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JULY 1995 • DISPLAY UNTIL JULY 6

'95 WHAT'S NEW PRODUCTS

RACING:
FLORIDA'S WINTER CHAMPIONSHIPS

IEDA DRAG RACING

REVIEW:
TRAXXAS RUSTLER
A WINNER AT ANY LEVEL

HOW TO TWEAK YOUR CAR!

UPGRADING YOUR LOSI TRUCK

HOW TO DETAIL TAMIYA'S F1 RACERS

COOL RUNNING NIGHT RIDER

'41 WILLYS PROJECT

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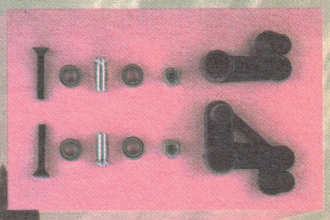
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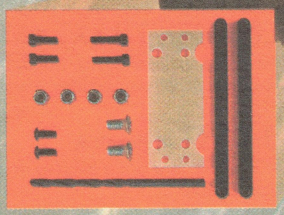
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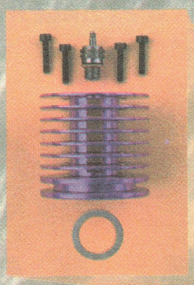
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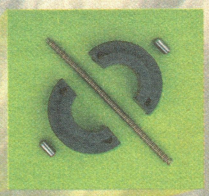
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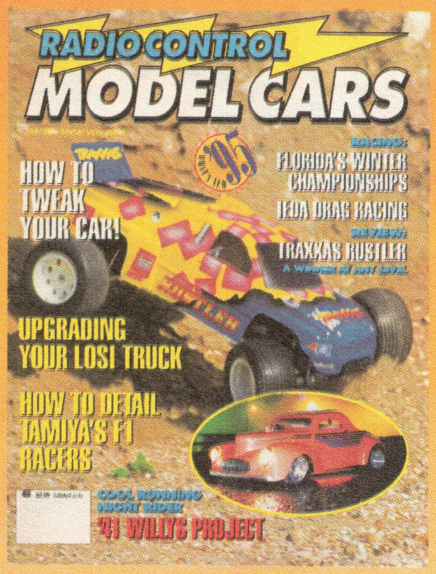
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RADIO CONTROL MODEL CARS

JULY 1995 VOLUME 10 NUMBER 10

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Some inside tips can turn a stock Formula One car into a concours winner. Here are some modeling secrets.

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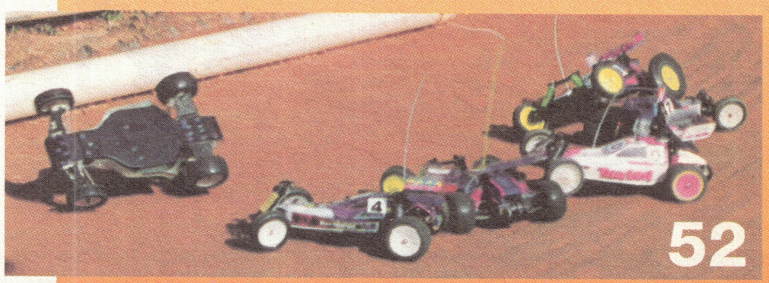
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All quotes are from the George Gonzalez article **"HOW TO BECOME A CHAMPION ON A BUDGET"** in the April issue of Radio Control Car Action. This independent testing confirmed the racing speed and remarkable value of MRC's MT-10S.

RIGHT OUT OF THE BOX...

"SPEEDS WERE IMPRESSIVE"



"I was amazed at how well the truck handled the track in box-stock form. Considering I was using the stock electrics, speeds were impressive .

After a few laps I was clearing the triple jump in one swoop. I found the truck incredibly easy to drive. And so did several other racers."

HOPPED UP...

"IT WAS JUST AS FAST, RESPONSIVE AND STABLE AS ANY PRO LEVEL TRUCK I EVER TESTED"



"To say the truck performed extremely well when decked out with some high performance electrics would be an under statement. It was just as fast, responsive, and stable as any pro-level truck I ever tested. In fact, though I'm reluctant to admit it, it actually handled better than some of them. It held a tight line, darted nimbly into and out of turns and blazed through the whoops, doubles and tabletop jumps with agility."

"MAY BE SNATCHED UP FOR AROUND $100"*

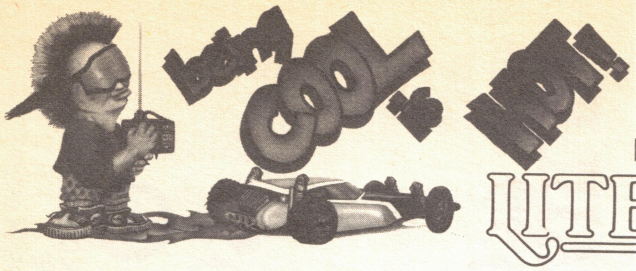
"An impressive list of features might lead you to believe that it's a pro level truck, but it's an entry level goodie that may be snatched up for around $100." (With motor and speed control)

Dollar-For-Dollar The Best Competitive Value You Can Own. It seems that whenever anyone compares MRC's MT-10S stock out of the box, or hopped up to fly, there is no better racing value. And even if you don't usually race, wouldn't it be nice to know that your truck, which costs considerably less, was ready, willing and able to compete against some of the best? See it for yourself at your hobby dealer.

(*Prices may vary or change. Price level quoted here as of Jan 10, 1995)

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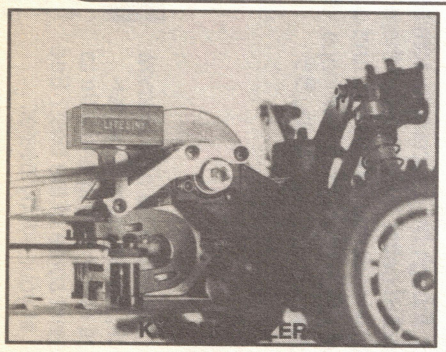


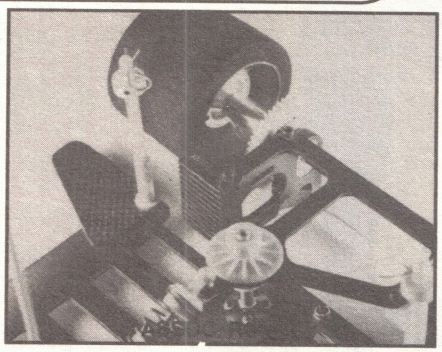
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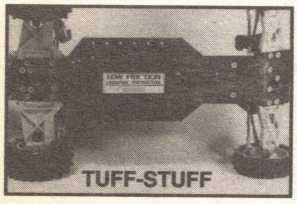
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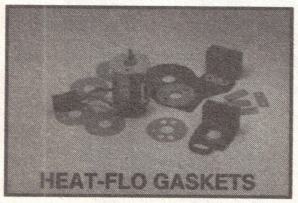
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PRO-XRT™



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There's just one major difference between the Pros and other "loaded" machines—and it has nothing to do with performance.

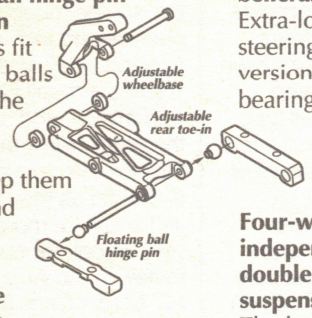
It's the price. Kyosho's race-ready **Team** and economical **Sport** versions of the Pro-X and Pro-XRT make top-of-the-line technology surprisingly affordable.

And they make winning a whole new race to the finish line.

The foundation of Pro Series performance:

Easily adjustable wheelbase
Rear hub carriers can be moved 1-4mm with spacers. Optional hub carriers for the front ends allow -10 and -15 degree caster angles.

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Hinge pins fit into nylon balls seated in the mounting blocks, which keep them aligned and prevent binding.

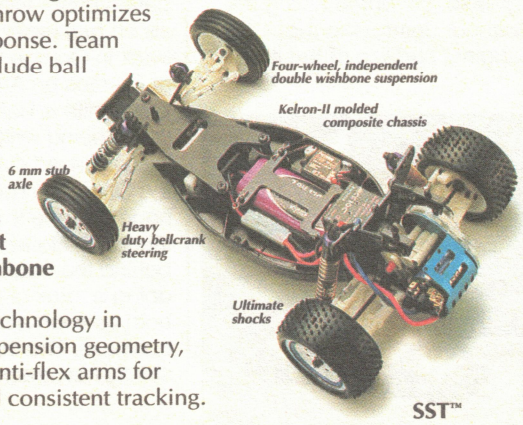


Adjustable rear toe-in
Using toe-in blocks, rear toe-in can easily be tuned at 1.5, 3 or 5 degrees.

Kelron-II™ molded composite chassis
Reinforced for stiffness. Entire front end can be taken off by removing just six screws!

Heavy-duty bellcrank steering
Extra-long throw optimizes steering response. Team versions include ball bearings.

Four-wheel, independent double wishbone suspension
The latest technology in off-road suspension geometry, with long, anti-flex arms for stability and consistent tracking.



6mm stub axle
50% larger axle improves steering precision and strength. 6 x 10mm wheel bearings (bushings in Sport models) prevent wheel wobble.

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Improves acceleration, lowers the CG and simplifies spur gear changes. Includes 11 ball bearings and uses common 48-pitch pinion and spur gears.

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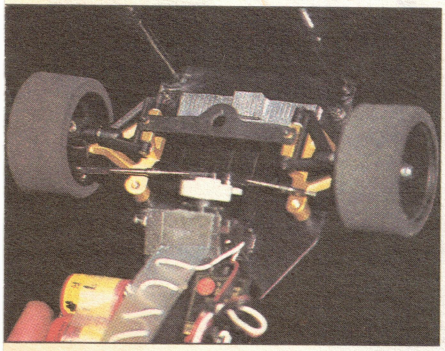
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New & Hot

ARP ALUMINUM LOWER SUSPENSION ARMS

Get better accuracy, dependability and stiffness from your oval car's front end with ARP's new aluminum lower suspension arms. The lightweight arms are direct replacements for standard Associated onroad 1/10-scale A-arm front ends. Because the arms are intended for use on ovals, the caster blocks are not removable. Zero degrees of caster is machined into the boss that attaches the upper arm. Up to



six degrees of caster can be added by using standard Associated parts. The top of the caster block is drilled and tapped for a 4-40 screw, so a chassis stiffener can be added. The arms are CNC-machined out of 6061 aluminum, then hard-anodized for added strength. The rigid design makes all caster, camber and spring adjustments function more accurately. The up-top stiffener removes all chassis flex at the front and is perfect for enduro cars that have a trigger mechanism between the front wheels. For more information, contact Ed Allen at ARP, (714) 858-0712.

F1 SERIES CONTINUES

The overcast skies failed to dampen the enthusiasm of the participants in the first of 19



F1 and Indycar races being held at the HobbyTown of San Marcos. The SDF1 organization has scheduled an ambitious parking lot series featuring F1, Indy and touring car classes, with each track layout changing to reflect the current Indy or F1 race that weekend. With several races under their belts, the group is riding high on a wave of success. The May 28 race will be an oval replicating the day's Indy 500—the following weekend, on June 4, the oval will be a duplicate of Milwaukee's mile. On June 18, the course reverts to a road circuit resembling F1's Canadian Grand Prix. For information and registration, call Greg at (619) 726-6756.

DAN CLEANS UP

Indefatigable promoter Dan Moynihan has produced a new cleaner/protector called Speed Spray that can be used to clean more things than we have room to list. It's anti-static properties keeps dirt off of computer or TV screens and it will easily clean gummy residue, grease, oil, grime and gunk without destroying the original surface of the item



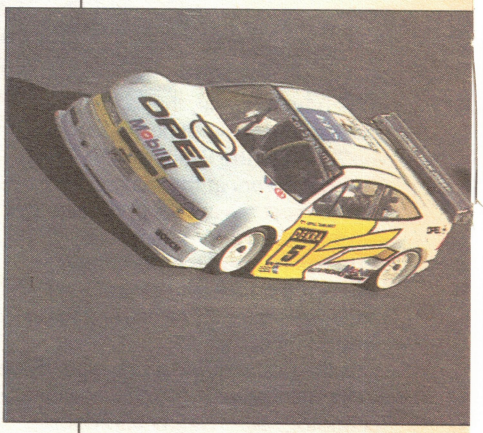
being cleaned, according to Dan. We tried it on the computer screens here at the office, and they're still dust-free! With no harsh chemicals to strip wax or the surface, Speed Spray will keep everything factory fresh. Though originally formulated for RC use, it will work on your full-size car (we sprayed it on our BBS wheels on the Beemer and the disc brake dust vanished! It's a miracle!! Buy some, try some—you won't be disappointed. See your RC dealer or write to Dan's RC Stuff, 9525 Cozycroft, Unit C, Chatsworth, California 91311. (818) 700-6912.

NEW TRACKS IN CALIFORNIA

News of several new tracks in Southern California has racers ready to pounce on the pavement: in Montclair (near Pomona) Dana Smeltzer is planning on opening a new paved oval—with the emphasis on gas racing. Another track in Orange County's town of Cerritos on Artesia and Carmenita is being built as this is being written, and it is a indoor paved oval (shades of the One-Stop bullring! We hope this one is more car-friendly!). No word on who's behind the track, but we'll be doing a track of the month on both as soon as they open for business. The third is not a strictly new track, but the El Cajon oval, which has seen its share of ups and downs and bad management, is open again and hosting some great weekend racing. Onroad gas racing is getting popular in San Diego, and El Cajon is a big part of the reason. Maybe we'll see you there. . . .

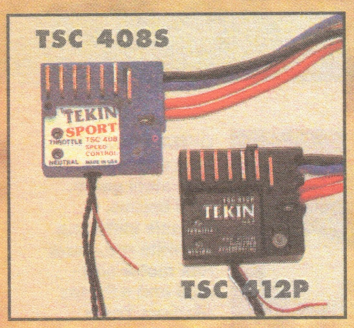
GO FAST IN A BIG WAY

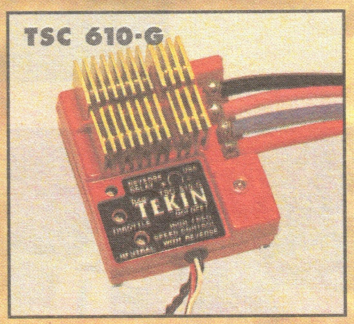
SEI Racing, of Kirkland, Washington, is importing some highly detailed 1/5-scale German Touring cars

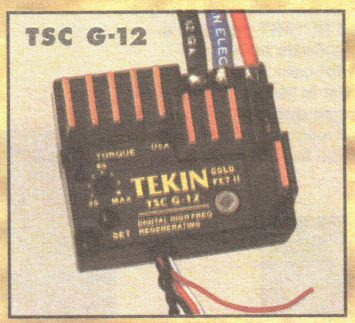


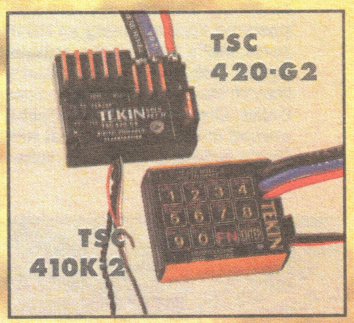
worthy of your attention. With Zenoah gas engines like the ones that power the larger quarter-scale cars, these land rockets have speed and handling that comes as close to full-scale racing as you're likely to get. Shown here is the Opel Calibra—which, along with the Alfa, Mercedes D2, C-Class Promarkt Mercedes and BMW M3—comes with the engine mounted on the chassis and includes a well-molded body and decal set. There's a detail kit available with mirrors and antennas for the detail freak, though out of the box the cars look very authentic as they are. Give Jeff a call for more information, or look for our thorough review in the August issue of *RC Model Cars*. SEI Racing, 727 Kirkland Ave., Kirkland, Washington 98033. (206) 827-7158. ●

SPEED CONTROL









DRIVING FUN

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

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

REVERSE ACTION

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

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

COMPETITIVE ADVANTAGE

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

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

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

CHAMPION RACING

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

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

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

SPECIALTIES

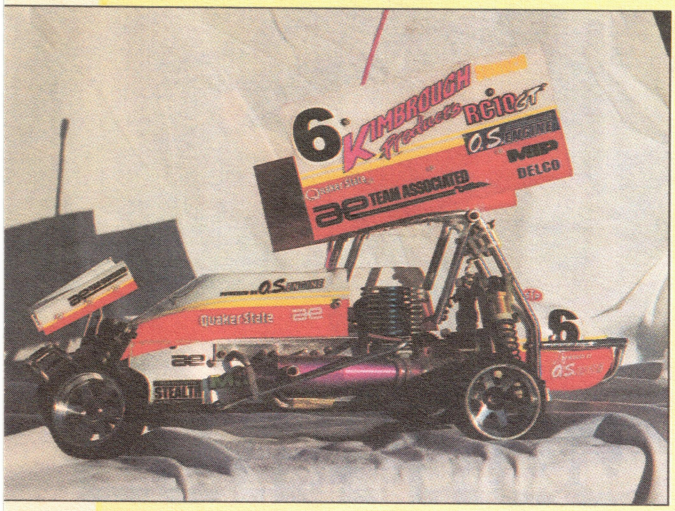
Visit your local hobby dealer for complete details, or write for a free Tekin catalog.

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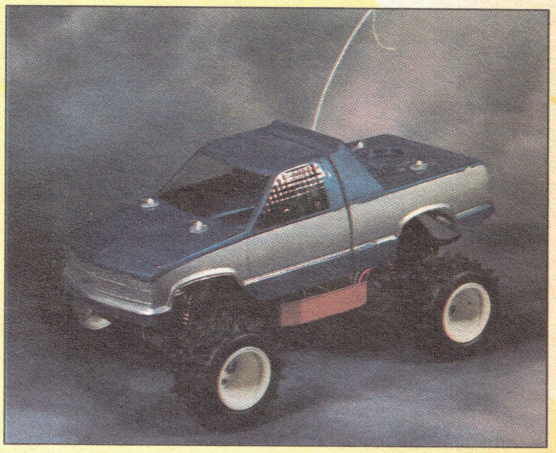
940 Calle Negocio, San Clemente, CA 92673
Phone: (714) 498-9518, Fax: (714) 498-6339

Readers' Page

DEAR READERS: ONCE AGAIN WE COME TOGETHER TO DISTRIBUTE SOME FINE PRIZES TO REWARD YOU FOR YOUR EFFORTS IN SHARING YOUR PHOTOS WITH THE REST OF US. YOU CONTINUE TO AMAZE ME WITH THE CREATIVE MODELING SHOWN BY YOUR PHOTOS. KEEP IT UP! IF YOU WANT A SHOT AT HAVING YOUR PHOTO APPEAR HERE, JUST SEND IT TO ME—DEL BAGSHAW, READERS' PAGES EDITOR, BOX 2459, CAPISTRANO BEACH, CALIFORNIA 92624. IF YOUR PHOTO IS PICKED, YOU'LL GET SOMETHING COOL—TRUST ME!—*DEL.*



Bob Knox, from Haines, Oregon, says our article on Bart's sprint car a couple of years ago led him to build this hot gas-powered sprinter using an RC10 and RC10GT and Bart's parts. MIP's temp probe, exhaust and CVDs have been added. Bob has two other Bart's sprint cars, and says they're the best. The O.S.-powered car is raced as part of the Baker, Oregon series (an electric series and gas, plus oval, onroad and truck pulls) that run both summer and winter. Bob's getting a six-month subscription to *RC Model Cars*.



Corey Smith's RC10 has been turned into a good-looking truck with the addition of a stadium truck body. Corey put in a Novak 410-MC speed control and a Futaba radio system. The motor is a Precison Motorsports powerplant. Corey will be getting a new Dahm's body for his entry.

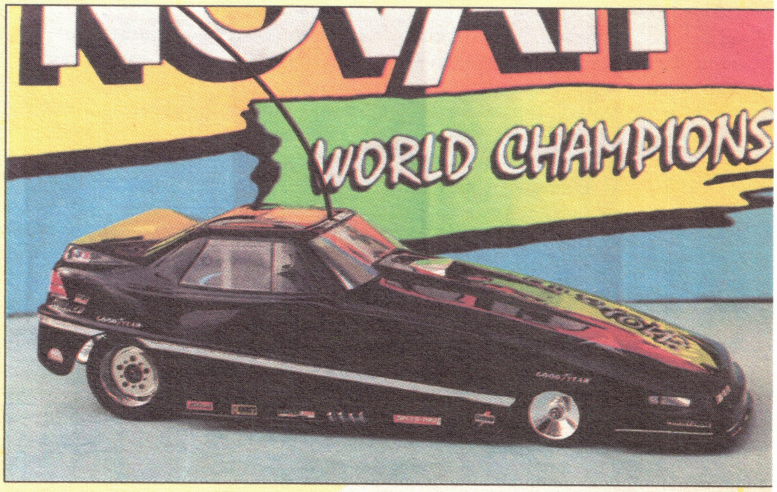


OFNA's Pirate M1 gets upgraded with steel gears, dual brakes, a chassis stiffening graphite rod, Paris Rex motor and pipe and a Parma Stadium Truck body. It's the work of Agnelo Macasero, of Buena Park, California, who will receive a six-month subscription to *RC Model Cars*. Congratulations!



Mark Furano, of New Milford, Connecticut, writes to say that one of the rare snowfall's this year in New England prompted him to take his Nitro Thrasher out for a run. He spent two hours blowing the backyard snow, then built a snowpile for a jump. Mark has five gas RC vehicles, and has a great time in his own backyard. We're sending him a new Dahm's body for one of his rigs.

This is known as the Ninja Funny Car, says Larry Zimmerman, of Regina, Saskatchewan. Larry sent 26 photos of different RC vehicles, and we picked one that was pretty middle of the road. Some are even more outrageous than the Funny Car! Larry started with a Bolink Sport chassis, stuck in a Novak T4 ESC and runs a stock 540 motor. Larry races with the Regina Bonerollers RC club Regina, the capital of Saskatchewan, which is just over the border from Montana.



