industry. This book includes information that will help you trouble-shoot, paint, hop-up, drive faster and much, much more. Contains 160 pages. Includes pictures and illustrations.

ORDER #107 Reg. Price \$ 10.95 ea. XMAS SPECIAL \$ 7.95

HY-INTEREST PRODUCTS

P. O. Box 6221
Auburn, CA 95604

HERE IS HOW TO PLACE YOUR ORDER.

- Make your check payable to HY-INTEREST PRODUCTS.
- Enclose a money order and send to the above address.
- Call our toll free number and use your MASTERCARD or VISA CARD.

California Residents add 6% or appropriate tax.
Add \$1.00 for shipping & handling.

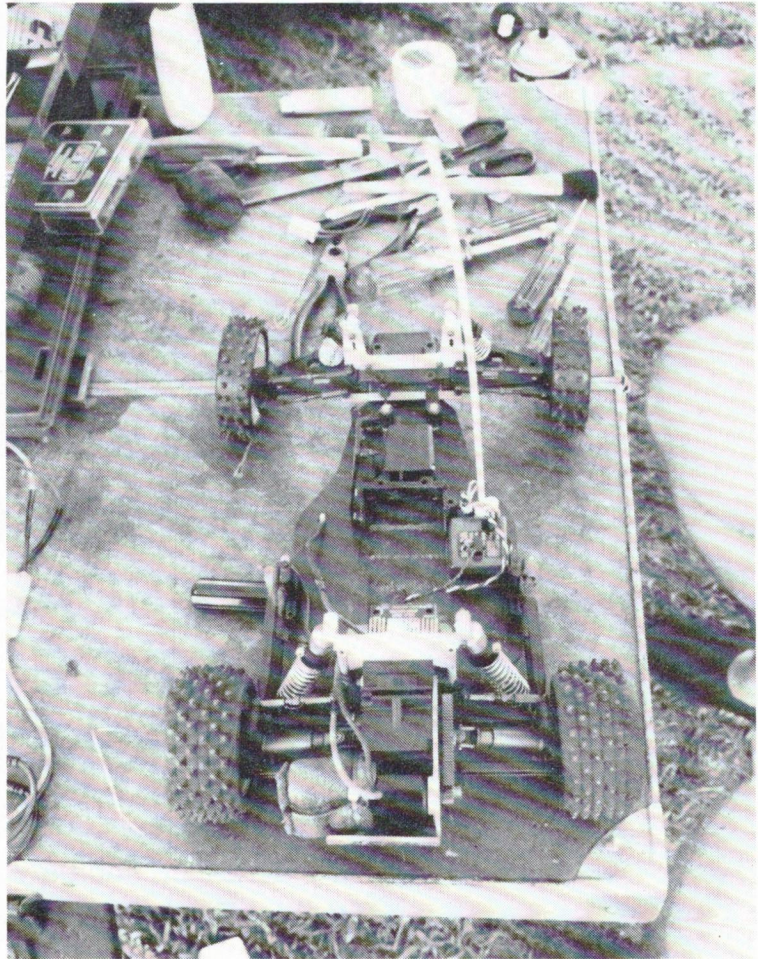
- PHONE (800) 446-3222 CALIFORNIA ONLY.
- PHONE (800) 626-2161 ALL OTHER STATES.

OUR ORDER LINES ARE OPEN 24 HOURS
7 DAYS A WEEK

wheel drive. After running as many practice runs as I could squeeze in and seeing the results in the first two heats, I decided to consider it all a driving lesson and just have fun in the rest of the runs. It was fun and it was an education.

Hard as it sometimes is to find something other than sour grapes to talk about after a particularly bad race, I had to admit that the driving lessons of the "WAR" were sorely needed. I only race 12th scale during Michigan's long winters to sharpen my driving skills rather than have them atrophy between dirt racing seasons. Over the off-road season this summer, I've watched my driving skills become gradually poorer but didn't really realize it until they got really bad. All of a sudden I wasn't making the "A" mains anymore when before, I had considered myself a contender to win most of the races I was entering. My car didn't seem to be so responsive as it had been and traction got hard to find. After some hard thought, I had to admit that the car was really working better than ever, I had as much traction as anybody, my motors were putting out plenty of horsepower, and the only thing that had deteriorated was that I was no longer controlling the car as precisely as I had the beginning of the season.

At the start of the season, I was sitting on top of the world. My old Ultima on the tricked out chassis, converted to an oval car, was picking up first place "A" main ribbons and trophies. Thanks to Kevin Kelsey of Great Planes, I had discovered the Kyosho Turbo Ultima and was not only running "A" mains in off-road races but was doing quite well in them. By mid-season, it seemed the car wasn't working so well anymore and I asked some of the local guys to try the car on the track and help me sort it out. At that point I couldn't understand why none could find any problem with the car. By September, I had to admit the problem was me. Driving a very forgiving car with really fast modified motors had made it easy for me to develop bad driving habits. I was just punching it



Know what this is? Neither did I. Jim Baugh brought this new Losi JRX2 to do battle at the "WAR".

and pointing the car down the middle of the track.

Even given all that, I wouldn't have spent all the time and money involved in setting up for a major race only to have it turn into driving lessons, but I think driving the "WAR" helped make me aware that I did need to work on my driving. Guess who's back to racing stock Trinity motors?

And back at the "WAR", guess what Mike Marshall proved to be the world's ultimate modified motor for a two wheel drive car in this "Ultimate Motor Battle"? Would you believe a Reedy Ultra Stock? That's right sports fans. Mike ran everybody in the ground with a Reedy stock motor. Mike is one of the best two wheel drive R/C drivers anywhere and he definitely proved it by winning a truly challenging race at the "WAR."

In four wheel drive, it was again Curt DeMars showing his superiority with the Shumacher Cat and a "TQ" brand eighteen

turn triple wind. Curt has also been proving this summer that he is one of the best four wheel drivers in R/C today and provided us with one heck of a show in the 4WD "A" main against some really hot competition.

We'll all hope that SEMROCC's new track is finished by next year's "WAR". These guys do a great job of putting on a club race and deserve alot of credit for keeping the track consistent all weekend. It was consistently slick but at least once the the guys got dialed in to the existing track conditions, they knew the surface wasn't going to change for the next heat. For next year, on SEMROCC's new track, I'll look forward to getting to have some fun with my monster horsepower motors that usually only get to run on the oval. But just between you and me, next year I'm taking along some of those Reedy stocks!

CP

TEAM **SEMROCC** RACING

JJ'S R/C SPEEDSHOP

PRESENT
THE

ROAR

**MICHIGAN
1/12 SCALE
STATE
CHAMPIONSHIPS**

February 24, 25, 26, 1989

Entry Deadline: February 22, 1989

Trophies For 1, 2 & 3 In All Mains

Saturday - Stock
Four-cell • Handout Motors
Entry Fee \$30

Open Practice Friday
Noon-11:00 P.M.

Sunday-Modified
Four-cell • Modified Motors
Entry Fee \$25

ROAR MEMBERSHIP REQUIRED
ROAR RULES APPLY

For More Information Call J J's R/C Speedshop 977-0420

This is a ROAR Level 2 Event Sanction No. 038845

ENTRY FORM

Send large S.A.S.E. with your check to:

TEAM **SEMROCC** RACING

c/o State Championships
288 E. Maple #266
Birmingham, MI 48009

Class: 1/12 STOCK _____ 1/12 MODIFIED _____

Confirmation, Event Schedule and Motel List will be mailed on receipt of entry.