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FOR MORE INFORMATION, CONTACT: MITCH WILLIAMSON (415) 966-1681

Answerman

DEAR ANSWERMAN,

I recently purchased a Q-scale RC car and I'm in the final stage of setting it up. I'm installing the radio system (a Futaba PCM) and need to know the best way to mount the receiver antenna in the car. I've built several 1/10-scale electric cars and I always routed the tube up through a hole in the body shell. Will this work on the Q-scale car? Also, do you know of any Q-scale pickup truck bodies available that I can check out?

Walt Brooks
Peekskill, New York

A: Most Q-scalers tend to use two different styles of antenna mounting. Either it's completely inside the shell, or it's routed out the driver's side window opening. The hole in the body route will work, but I've seen antennas ripped out, including the receiver wire, when the car rolled and trapped it between the body and pavement. Stick with either routing the antenna tube out the left-hand side window or simply tie-wrap the flexible tube to your car's rollcage, if equipped. And if you go with the chassis-mount setup, make double-sure that no part of the receiver wire comes in contact with the chassis' metal tubing. As for Q-scale truck bodies, you're in luck; I've heard the source right now for NASCAR-style pickup bodies is Custom Electric Cars, Box 2151, Route 52, Pine Bush, New York 12566, (914) 342-8697. Available in either Lexan or fiberglass, you can choose from a Chevy, Dodge, or Ford truck shell to fit to your Q-scale chassis. And, a group of West Coast QSAC racers are rapidly laying out a truck class rules package. Look for more info on the new QSAC class, coming soon in the Big Tips column.

DEAR ANSWERMAN,

I recently acquired a three-year-old Tyco RC car—I think it's a 1/10-scale offroad buggy—and need some parts for it. The two main things I require are new tires and a new battery pack. The Tyco has what looks like an eight-cell battery pack, but I've been unable to locate one like it in any local hobby shop. It's the same with the car's tires. I could use some other pieces as well. Can you advise me on were I could find these bits for my Tyco RC car?

Jim Karlin
San Luis Obispo, California

A: I can help you on the battery pack very easily. Trinity Products makes a direct replacement battery pack that should fit your Tyco buggy. It's called the 8-cell Turbo Pack (part #RC 5760) and sells for around $32.00. You should use a good DC charger and only charge the pack at two amps or trickle charge it overnight. This will ensure the pack's lifespan and keep the Tyco running well. As for tires, most 1/10-scale RC cars have larger inside diameter rims than the Tyco RC cars I'm familiar with. Your best bet is to call Tyco Industries and ask for their customer service department. Their phone number is: (609) 234-7400.

DEAR ANSWERMAN,

Although I've built several RC car kits, I'm having trouble locating some of the RC car tools and materials talked about in your magazine. Some stories talk about using crocus cloth to clean/polish metal parts—what is crocus cloth? Then there are these Allen wrenches called Bondhus—what is different about these types of wrenches? And finally, the only Velcro I can locate in my area is the small stuff you find at fabric stores. These three tools and materials are supposedly widely used on RC cars but I can't locate them—help!

Terry Palmer
Kenosha, Wisconsin

A: We magazine-types, myself included, tend to overlook the fact that our readers can have problems like yours finding the stuff we write about! So I'll do my best to detail how/where to get the bits you asked about. Crocus cloth is a finer (less abrasive) version of emery sandpaper-cloth. It's great for polishing kingpins, A-arm pins, and any mild steel, aluminum, or brass parts on your RC cars. You can purchase it at better hardware stores, some gun shops, and jewelry stores. "Bondhus" is a brand name for a tool company; so what you're most likely asking about are the rounded-tip Allen hex drivers. They're sold in inch and metric sizes and in sets or individually. They're great for situations where you must tighten/loosen an Allen wrench screw at an angle.

They're available through most hobby shops and tool houses under Du-Bro, Great planes and Bondhus part numbers. As for hook-and-loop (Velcro is a brand name too) material, you have several outlets: Du-Bro sells a 6-inch length of the material under part #348, as does Great Planes (#GPMQ4480) and Pro-Line (#6040). Also check with your local mom and Pop hardware stores as many times they'll have Velcro material on a boxed roll. That way you can get as little or much as you need, usually for less money. I hope that clears up your tool/material finding problems brought on by us writer guys.

DEAR ANSWERMAN,

I am eight years old and a RC car beginner. What would be a good RC monster truck and racer for me? Also, what are the cheapest stores and RC vehicles to purchase? Plus, can you tell me about any tracks in Oregon or Washington, and what are some good RC books for me?

Carson Bay
Newberg, Oregon

A: Carson, for what you're looking for and from what I gathered from your letter, checkout either the MRC MT-10M or Kyosho Tracker trucks. Both vehicles are good, sturdy RC vehicles and would be great first-time RC kits for you. To answer your next two questions on purchasing cars and finding tracks, here's a single answer. Check out these two local RC track/clubs for kit prices and racing dates: Competition Racing Association, 17941 N.E. Glisan, Portland, Oregon 97230 (503) 257-0796. And Yamhill County RC Car Club, 722 Morgan Lane, McMinnville, Oregon 97128 (503) 472-7234. As for good RC car reading material, you've got it right in your hands. Reading *RC Model Cars* each month will provide you with good RC car information you can use on whatever RC vehicle you decide to buy.

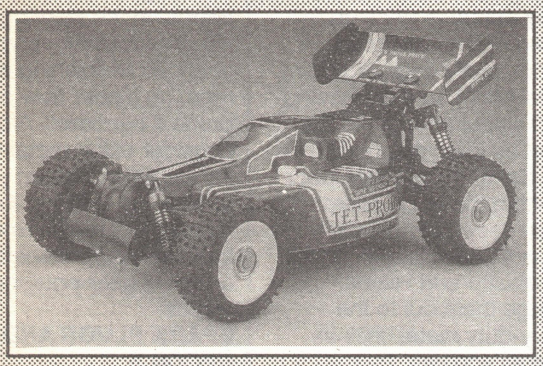
DEAR ANSWERMAN,

I need your help! I recently purchased a QRS ST-4 stadium truck. I have not been able to find any other company that deals with this type of Q-scale truck. I've written and called an address in California, but haven't gotten any relies. What I need is information to finish the truck: i.e. motor, transmission, clutch, etc. Could you please tell me the

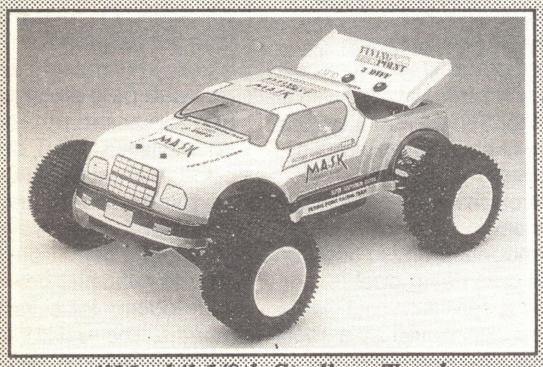
continued on page 34

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Flying Point's High-Tech, Nitro-Powered Gas Cars . . .
Fun, *Fast*, Durable & Tough to Beat!



"Jet-Probe" 1/8th Racing Buggy



"Mask" 1/8th Stadium Truck



"Magic Climber" 1/8th Monster Truck

Features:	Jet Probe	Mask Truck	Magic Climber
Good Parts Availability	X	X	X
Four Wheel Shaft Drive	X	X	X
.21 Nitro-Powered	X	X	X
3-Diff. Planetary Style	X	X	N/A
2-Diff. w/Central Transmission	N/A	N/A	X
Steel Planet/Satellite Gears	X	X	X
Steel Bevel Gears	X	Opt.	X
Steel Main Gears	X	Opt.	X
Steel Pinion Gears	X	X	X
All Steel Dogbones	X	X	X
Front Universal Halfshafts	X	X	X
All Precision Ball Bearings	X	X	X
Hi-Capacity Adjustable Shocks	X(1)	X	X
Offroad Muffler Included	X	X	X
Double Filtered Fueltank	X	X	X
Non-Distorting Race Rims	X	X	X
Heavy Duty Disc Brakes	X	X	X
Front & Rear Dual Brakes	X	X	N/A
Brake Neutral Auto-Return	X	X	N/A
Duraluminum Race Chassis	X(1)	X	N/A
Extra-Heavy Duty Chassis	N/A	N/A	X
Duraluminum Upper Pate	X(1)	X	N/A
Quick Maintenance Diff.	X	X	N/A
3-Piece Racing Clutch	X	X	X
Double Ball Bearing Clutch	X	X	X
Light Weight Race Flywheel	X	X	X
Body/Wing or Body Included	X	X	Body
Heavy Duty Race Tires	X	X	X
Foam Tire Inserts	X	X	Opt.
Front Anti-Roll Bar	X	N/A	N/A
Rear Anti-Roll Bar	X	N/A	X
Waterproof Batt/Receiver Box	X	N/A	N/A
Adjustable Rear Wing	X	X	N/A
Adjustable Toe and Caster	X	X	Toe
Adjustable Camber	X	X	N/A
Heavy Duty Upper Arms	X	X	X
Heavy Duty Lower Arms	X	X	X
Steel Bushing Diff Case (2)	X	X	N/A
Torsen Differentials Optional	X	X	N/A
Arch Lower Rear Arms (3)	X	X	N/A
Competitively Priced? (4)	Yes	Yes	Yes

(1) Jet Probe has Anodized Shocks, Chassis & Upper Plate.
(2) Steel Bushing Diff Case Is More Durable than Alloy Case.
(3) Arch Design is for Strength and Smooth Jumping.
(4) We invite you to Compare Flying Point's many Features Verses Price to any other Gas Car Kits on the Market!

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Flying Point's Gas Buggies & Trucks Give You
More Fun, ***More*** Speed, ***More*** Realism and ***More*** Running Time!

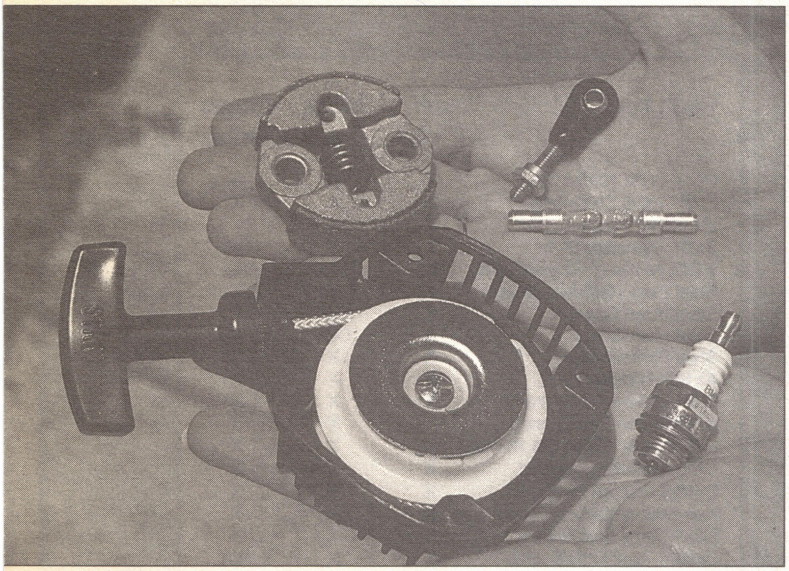
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Big Tips

ELIMINATING DNFs



This handful of parts can cause many DNFs on your Q-scale RC car. Recoil starters, spark plugs, clutches, Hiem joints and fuel filters have stopped more cars than any on-track crash ever did.

BY RICK EYRICH

This month's Big Tips will deal directly with DNFs (Did Not Finish) on your Q-scale racer—and how to eliminate them. *RC Model Cars* wants to keep your large-scale RC vehicle on the track and running strong where it belongs at all times. So read on and see if you're missing any pre-race checks on your Q-scaler that may cause a dreaded DNF.

DRIVETRAIN DNFS

The two biggest problems related to the drive system would be broken or lost drive belts and clutch shoe/spring breakages. With most Q-scale cars today using single belt setups, the commonly used cogged belt is subjected to a lot of stress. Close pre-race inspection of the belt and the twin drive gears they ride on is vital to finishing races especially for longer events. Always keep one or two fresh belts handy at all times and if a belt develops any kind of minor split or cut, replace it.

As for the drive clutch area, the twin diecast-type shoes found on most cars are now heavily cut down for improved performance. This milling/cutting process reduces the shoe's overall strength. So again, regular inspection of the clutch unit is very important. If you notice an increase in clutch noise, quickly pull the assembly—you may be within the "DNF ZONE."

Another clutch problem area revolves around the small engagement spring in two spots: the spring itself and the spring-locating holes on the shoes themselves. The spring can snap due to the before-mentioned chattering caused by excess loading like wheel spin and wear or the shoe holes can egg-out or even break. Reversing the twin clutch shoes leading edges touch the outer drum first causes this for the most part; but, careful clutch inspection is needed on all Q-scale cars on a regular basis.

SUSPENSION-RELATED DNFS

The chassis found on many Q-scale cars will provide most DNFs through the shocks, Hiem joints, and servo/steering areas. A bent shock shaft has caused many racers to pack up ahead of time on racedays. It's not easily detected many times. Make sure by moving each wheel through its full travel by checking the stroke and dampening action prior to hitting the track. Hiem joints, especially plastic ones are real DNF-makers. If you use plastic-end Hiems, change them out to the heavy-duty metal units as soon as you can. Plus remember when ordering them, you'll need right- and left-hand Hiems for the linkages and steering arms for each brand of car.

As for servos and steering, many Q-scalers are having excellent results with Kimbrough's new gas style, large servo savers. The dual-end models are also used on those cars using dual steering servos.

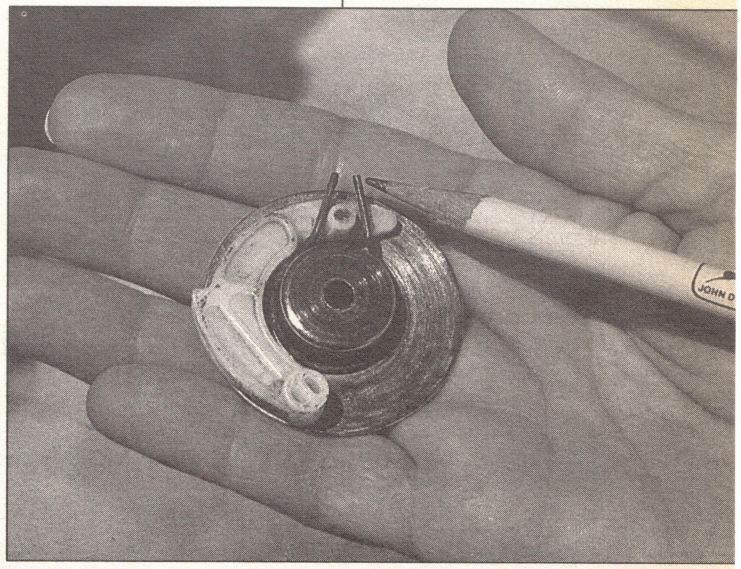
Inter-connected by a short linkage arm and ends, the advent of a crash and the demise of one servo may not mean a DNF. The remaining good steering servo can sometimes continue to provide steering to finish a race. Again the use of metal Hiems on the steering arms will greatly improve your changes of finishing any race, no matter how crash-prone it becomes. Also consider using metal-geared servos all around on your car as they can reduce the need for raceday replacement due to broken output shafts found on nylon gear-equipped servos.

SPARK PLUGS AND RECOILS

Many, many times I've witnessed Q-scale RC cars lose out due to fouled spark plugs. Anytime you see a rounded plug electrode or tip—replace it! Ignition sparks like a good, sharp edge to create spark just like a lightning rod gathers T-bolts at all times. Never use a plug that's been bounced around minus its box inside your toolbox for several months. The resistor inside could have been damaged, the threads can be damaged, and you'd never know it on a dark night at the track.

Also, never clean your old

continued on page 34



Here's the main cause of a Zenoah recoil rope that won't return properly. That small circular clip which holds the starter's ratchet arm on the end gets surrounded with debris, and that in turn causes the rope to hang up.

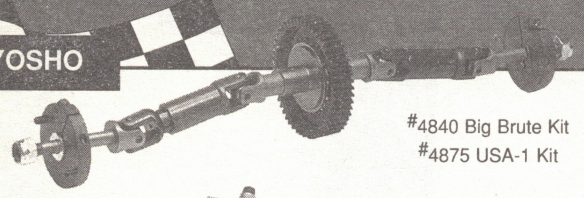
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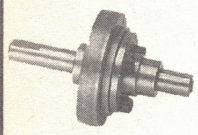


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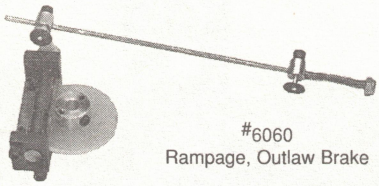
KYOSHO



#4840 Big Brute Kit
#4875 USA-1 Kit



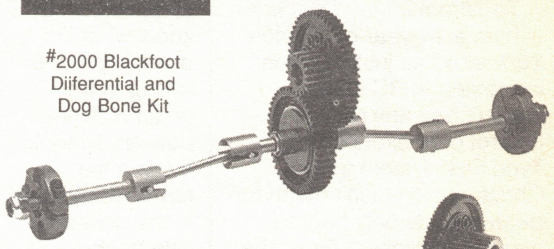
#6050
Rampage Ball Differential



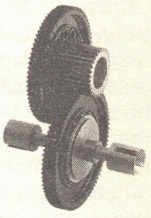
#6060
Rampage, Outlaw Brake

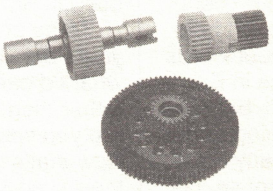
TAMIYA

#2000 Blackfoot Diiferential and Dog Bone Kit



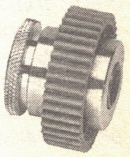
#2050 Super Blackfoot Differential Kit, 48 Pitch





#4985 King Cab
48 Pitch Gear Kit

#6000
Clodbuster
Differential

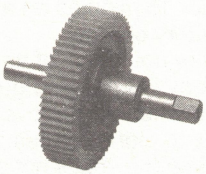


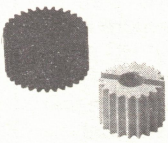
TRAXXAS



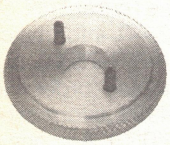
#5320 Adapter Kit

#5350 Blue Eagle/Nitro Hawk Ball Differential





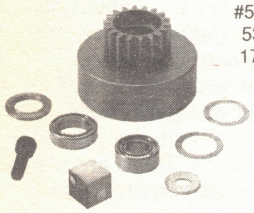
#5302 Idle Gear Set
#5309 3.0 Cheater Gear Set



#5361 Nitro Hawk
Aluminum Flywheel



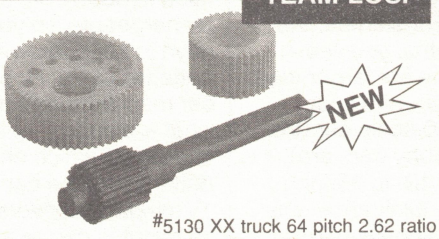
#5311 Gear Set



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

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

TEAM LOSI

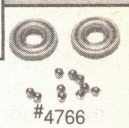


#5130 XX truck 64 pitch 2.62 ratio
#5140 XX car 64 pitch 2.22 ratio

ASSOCIATED



#4770 Gear Set
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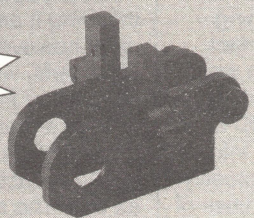


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Starting Out

BY JOSEPH RINGEISEN

Earlier this month, I received a letter from a reader, so let's get to that first. The letter comes from Nicolas Salcedo, of Woodside, New York. Nicolas writes:

To Whom it May Concern,

I am a 14-year-old in New York who has just become interested in RC cars. I haven't had any remote control cars except for a Tyco Fast Traxx I got for Christmas. It wasn't much fun because you only had 15 minutes of running time. The reason for this letter is because I'd like to ask if there are any books that explain remote control cars and their prices. I can't help being confused about words used in your articles in *Radio Control Model Cars*, because I hardly know anything about them. There aren't any hobby shops around my house, nor have I been to any. I tried to look in libraries for books (on RC cars), but I couldn't find any. I'd also like to know what kind of remote control car I can start out with. I only have one issue of *Radio Control Model Cars*. Sincerely, Nicolas Salcedo.

First of all, Nicolas, I've been called a lot of things (some worthy of publication, some not), but never "Whom." That's me, Mr. Whom.

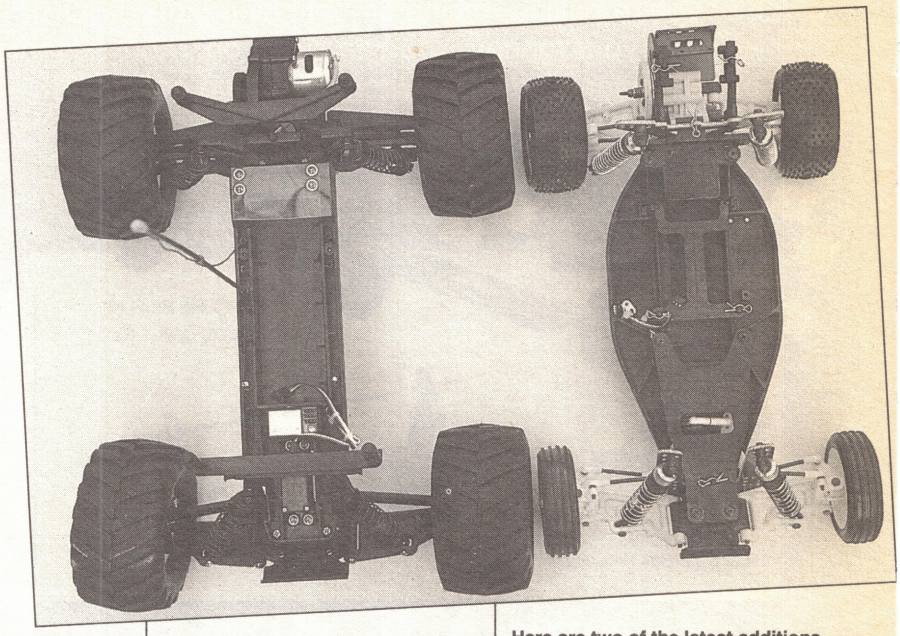
Let's jump right in and answer your letter. You asked for a book that would explain RC cars. Quite honestly, Nicolas, I've been trying to avoid having to have readers find extra RC books because I didn't explain something thoroughly enough. In fact, that's what this column was supposed to be: something along the lines of an RC book that was broken down into monthly sections. In actuality, I don't really know the titles of any books specifically about RC cars, mainly because I've never looked for one.

Ridiculous as it may sound, I actually appreciate your criticisms, because reader input is what helps me know what I'm doing right and wrong in the column. From now on, I'll try to explain the terminology used in the column a little better. Additionally, I intend to write a glossary of terms used in RC cars.

To be honest with you, your Fast Traxx is more of what I'd call a "toy" RC car, rather than a "hobby" RC car, like you see in this magazine. Now that's not to say that there's anything wrong with that. In fact, my venture into the world of RC cars was with a "toy" RC car manufactured in the early 1980s (actually, I've still got it, and it still works. . . kind of).

I'm mentioning that simply because of the extreme differences between the "toy" RC cars and the "hobby" RC cars that you see in this magazine. For starters, the hobby cars that you see in the magazine are larger than your Tyco car, with your average 1/10-scale car (the scale the hobby cars are) being in the 12- to 15-inch range. Also, think about this: when your Tyco Fast Traxx breaks, what can you do? You'll probably end up throwing it away. Hobby RC cars, however, have replaceable parts, which can be purchased in a hobby shop, or from a mail-order hobby shop. Hobby cars are definitely faster than toy cars as well. The average hobby car's top speed will be in the 15 to 30 mph range. Unfortunately, all that speed is at the trade off of run time. You state that your Fast Traxx only ran for 15 minutes on a single battery charge. Believe it or not, those of us in the hobby RC car field get all excited when we run over about four to eight minutes of running time (no, that's not a misprint). That might not seem like a lot of time right now, but it seems like all the time in the world when you've got a transmitter (i.e. the controller, like the two stick-unit with the Fast Traxx) in your hands. And the batteries used in hobby RC cars are rechargeable, so you don't have to keep throwing batteries away. Hobby RC car manufacturers also make what are called "quick chargers," which charge the batteries for the car in about 15 minutes (conversely, that 15 minutes can seem like eternity when you're waiting for your battery to charge).

You said that there are no hobby shops around your house. I usually recommend that beginners buy their first car from a local hobby shop, but if there aren't any shops around where you live, your only option is to buy your RC equipment by mail. There are a number of good mail-order hobby shops out there. Try Stormer Racing (order line: 1-800-255-7223, information line: 1-406-228-4569), Hobby Warehouse (order line: 1-800-333-3640, information line: 1-916-381-7588), or Tower Hobbies (order line: 1-800-637-4989, information line: 637-6050). Any one of these three shops are very reputable, and should be able to get you the RC car equipment you need.



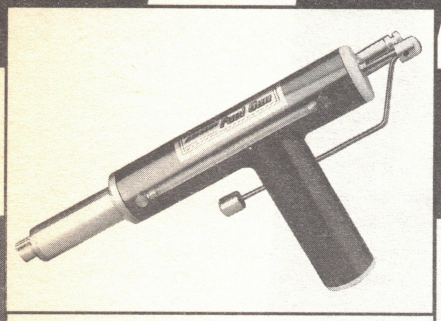
Here are two of the latest additions to my RC stable. On the left is the Traxxas Stampede. On the right is the Kyosho Pro-X. Which is better for total beginners? Definitely the Stampede.

Now what kind of car should you get? That's usually a matter of personal preference. There are also a few things you probably should know before you choose a car. First of all, there are two classes of RC cars out there: electric-powered, and gas-powered. The electric-powered cars run off battery packs, much like the Tyco Fast Traxx. The gas-powered cars, on the other hand, have small fuel-burning engines that burn what's basically a methanol and nitromethane mixture. The great thing about gas-powered cars is that you can

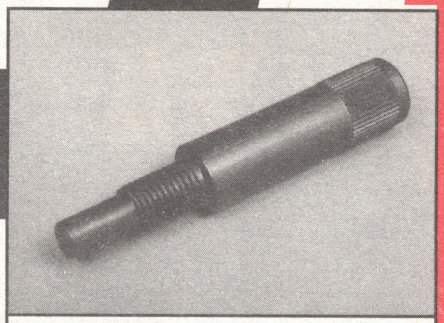
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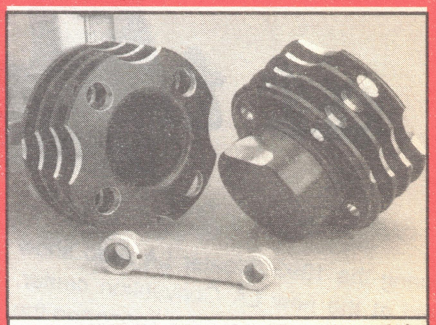
Heat Sink Heads — These machined aluminum add-ons cool better, so you can run leaner and hotter. Direct, bolt-on replacements install with drop-in ease. Available for O.S. .10 FP-B/FP-BX and O.S. .12 CZ-R/CZ-Z engines.



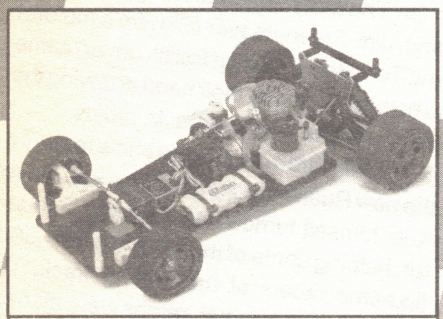
600/1000 mAh Receiver Packs — Extra voltage for the high-speed servo response gas racers have to have to win. **600 mAh Packs** for 1/10 scale — **1000 mAh Packs** for 1/8 scale. Flat and hump packs, Futaba J connectors.



1/8 Scale Inferno Accessories — 51T and **55T** steel main gears add durability and gearing options in a hurry. **Multi-Disk Brake System** increases braking power while reducing "fade". Long-wearing fiberglass discs reduce maintenance costs.



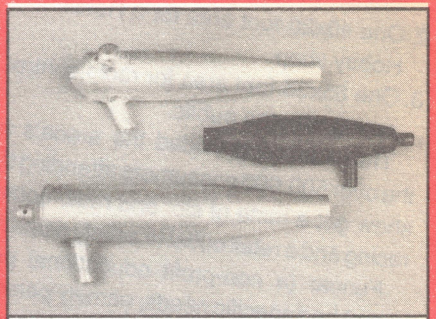
O.S. .12 CZ-R Accessories—Rear Heat Sink offers generous cooling fin area and includes O-ring seal. The strong, lightweight **Billet Aluminum Connecting Rod** provides efficient lubrication and improved durability.



On-Road Conversion Chassis Kit—Convert Kyosho® Rampage™ series gas models for on-road! This low-cost kit uses standard 1/10 scale front wheels and tires, and includes a new .090" thick, black anodized, aluminum flat-pan chassis; Bud's Supermachine on-road front end kit; hardware and complete instructions.



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BY DAN MOYNIHAN



Kids who participated in the Funcar project at the LA Auto Show let everyone know what is their favorite RC car magazine.

RC MODEL CARS at the Auto Show

During the 1995 Greater LA Auto show held at the new LA Convention center, *Radio Control Model Cars* supported the Funcar display to achieve greater exposure for the sport.

The display consisted of:

1. One 45x20-foot area for slot car interactive racing with the consumers.
2. One 40x20-foot area for a Retail Hobby shop.
3. One 85x35-foot area for radio control racing with the public.

These areas provided the arena's for the over 500,000 consumers attending the show get a taste of slot and radio control racing and a retail outlet to satisfy demand.

Funcar (a non-profit educational program) had specific needs, namely personnel and product to provide the public with a fun interactive arena in which RC car manufacturers' could create consumer demand for their product and have the demand satisfied at the show retail store. The mini-Daytona slot car track was provided by Bob Sarnelle of Victory Speedway who talked to Parma International's Garry Owen. Garry and Parma pitched in and the result allowed over 3,500 people to try their hand at racing!

Throughout the event, the Parma cars and controllers did an outstanding job in providing reliable, action packed, and fun racing. Parma's CEO Mike McDowell came to show and promised continued support for this type of activity with Funcar.

Funcar made faxes and phone calls to all of the RC car manufacturers inviting them to participate. Although most had to decline to participate due to a variety of reasons, David Katz, president of Traxxas, faxed back just five minutes after receiving his fax and signed up for three days. Trinity's Joel Johnson brought his crew, (including his wife Julie) down with their new "Street Spec" racer. With NASCAR-style T-Bird bodies, these cars looked great! The public lined up by the hundreds to see Joel help first-timers get a feel for racing and sign autographs for the few RC fans who came to the show not expecting to see RC cars in action. It's amazing how many of the general public has never been exposed to radio control racing. More than 95% of the people who drove had never done so before. Alter having the opportunity to drive them, six people bought the car package right there at the show the first day alone!

After 23 hours of practically non-stop racing, the cars and Airtronics radios showed no signs of slowing down, so Joel left the cars for use by Dan Moynihan for another three full three-hour days.

On Thursday, Jay Kimbrough (the gear guy), Jim Greenemeyer (Big Jim's motors) and Tom Bowlin (Team Bolink driver) came to help the public try their hand at driving the Bolink sports, with Futaba Jr. radios.

The last three days of the show featured the new Rustler trucks from Traxxas. Dave Katz himself turned into a driving instructor, helping some of the week's over 1,300 first-time racers at the Funcar track. To make it even more tun, ramps were placed on the carpeted track allowing the trucks to catch some air as they motored around the

continued on page 47

Track of the Month

WORLD CLASS INTERNATIONAL RC RACEWAY



The first flyers stated: "Build it and They will Come." They were right. A new track has just joined the Colorado RC race scene, and it looks to be a great facility. The grand opening was held February 18th and 19th, the weekend of the Daytona 500.

Along with being treated to free pizza, everyone who signed up to race received World Class motor capacitors and a battery building kit. This large and very adaptable race venue can be credited to Chuck Stary of World Class Competition Batteries, in conjunction with Doug Kiespert, Bob Nibbe, Dan Mayer, Dave Wyatt and Keith Roberts. Also, thanks go out to more than 100 volunteers for their work in getting the track "race ready."

There is 5000 sq. ft. (102 x 49) of racing surface with pit space to accommodate up to 100 racers. Oval events take place Friday and Saturday nights and include 1/10-scale NASCAR Busch (novice stock) class and Winston cup (expert stock). Oval racing also features NAStrucks, Mini-Sprints, Legend cars and 1/12-scale NASCARs. This draws a group of about 40-50 racers. Sunday racing is 1/10- and 1/12-scale onroad and usually brings 30 to 40 entries.

There is a huge handicap-accessible drivers' stand and AMB computer lap counting system. The track is regulated by NORRCA and ROAR rules. The most strongly enforced rule is that everyone there have FUN. The onsite hobby shop has every racer's wish list covered and is managed by Dave Sommer of Queen City Hobbies, Thornton, Colorado.

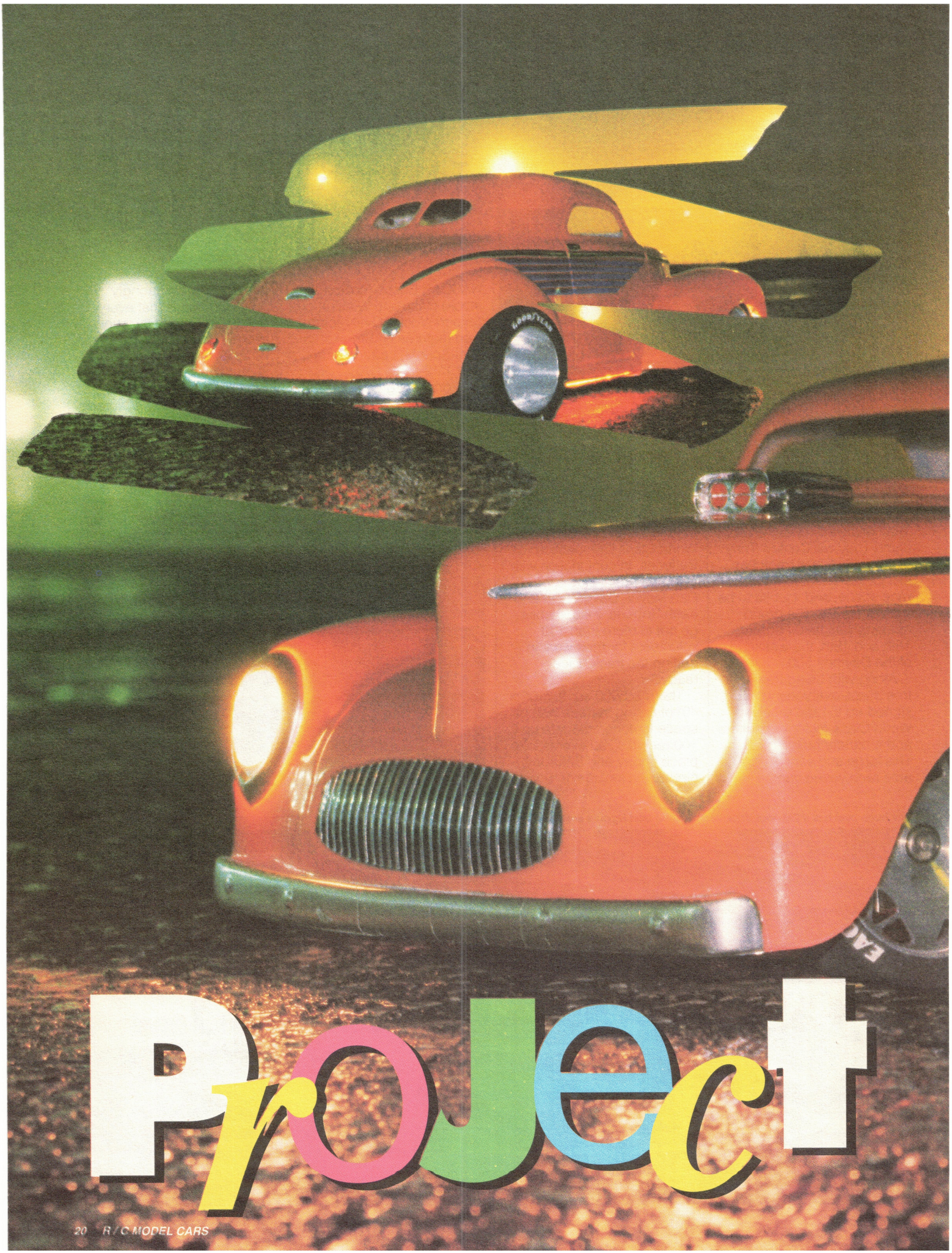
Now that Denver International Airport (DIA) is open there's nothing to hold them back from hosting national events. One suggestion: if you do fly in, be sure to pack your RC car in your carry-on luggage. Their address is: 560 E. Malley, Northglenn, Colorado 80233. Phone, (303) 450-0527.●



The World Class hobby shop is stocked with all the necessities and accessories.

The huge oval has a 225-foot drive line. Several oval layouts are possible with this much room available.




Project

FROM A 10L TO A STREET MACHINE

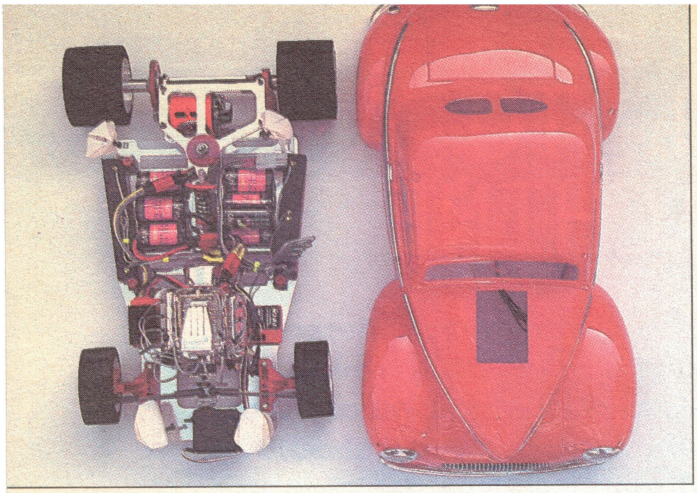
The reason behind this project was simply to try something different. No other reason. That's usually enough reason for me to do anything.

Right at the beginning, I wasn't completely sure of what kind of RC car to use as the basis. After some consideration, I decided that it should be an onroad car, as opposed to a lowered offroad car. This decision was influenced by the fact that I had an RC10L chassis that hadn't been used since the early Bush administration.

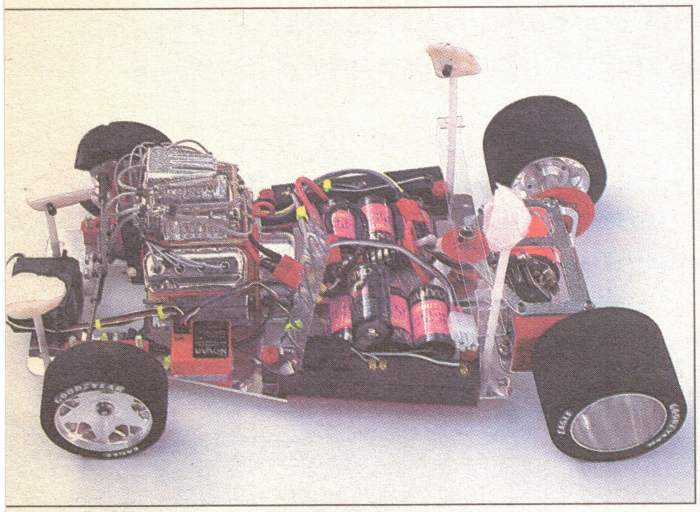
The original plan was to put a full-blown lighting system on an RC car, including lights underneath it. Originally, I'd thought about using a mini-truck body, and possibly make the truck bed tilt. But while

BY JOSEPH RINGEISEN

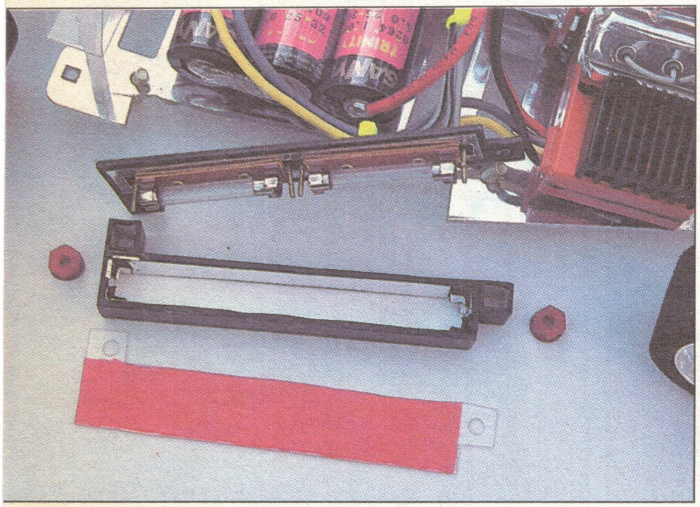
'41 Willys



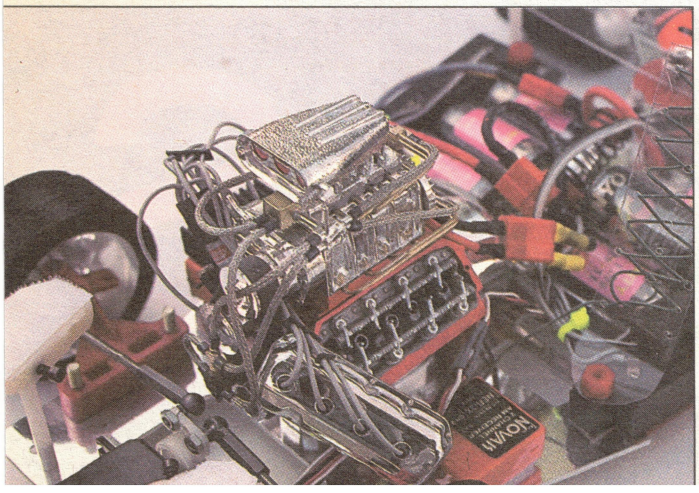
Chassis and body of the '41 Willys. Chassis began life as an Associated 10L; the body is from Parma International.



The body mounts used on the Willys are a little different. I used a plastic modeling compound called Friendly Plastic to make them.



The construction of the light boxes. Note how they're divided into three parts.

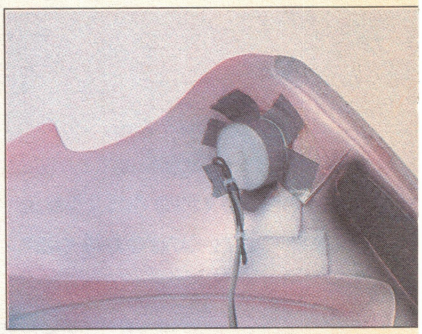


The Parma Hemi engine kit adds a lot of realism to the Willys. Assembly and detailing is easy.

discussing the project with Richard Dowdy, the editor of this fine publication, he mentioned that he thought something like a '49 Mercury body would look good. This got me going about using the classic car look for this project. Finally, I decided not to use a mini-truck body, *or* a '49 Merc body; instead I picked a '41 Willys body from Parma (more on the body later).

THE LIGHTS BELOW

Once I'd decided what kind of chassis to base the project on, I had another decision to make: what kind of lights to use under the car. After nosing around in a local shop, Astro Hobby, I came across some 8-volt, tube-style lights made by the Walther Corporation, in the train section of the shop. These lights, which look like glass-tube automotive lenses, seemed to be ideal, since a single light could illuminate a relatively wide area.



This was how I managed to get reflectors for the headlights: cut-down 35mm film canisters. The taillight reflectors are nylon body post collars that have been bored out slightly on one side.