ENTRY VOID WITHOUT PAYMENT

NAME _____

ADDRESS _____ CITY _____ STATE _____

ZIP _____ ROAR NO. _____ PHONE _____

SKILL LEVEL: NOVICE _____ INTERMEDIATE _____ EXPERT _____

FREQUENCY: 1 _____ 2 _____ 3 _____

TOTAL AMOUNT ENCLOSED _____ STOCK \$30.00 _____ MODIFIED \$25.00 _____ BOTH \$50.00

GET THE RACER'S EDGE!

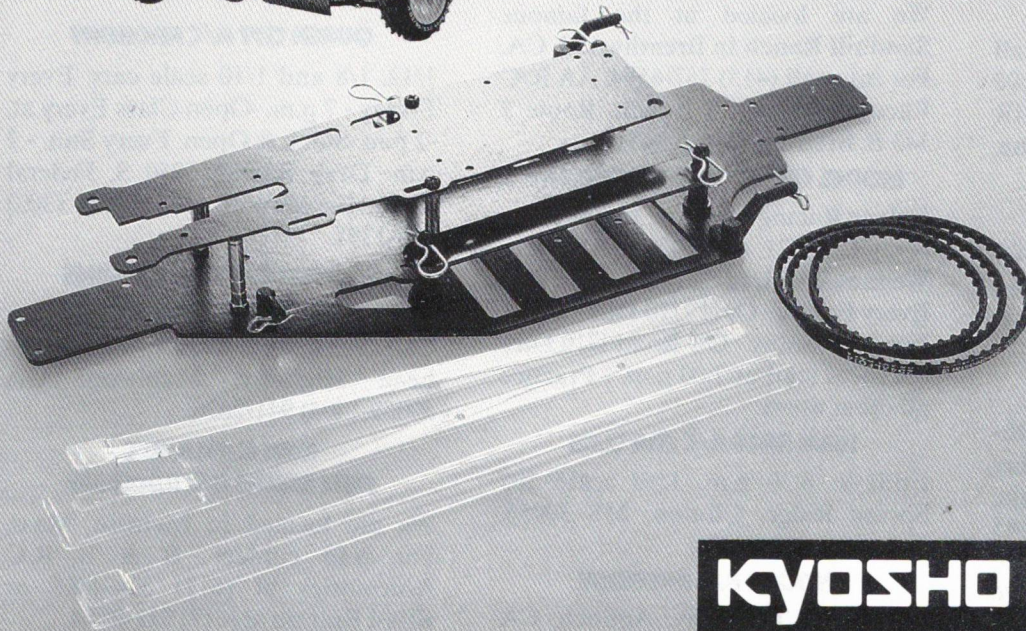
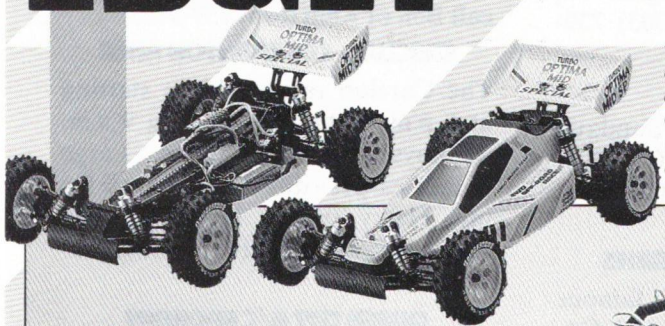
KYOSHO® LONG GRAPHITE CHASSIS KIT

Extend the length of your Optima Mid chassis and your string of victories with the new **Kyosho Long Graphite Chassis Kit**. This lightweight, complete kit is specially designed to add 18 mm (.71") to the wheelbase of your Optima Mid, lowering the center of gravity and improving handling. The longer wheelbase is perfect for driving on the longer race tracks found in the U.S. If there was ever one hop-up made to improve the performance of your Optima Mid or Turbo Optima Mid SE, this is it!

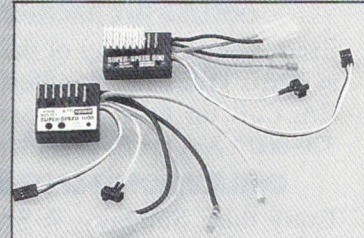
Everything is included at an affordable price:

- Lightweight graphite main chassis
- Graphite upper chassis plate
- Steel-reinforced long drive belt
- Extended belt drive cover (two pieces)
- Fitting kit for mounting body and battery
- Fitting kit for mounting upper chassis plate
- Lengthened battery holder straps

Other manufacturers make chassis kits for the Optima Mid, but only Kyosho gives you everything you need for racing and winning at one low price. See the new Kyosho Long Graphite Chassis Kit at your favorite R/C car retailer today. It's sure to give you the racer's edge.



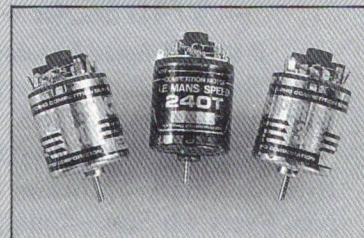
**More great racing hop-ups
from Kyosho:**



SC500 & SC1000 Electronic Speed Controls



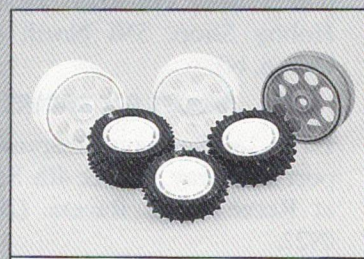
1200 mAh Sprint SCR & 1700 mAh SCE Speed Batteries



Competition Super Stock 20 Motor, LeMans 240T Speed Motor, & Super Stock 34 Motor



Delta Peak Detecting Charger



Colored Racing Wheels

For an inside look at the hottest Kyosho R/C models, send to the address below for your free copy of the Kyosho Mini Catalog from Great Planes.

DISTRIBUTED TO LEADING RETAILERS
NATIONWIDE EXCLUSIVELY THROUGH

GREAT PLANES™
MODEL DISTRIBUTORS COMPANY
P.O. BOX 4021, CHAMPAIGN, IL 61820

© 1988, Hobbico, Inc.

KYOSHO®

Racing Schedule

— 1/8 & 1/4 Scale —

OUTLAW R/C RACEWAY

Every Fourth Sunday of the Month at Perris Hill Park, San Bernardino, CA. Call for further info call (714) 370-0607. Ask for Paul Nadeau, Pres.

OUTLAW MOTOR SPEEDWAY

Every third Sunday - 1/4 Scale Dirt Oval. 7920 Webster, Highland, CA. Call (714) 370-0607

THE RANCH PIT SHOP

1655 E. Mission Blvd., Pomona, CA 91766, (714) 623-1506. Every second Sunday.

MACHESNEY PARK RACEWAY

1/4 & 1/8 scale. Outside Racing Every Saturday - April through October. 1220 Shappert Drive, Machesney Park, IL 61111, (815) 282-1311.

— 1/10 Scale —

G & S Off-Road Raceway

Every Sunday - San Carlos & Meridian Avenue, San Jose, CA.

KANSAS R/C RACING CLUB

Every 2nd Sun. - Junction City - 1 p.m. Every 4th Sun. - Enterprise - 1 p.m.

CENTRAL NEW YORK

Lawrence Race Park

2509 Macedon Center Road, Palmyra, NY 14522. (315) 597-6429. 1/10 and 1/12 electric auto racing. Nov.-Mar. Carpet racing 1/12 scale. Oval and road racing. April-Oct.

BIR INDOOR SEASON

Fridays - 7:30 p.m. Oval racing call (201) 352-6955. Saturdays - 12:00 p.m. Indoor Off-Road racing. BIR Hobby Shop, 550 North Avenue, Union, NJ.

REECE'S R/C RACERS

1st & 3rd Sundays at Spinner's Air port Raceway, 2nd & 4th Saturdays at Reece's R/C Racers. (209) 784-0922.