Once I'd figured out what kind of lights to use for the underside of the car, I had a new problem: how to mount them. I had decided that I could fit two tube lights between the front and rear wheels of the RC10L, but I hadn't figured out quite how I wanted to mount them on the chassis. However, I did know that the lights would have to be mounted in some sort of reflector box, with one box mounted on each side of the chassis. There were several things that had to be taken into account in the construction of the reflector boxes. First of all, I wanted to be able to remove the boxes easily at any time, allowing me to run the RC10L without fear of breaking the boxes (ironically enough, now that I'm done with the project, I'm afraid to run the car). Second, I wanted to be able to change the light tubes easily, should one of them burn out. Also, I wanted to be able to change the color of the lights on short notice. Kind of a tall order when you think about it.

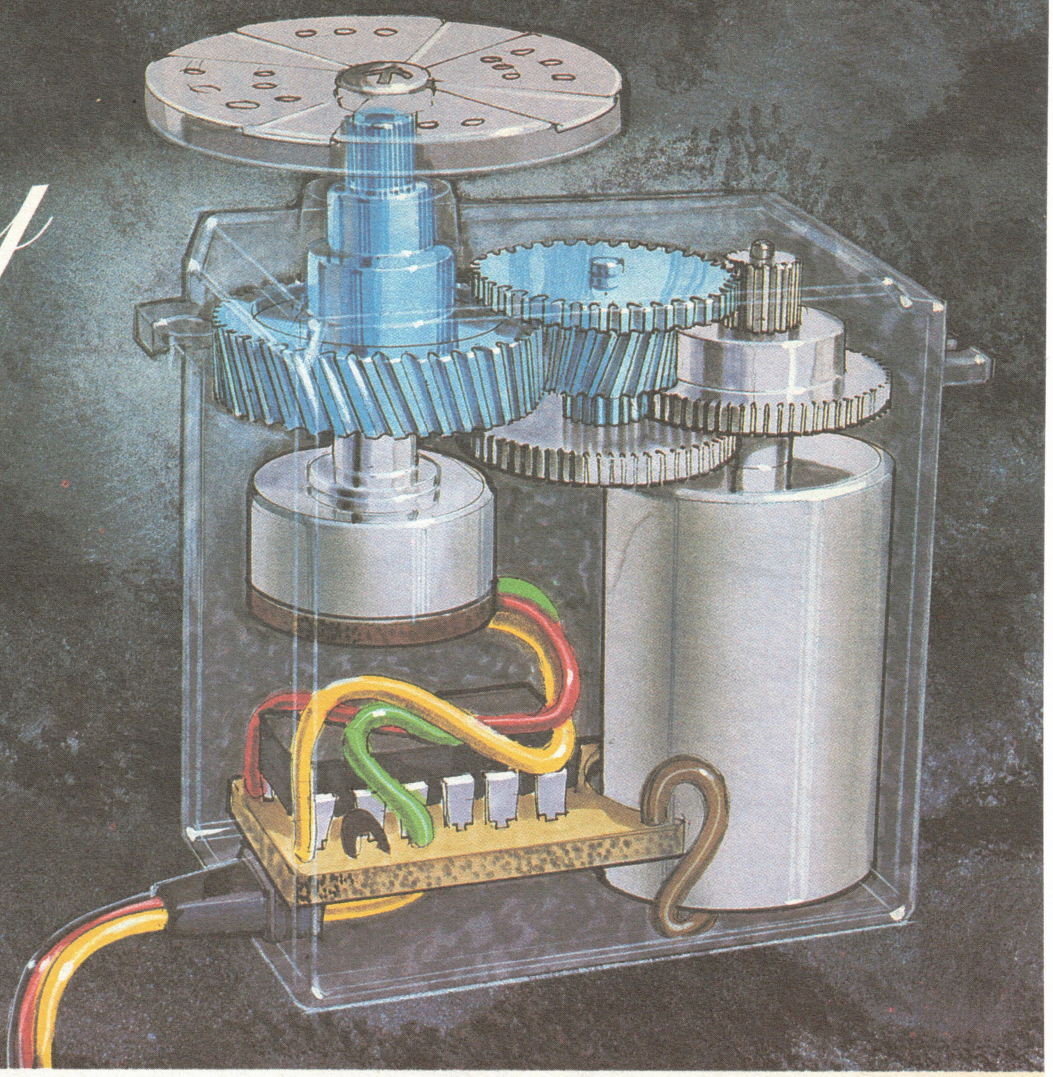
After kicking around some different ideas for reflector box construction, I settled on a design that had each box split into three different parts: the top, the sides and the filter. The light sockets for the light tubes were mounted on top of each reflector box. The main purpose of the sides was to protect the light tubes from damage. The filter's purpose was to give the light some color, similar to the idea of a colored camera filter.

To make the tops and sides of the boxes, I went back to Astro Hobby and bought a sheet of 1/10-inch thick styrene plastic. I also bought several rods of square styrene stock and a sheet of Lexan, which I used to make different colored filters.

continued on page 50



Beauty in the Beast



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

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

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

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

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

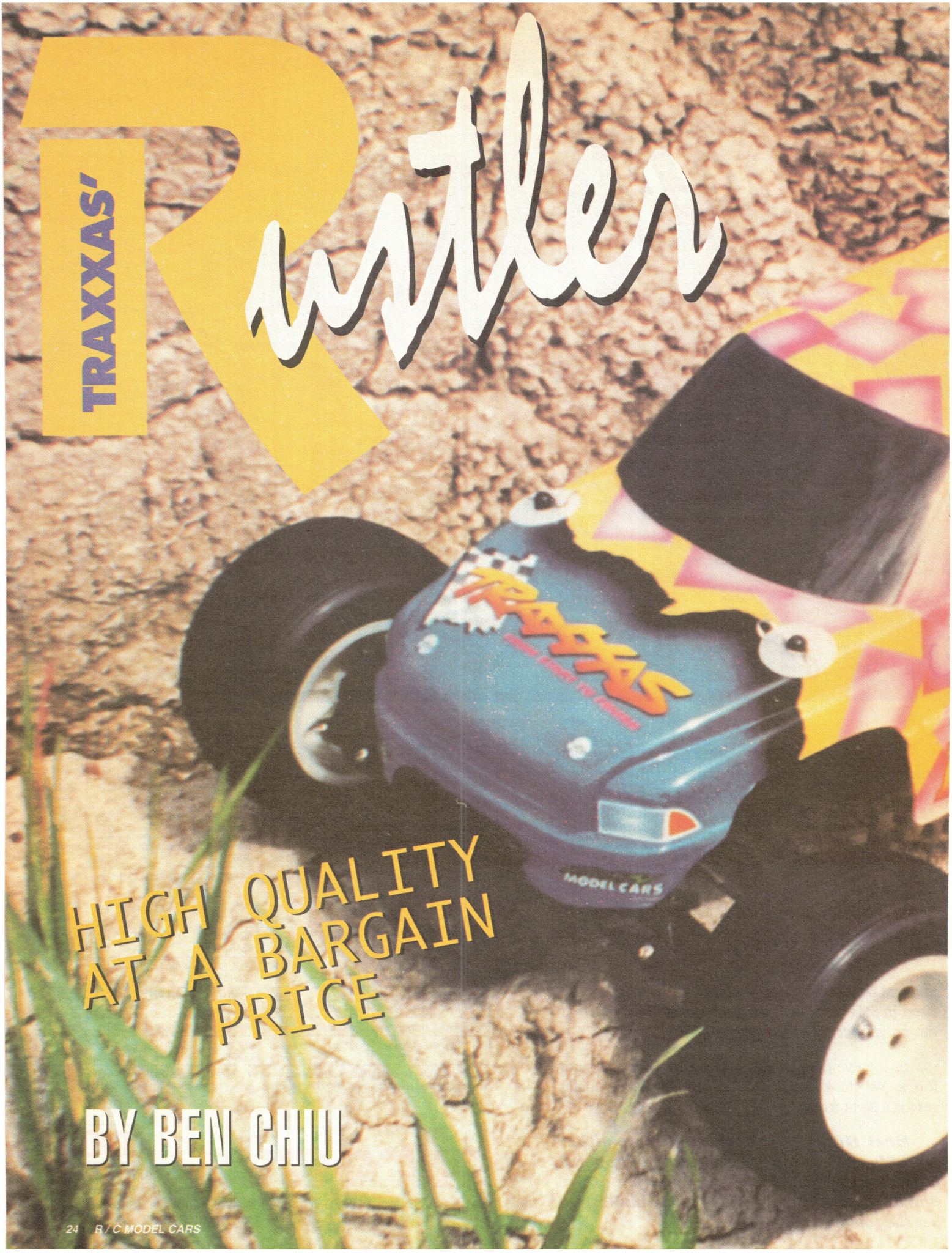
*Denotes servo only available with Hitec/JR connector. All other servos available with FUT "J", AIRT and Hitec/JR connectors. Please specify connector type when ordering. All servo packs come with switch harness.

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TRAXXAS' Rustler



HIGH QUALITY AT A BARGAIN PRICE

BY BEN CHIU



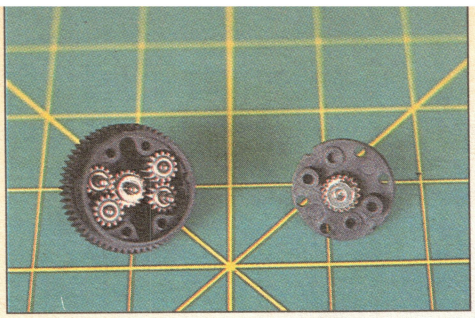
Simply stated, Traxxas' new 1/10-scale, electric-powered Rustler truck has been designed as a low-cost, high-durability vehicle with racing design features for the growing Sport/Stadium Truck market.

Traxxas has designed the Rustler with some excellent features that reflect current cutting-edge, race-design technology and materials in a low-cost package that should appeal to RC racers and fun runners alike.

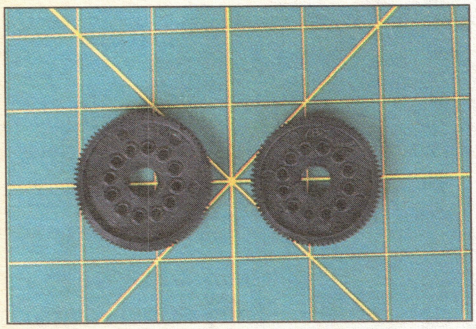
ASSEMBLY

The instruction booklet uses step-by-step photos which take you through every assembly point without fail. I also think the tuning guide at the end of the manual is very good.

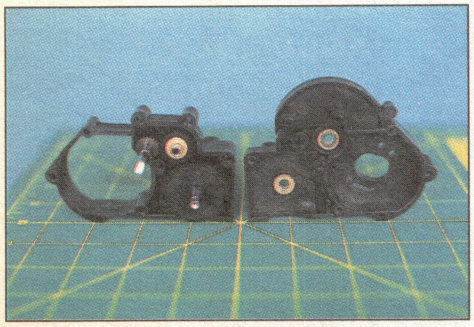
Assembly begins with the metal bushing-supported (a full set of ball bearings is available from Traxxas to replace all of the bushings in the kit), planetary gear diff. A ball diff is available as a hop-up item from Traxxas, but a gear diff is the preferred choice for those first entering the RC arena. The instruction booklet warns you to remove excess molding flash-



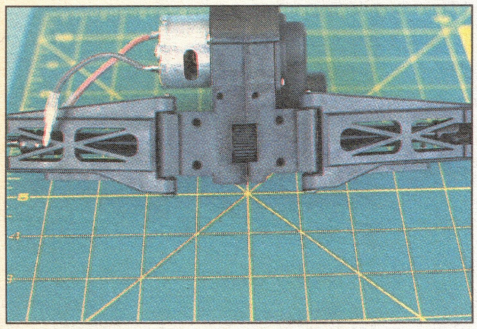
The Rustler's transmission contains a metal bushing supported planetary gear diff with metal gears.



Traxxas provides 84- and 78-tooth 48-pitch spur gears with the kit. The two gearing combinations that are possible when using the included 18-tooth pinion allow you to choose between onroad style speed or offroad torque.

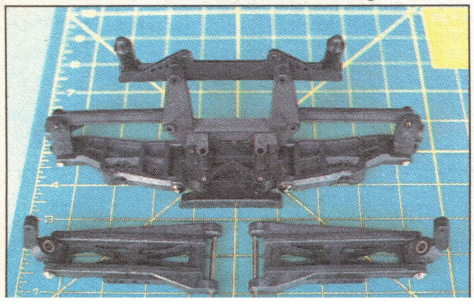


All of the gears in the transmission ride on metal bushings. A complete set of replacement ball bearings are available from Traxxas as an option.



The transmission case also doubles as the rear suspension mounts and motor mounting plate.

Now these are long, extra beefy suspension arms! You'd have a hard time breaking these.

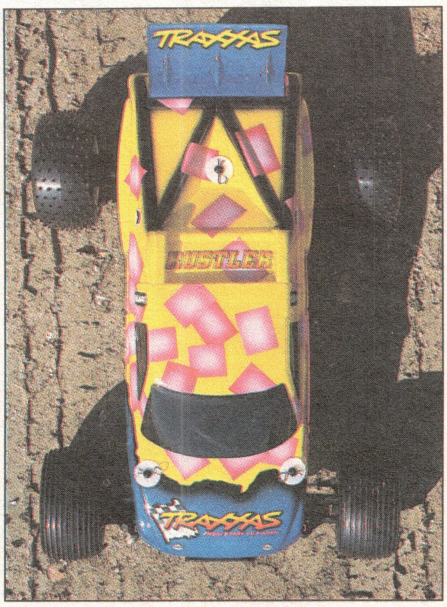


ing or burrs, but none was found anywhere in the kit. Every part fit together well.

The Rustler chassis is a molded fiber-composite unit with a center-channel, double deck. A six-cell stick or seven-cell hump pack battery sits in a center channel in the chassis. The channel makes for a chassis that is stiff, has less bottom surface area to scrape against the ground if it ever bottoms out, and has a smooth underside with very few protruding screw heads to collect dirt.

All four corners are supported by extra beefy, long suspension arms that are also made of composite material. They are also very stiff. Considering the intended audience of the Rustler, it is an advantage that adds to the Rustler's durability.

Each heavy-duty suspension arm is supported by plastic-bodied, oil-filled shocks. They hold in the shock seals from the outside with a screw-on cap. An addendum to the instruction booklet mentions that the clear spacers in step D-1 are no longer needed with these new shocks. Traxxas does offer Teflon-coated, aluminum-bodied shocks as hop-ups. Also regarding the shocks,

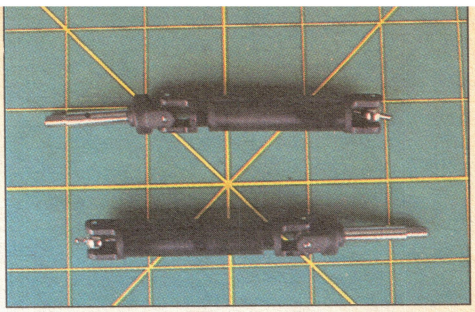


step D-8 calls for an additional O-ring to be slid over the external end of the shock shaft. These are no longer necessary, so no additional O-rings are provided in the kit for this purpose. Finally, step B-4 asks for two 3x12mm ball screws; replace these parts with two 3x14mm washer head machine screws found in the kit.

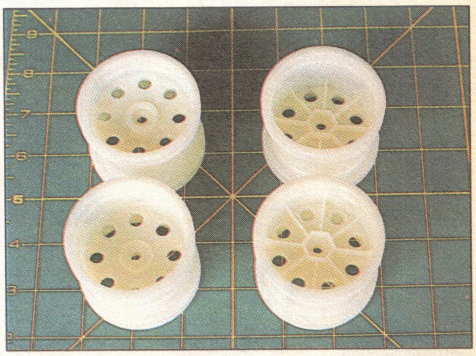
FINISHING

The instruction booklet has a section dedicated to painting and finishing the Rustler's body, which is sleek and hugs the chassis like a tight rubber glove. The instructions do a very good job of outlining the whole process from selecting the proper paints all the way to explaining

continued on page 59



Telescoping U-Joints transmit the power to the rear wheels.



Specially designed offset wheels are used by the Rustler. You can use other wheels, but Traxxas recommends using these exclusively to keep the proper geometry. Note that the fronts have a different offset than the rears.

SPECIFICATIONS

Scale	1/10
Price	(kit) $150.00 retail (Assembled w/radio and ESC) $260.00 retail
DIMENSIONS:	
Overall Length	16.5 in.
Overall Width	12.125 in.
Overall Height	6.625 in.
WEIGHT:	
Ready to run, no battery	55.7 ounces
CHASSIS:	
Type	Molded center channel, double deck
Material	Fiber-composite
DRIVETRAIN:	
Type	Sealed drive gear
Primary	Pinion/spur (18 / 84 & 78 incl.)
Transmission	Telescoping U-joints
Differential	Planetary metal gear
Bearings	Metal bushings
SUSPENSION:	
Type (f/r)	Independent double wishbone-fixed camber links
Dampening (f/r)	Plastic, oil-filled, coil-over shocks
WHEELS:	
Type (f/r)	One-pieced molded, front/rear opposite offset
TIRES:	
Front/Rear	Multi-rib/pin-spike
ELECTRICS:	
Motor	Stock 540 w/closed endbell
Speed controller	Mechanical 3-step forward and reverse

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Use this coupon and mail to: Kalmbach Publishing Co., Dept. XO838, 21027 Crossroads Circle, P.O. Box 986, Waukesha, WI 53187-0986. **Include for postage and handling:** U.S. add $3.00 4th class (or $4.50 UPS continental U.S. only); Canada add $5.00, other foreign add $10.00. Wisconsin residents add 5% sales tax to total. Canadian orders add 7% GST to total. Payable in U.S. funds. Prices and availability subject to change.

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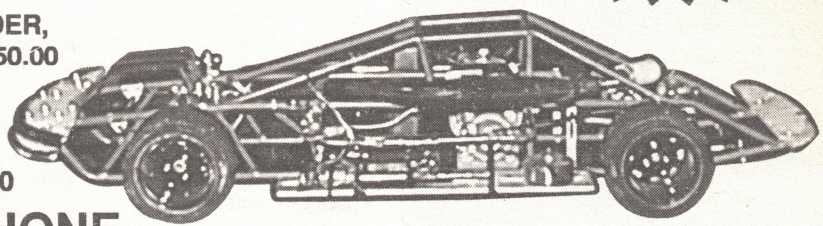
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PISTON RINGS $3.00 ea. **PISTON $12.35** **CYLINDER $45.18**
GASKET SET $7.50 **CARBURETOR $33.00** **2HP CYLINDER $58.00**
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COMPLETE STOCK CAR PACKAGE (ASSEMBLED READY FOR RADIO) $895.00
4-WHEEL INDEPENDENT SUSPENSION ADD $100.00

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OUTLAW STOCK CAR
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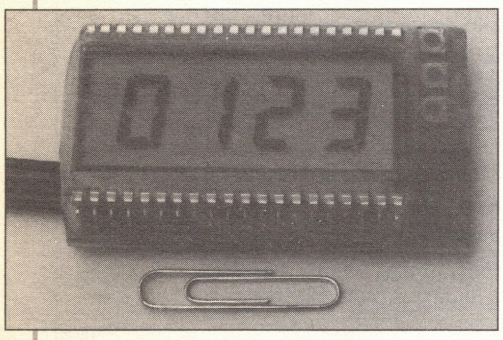
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AWESOME '95 WHAT'S NEW PRODUCTS

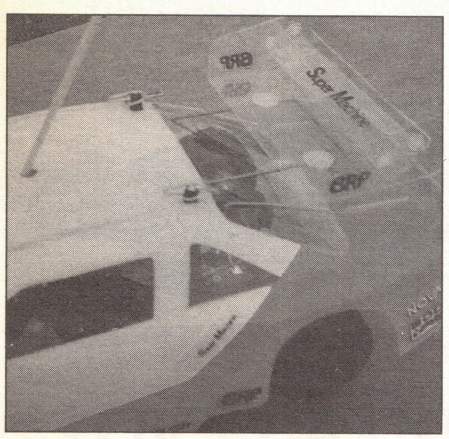


KASTNER MILLIAMP METER

For use in measuring the amount of energy usage from nicad battery packs, Kastner Electronic Designs' meter is small and light, and can be used to measure the capacity of battery packs from 4 to 24 cells, or the individual cells themselves. The gauge can be used to check power consumption of transmitters, receivers and servos. It can monitor battery charging and to check the effectiveness of battery chargers. Each mAH meter is calibrated for extreme accuracy, and a comprehensive operator's manual that explains the use of the meter is included. For more information, contact Kastner Electronic Designs, Box 20983, Dept. M5, Greenfield, Wisconsin 53220.

ROOF-MOUNTED WING WIRE KIT

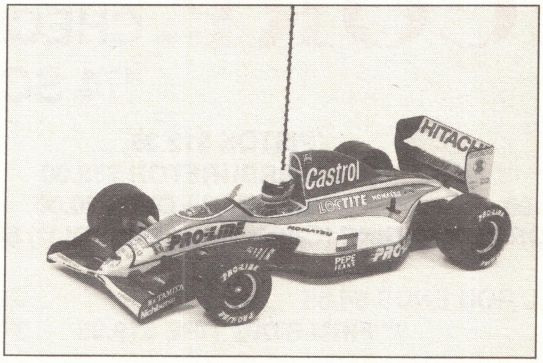
Bud's new Roof-Mounted Wing Wire kit gets the unsprung weight off the rear pod and keeps the angle of attack on the wing constant with the air flow. Now you don't have to take off the wing to remove the body! The kit comes with mounting buttons and pre-bent .078 wing wire. The kit does not include the wing. For a complete catalog, send $2.00 with a large, self-addressed 55-cent stamped envelope to: BRP Inc., 1575 Lowell Street, Dept. RCB, Elyria, Ohio 44035.





DYNAMITE WACKY TACKY

This putty-like substance will clean hard-to-reach recesses of your RC car or truck, and it can be reused many times. The black pliable material can be used to remove fuel residue, dirt, tire dust or just about any substance your chassis can pick up. And Wacky Tacky can be used again and again, almost indefinitely! See your Dynamite dealer, or contact Horizon Hobby Distributors for more information. 4105 Fieldstone Rd., Champaign, Illinois 61821. (217) 355-9511.



XTR ROAD HAWGS

Pro-Line's new XTR Road Hawgs for Tamiya and Kyosho F1 and Indycar racers are designed for asphalt racing surfaces. They feature a low profile design, offering directional traction and performance and are perfect for parking lot racing. Road Hawgs can convert any F1, Indy or German Touring Sedan into a hot racing machine. From Pro-Line, Box 456, Beaumont, California 92223. (909) 849-9781.

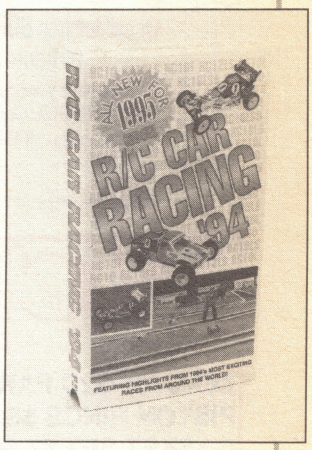
TRAXXAS STAMPEDE

The Traxxas Stampede was designed to be a high-performance monster truck. It features a fiber-composite, channeled chassis; big-tread monster tires; long, fiber-composite front arms; steering pivots inside the wheels; telescoping U-joint driveshafts; interchangeable spur and pinion gears; offset rear wheels with drive inside wheel; and extra-long fiber-composite rear arms. The Stampede's three-gear, variable-ratio transmission, with a steel-gear planetary diff, can be adjusted for speed or torque. For more information, see your Traxxas dealer or contact Traxxas directly: (214) 613-3300.



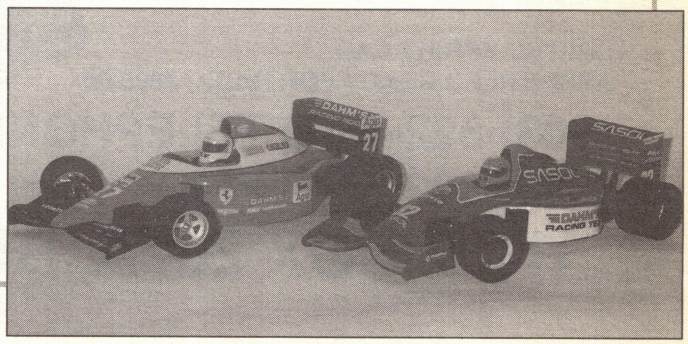
RC CAR RACING '94

The new video for 1995—from Associated Electrics features unforgettable moments of the most important races of '94. The two-hour video chronicles the highlights of such races as the Reedy International Race of Champions, the ROAR offroad truck Nationals, the IFMAR 1/12 World Championships in Paris, the IFMAR 1/10 World Championships in Germany, and the first-ever NORRCA Electric and Gas Truck World Cup.



DAHM'S FORMULA BODIES

Dahm's Racing Bodies has two Lexan bodies for Kyosho and Tamiya brand F1 and Indycar chassis. The Type F and Type J bodies are direct replacements for factory bodies, and come with a driver and Dahm's decals. A Formula One Underbody is available to keep dirt out of your chassis and improve handling. For a complete catalog of Dahm's products, send $2.00 for a catalog to: Dahm's, Box 360, Cotati, California 94931. Call (707) 792-1316 for more information.



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PARMA PSE PRO SERIES EQUIPMENT

NORRCA '95 PAVED OVAL NATIONALS

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Entry Fees: $45.00 for Sportsman Stock (includes 1 handout motor), $35.00 for Factory Class and all others.
Hotel Info: Holiday Inn Express, 805-833-3000. Ask for NORRCA race rate.
Schedule: YOU MUST BE CHECKED IN BEFORE YOU WILL BE ALLOWED TO PRACTICE. 15th -16th open practice, 17th controlled practice 10am - 7pm , 2 qualifiers on 18th & 2 on 19th, 18th check-in 7am-8am , mandatory drivers meeting 9am, 1st qualifier 10am. August 19th concours 9am, 3rd qualifier 10am. August 20th track opens 7am, all mains 9am. All Experts and Factory will run triple "A" mains.(1st =100pts, 2nd =99, etc., best two mains count, worst main will only be used as a tie breaker). **Experts will be allowed to race in the Sportsman Mod. Nastruck class, but not Sportsman Stock. 6 cell maximum all classes. 1700 MAH batteries are legal in Expert only. Entries limited to 1st 400. Pre-Entries close 7/31. Entries received after 7/31 do not receive shirts. 8th Annual Team Cup Challenge:** The Factory Team with the highest overall points will be awarded a silver cup for "Best Paved Oval Team" of 1995. Factory Teams must pre-enter prior to the 1st qualifier. **Only Factory Drivers are eligible for Team Cup. Factory Class Entry Fees must come from the sponsor and must be paid with a company check. Hobby Shops are not eligible to enter drivers for Factory Class.** **NO PHONE OR FAX ENTRIES!**
TRACK LOCATION: 7401 WHITE LANE, BAKERSFIELD, CA. 805-835-0441

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

1995 PAVED OVAL NATIONALS ENTRY FORM

(for a confirmation letter, enclose a self addressed stamped envelope)

NAME_____ PHONE # _____

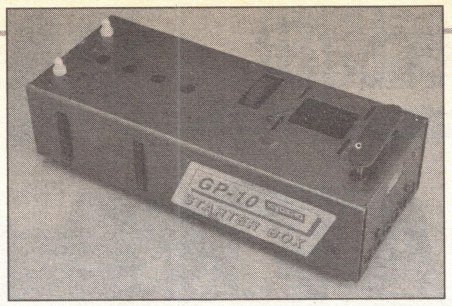
CAR#_____ NORRCA # _____ Shirt Size _____ **1 Shirt Per Driver**

(1) SPORTSMAN STOCK____ (2) EXPERT STOCK ____ (3) SPORTSMAN MOD. ___ (4) EXPERT MOD. ___

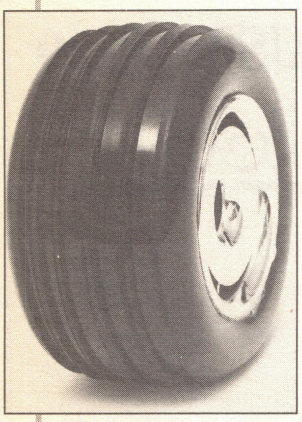
(5) SPORTSMAN STOCK NASTRUCK ___ (6) SPORTSMAN MOD. NASTRUCK ___ (7) FACTORY MODIFIED ___

FREQUENCIES 1._____ 2._____ 3._____

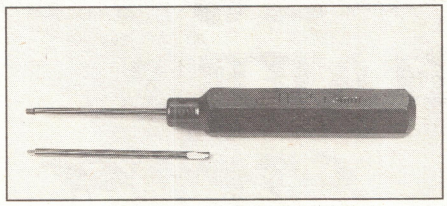
AWESOME '95 WHAT'S NEW PRODUCTS



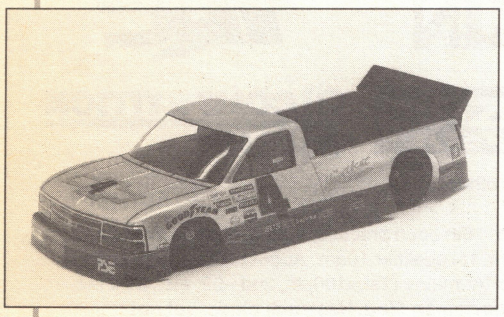
gas car conversions, Associated's RC10GT, Kyosho's 4WD onroad car and the Rampage series of buggies. Other inline-mounted engines can also be started with Kyosho's new starter box. The box comes with carrying handle and alignment plugs. Great Planes, 2904 Research Rd., Champaign, Illinois 61826. (217) 398-3630.



PRO-LINE TRUCK TIRE
The Edge is an all-new front truck tire that dominated the ROAR Offroad Nationals. Matched with the Originals, Pro-Line's Pro-90 rear tires, you have a combination that adds up to a winning setup. The Edge tires are made of XTR soft racing compound with a new radial rib design and guaranteed traction. The Edge Pro-95 tires fit any 2.2-inch truck wheel. Find them at your Pro-Line dealer. Pro-Line, Box 456, Beaumont, California 92223.

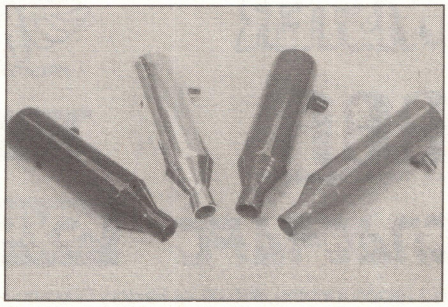


ASSOCIATED REPLACEABLE TIP ALLEN DRIVERS
Associated has announced that their popular line of Allen drivers are now back in stock. There are six sizes to choose from, and the handle finish and quality of the tips has been improved too. Associated Electrics, 3585 Cadillac Ave., Costa Mesa, California 92626.



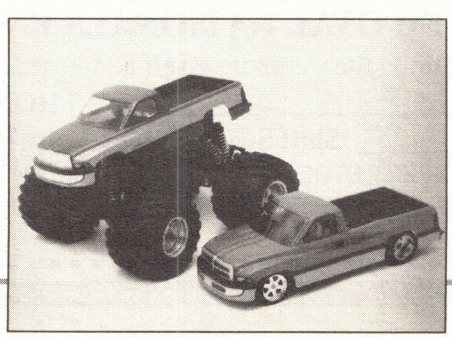
CHEVY OVAL TRUCK
The booming NasTruck (SuperTruck) series is attracting a lot of attention nowadays, and Parma is at the head of the pack with truck bodies like this Chevy oval truck body. It's designed to be a perfect fit for narrow oval chassis. See your Parma dealer, or write for more information: Parma International, 13927 Progress Pkwy., North Royalton, Ohio 44133.

1/10-SCALE STARTER BOX
Great Planes is distributing a new Kyosho preassembled starter box that includes a plug driver and pre-installed 550 motor. The motor is powered by a rechargeable 7.2 or 8.4-volt nicad battery pack. The starter box is ideal for sidewinder-mounted engines, such as found on Kyosho's Outlaw Rampage Pro, DuraTrax

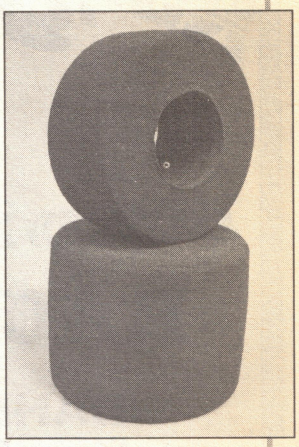


COLOR MANIFOLDS AND MUFFLERS
New polished and anodized manifolds in a range of colors is now being sold by Associated Electrics for the RC10GT. The muffler, pull-start and non-pull start manifolds are available in polished black, blue, purple and silver finish. For more information, contact Associated Electrics, 3585 Cadillac Ave., Costa Mesa, California 92626.

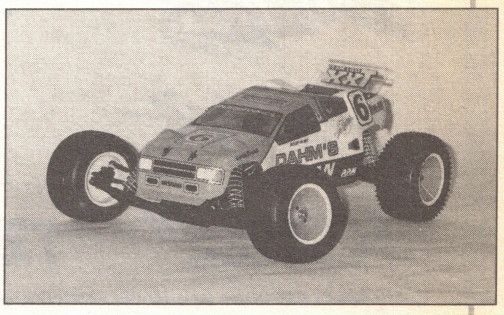
DODGE RAM TRUCK BODY
The truck of the year as voted by Motor Trend magazine, Dodge's Ram is turning heads in its full-size version, and now Parma's 1/10-scale Dodge truck body is doing the same. It can be used for scale realism on electric narrow chassis, or for a real spectacular ride, mount it on a monster chassis. From Parma International, 13927 Progress Pkwy., North Royalton, Ohio 44133.



DUATRAX RACING KART DONUTS
Made for asphalt racing, DuraTrax' pretrued foam donuts are designed to provide high bite and balanced handling on asphalt surfaces. The donuts are made in the USA and are sold in pairs. Ideal for the Kyosho Go-Kart. From DuraTrax, Box 9021, Champaign, Illinois 61826.



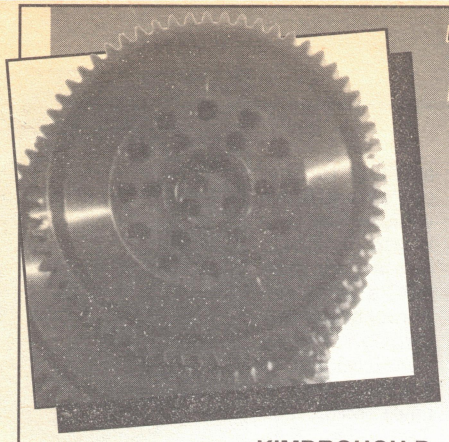
DAHM'S SLAMMER X
Dahm's new truck body has been designed as the lightest and lowest body available for the Losi XXT stadium race truck. This high-performance racing body will improve handling at high speeds. The Slammer X is made of .030 Lexan and can be finished to match your favorite Ford, Chevy, Jeep, Dodge, Toyota or Nissan



stadium race truck. The Slammer X has a low profile, a swept-back frontal area and molded-in front and rear spoilers. Complete instructions with photos and a Dahm's grill and taillight decal is included. For a complete catalog, send $2.00 to Dahm's Racing Bodies, Box 360, Cotati, California 94931.

DYNAMITE'S MAGNUM FORCE
Magnum Force motor spray is now completely safe for the environment and will not harm most plastics, including Lexan. The 16-ounce cans use high pressure to wash away dirt with a high evaporation rate. You get high quality and high performance at a low price. Distributed by Horizon Hobby, 4105 Fieldstone Rd., Champaign, Illinois 61821.





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

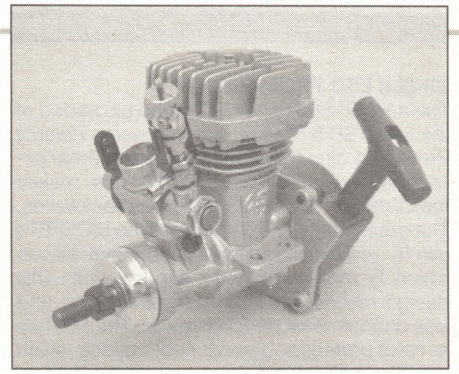
FOR ASSOCIATED GT...
#247- **62 T** For Associated RC10-GT.....$3.00
#248- **64 T** For Associated RC10-GT.....$3.00
#249- **66 T** for Associated RC10-GT.....$3.00

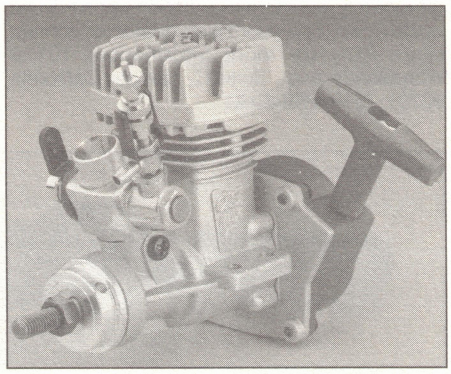
High-powered gas trucks need a gear that's up to the task... and Kimbrough's 32-Pitch gears are the toughest! Made of super-strong 4/6 Nylon, these gears will withstand temperatures 50 to 100 degrees higher than other manufacturer's gears. Don't take chances... get Kimbrough Gears!

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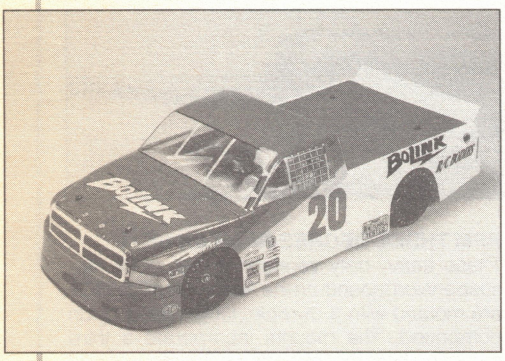
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AWESOME '95 WHAT'S NEW PRODUCTS





starter. From Great Planes Model Distributors, 2904 Research Rd., Champaign, Illinois 61826.



BOLINK'S DODGE BODY

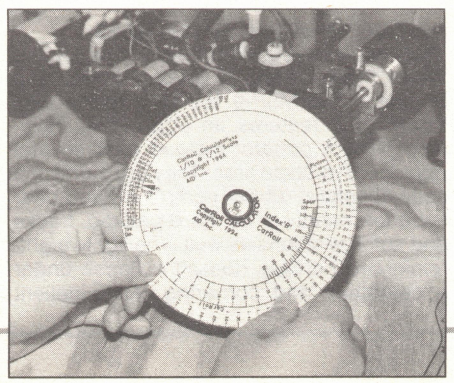
BoLink has an entry in the SuperTruck series with this '95 Dodge truck body. Along with the Dodge, there's a Chevy and Ford SuperTruck body molded in strong Lexan available. For a complete catalog, send $3.00 to BoLink RC Cars, 420 Hosea Rd., Lawrenceville, Georgia 30245.

.12 CZ-RX BUGGY ENGINES

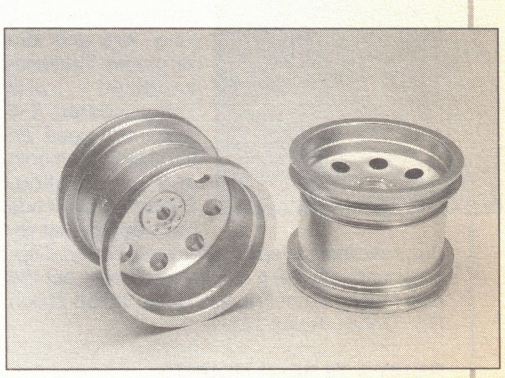
The O.S. series of .12 CZ-RX engines are now available with a recoil starter. The starter version includes a glow plug and 101 air cleaner. The long-crankshaft version for Kyosho cars comes with an engine mount spacers. A shortened crankshaft "S" version is available for use in Associated vehicles. The new recoil-starter version replaces the earlier .12 CZ-R with recoil

CAR ROLL CALCULATOR

Figuring out the proper gear ratio for onroad and oval racing can be a chore. Now it's made simpler with the new CarRoll Calculator from AID Inc., 107 E. Vallette, Ste. 349, Elmhurst, Illinois 60126. The calculator is a circular slide rule calibrated to find the movement of your car in inches, one per revolution of your motor,



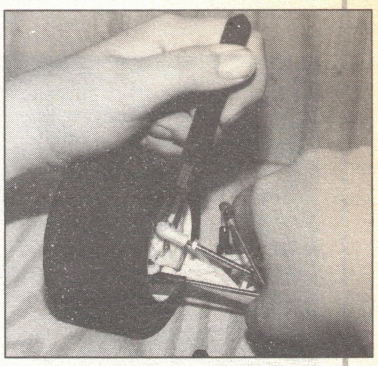
known as rollout. The rollout number is used to select a gear ratio and to make adjustments to your ratio due to tire wear and motor power. The calculator comes with two tire measuring tapes and a decimal conversion chart. Selling for $9.95, the Calculator can be a valuable component in your racing pitbox.



TRAXXAS SATIN-CHROME WHEELS

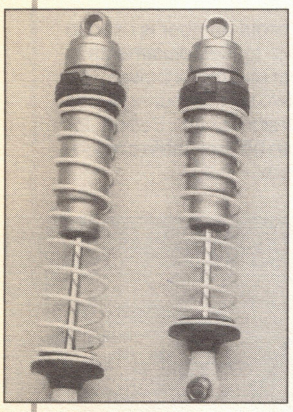
Sold in pairs, Traxxas' new Satin-Chrome wheels will dress up your Rustler or Stampede truck, or any 2.2-inch diameter tires that you might have. The wheels are constructed from durable nylon and have the look and feel of brushed aluminum. See your Traxxas dealer. Traxxas Corp., 12150 Shiloh Rd., Dallas, Texas 75228.

SLT SNAP LINK TOOL



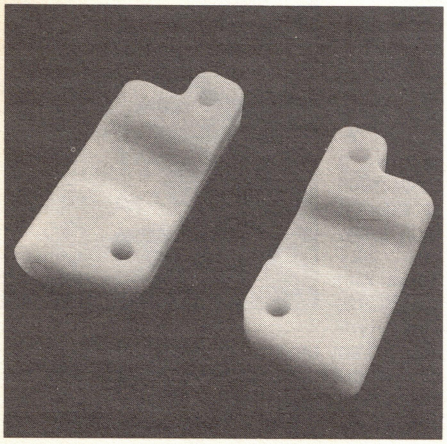
The SLT is a snap-line removal tool that makes removing suspension or steering rods easy. The SLT works with the RC10, Losi, Kyosho and any similar size snap links. The SLT is made of durable metal with a vinyl grip. Look for it at your hobby shop or write: AID, 107 E. Vallette Ste. 349, Elmhurst, Illinois 60126.

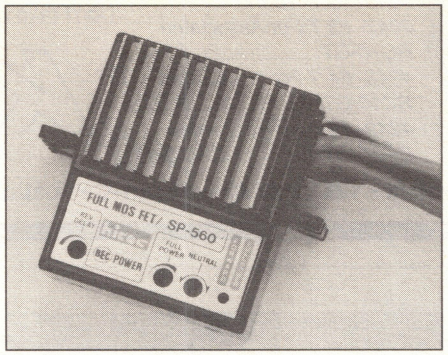
'93 AWESOME WHAT'S NEW PRODUCTS



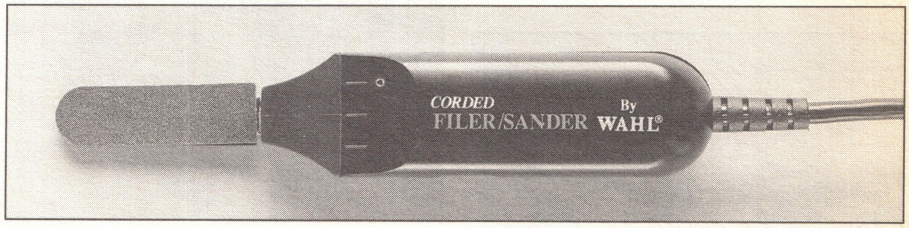
TRAXXAS BIG-BORE SHOCKS
Traxxas' Big-Bore Shocks have excellent dampening control for Traxxas' Rustler and Stampede shocks. They're available in medium, long, xtra and xtra long sizes. The hard-anodized and Teflon-coated T-6 aluminum used on the shocks is smooth and long lasting. Special piston heads have edges that reduce internal surface contact and friction. Clip-on spring adjusters quickly and easily set the ride height. From Traxxas Corp, 12150 Shiloh Rd., Dallas, Texas 75228.