PANTHORN RACEWAY

Panthorn Park, Burritt St., Southington, Conn. Every Saturday May 1st to Nov. 1st. Off-Road, Oval, Baja, Truck Pulling. Call (203) 628-9345 Ben Carr, 272-9326 Pete Church, 237-6976 Bob Lavoie, 879-2316 Steve Magnani.

R/C HOBBIES RACEWAY

Route 163 Bozrah, CT

Racing Every Sunday - May 1 to Oct. 30. For more information call: R/C Hobbies, (203) 886-9441, ask for Mike or Bob.

R & R HOBBY

We have 1/10 scale dirt tracks both inside and outside, also 1/12 tracks both inside and outside. R & R Hobby - 1414 N. 24th St., Quincy, IL 62301, (217) 228-1133.

HAL'S HOBBY SHOP

Every Saturday from 9:30 a.m. to 4 p.m. Practice: Track open all week. Hal's Hobby Shop, 4886-A Hercules, El Paso, TX 79904, (915) 755-1914.

RIVER CITY R/C OFF-ROAD

Racing is every Saturday, sign-ups 3 p.m., racing starts at 3:30 p.m. (512) 656-5724 evenings.

MASON DIXON R/C CAR CLUB

Every Sunday at 1:00 p.m. Track location at Hagerstown Fairgrounds, Hagerstown, Maryland. Call King's R/C Cars, 219 E. Washington St., Hagerstown, MD 21740, (303) 739-0080.

SNORR

Racing every 1st and 3rd Sundays. P.O. Box 438, East Haven, CT, (203) 469-2594 or (203) 481-5813, Dave Seales.

A A R/C RACEWAY & HOBBIES

We are located at the famous Sandhill Ranch in Brentwood, CA. For info call (415) 757-6594, AA R/C Raceway, Sandhill Ranch, Route 2 143 B, Brentwood, CA 94513.

MODEL CAR WORLD & RACEWAY

Indoor Racing - 7041 N. Pecos, Denver, CO 80221, (303) 426-5255. Every Wednesday - 1/12 Carpet Every Friday - Oval 1/10 Dirt Every Saturday - Off-Road 1/10 Dirt. All races start at 7:00 p.m. - Practice all other times.

TEAM RACE R/C CAR CLUB

Fridays: 6:30 p.m. 1/10 scale 505 Spring Ridge, Clinton, MS 39056. Call (601) 924-0722.

ANTIOCH R/C RACEWAY

5631 Lone Tree Way, Antioch, CA

94509. Every Wed. & Fri. 6:30 p.m., Every Sat. & Sun. 10:30 a.m. Call Jack Hanson (415) 754-5700.

F/X CITY RACEWAY

Every Saturday 1 p.m. The Frame Gallery, 13340 F. Franklyn Farm Road, Herndon, VA 22071. For info call Eric Zelman, (703) 471-4499.

RIVER CITY RACEWAY

On Quincy Road, Wichita Falls, Texas. Every 2nd & 4th Sundays at noon. Call (817) 691-1478.

WALT'S HOBBY & CRAFT

4300 West Genesee Street, Syracuse, NY 13219. (315) 468-6544. 1/10 Off-Road racing on unique indoor clay track. Mon. eves (sprints). Racing 7 p.m. - Sat. Afternoons racing at 1 p.m. Computerized scoring. Daily practice.

HITT'S HOBBY AND RACEWAY

Tuesdays: Oval Asa, Full Bodies Thursdays: Off-Road - Stock Saturdays: Off-Road - Novice Sundays: Off-Road - Modified Oval and Off-Road; 853 Wren Rd., Goodlettsville, TN 37072. For info call Ben or Kent (615) 859-3465.

CARCLUB - COCHRANTON AREA

The Carclub races Fridays starting at 6 p.m., Saturdays starting 9 a.m. Sundays starting at noon. Large indoor carpet - dirt outdoor. Call for info Harry Turner, 120 W. Adams St., Cochranton, PA 16314. (814) 425-7788.

QUEEN CITY R/C RACEWAY

1/12, 1/8 and 1/10 scale cars. Every Friday - 7 p.m. - Open Class Every at -2 p.m. Stock & Open. Every Sun. - 2 p.m. Drag Racing 5050 S. Federal Blvd., Englewood, CO 80110, (303) 730-1391.

PDQ RACEWAYS & HOBBIES

1/8, 1/10, 1/12 Scales Call times and details. 429 Bankhead Highway, Mableton, GA 30059, (404) 941-2626.

NEW ENGLAND'S

PINE BANKS R/C RACEWAY

We are located in Melrose, Mass. For info contact: B & B R/C Accessories at (617) 324-4465 or Brian Branon at (617) 322-9554.

As long as there is one driver left

there will always be Competition Plus.



Subscribe to "COMPETITION PLUS"

For Only \$19.95 a Year (12 Issues) Third Class - \$29.95 First Class
\$29.95 Canada First Class - \$30.00 Surface - \$45.00 First Class Foreign Countries

— CUT ALONG THIS LINE AND MAIL TO: —

COMPETITION PLUS

16582-F Gothard Street, Huntington Beach, CA 92647

Enclosed is my check for \$ _____

Name _____

Address _____

City _____ State _____ Zip _____

Country _____ Signature _____

GROUND ZERO RACEWAY

Sunday: Noon to 6 p.m. 1/10 Off-Road & 1/12 carpet races at 2 p.m. Sign up Noon to 1:30 Tuesday - 1/12 carpet races at 7:30. Friday - 1/10 Dirt Oval races at 7:30. Saturday - Informal Junior Races (16 & under). Speciality clinics. 208th and West Dodge Rd., Omaha NE (402) 289-4184.

SROKA'S INDOOR R/C

Racing every Sunday - Oval racing every 4th Sunday. 5216B Arboga Rd., Marysville, CA 95901. Call Michael or Vickie Sroka (916) 742-6148 or (916) 741-3051.

FLINT R/C CAR CLUB

Flint, MI. Summer: Every other Sun. from May to Sept., Fall & Winter 1/12 4 cell on carpet. For info: Ralph Herndon (313) 658-5390 or Tom Hoos (313) 658-1043.

MILE-HI R/C SPEEDWAYS

Thurs. & Sat. Off-Road, Fri. Carpet, Sunday 2 p.m. 178 S. Kalamath, Denver, CO 80221, (303) 722-6766.

AMERICAN HOBBIES

Thursday Night Oval Racing
Sunday Off-Road & Oval
For info call (201) 446-2010.

C.A.R. CLUB

Racing at Tamarack Raceways. Contact Harry Turner, 120 W. Admans St., Cochran, PA 16314, (814) 524-7788. Racing every Sunday.

ARROW HOBBIES

Wed. Nights - 1/10; Every other Fri. night 1/8 Sprint Cars only; Sat. nights 1/10 dirt oval. 2710 So. 1-35 West, Burleson, TX (817) 295-2821.

BLASTERS OFF-ROAD CLUB

Every Sun. at noon-weather permitting. ROAR. 42 Riel Dr., St. Albert, Alberta, Canada. Call Fred at (403) 457-9333. In winter on carpet.

BUCKLEY SPEEDWAY

37 Douglas Street, Hartford, CT. Every Sunday April 1st to Nov. 31st Black Top Oval. For more information call "Ziggy" or Deb-

bie Kwasnicki (203) 246-4778.

HOBBY HAVEN RACEWAY

1756 First Street, Livermore, CA 94550 AC power, paved parking, computer scoring, trophy races, trophy dashes, gift certificates. Coming soon night racing & oval races. For info (415) 443-5828 M-F 10-6 p.m.

RADIO OPERATED AUTO RACING OF ROCHESTER

110 Anderson Ave., Behind Village Gate (274 N. Goodman St.,)

7:00 p.m. - Monday Pro Night

7:00 p.m. - Tuesday Boy Scout Nite

7:00 p.m. - Wednesday Teen Night

7:00 p.m. - Thursday Indoor Clay

7:00 p.m. - Friday Roarr Meetings

7:00 p.m. - Sat. & Sun. Family Days

HOBBY HUT

2665 Park Marina Dr., Redding, CA 96001, (916) 241-3737. 1/10 Off-Road Racing. Norcal Mini Off-Roaders. Ask for Kevin Paschke.

USA RACEWAYS

6083 Dixie Highway, Bridgeport, Michigan, (517) 777-7USA.

Every Thursday Oval & Off-Road

Every Fri. Indoor Carpet Oval

R.C. BUGGYWORLD & RACEWAY

7511 Hamilton Ave. - RT. 127, MT. Healthy, OH 45231, 522-0809. Wednesday night off-road and oval on alternating weeks. Also carpet races on Monday nights 40 x 80 banked oval.

OUTLAW MOTOR SPEEDWAY

7920 Webster, Highland, CA Every 2nd Sunday - 1/10 dirt oval. All classes. Call (714) 370-0607.

LITTLES HOBBIES

Monday Nite - 1/10 Trucks

Tuesday Nite - 1/10 Sprint Cars

Wed.-Fri. - Open Practice Available

Sat. - 11 a.m. 2WD 6 yrs. to 16 yrs.

Sun. - 11 a.m. - All Classes Indoor Clay Oval and Road Track Fast - Stock & Modified Classes. Bolink AMB Lap Coun-

ter. 111 Main St., Rt. 66, Hebron, CT 06248, (203) 228-4942.

R/C WORLD & TRACK

New indoor facility for 1/10 off-road and oval dirt racing. Wed. and Fri. - oval. Sat. Daytime and Evening off-road. Practice anytime. Call Glen or Debbie at (303) 789-0838, 2788 S. Federal, Denver, CO 80202.

FAST LANE R/C

On Road Asphalt Track. 21616 Golden Triangle, Saugus, CA. Call (805) 255-2404.

RPM R/C RACEWAY

1112 S. 16th, Elwood, IN 46254. Indoor off-road racing every Sunday at 12:00 noon. For info call (317) 552-7758.

REC. R/C RACEWAY

1/10 scale clay oval track. Racing Sat. - Oval 10-2:30 - Racing at 3:00 p.m. - Sunday - Off-Road 10-2:30 Racing at 3 p.m. Call Erin Clancy (914) 868-7715. Route 82 to Standfordville, NY 12581.

MADISON AREA RADIO CONTROL CAR ASSOCIATION, INC.

Factory Outlet Mall, Madison, Wisconsin. 1/10 and 1/12 scale carpet racing. Practice Sat. Afternoon Racing 6 p.m. Sat. & 7 p.m. Tues. George Jerdee (608) 873-7286.

THE RANCH PIT SHOP

1655 E. Mission Blvd., Pomona, CA 91766 (714) 623-1506. Every Wednesday night at 6 p.m. Alternating Oval and Off-Road.

COMPETITION HOBBY

Off-Road racing indoors on dirt. Every Wednesday night 6:30 - Sunday 12 noon, Juniors (12 and under) & Novice Saturday 12 noon. 8169 S. State St., Midvale, UT 84047, (801) 562-9452.

CONNECTICUT AUTO RACING TEAM

1/10 Off-Road and Sprint Car Oval. 37 Douglas Street, Hartford, CT 06114, Zig (203) 246-4778.

HOBBYTOWN

1/4 Mile High Banked Indoor Carpet Tracks at two of our stores. The Lincoln track is at our Sutter Place Mall store located at 5221 S. 48th St., Lincoln, NE

68516 (402) 483-7427. The Omaha track is located at Rockbrook Village at 11011 Elm Street, Omaha, NE 68144, (402) 391-5669.

Tues. - 7 p.m. - Lincoln

Wed. - 7 p.m. - Omaha

Sat. - 1 p.m. - Lincoln & Omaha

Sun. - 1 p.m. - Lincoln and Omaha

ROMAC

1/10 and 1/12 on large carpet oval (Northern Lights Mall) N. Syracuse, NY. Thursday evenings and Sunday afternoons. Information call (315) 468-1463 or (315) 468-6544.

COOPER'S RC RACE CENTER

Racing every Sunday 2 p.m.

Open Wed. and Fri. 6 p.m.

Open Sat. & Sun. 12 noon

Oval and Off-Road

Contact Norris, Rt. 4 Box 122B, Chatham, VA 24531, (804) 724-4182.

VICTORIA HOBBY SHOP

Every Saturday - 2 p.m. - Off-Road;
Every Sunday - 2 p.m. - Ovals.

5211 John Stockbauer, Victoria, TX 77904, (512) 575-3270.

M.H.O.R. R/C RACEWAY

155540 E. Batavia Dr., Aurora, CO 80011, (East on 17th Ave. at Chambers Rd.). Indoor 1/10 Off-Road Racing on Wed. & Sat. Practice/Track Time Tues., Thur., Fri., Sun. Complete Hobby Shop, pit area has AC & DC power, a nice clean handicap accessible racing facility. For info call Jess Brockman, (303) 343-0151 after 3 p.m. MST. Closed Monday.

HOBBYTOWN RACEWAY

4915 W. Elm, McHenry, IL 60050, (815) 344-1777.

Hobbytown Raceway, 219 W. Cedar Lake Rd., Round Lake, IL 60073. Indoor - Dirt 80' straightaways, (312) 546-0707. Oval Racing every Friday 7 p.m.; Off-Road Sunday 10 a.m.

BNS COMPETITION HOBBIES

Route 7, Box 380, Anderson, SC 29624, (803) 224-8591, Contact Bob Sanford. Racing and Open Practice Wed. 6:30 p.m., Every Saturday 1:00 p.m. 1/10 Dirt Oval.

DESERT HOBBIES & RACEWAY

Off-Road racing 1st & 3rd Sundays. Sign in 10-11:15 a.m. Every Friday night 7:30 p.m. 25 minutes from San Bernardino. 17210 Main St., Hes-

peria, CA 92345, (619) 94858.

TAIT'S HOBBY SHOP

Sat. Off-Road 12 noon, 2WD/4WD Monster Trucks. Sun. Dirt Oval 12 noon 2WD/4WD Any body style. Mon. Indoor Oval Carpet 7 p.m. 1/10 & 1/12. Tues. Truck/Car Pulls 7 p.m.. Wed. Outlaw Dirt Oval 7 p.m. 2WD/4WD Stock cars/2WD Sprints. Friday. Off-Road 7 p.m. 2WD/4WD Off-Road cars. 3270 Bay Rd., Saginaw, MI 48603, (517) 799-3900.

J.G.S.

Wisconsin's finest off-road race track. Perfectly groomed 100 ft. straightaway, computer scoring, drivers stand, starting lights. Racing every other Sunday 1 p.m. Menomonee Falls, WI (414) 255-2040.

TRACKSIDE RACEWAY

Dirt Oval Racing every Thursday night 6 p.m. Fully stocked hobby shop, computer scoring, lights, bleachers, concessions. Menomonee Falls, WI (414) 255-2040.

WAGONHILL HOBBIES

Indoor 1/10 & 1/12 on-road racing every Friday night. Outdoor Off-Road every Saturday Night. 225 S. Board St, Grove City, PA, (412) 458-4711.

HOBBY CENTERS DIRT-DROME

Indoor Dirt Oval: Tues. 2WD Stock/Modified, Sprint Car Bodies Only. 4WD Mod. Oval full bodies 7:30 p.m. Thurs. Open Practice 6-10 p.m. Sat. 6 Big Classes 7:30 p.m. 2WD Stock A, 2WD Stock B, Box Stock Trucks, Modified Trucks, 2WD Modified, 4WD Modified. Sun. Open Practice 1-5 p.m. Call Brent Wilson (502) 683-7611. 715 E. 4th Street, Owensboro, KY 42301.