RC10T & T2 REAR MOUNTS
The latest from RPM: rear suspension mounting blocks (toe-in blocks) for the Associated 10T and T2 trucks. These blocks have the same geometry as the stock blocks, in the "long" position. They are molded with an extremely tough, durable and dyeable compound of nylons for performance and dependability. Included with the set are two longer aluminum screws for the front two holes, and four black thin jam nuts for secure mounting. For a short position, use RPM's #7092 RC10 Rear Mounts. From RPM Custom Engineered Products, 14978 Sierra Bonita Ln., Chino, California 91710.



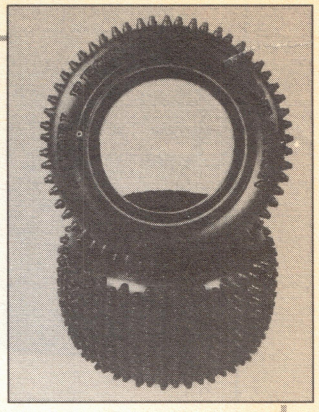


SP-560 ESC FROM HITEC
The new SP-560 Power ESC is an upgraded of the Hitec SP-520 Plus, with the same Polarity Protection circuit that protects the internal circuits from destruction even if the user makes the mistake of connecting the wires backwards. The green heatsinks attached to the MOSFETs use a revolutionary heat-conductive silicon which is molded to form a perfect fit. This design results in better heat dissipation and less chance of MOSFET damage. The 560 has tempfet protection against heat buildup which acts like a circuit breaker to cut off the system temporarily. It resumes operation when the unit cools down. See your Hitec dealer, or contact Hitec RCD for more information: 10729 Wheatlands Ave., Suite C, Santee, California 92701. (619) 258-4940.

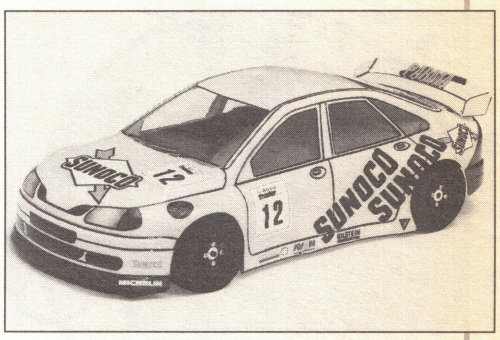


ELECTRIC FILER/SANDER
This reciprocal electric tool is designed to make sanding or filing jobs quicker, easier and more convenient. Ideal for modelers, the Wahl Filer/Sander is perfect for working with balsa, plastics and metals. Nineteen accessories are included, including various tips for hard-to-reach areas. A convenient storage case is included. For more information, contact Wahl Clipper, Box 578, Sterling, Illinois 61081. Phone: (800) 735-9245.

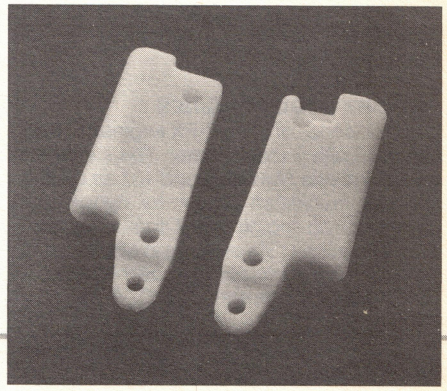
NEW MSP-9 WORLD SCALE TIRES
MRC has released these new tires for the World Scale series of offroad trucks and buggies. The MSP-9 tire is a totally new design that features an aggressive multi-step pin tire pattern, molded after several popular 1/10-scale tires. They are made of a special natural rubber compound and offer superior handling on hard-packed tracks and soft conditions as well. The lightweight, reinforced carcass doesn't collapse under acceleration and cornering. An excellent addition to anyone's World Scale vehicle. See your World Scale dealer, or call MRC's parts department Monday through Friday from 9:00 a.m. to 4:30 p.m. (Eastern time). MRC, 200 Carter Dr., Edison, NJ 08818.



RENAULT LAGUNA BODY
This European racing sedan has improved aerodynamics and unique styling. It fits 1/10-scale onroad gas chassis such as the Serpent and BMT, as well as offroad chassis like the RC10 and various Losi vehicles. From Parma International, 13927 Progress Pkwy., North Royalton, Ohio 44133.



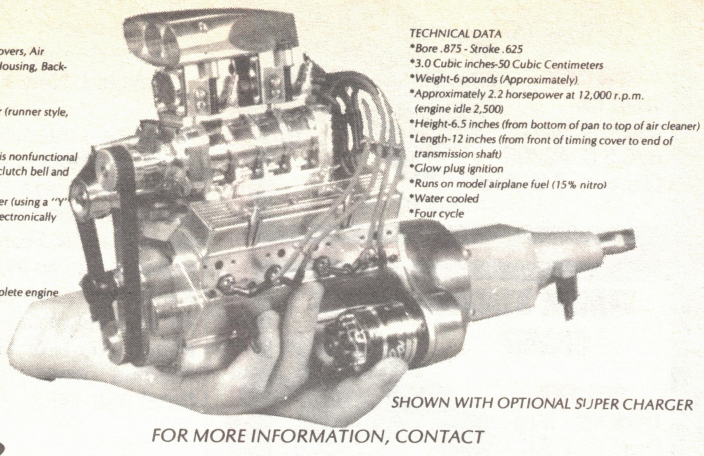
RPM THREE-DEGREE REAR MOUNTS
These heavy-duty versions of the stock rear suspension mounts on the Associated RC10GT are molded with a durable, long-lasting nylon compound. The mounts incorporate a third mounting hole that strengthen the mounts and help secure the rear bumper. Included are two aluminum screws and jam nuts for a secure mount. RPM Custom Engineered Products, 14978 Sierra Bonita Ln., Chino, California 91710.



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*Centrifugal clutch
*Replica 4 speed transmission (transmission is nonfunctional but serves as a ball bearing support for the clutch bell and universal joint)
*Custom designed electronic glow plug driver (using a "Y" harness from the receiver the transmitter electronically turns the glow plugs on and off)
*Rubber mounts
*Water pump
*Ball bearings
*All screws, nuts and necessary parts to complete engine.
*Instruction manual
*Only hand tools required for assembly
*Crankshaft pre-installed
*Cylinder linders installed and decks ground



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

SHOWN WITH OPTIONAL SUPER CHARGER

FOR MORE INFORMATION, CONTACT

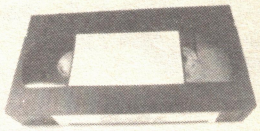
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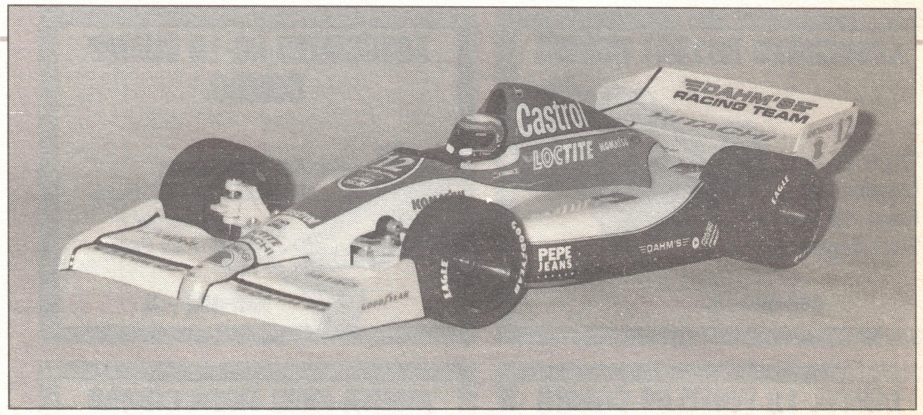


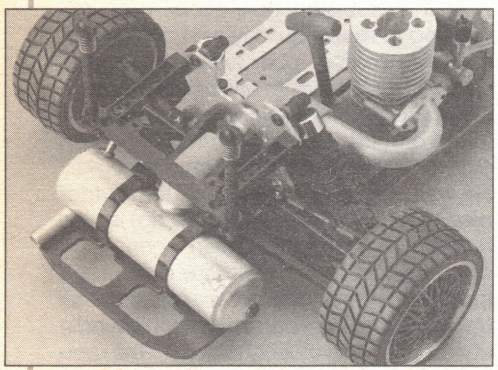
If the $2,195.00 is not in your budget at the present time, enjoy the next best thing...a video tape for only $24.95.

Developed by GARY CONLEY (the designer of numerous original model engines, including the Conley 1.20 c.i. double over head camshaft 4 valve model airplane engine and the world famous Conley V-8 engine) this video will take you through various stages of development, from its inseption in 1979 to the all new supercharged version. The video is a detailed look at the 32' Ford highboy roadster, 1/4 scale Cobra, Butch Leal's pro stock Pontiac Firebird and the original Pacesetter sprint car. For the avid model engine builder you will see complete step-by-step construction techniques and hints. A must for even the most experienced engine builder.

ONLY ***$24.95 *** VHS Only

AWESOME '95 WHAT'S NEW PRODUCTS





GP10 SCALE MUFFLER SET

From Great Planes Model Distributors, a new scale muffler set for touring cars such as the Kyosho GP10 includes all necessary hardware and gives a scale-like look with its rear exhaust pipe. Great Planes Model Distributors, 2904 Research Rd., Champaign, Illinois 61826.

F1 FIGHTER BODY FROM DAHM'S

The latest in F1 bodies for parking lot racing is the F1 Fighter from Dahm's. With aerodynamics that improve speed and handling, the Fighter body will fit most 1/10-scale cars, including onroad pan cars such as the 10L and 10LSS. The Fighter has a bi-level front wing, rear bi-level adjustable wing, motor cooling scoop, driver figure and Dahm's decals. For more information, call (707) 792-1316. For a complete catalog, send $2.00; for a catalog and decals, send $4.00 to: Dahm's RC Bodies, Box 360, Cotati, California 94931.

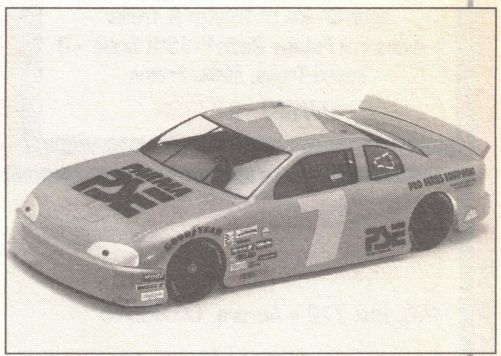
DURATRAX/O'DONNELL RACING FUEL

Now you can get an improved formula of O'Donnell fuel at a lower price. O'Donnell's Racing Fuel has a nitro mixture of 20% which makes it ideal for competition. The O'Donnell special oil blend keeps engines running cooler with greater consistency. The formula also means smoother acceleration and idling characteristics. O'Donnell Racing Fuel is available in cases, which include four individual gallon jugs. See your Duratrax/O'Donnell dealer. Great Planes, 2904 Research Rd., Champaign, Illinois 61826. (217) 398-3630.



PARMA'S WIDE MONTE CARLO

The '95 Monte Carlo is cleaning up on the NASCAR circuit, and now you can do the same in the RC arena with Parma's new Wide Monte Carlo body. Superb detailing and handling can put you up front when it counts. A 1/10-scale stock car racing must! Parma International, 13927 Progress Pkwy., North Royalton, Ohio 44133.



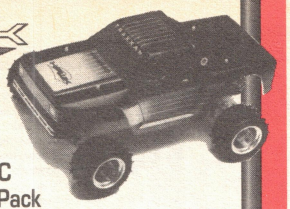
TRAXXAS-RAD-2 COMBO



INCLUDES: Car Kit-Magnum Sport w/E.S.C. AC/DC Charger - 7.2v Pack

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TRAXXAS-HAWK-2 COMBO



INCLUDES: Truck Kit- Magnum Sport w/E.S.C. AC/DC Charger - 7.2v Pack

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TAMIYA- SUPER BLACKFOOT COMBO



INCLUDES: Truck Kit – Magnum Sport w/E.S.C. AC/DC Charger – 7.2v Pack

TAM001– $ 269.99

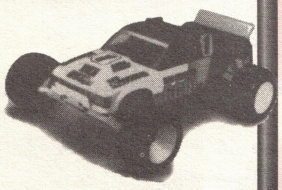
TAMIYA STADIUM BLITZER COMBO



INCLUDES: Truck Kit – Mag-Sport W/E.S.C. AC/DC Quick Charger – 7.2v Pack

TAM-002 – $ 248.99

ASSOCIATED RC10GT COMBO



INCLUDES: Truck Kit – Magnum Jr. Royal .12 Pull Start Engine

ASC-001– $ 315.86

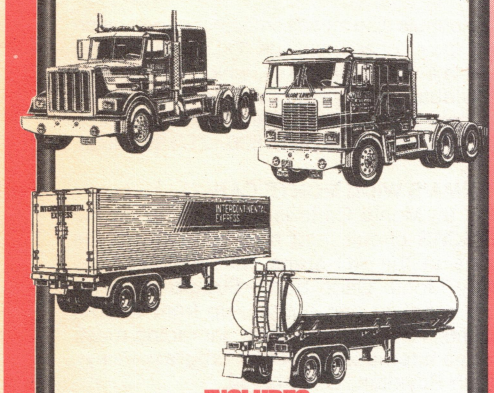
ASSOCIATED RC-10 CHAMP COMBO



INCLUDES: Car Kit – Mag-Sport W/E.S.C. AC/DC Quick Charger – 7.2v Pack

ASC-002 – $ 283.27

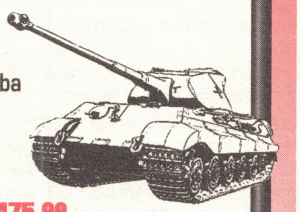
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ANSWERMAN CONTINUED FROM PAGE 12

name and address of a quarter-scale company who deals with this particular type of stadium truck.

Marty Bruce
Oakfield, New York

A: Marty, I attempted to contact QRS as you did without any success. My best idea would be to give New Era Models, Inc. a call. They also build and sell a Q-scale RC stadium truck. From what I recall, the same powerplants on the QRS are also used on the New Era, so they should be a source for the rest of the information you asked about. The New Era address: Box 7378, Nashua, New Hampshire 03060-7378 (603) 888-4453. •

BIG TIPS CONTINUED FROM PAGE 14

plugs with a wire wheel again, or with a sandblaster. A fresh spark plug should be gapped prior to installation (.025 thousands). You should check that the curved "tang" is positioned directly over the center electrode as well. Look at it this way: a new plug is only a couple of bucks, so why risk a DNF?

The last DNF-maker we'll discuss is your Zenoah engine's recoil starter assembly. That innocent-looking pull starter can cause you major headaches on racedays! Under most circumstances, recoils act up due to dirt contamination caused by cool air intake. Cool air intake? Yes sir, those slots around the recoil housing draw outside air along with debris into the engine to cool it and this can mess up your starter. Compounding this situation are tracks with grass/dirt infields which increases the chances of a gummed-up pull starter.

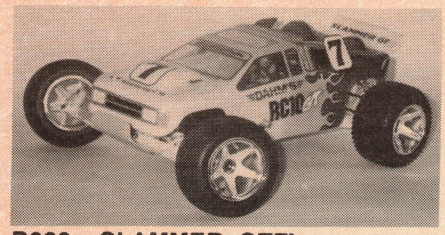
At the first sign of a recoil rope not wanting to return quickly and completely into the housing, pull, disassemble and clean the entire starter assembly. Remove the rope drum and clean out any debris found around the main return spring and also clean the drum and ratchet assembly as well. Light lubrication of the starter pieces (WD40 or CRD lube will do) is also recommended on the main spring and drum pivot. Check the entire recoil rope for nicks, cuts and wear, usually seen as fraying at the drum end and the pull handle of the rope. Also closely look over the rope guide in the housing for any grooving due to angled pull starting. A grooved rope guide will quickly cut a good starter rope which can equal a DNF in many races.

Once the starter is reassembled, be sure to check the action before you put it back onto the engine. Make sure the curved engagement ratchet springs out when you pull the rope and that the recoil rope itself moves freely in both directions. That way you're sure to have a smooth-

continued on page 45

DAHM'S™

CLEAR LEXAN RACING BODIES



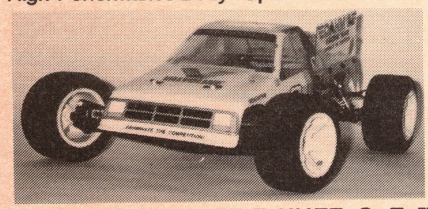
D038 SLAMMER GT™ Fits **RC10GT**. Specially Designed to Improve Handling, Increase Top Speed, & Improve Motor Cooling. Includes Grill Decal & Rear Spoiler!



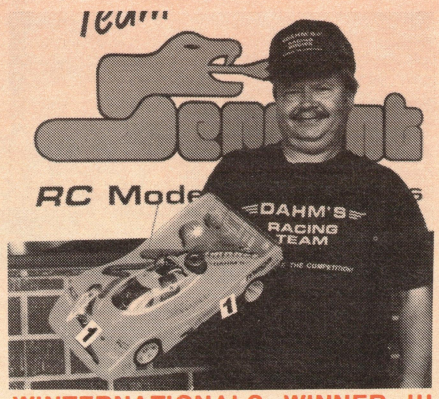
D040 SLAMMER XL™ Fits **Losi XXT, LXT, Blue Eagle, LSII, Nitro Hawk, Ultima Outlaw, RC10T & Stadium Blitzer**. Excellent Motor Cooling, Superior Aerodynamics, Excellent Handling, & a Free Truck Grill Decal!



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

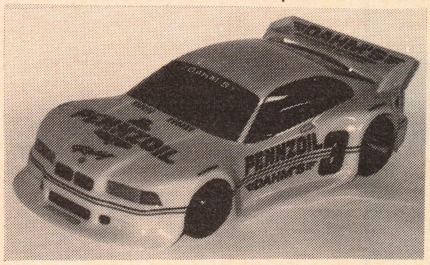


NEW! D027 RUFF-E-NUFF S.E.™ Dirt & Carpet Oval Race Winning Truck Body. Includes Side Dam, Supports, Rear Spoiler, Truck Grill Decal, & Tom Kelley's Set-up Instructions for Top Speed & Super Handling!



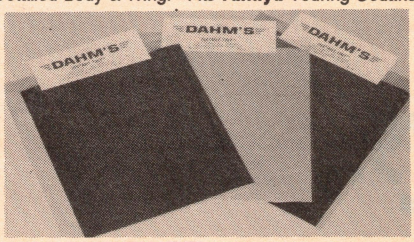
WINTERNATIONALS WINNER !!!

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

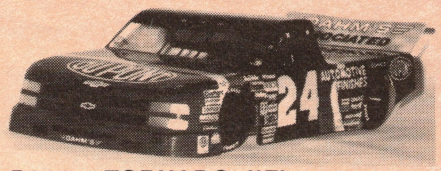


D021 M3 EXTREME™ Super Handling Touring Sedan Body & wing for 10th Scale Gas Cars like **Serpent Impact, BMT 931, PB, Parsec, & Delta**!

NEW! D020 M3 EXTREME™ Highly Detailed Body & Wing. Fits **Tamiya** Touring Sedans.



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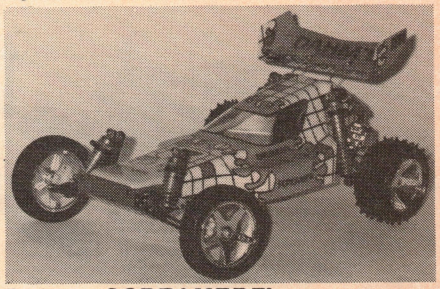


D016 TORNADO II™ NASTRUCK Racing Body for Narrow SS Cars like the **RC10LSS**. Super Aerodynamics, Balanced Handling, 2" Spoiler, & Grill Decal.

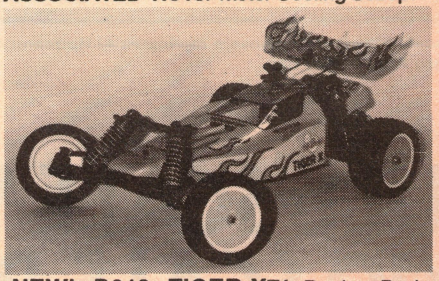
D017 TORNADO II™ for **RC10L**.



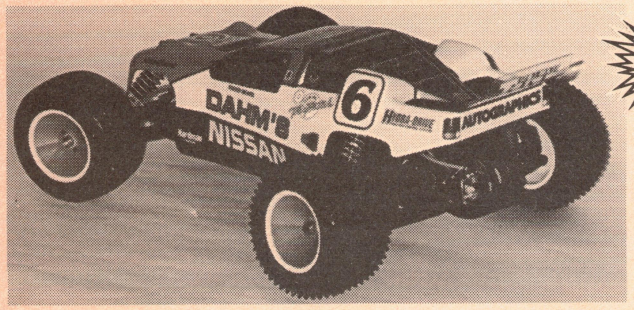
NEW! D023 PHANTOM™ Custom Hot Rod fits **Tamiya & Kyosho** F-1 & Indy Cars, & **Lightz** Pro Stock. Turn your F-1 Car into a Hot Rod!



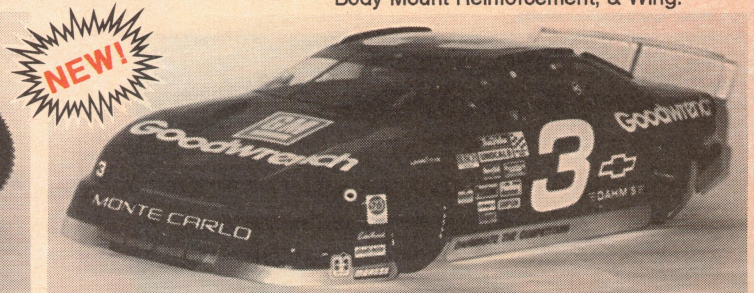
D063 SCREAMER™ Low, Narrow, High Performance, Racing Body & Wing for the **ASSOCIATED RC10**. Motor Cooling Scoop!