DIXIE R/C HOBBY SHOP

Every weekend Sat. & Sun. The races will alternate between oval and motocross starting May 14 with oval and May 15 with motocross. Dixie R/C Hobby Shop, P. O. Box 135, Ramseur, NC 27316, after 6 p.m. (919) 824-2770.

BREMEN RACEWAY

Clay Oval Track 60 x 100 ft. Under roof, lighted Friday nights 7 p.m. May thru Sept. Call for information (219) 546-3807. Bremen Hobbies, 308

N. Bowen, Bremen, IN 46506.

WEST TEXAS R/C RACEWAY

3477 Lee Blvd. - Racing every Sunday. 1/10 scale off-road and oval dirt. Mailing address: 301 Edith Dr., El Paso, TX 79915. For more information call Hector (915) 772-1382.

JIM'S R/C SPECIALTIES

3107 S.W. Van Buren, Topeka, KS 66611 (913) 273-4070. Racing off-road every Sunday 12 noon to 5 p.m. Oval racing every Saturday night 6 p.m.

EAGLE HOBBY CENTER & RACEWAY

Every Saturday night at 7:30 p.m. 1/12 4 cell stock and modified. 1/10 6 cell stock on-road, call for body style. Eagle Hobby Center & Raceway, 3601 Shepherd, Balch Springs, TX 75180, (214) 557-5290.

SUMMIT SPEEDWAY

Summer Schedule: 1/10 Indoor Oval Outdoor Tri-Oval - Fridays 7 p.m.; Tuesdays off-road 6:30 p.m.; Saturday nights and Sundays. Call for more information (219) 489-RACE.

ACTION SPEEDWAY

Indian River's Facility

1/10 scale half mile clay oval & off-road. Two story covered drivers' stand, large pit area close to track, ample parking, classes for young and old, beginner's to expert's, and truck pulls. Coming soon - 1/10 scale super speedway and road course, night racing, full electric, and concessions. For further information call Trace or Chip Button (407) 231-9410 or Doug Upton (407) 569-8793.

THE INSIDE TRACK

Every Wednesday - 7 p.m. and Saturday 6 p.m. Classes: 2WD Stock and Modified, 4WD Stock and Modified and Monster Trucks. For more information call (312) 898-5649. 725 Hill Avenue, Aurora, IL 60505.

ABC R/C

Clay track racing every Saturday 1 p.m. Truck pulls every Tuesday 6:30 p.m. Complete R/C headquarters, 1441B E. Main Street, Waukesha, WI 53186, (414) 542-1245.

TC'S R/C'S

Inside and outside race track and RC shop. 1537 Freeport Road, Natrona Heights, PA 15065, call 226-8802.



HobbyShopper's Guide



HobbyTown

*Where your dreams live**

NEBRASKA

LINCOLN 402-483-7427
LINCOLN 402-464-2858
LINCOLN 402-476-3829
OMAHA 402-391-5669
BELLEVUE 402-291-0542
GRAND ISLAND 308-381-8472

COLORADO

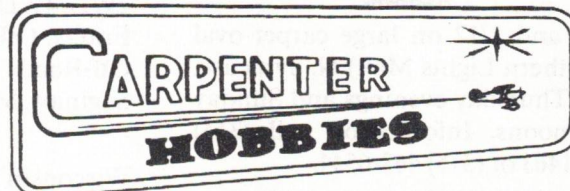
FORT COLLINS 303-224-5445
DENVER 303-431-0482
COLO.SPRINGS 719-531-0404

CALIFORNIA

ENCINITAS 619-942-2014

****CALL FOR LOCAL INDOOR AND OUTDOOR RACE TIMES****
YOU CAN OWN YOUR OWN STORE JUST CALL 402-467-4784

Radio Control - Plastic Kits - Crafts - Model Railroading



COMPLETE LINE OF R/C RACE CARS & ACCESSORIES
903 FAIRYLAND ROAD
ACROSS FROM FRANKLIN TOWNSHIP BUILDING
LEHIGHTON, PENNSYLVANIA 18235
(215) 377-2402

Lake Side HOBBY SHOP



Specializing in
R/C Cars
large stock of
accessories!

BENEFIT FROM THE
EXPERIENCED
RACERS!!

We ship UPS 13737 N. DALE MABRY
LAKE SIDE CENTER
TAMPA, FLA 33618
PHONE (813) 961-9432

major credit cards accepted



WALT'S HOBBY

Full line radio control hobby shop specializing
in friendly, helpful service for remote control
cars, parts and accessories. Daily UPS Service.
Discount Prices. Visa, Master Card, American
Express. Home of the indoor clay oval and
computerized scoring.

"CALL
WALT'S"

Tel. (315) 468-6544

4300 W. Genesee St.
Syracuse, N.Y. 13219

1/10 and 1/12 Scale Electric
PARTS AND ACCESSORIES

Modeler's Haven

Specializing in Radio Control Electric Cars

PROMPT SAME DAY
U.P.S. SHIPPING
(216) 499-6000

4255 PORTAGE ST. N.W.
NORTH CANTON, OH
44720

VISA & MASTERCARD ACCEPTED

Specializing in
R/C Car Parts & Accessories

Discount Prices
Mail Order



Gulfside Hobbies

Rt # 10 Box 495 Z
Brooksville, FL 34610

Owner:
Richard Nemcovic

(904) 796-3815
After 5 p.m.

PIT STOP

R/C HOBBIES
& RACEWAY



TED & PAT CONNOLLY
OWNERS

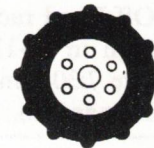
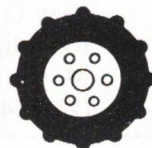
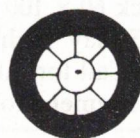
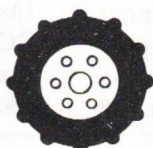
513 EAST LAUREL STREET • SPRINGFIELD, IL 62703 • (217) 528-2757



Strongsville Hobby Shop

NORTH COAST R/C MAIL ORDER HEADQUARTERS
CALL FOR MAIL ORDER SPECIALS
13325 PROSPECT ROAD
STRONGSVILLE, OH 44136
216-572-0430

JERRY IVANCIC
DENNIS CALKINS



BROCKTON INTERNATIONAL SPEEDWAY

Monday night 1/10 & 1/12 oval racing 5:30 to 7:30 Practice. Races start 7:30 p.m. 1217 Main st, Brockton, MA. For more information call Ruben (508) 588-9355.

SONOMA COUNTY RACEWAY

806 Brookwood Avenue, P. O. Box 9565, Santa Rosa, CA 95405 -1/10 Dirt Oval, 1/10 Off-Road, 1/10 & 1/12 Asphalt. Mark White (707) 571-7565, Schedule info (707) 571-8044, Competition Products (707) 571-8048.

ALL IN 1 RACEWAY

5612 S. 108th St. Hales Corners, WI. 1/10 scale indoor dirt track. High speed semi-oval and true off-road courses. Practice Tues, Thurs., and Fri. 6 - 9 p.m. Racing Wednesday nights at 6 p.m., Sat. & Sun. at 1 p.m. For more information call (414) 425-4060.

— 1/12 Scale — OUTLAW RACING

Every Friday nite Stock only 6:45 p.m. Every 1st Sunday - 1/12 Stock & Modified. 1/10 on-road Stock & Modified, 1/24 Tamtechs. Call Paul Nadeau, (714) 370-0607

GLASS CITY RADIO CONTROL

Racing 1/10 & 1/12. For more info contact: Clayton White (1/12) (419) 882-2518 or Mike Marshall ((1/10) (313) 241-5321.

S.T.A.R.C.

Every Wed. Night - S.T.A.R.C. Club Series. Rockton, Ontario, Canada. Call Sam Burke (519) 621-5424.

TEAM RACE R/C CAR CLUB

Friday: 6:30 p.m. indoor track, 505 Spring Ridge Rd., Clinton, MS, (601) 924-0722.

NORTHERN MINI-RACERS

4 Cell indoor regular schedule 1st & 3rd Saturday. located at 1715 S. Broadway, Minot, ND Call Roger Lee, Pres. (701) 838-0654, or 839-5294.

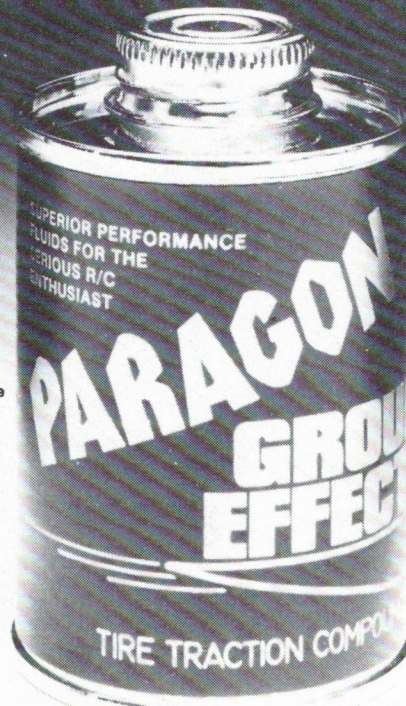
KOUNTRY KUN HOBBY

1/12 scale small indoor carpet track & hobby store. No regular schedule at this time. Box 247, 324 Railroad Ave., N. Mohall, ND 58761, (701) 756-6307.

USA RACEWAYS

6083 Dixie Highway, Bridgeport, Michigan 48722, (517) 777-7USA
Every Tuesday Nite On-Road
Every Sat. Nite On-Road

HOOK UP WITH GROUND EFFECTS



PARAGON
The Choice of
World Champions!
1/12 Scale IFMAR
World Championship
MASAMI HIROSAKA
World Champion
Tony Neisinger - 2nd Place
Christian Kell - 3rd Place
Kent Clausen - 4th Place
Driving Associated 12Ls

**"THE ULTIMATE
TIRE TRACTION
COMPOUND FOR
SUPERIOR
HANDLING"**

Send \$2.00 for
catalog to:

PARAGON RACING PRODUCTS

Dept. CP, 8802 Knollwood Drive, Eden Prairie, MN 55344, (612) 934-1220

Every Other Sat. Eve. Stock On-Road

THE RANCH PIT SHOP

1655 E. Mission Blvd., Pomona, CA 91766, (714) 623-1506. Every 4th Sun. 1/12 & 1/10 On-Road Combined Program.

OMAHA NEBRASKA RADIO OPERATED AUTO DRIVERS

On-Road 6 cell racing two nights per month. ROAR rules apply. Call (402) 331-3931.

S.O.R.C.R.C.C.

Southern Ontario Radio Control Race Car Club in Toronto, Ontario, Canada. Racing Alternating Sunday evenings from October to April. 6 p.m. to 10 p.m. For more information call Scott Reynolds at 298-4941 or Gary Joi at 421-9061.

CENTRAL MARYLAND ELECTRIC RACING CLUB COMMUNITY R/C SPEEDWAY

Middletown Park, Middletown, Maryland. 100' x 50' dirt oval, 14' wide lanes, 2' banked turns, drivers stand, no electricity available, open to the public. Race Director Mark

Coats (301) 694-7420.

FLORIDA STATE SERIES

Feb. 4 & 5 - Miami
Mar. 18 & 19 - Orlando
April 29 & 30 - Jacksonville
July 8 & 9 - Pinellas
Sept. 30 & Oct. 1 - Ft. Lauderdale,
Nov. 4 & 5 - Orlando
Steve Whitney (407) 631-8761

— Special Events — MRC RUN FOR FUN NEW RACE DATES

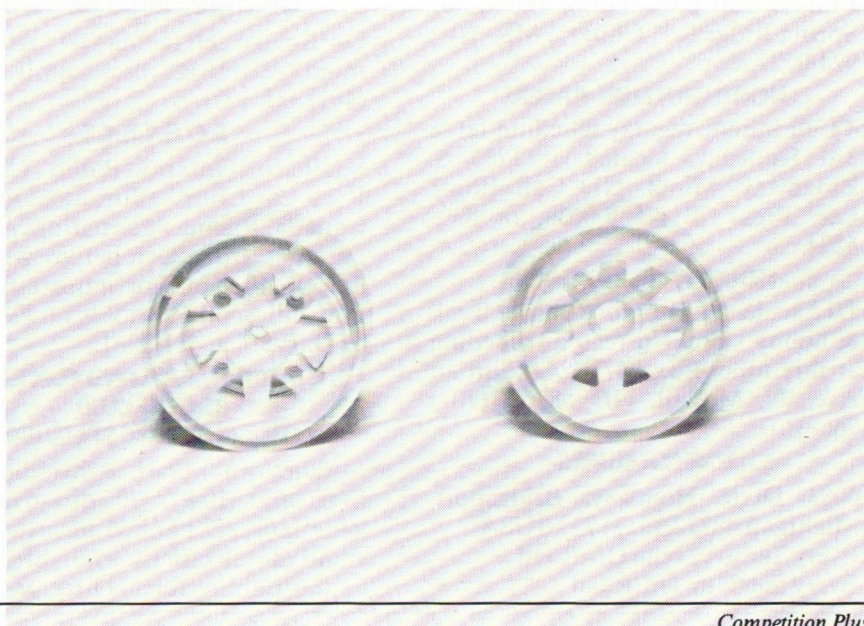
Feb. 4 - Orange Park Hobby World, 175 Blanding Blvd., Orange Park, FL, (904) 264-6315.
Feb. 4 - Bob's Radio Control Supply, 2401 Falls Ave., Waterloo, IA, (319) 232-2235.
Feb. 4 - Hobbyworld, 2112 10th Ave. S. Great Falls, MT, (406) 727-1010.
Feb. 18 - Kokomo Hobby, 1704 E. Sycamore, Kokomo, IN, (317) 457-5060.
Feb. 19 - Arizona Fast Track, 1102 E. 22nd St. Tucson, AZ, (602) 582-8888.
Feb. 25 - Jonimo Hobby Shop, 27788 Joy Rd., Livonia, MI, (313) 422-1830.

NEW PRODUCTS



New from Paragon, the Paragon Aerodisc! Use Aerodiscs to increase aerodynamics by minimizing wind interference as well as keeping mud out of your rims. Aerodiscs come in two sizes (1/10 and 1/12) and are made of a rigid vinyl with an adhesive back for affixing over your rims. Part No's. WAD-10 or 12 (Black print on white background, BAD-10 or 12 (white on black), or PAD-10 or 12 (purple on white). Suggested retail: \$2.50 per set of 8. For a catalogue and Paragon decal send \$2.00 to: Paragon Racing Products, Dept. CP2, 8802 Knollwood Dr., Eden Prairie, MN 55347."