NEW! D019 TIGER X™ Racing Body for the TEAM LOSI XX. Features Motor Cooling, Rear Spoiler, Stabilization Fins, Body Mount Reinforcement, & Wing.



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



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

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

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

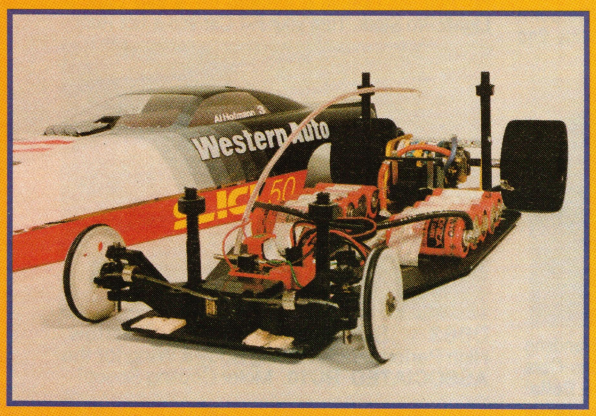
SEND $2.00 FOR DAHM'S LATEST CATALOG, OR SEND $4.00 FOR CATALOG AND DECALS TO:

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

BY RICH LACHARITE

Sleek Dodge Daytona body by Protoform sheaths the Fine Design chassis.



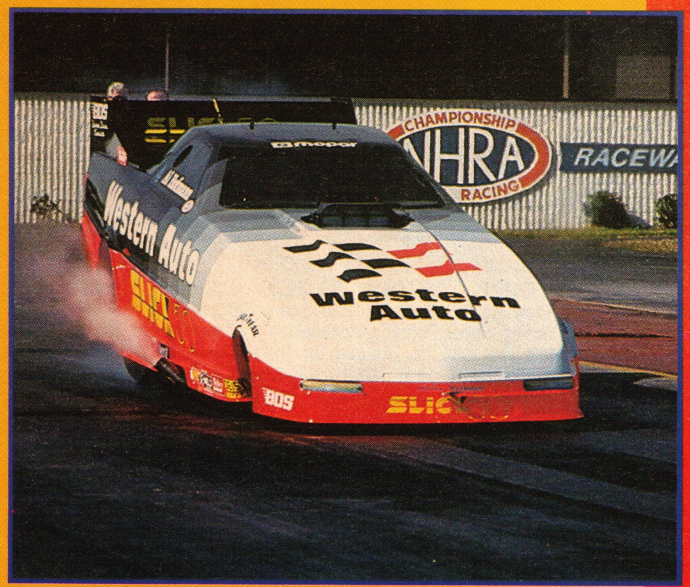


1/10-scale Fine Design chassis replicates Al Hofmann's full-scale Western Auto Funny Car.

Western Auto Funny Car

FULL-SCALE VS. 1/10 SCALE RC

Al Hofmann's Funny Car does a burnout prior to a run. Photo courtesy Cotter Communications.



Al Hofmann has made his presence known in the Funny Car class over the past few years. Like most racers, Al's success has taken many years to reach. From his first drag race at Dover Drag Strip in Wingdale, new York in 1968, Al has pursued his interest in racing. Things have

continued on page 60

FULL SCALE VS. RC RACING: A COMPARISON

Technical Data	Hofmann Racing	BS Racing
Owner/Driver:	Al Hofmann	Bob Smith
Birthdate:	November 28, 1947	June 30, 1957
Birthplace:	Peekskill, New York	Cornwall, New York
Residence:	Umatilla, Florida	Ft. Montgomery, New York
Hobby:	Restoring classic cars	Model Trains (0-scale)
Vehicle Type:	Funny Car	Funny Car
Vehicle Cost:	$120,000	$500
Sponsor(s):	Western Auto/Slick 50	Fine Design Mfg.
Best Time:	5.02 @ 301 mph (8 cyls)	1.96 @ 65 mph (10 cells)
Chassis Type:	1994 McKinney	Fine Design Mfg.
Weight:	2225 lbs.(with driver)	41.9 oz. (without driver)
Wheelbase:	125 inches	13.7 inches
Overall Length:	223 inches	21.8 inches
Overall Width:	63 inches	7.5 inches
Body Style:	Dodge Daytona	Dodge Stealth
Body Maker:	Harry Glass	Protoform
Body Material:	Carbon Fiber	Polycarbonate
Body Weight:	200 lbs.	3.9 oz.
Motor Type:	Keith Black Hemi	FDM Cordite
Fuel Type:	Angus Nitromethane	Sanyo Nickel Cadmium
Fuel Cell:	Aluminum 18 gal.	1200 mAH (10 cells)
Ignition:	Mallory/Autolite	Micro Switch
Clutch:	Brooks Hydraulic Ram	(none)
Transmission:	Direct Drive with reverser	Direct Drive without reverse
Gears:	Strange	Robinson
Wheels/Tires	Weld/Goodyear	Fine Design Mfg.
Tire Dimensions:	23x3 inches (front) 36x16 inches (rear)	1.7x0.1 inches (front) 2.5x1.5 inches (rear)
Radio:	(none)	Tekin FM
Transporter:	Kenworth Truck & Competition Trailer ($300,000)	1985 Chevy Wagon & Cardboard Box ($3,000)
Fuel per run:	14 gal. @$30/gallon	(none)
Safety Clothing:	Deist 9-layer fire suit	Jeans & T-shirt
Clothing Cost:	$1000	$45
Helmet:	Simpson full-coverage	(none)
Footwear:	Deist Boots	Brooks Sneakers

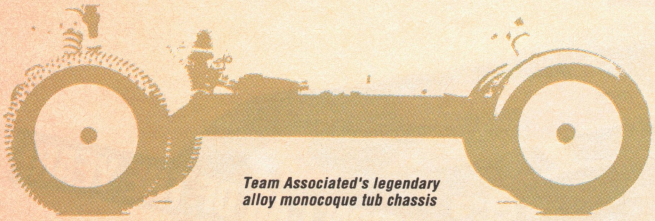


NOBODY KNOWS GAS RACING LIKE THE TEAM.

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

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

That's why the Team built the RC10GT.



Team Associated's legendary alloy monocoque tub chassis

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

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

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



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

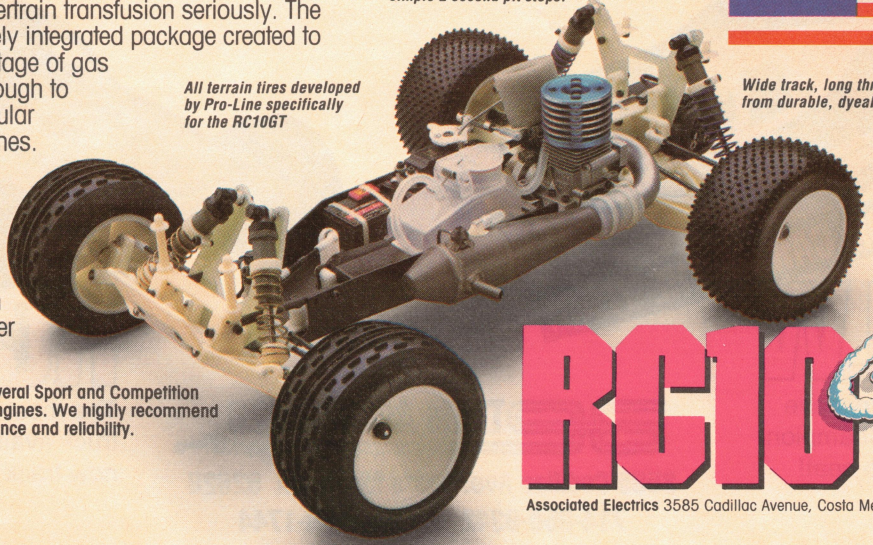
Like all our kits, hardware and materials are nothing but the best. And because Team Associated understands RC racers, and their budgets, the RC10GT is available with either bushings or ball bearings and for both pull and non-pull start engines.

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

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

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

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



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

RC10GT

Associated Electrics 3585 Cadillac Avenue, Costa Mesa, CA 92626

© 1994 Associated Electrics

TEAM ASSOCIATED

STILL

THE TOP NAME IN 1/10 OFF ROAD RACING

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



R/C CAR ACTION TRUCK OF THE YEAR!

RC10T

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



R/C CAR ACTION CAR OF THE YEAR!

RC10

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

IFMAR WORLD CHAMPIONSHIPS
TWELVE

RC10L

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



R/C CAR ACTION CAR OF THE YEAR!



R/C CAR ACTION CAR OF THE YEAR!

RC12LW

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



RC10GT

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

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

SPEED SECRETS 1995

1995 TEAM ASSOCIATED



ALLEN WRENCHES. Precision-ground replaceable tip with color-coded aluminum hex handle. .050" (#6964), 1/16" (#6965), 5/64" (#6966), 3/32" (#6967), 2.5mm (#6968), 1.5mm (#6969). Replaceable tips available now.







RACING SILICONE SHOCK OIL. This 100% pure silicone oil has reliably proven not to thin out in hot weather or thicken in cold. 2 oz. bottles, 15 wt. (#5427), 25 wt. (#5428), 35 wt. (#5429).

RC10GT GAS TRUCK. It's the most advanced 1:10 gas off road truck available anywhere. Racers can make adjustments for Ackerman steering, there is a totally new lay-down transmission with a drive ratio of 2.60:1 for gas engines, a new HTC (high torque capacity) differential, and the truck accomodates most of the .12 and .15 gas R/C engines. (#7050 *with bushings*, #7060 *with bearings*.)

REEDY MOTORS. Turbo-Cooling with "M" wet magnets in the Mach I and II stock motors and Sonic series introduces consistency, economy, long life and speed: stock and modifieds as they were meant to be!

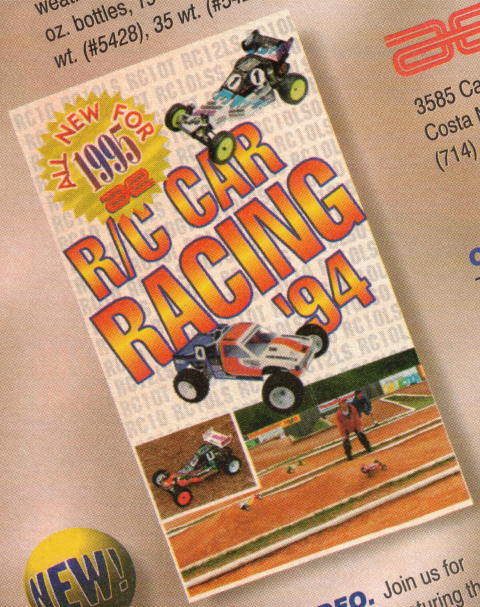


TEAM ASSOCIATED

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

COLOR MUFFLERS AND MANIFOLDS. These great colors help the racer to customize his RC10GT. Polished and anodized, these mufflers and manifolds (pull start and non-pull start available) provide that finished look! *Muffler, black* (#7740), *silver* (#7741), *blue* (#7742), *purple* (#7743).







NEW!

New for 1995! R/C CAR RACING '94 VIDEO. Join us for some of the most exciting races of 1994! Featuring the highlights of such races as the Reedy International Race of Champions, the ROAR Off Road and &Truck Nationals, the IFMAR 1:12 World Championships in Paris, the IFMAR 1:10 World Championships in Germany, and the first ever NORRCA Electric and Gas Truck World Cup. (#6976.)

NEW!

NEW 1:12 STEALTH DIF. This diff (#4455) for the 12L series cars reduces the overall weight of the rear axle and reduces the rotating mass of the diff and axle assembly. The improved diff action gives you quicker acceleration. The new bolt-on rear wheels (specially designed for this axle) can be changed without readjusting the diff. The axle uses the diff technology developed for the legendary Stealth transmission. *Rear wheel, white* (#3609), *black* (#3609B), *florescent yellow* (#3609Y).

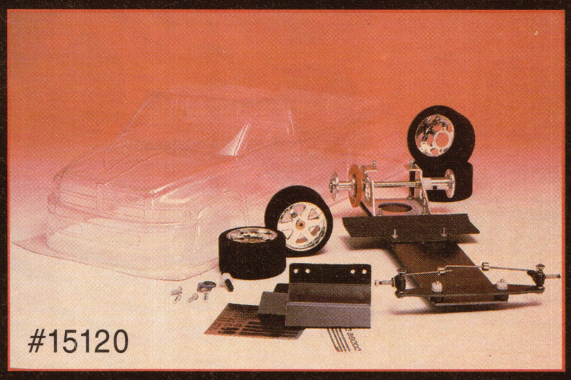
"The Truck of the Year."

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

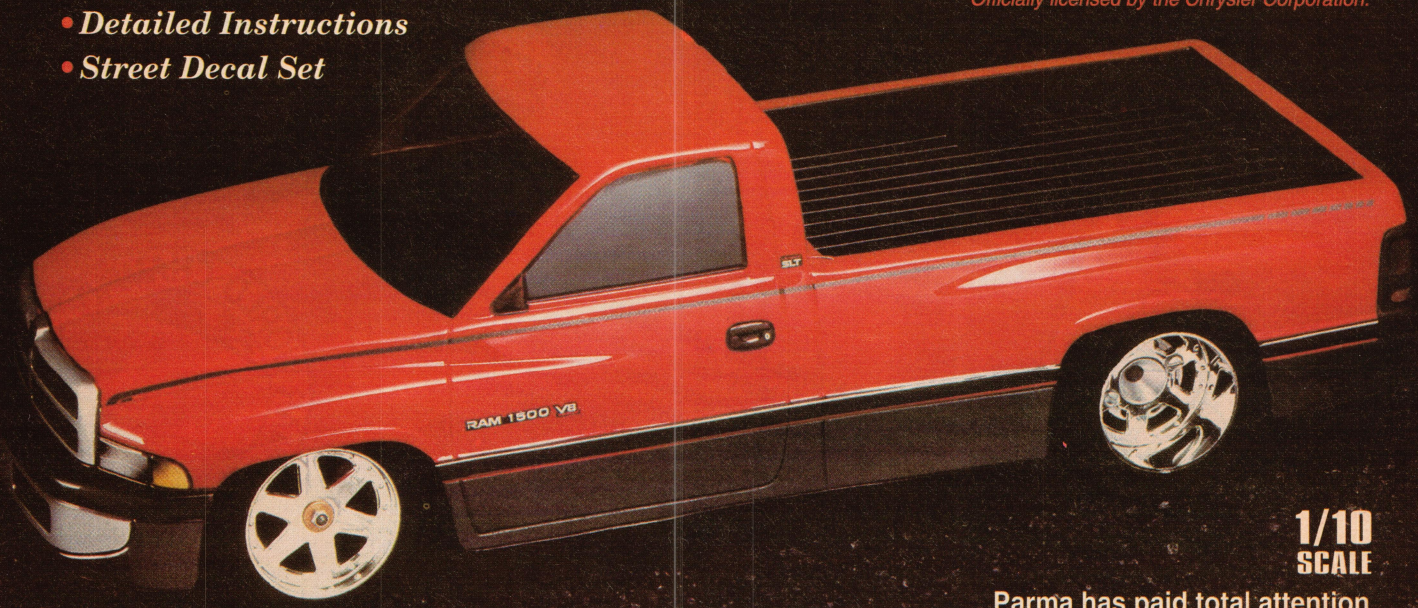
- *Motor Trend*

This Incredible Scale Reproduction Includes:

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



Officially licensed by the Chrysler Corporation.



1/10 SCALE

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

Radio Control Kit

MOTOR, BATTERIES, RADIO & ELECTRONICS NOT INCLUDED.

DODGE RAM TRUCK

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

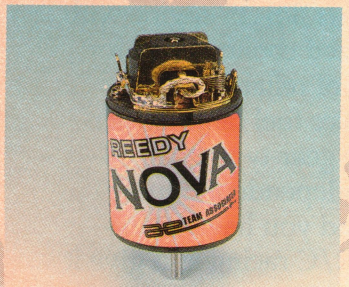
REEDY

12 IFMAR WORLD CHAMPIONSHIPS

WORLD CHAMPIONS TOOLBOX

ASSOCIATED ELECTRICS, INC., 3585 Cadillac Ave., Costa Mesa, CA 92626
(714) 850-9342 FAX (714) 850-1744

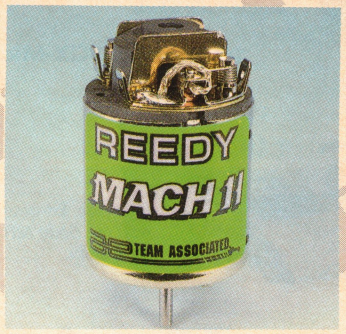
Nova Motors



Designed specifically for off road racing, Nova motors give you winning performance and long life at an inexpensive price. Hand wound. Custom assembled. Diamond trued armature. Dynamically balanced. Dual ball bearings. Adjustable timing. Heat sink holder. Three winds available.

#575, 14 turn double #576, 13 turn double #577, 12 turn double

Mach I & II Stock Motors



Turbo Cooling feature creates a path of cooling air over the brush and commutator assembly, giving you a cooler and more efficient motor. 4.95 "M" wet magnets. 27 turn armature with Turbo Cooling. New can with cooling vents, and more! Mach I is a ROAR legal 24° motor. The Mach II is a NORCCA legal 36° motor.

#556, Mach I #557, Mach II

Sonic Series Modifieds

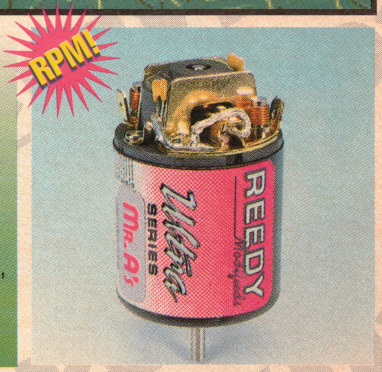
Newest in the line of Reedy motors is the Sonic, with Turbo Cooling features adding to the life and performance of the motor. A new can/magnet setup combined with an all-new large commutator and lay-down brush system provides the torque and power needed for today's racing. Hand wound and precision assembled.

#525-540

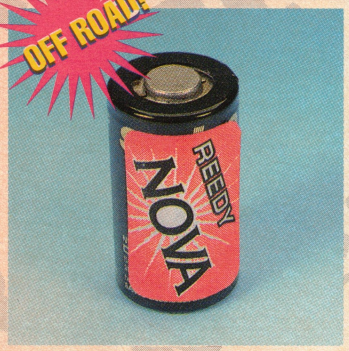


Ultra Series Modifieds

World Championship-winning MR. Series motors provide the RPM and performance necessary to win 1:12 on road and 1:10 off road IFMAR World Championships. Each MR. Series motor contains the Ultra Torque Magnet for broader power band. It is resistant to high temperatures, providing a consistent, stronger-running motor during the second half of the race when other magnets start to fade due to heat.



Nova Battery Pack



Nova batteries are developed around the race-proven Sanyo SCRC battery. Cycled and matched, Nova batteries give you the punch you need for high current, four minute off road racing. Sanyo SCRC-SP. Cycled and capacity checked. Matched by capacity. Available in both 6-cell and 7-cell.

#636, 6-cell SCRC #637, 7-cell SCRC

Reedy Ultra Pack

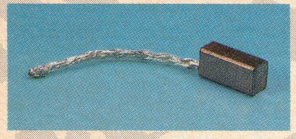


Today's on road racing requires top of the line batteries. The Ultra series SCRC and SCR are matched both for capacity and voltage to give you the power to win. Available in both 6-cell and 7-cell.

#606, 6-cell 1400 SCR
#607, 7-cell 1400 SCR
#634, 6-cell 1700 SCRC
#635, 7-cell 1700 SCRC

MR. Series Brushes

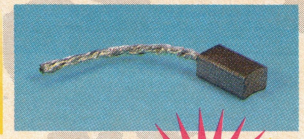
Fit all standard upright Yokomo-type brush systems.



#730, Silver On Road Brush
#732, Competition On Road Brush, Modified and Stock
#737, Competition Off Road Brush
#738, Stock Motor Brush

Sonic Series Brushes

For use in motors with lay-down brush systems.



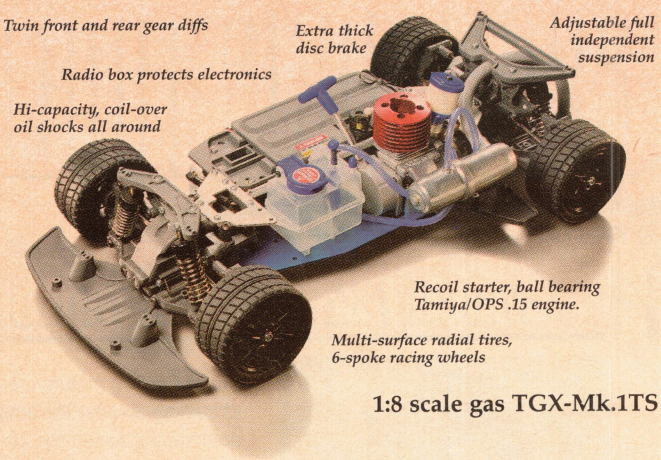
#760, Competition Off Road
#761, Competition On Road and Stock Motor Brush
#762, Silver On Road Brush

LAY DOWN!

Reedy Modifieds

Reedy Modifieds technology is responsible for winnning 12 IFMAR World Championships, more Championships than all the others combined.

REEDY Modifieds



1:8 scale gas TGX-Mk.1TS

1:8 1:10



Big scale, kit-quality realism. Body sets sold separately.

We've made gas Tamiya-easy. Now the high adrenaline excitement of big scale, gas-powered racing can be yours with the lowest cost, full-feature 1:8 scale chassis ever made--Tamiya's TGX-Mk.1 TS!

Superior in performance, but competitive in price to smaller 1:10 scale gas R/C's, this shaft driven, full-time 4WD on-road chassis is easy to build, maintain and run. It's made of super rigid, 2.5mm anodized Duralumin and equipped with a Tamiya/OPS .15 engine with recoil starter and oversized cooling head for the perfect combination of reliability and power. Add to this an 80cc fuel tank; corner-taming, interchangeable gear-type diffs; oil-filled shocks; 4 wheel independent double wishbone suspension and you have everything you need to take R/C racing and give it the gas!