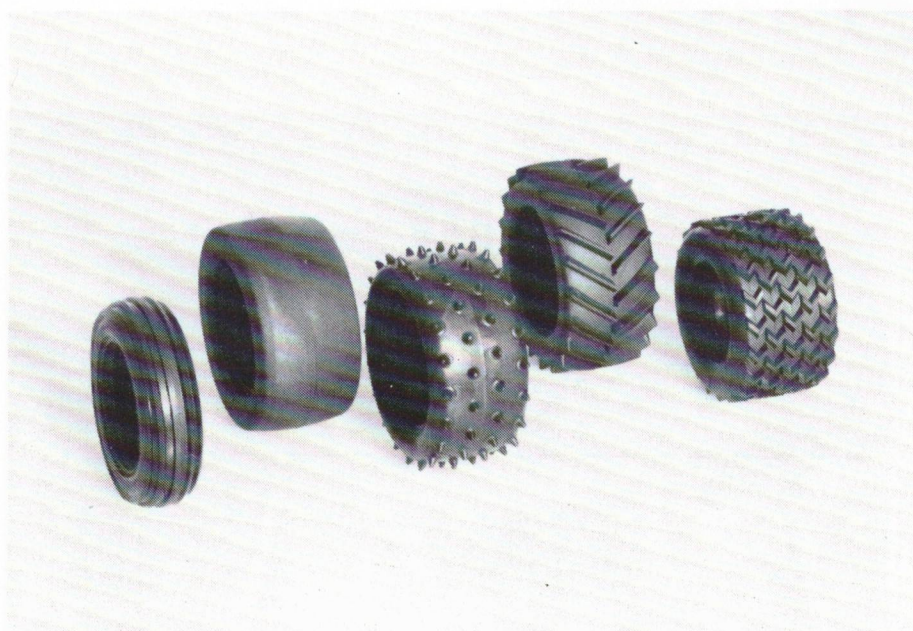
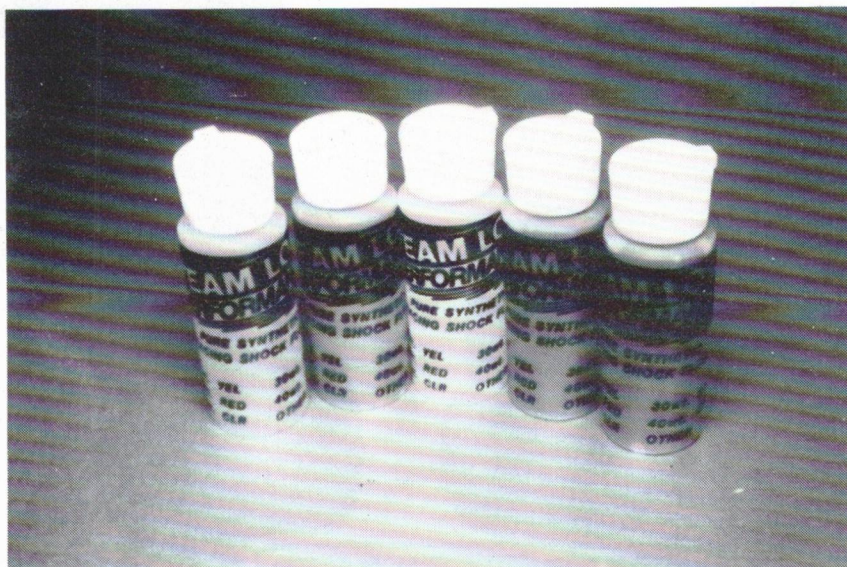
NEW from Twinn-K: a three-piece rear rim for the hot RC10 in durable plastic—sharp! (#9804). Our #9805 is an extra wide three-piece plastic front rim for Frog, Hornet, and Grasshopper. These rims allow a bigger selection of front tires for these popular cars. For more information about Twinn-K's complete line of tires and accessories, write: Twinn-K, Inc., P.O. Box 31228, Indianapolis, IN 46231.





TMS Products introduces an innovative new tread design for replacement Clodbuster tires. The pin spikes in a diamond shaped pattern is good for ALL off-road and carpet surfaces. These tires should be of great interest to sled-pulling Clodbuster owners!! These tires are made in the U.S.A., and are available from TMS Products, 1948-A Del Amo Blvd., Torrance, CA 90501. The TMS Clodbuster tires are mounted on TMS precision machined aluminum wheels; these wheels mount directly on to the Clodbuster . . . They need no adaptor!!

Team Losi Pure Synthetic Shock Fluid. A racing shock is only as good as the fluid inside of it. Team Losi pure synthetic shock fluids offer many unique advantages not found in common oils. The pure synthetic fluid is foam resistant, color coded for each weight, will not adversely effect o-rings or plastic parts and, most importantly, is not effected by temperature change like petroleum based oils. Available in 5, 10, 20, 30, 40, 50, and 70 wt. SAE. A special 5 pack includes 5 thru 40 wt. at a special savings. Part #A-5200 -5207, 5210. Team Losi, Inc., 1655 E. Mission Blvd., Pomona, CA 91766.



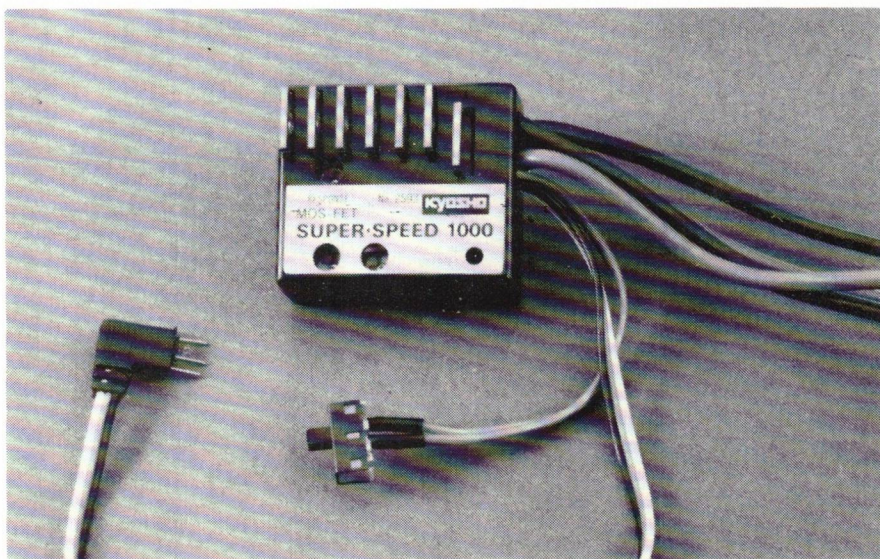
Great Planes Distributing would like to update consumer and retailers that 68 different styles of tires are now available from DuraTrax. DuraTrax offers five major categories of tires which are: ribbed, slicks, spikes, paddles and special treads that provide about any type of tread pattern to choose from for 1/10 scale off-road buggies and 1/12 scale R/C cars. Also becoming available are a number of Monster Truck tires in different tread patterns as well. These tires are made of natural and synthetic rubbers that wear evenly and durably over long periods. Great Planes Model Distributors, P.O. Box 4021, Champaign, IL. 61820.

Just released to the market is **PERFORMANCE PLUS** motor cleaner. The needed maintenance tool that will noticeably improve your motor's performance and efficiency. **PERFORMANCE PLUS** also prolongs running time and extends motor life. Recommended and used by several leading motor builders, including **REVTECH** AND **PEAK PERFORMANCE**, who have won National Championships in 1986, 1987, and 1988. Stock #1500 \$5.75. Distributors and dealers contact: **T.A. EMERALD INDUSTRIES**, 18361 Enterprise Lane, Huntington Beach, CA 92648, (714) 841-2750.



New tires from Parma. These front (#12016) and rear (#12034) treaded tires are a direct fit for 1½" Tamiya-style wheels. The tread design is ideal for both dirt and asphalt. Look for these new tires at your favorite Parma retailer. Parma International Inc., 13927 Progress Parkway, North Royalton, Ohio 44133.

The new Kyosho SC1000 Speed Control is a must for the experienced racer. In addition to separate neutral and hi-point adjustments, the SC1000 allows the driver to adjust the sensitivity of response for specific motors and varying track conditions. The SC1000 works with 5-8 cells and operates at 210 amps continuous with a 1260 amp peak. Voltage drop is low .004 V/A. Dimensions are 1 1/2" x 1 5/16" x 9/16" and weight is a low 1.4 oz. Great Planes Models Distributors, P. O. Box 4021, Champaign, IL 61820.



Andy's®

The team at **ANDY'S® R.C. PRODUCTS** is dedicated to designing and manufacturing the highest quality, race tested performance products that are blowing away the competition.

The geometry of **ANDY'S®** arms is designed to extend the width of your car to meet the maximum legal R.O.A.R. requirements; wheel bases are also extended to maximize stability through rough areas and minimize "push" at high speeds.

NEW-ULTIMA WIDE TRACK FRONT ARMS

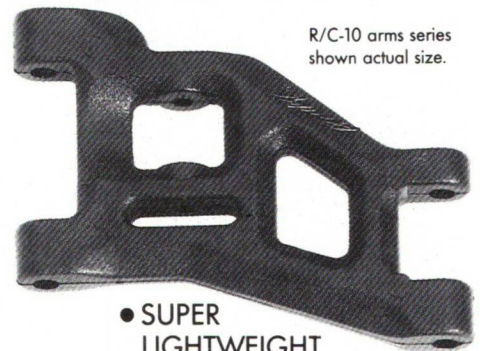
NEW-YOKOMO LIGHTWEIGHT FRONT & REAR ARMS

WINNING THE ARMS RACE

With the help and support of team associated and other top drivers throughout the world.

ANDY'S® arms have what it takes to win the race because quality and performance always count.

R/C-10 arms series shown actual size.



- SUPER LIGHTWEIGHT
- NYLON TOUGH
- RIGID
- PRECISION ALIGNMENT
- SLEEK DESIGN



Look for **ANDY'S®** signature on all **ANDY'S® R/C PRODUCTS!**



Andy's®

Ralph Burch Jr., world class driver and 1988 McCoy champion, was our choice to put Hyperdrive to the test.

"The Hyperdrive belt drive system will do more for the performance of 1/10th, 1/12th, and off road racing than belt drive has already done for 1/8th scale," said Ralph.

Racers everywhere are discovering the advantages of Hyperdrive. At its first introduction to the racing world, 2 of 3 stock, and 5 of 9 modified class winners won with Hyperdrive equipped cars at the 1988 10th scale Nats!

The combination of tough anodized

aluminum motor drive, durable Kevlar belt, and Teflon impregnated Delrin diff pulley is new, and it's a killer!



DELTA SPYDER and VILLAIN will feature Hyperdrive on some models soon.

Hyperdrive
Belt Drive Systems™

Add **Hyperballs**, the highest grade bearings on the market, with **Hyperrings**, our chrome-hardened diff rings, and you have the ultimate, near frictionless, bulletproof drive system.

Contact us today for our new catalog and ordering information, or order direct using your VISA or MASTERCARD.

S.S. Industries Racing, Inc.
3210 Howard Nickell Road
Fayetteville, AR 72703
Phone (501) 444-8200 • FAX (501) 444-8402

Ralph Burch Jr. chooses Hyperdrive!

Ralph Burch wins
1988 Whippoorwill
Race of Champions,
TQ's, and sets new
track record using
Hyperdrive!



Hyperdrive
Belt Drive Systems™

PATENT PENDING

IT'S LOADED.

You're looking at the most potent pistolgrip radio you can buy. When it comes to features and performance, it's loaded. But only the competition needs to be worried.

PCM 1024.

Futaba's Magnum PCM fires out its commands in high speed, high resolution 1024 Pulse Code Modulation.

Virtually stepless PCM 1024 is a Futaba exclusive, and for response and resistance to interference nothing even comes close.

And Futaba's pioneering efforts in PCM have also resulted in a remarkably compact 3 channel receiver.



The 3 Channel PCM/BEC receiver weighs just 0.73 oz. and measures 1.75" x 1.125" x 0.625".

ALL THE RIGHT MOVES.

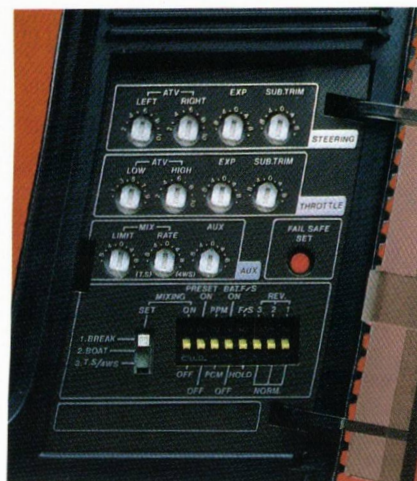
On the track, Magnum PCM one-touch, electronic trim and adjustable dual rate give you precise control over changing conditions.

Steering wheel throw, spring tension and throttle limit can also be easily changed on the transmitter.



Another important feature is Direct Servo Control (DSC), which lets you check and adjust settings without turning the transmitter on.

The Magnum PCM control panel. Customize your system for every application.



A PIT CREW IN THE PALM OF YOUR HAND.

The control panel of the Magnum PCM gives you access to every option imaginable.

ATV, exponential and sub-trim let you fine tune steering and throttle servo action to suit your driving style, car or track.

Third channel, mixing, fail safe, PCM/PPM (FM) and servo reverse controls are also provided.

THE FUTURE IS NOW.

Developed and competition-tested for all types of RC racing, the Magnum PCM can handle anything on wheels.

From high-powered 1:8 gas cars to high jumping 1:10 offroad racers, Futaba's reliable, surface-mounted electronics can take it. A complete selection of servos and MOS/FET speed controls is available.

We've even included twin-servo steering control, four wheel steer (4WS) differential and torque-steer compensation mixing.

Magnum PCM is truly the system for the serious racer. Everyone else is just firing blanks.

MAGNUM
Futaba.

Futaba Corporation of America
555 West Victoria Street, Compton, CA 90220

CHOOSING AN R/C OFF-ROAD BUGGY CAN BE DIFFICULT... THE HORNET MAKES IT EASY

High performance...simple to build

Don't spin your wheels

You're in the market for an off-road buggy! The selection is huge. The decision can be hard.

As the leader, MRC-Tamiya gives you more to choose from. So Tamiya developed the Hornet, a joy to build, great to begin with yet designed to let you hop it up as you increase your skills.

The Hornet delivers high performance, right out of the box without spending hundreds of dollars to modify it. The Hornet comes standard with an adjustable

independent front swing axle suspension and an adjustable dual shock rear rolling swing axle.

Designed to bite in and hug the ground during high speed turns, the Hornet has a lightweight, rugged polycarbonate body, with a chassis designed entirely of engineering plastic...lighter than metal, yet more reliable.

Step it up, hop it up, speed it up...with MRC-Tamiya performance accessories

As your skills increase and the urge for competition overtakes you, the Hornet offers you more!

- Add friction-reducing front wheel ball bearings for crisp cornering...rear wheel bearings for getting more power to the ground...then put bearings into the gear box for smooth power transfer...and watch the Hornet fly.
- Select racing tires with advanced tread design for better acceleration and handling.
- Add a Battery Eliminator Speed Control...to cut weight and add speed.
- Vary the viscosity of the damper oil in the shocks to match various road conditions.

Best of all, it's an MRC-Tamiya

You also get the added benefit of knowing it's from Tamiya, the unquestioned leaders in off-road R/C.



MRC™  

See The Hornet at a hobby dealer today.

MODEL RECTIFIER CORPORATION
2500 WOODBRIDGE AVENUE
EDISON, NEW JERSEY 08817