BIG BAD BENZ

TAMIYA

Big scale looks match superior performance with separately available body sets: AMG Mercedes Benz C-Class (featured), Alfa Romeo and Opel Calibra

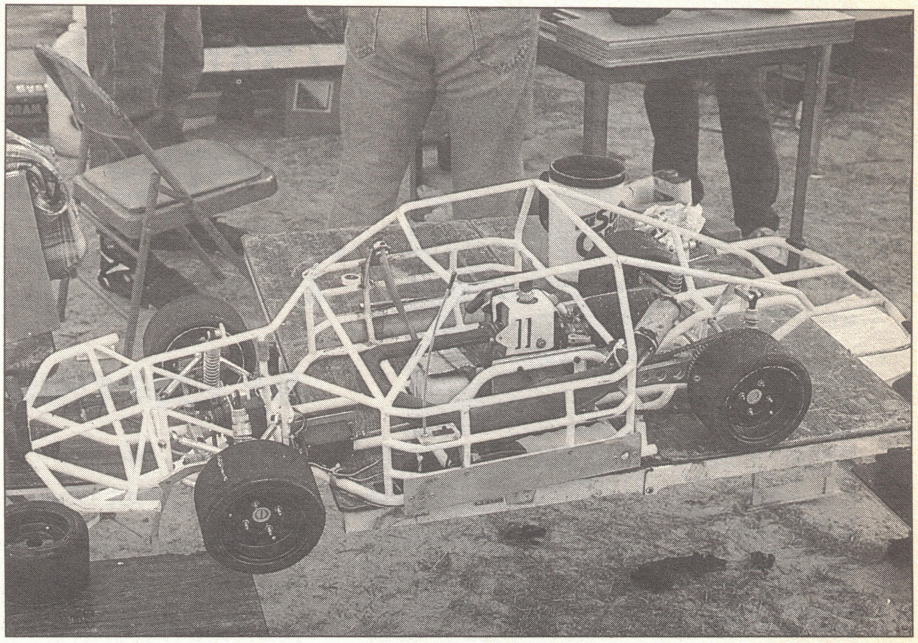
Tamiya America Inc. 2 Orion, Aliso Viejo, CA 92656-4200; 1-800-TAMIYA-A

©1995 Tamiya America Inc.

What They're Racing

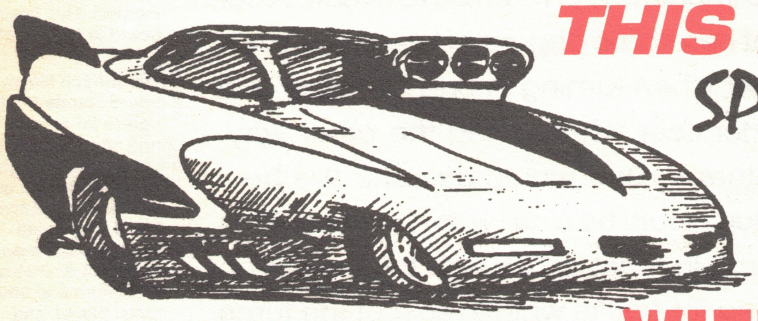
Dan Crumb's Q-scale Grand National stock car was the recent 500-lap winner of the third-annual Icebreaker race in central Florida. Designed and built by Dan and his father Gary, The Gram Cracker car weighs in at around 30.5 pounds ready to race. The Cracker car has a chrome moly (powder-coated) tube chassis, single-cogged belt drive, independent rear suspension, front wheel cable-operated disc brakes, Zenoah G2-D engine and a Thunderbird Lexan body.

A Quickdraw tuned exhaust, silencer and shocks are used on the chassis, as are three Futaba S3302 metal gear servos (two on the steering, one for throttle/brakes). BRP hosts and caps mount to heavy-duty rims from T-bolt and Panasonic sub-C cells supply power to the Futaba PCM radio. Dan made up the .060-inch thick Lexan rear spoiler for the beautiful Family Channel body shell which he used for the Icebreaker race win. ●



WARNING!

THIS IS NOT A TOY.



SPEEDS IN EXCESS OF 75 MPH ARE COMMON...

WITH TEAM IEDA!

1995 SCHEDULE OF EVENTS

June through October

- ***BAY STATE NATIONALS*** *(June 23,24,25)*
  Maryland Dragway, Clinton, MD
- ***IEDA WORLDS*** *(July 21,22,23)*
  Northstar Dragway, Anoka, MN
- ***EVENT PENDING*** *(August)*
- ***GARDEN STATE NATIONALS*** *(Sept. 22,23,24)*
  Pit Stop Dragway, Totowa, NJ
- ***IEDA NATIONAL FINALS*** *(Oct. 6,7,8)*
  Carolina Dragway, Clinton, NC

For More Information concerning the races above or R/C Drag Racing action around the country, give us a call or write:

I.E.D.A
115 Kerr St.
Clinton, NC 28328

(910) 592-9489
Office Hours
1-6pm EST

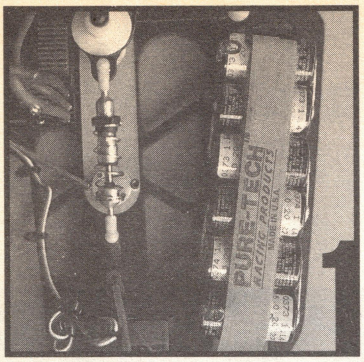
SIGN ME UP! I would like to join TEAM I.E.D.A, and enclosed is $20 for my one-year membership. Send me the rule book, membership card, National Event Schedule and the Official I.E.D.A. newsletter:
R/C DRAGSTER! New Member?_____
NAME_____
ADDRESS_____
CITY_____
STATE_____ZIP_____PHONE_____

NEW! I.E.D.A. T-Shirts, $10.00
(Med, Large,X-Large,XX-Large) _____

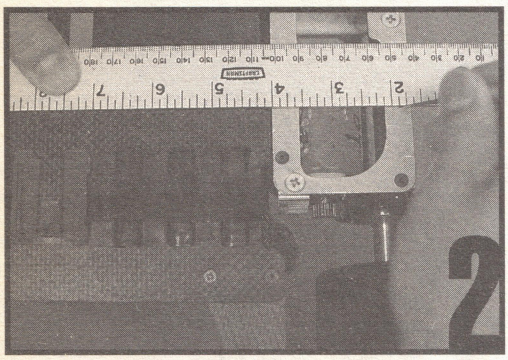
Send Checks or Money Order to:
International Electric Drag Assoc. (I.E.D.A.)
115 Kerr St.
Clinton, NC 28328

What You Should Know About Tweak, But Were Afraid To Ask

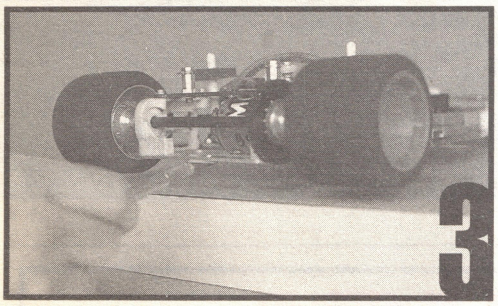
BY BEN CHIU



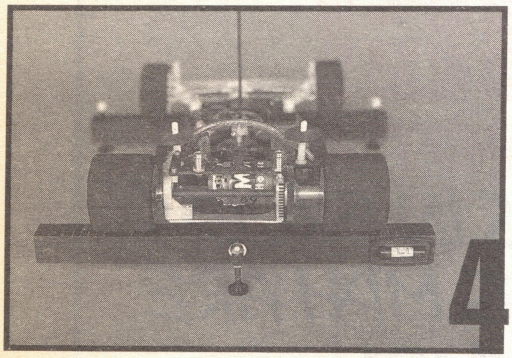
1 Tweak is adjusted by tightening or loosening the two tweak screws found on either side of the T-bar. You should loosen the opposite screw first before you tighten the first screw the same amount of turns.



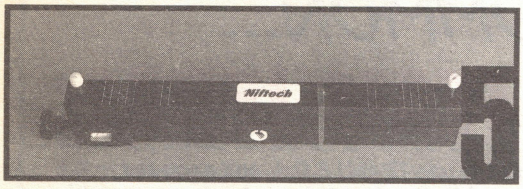
2 Using a good straight-edge lined up along the center of the T-bar screws, you can find the exact center of the pod. Just make sure the bottom pod plate lies flat against the straight-edge and you can't miss.



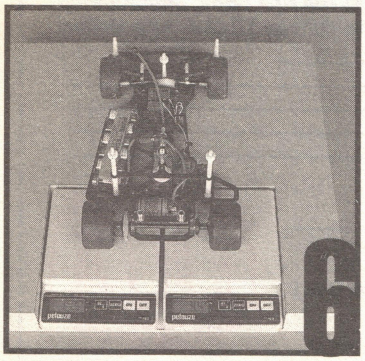
3 The coin drop method is the cheapest method for checking tweak. In a nutshell, you scratch a mark on the center of the car widthwise at the rear of the motor pod with a hobby knife. Lift the rear of the car off the table on that mark with a hobby knife blade. Check to see if either rear wheel raises before the other. If they both raise at the same time, your car has no tweak.



4 A tweak board is a device that is specifically designed to measure tweak. You place the car on the board and the balance beam shows how much the rear wheels tweaked or not. It is very simple to use and it is much easier to see the actual amount of tweak than with the coin drop method. This tweak board is from Niftech.

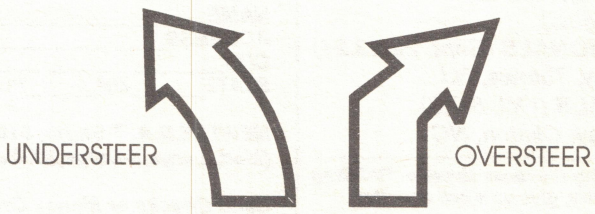


5 The Niftech tweak board stands out from others for several reasons. The most obvious is the light and compact design which can be packed away into a very small package. It is manufactured out of U-shaped aluminum and other metal pieces and durability should reflect this fact. A tweak board such as this Niftech unit is probably the best compromise of usability, portability, accuracy, and cost for the majority of racers.



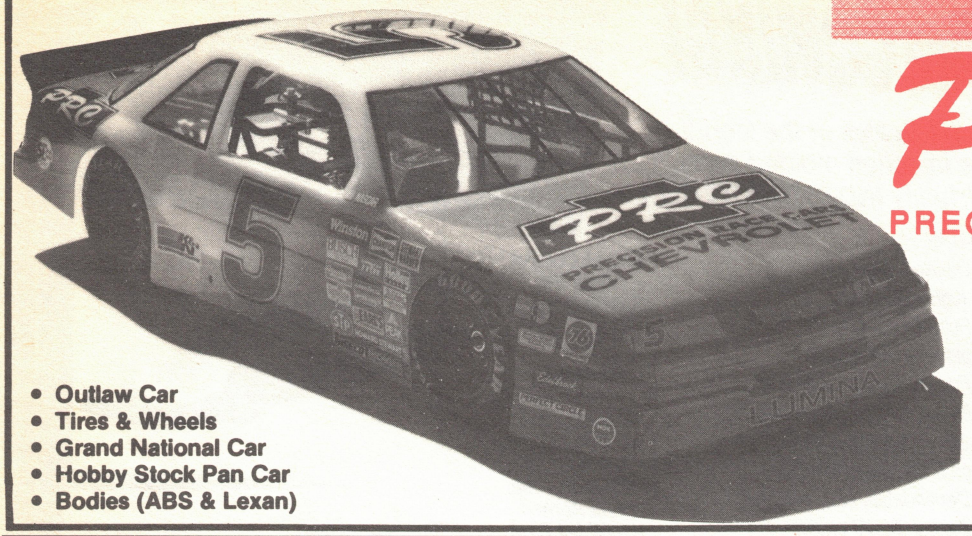
6 The split tweak board places each rear wheel on its own scale. This type of unit provides the ultimate in accuracy but it ain't cheap. If you require no compromise tweak accuracy, and the ability to measure actual wheel weights regardless of T-bar stock, the split tweak board is the way to go.

What is tweak? Well, it's easier to explain what tweak isn't. If the wheels on the left side of the car push down on the ground with the exact same weight (corner weight) as their corresponding right side wheels, the car is said to be not tweaked (twisted). A tweaked car is one that has an imbalance to one or the other side. The amount or degree of this imbalance is referred to tweak. A car that has some degree of tweak will oversteer when turning in one direction and understeer when going the other way. Naturally, one would assume the best setup would be a car with no tweak. This is true in most cases with the exception being for tracks where most of the turns run in one direction such as oval racing, but we'll get to that later. *continued on page 60*



EFFECTS OF TIGHTENING THE RIGHT TWEAK SCREW

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BIG TIPS CONTINUED FROM PAGE 34

working and problem-free starter on racedays—to go along with the rest of your DNF-free Q-scale RC car parts.

TRICK OF THE MONTH

While we're talking about the dirt intake around the recoil starter, here's a fix-up for the problem. Thin strips of foam can be wrapped around the housing to filter out the track gunk. Under no circumstances wrap duct tape or any other non-breathing material around these slots! Doing so will ensure a quickly overheated and likely damaged Zenoah G2-D engine. This in turn can create a rather large hole in your wallet! Use air filter-type foam such as is found on lawn equipment to ensure that air is still allowed into the engine.

TIP OF THE MONTH

Hitec/RCD currently has a large-scale servo available that should provide great performance for any Q-scale using full-sized servos. Their model #HS705MG is a metal-gear, high-torque unit that provides 161 ounce/inches of output torque and has a quick transit time of 1/27 of a second. Each Hitec servo comes with multiple radio hookup plugs to match the unit to any kind of radio system. Kimbrough has a full line of servo horns and savers to fit the Hitec servo. Du-Bro also has a heavy-duty set of large servo horns that will fit the Hitec, so this product looks like a super unit for any large-scale RC vehicle that uses large servos.

UPDATE OF THE MONTH

Back in the March, '95 Big Tip column we built up a 16-ounce Outlaw car class fuel tank. The described assembly dealt strictly with an outlaw car run on a gasoline/oil mixture. Since then, I've been asked to include the hardware needed to use an alcohol/oil fuel in the tank. Alcohol will attack some of the parts used in the March article, so you'll need to switch on the silicone fuel line for both the inner and outer lines. Du-Bro has a light blue silicone line with a1/8-inch inside diameter that will work great. It's sold at most hobby shops. You'll also need a tank stopper from either Du-Bro or Sullivan with most racers using the #482 kit from Sullivan. The same tank filter will work, but some competitors simply use a "clunk" pickup inside the tank and a Sullivan "Crap Trap" inline fuel filter on the outer line running to the carb. Now you can use alcohol fuel without fear of any melted tank parts.

WRAP-UP OF THE MONTH

Now you can anti-glitch your whole Q-scale car from front to backand insure your raceday's worth of fun. Next time around I'll give you full details on how the eight-ounce Grand National stock car tank has evolved since we first saw it two years ago.

And believe me, it has been made even more efficient through the help of you readers out there over the past 24 months. Until then I'll leave you with the address for Hitec so you can find out more about that Q-scale servo. Until next time, have fun with your RC Cars.

PRODUCT SOURCE:

Hitec/RCD USA Inc., 10729 Wheatlands., Suite C, Santee, California 92071 (619) 258-4940. •

STARTING OUT CONTINUED FROM PAGE 16

keep refilling the fuel tank, so run time is pretty much unlimited. On the other hand, the fuel is about 20 bucks a gallon (you can't use standard gas that people put in their full-size cars), the engines can be temperamental and frustrating, and thought they are a lot faster than electric-powered cars, gas-powered cars sound like mutant weedeaters. In other words, don't even think about a gas-powered car for your first hobby RC car.

Beyond that, electric-powered RC cars can be divided into another class: onroad and offroad. As the names imply, onroad RC cars are designed to be run on pavement, or other smooth surfaces. Offroad cars, on the other hand, can be run on pavement, on dirt, or just about anywhere else you can imagine. Personally, I'd recommend an offroad car for your first car.

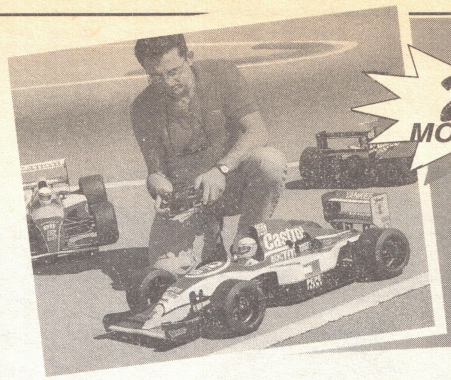
Yes, we have another class of electric-powered RC cars: offroad cars and trucks. The cars are basically designed to be "buggylike" in nature and appearance. Some popular examples of beginner's offroad buggies would be the Team Associated RC10 (kit number 6011), the Team Losi Junior Two, or the Traxxas Rad 2. Don't make the mistake of buying a "full-competition" (race model) buggy such as the Team Associated RC10 Worlds car, the Team Losi XX, or the Traxxas TRX-3, as these three cars will have more adjustability (i.e. cause for confusion) than you'll know what to do with right now.

Beyond the buggies, we have the electric-powered RC trucks. The trucks can be (oh no, not again) divided up into two classes: monster trucks and racing trucks. The difference here is that the monster trucks are slower than the racing trucks, yet have bigger tires than the racing trucks do. If you've ever seen a Mickey Thompson stadium truck race, that should give you some idea as to what the racing trucks are like. The monster trucks should be pretty much self-explanatory. Everyone's heard of Bigfoot, right?

Now let's look at some popular RC trucks for beginners. In the racing truck class, we have the Team Associated RC10T Sport truck, the Team Losi Junior T, and the Traxxas Rustler. As far as monster trucks

continued on page 47

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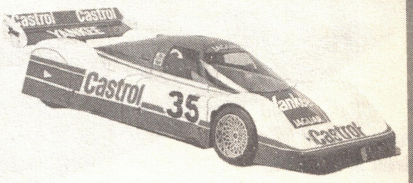


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•Renault Twingo
•Peugeot 905
•Predator
•NASCAR Stocker
•NASCAR SuperTruck
•'63 Corvette



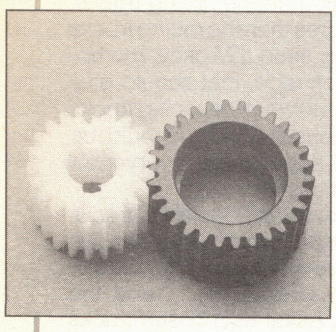


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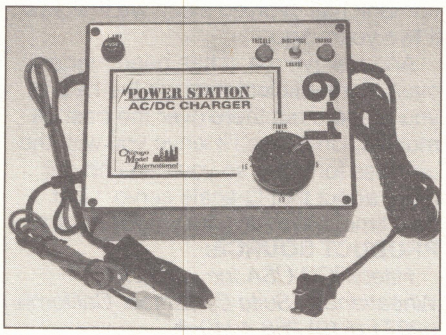
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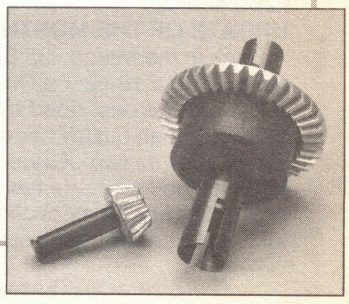


POWER STATION CHARGERS

Chicago Model has just introduced a Power Station Nicad charger with features found on more expensive chargers. The model 611 is a four-amp AC/DC charger which can charge, discharge and trickle charge any 1200MA to 1700MA hobby battery. Monitors indicate charge and trickle modes, and are easily viewed in daylight . A charging chart is mounted on the case for quick charging time reference. A 15-minute precision timer and Kyosho/Tamiya connectors are included. Tamper-proof screws are used to keep the unit closed, ensuring that service is done only by qualified personnel. At only $24.95, the 611 Power Station charger is a real value for the entry-level RC enthusiast. For more information, contact Chicago Model International, 6121 Rockland Rd., Ste. 1, Lake Bluff, Illinois 60044. (708) 735-8516.

KYOSHO HEAVY-DUTY DIFF KIT

Now you can upgrade your 1/10-scale gas Kyosho car or truck using the new Kyosho ball differential kit, which includes ring gear, pinion and adjustable ball diff. Compared to a gear differential, the ball diff upgrade provides greater durability and dependability, and allows adjustments to match gearing to the track. The heavy-duty ball diff kit is compatible with the following Kyosho nitro-powered models: BMW M3, Mercedes Benz 4WD, Inferno 10 4WD, Outlaw Rampage 2WD, Corvette ZR-1 2WD and Thunderbird stock car 2WD. To achieve maximum speeds, drivers can use Kyosho's optional Hi-Speed Gear Set in lieu of the diff kit's original ring gear and pinion. From Great Planes Model Distributors, 2904 Research Rd., Champaign, Illinois 61826. (217)398-3630.



STARTING OUT CONTINUED FROM PAGE 15

go, there's the Traxxas Stampede, and the Tamiya Super Blackfoot.

What would I actually recommend? First of all, I don't usually recommend specific cars in my column for the reason that I don't want to make anybody mad at me. I'll make an exception in this case. Frankly, I'd recommend going with a racing truck or a monster truck, as the trucks are a little easier to drive than the buggies. As far as recommendations for the beginner go, I'd recommend the Traxxas Rustler in the racing truck class, and the Traxxas Stampede in the monster truck class. I've seen both of these trucks up close (in fact, I'll be doing a review of the Stampede soon), and I can tell you that they're both easy to assemble, very durable and a lot of fun. It's hard to go wrong with these trucks. No, Traxxas is not paying me to say this. They just really are great trucks.

If you're a bit more mechanically adept you could go for the Team Associated RC10T Sport. The RC10T Sport is was based on the RC10, which has been around since 1984. Both the RC10 and the RC10T are very durable, almost to the point of being tank-like. A friend of mine ran his RC10 off the top of his house, and believe it or not, nothing broke. You can't argue with that. Be forewarned, however, that the RC10T is a little more complicated, and a little more expensive. Still, your best bet might be one of the Traxxas trucks.

Speaking of price, what will a complete RC car setup cost you? That depends on what car or truck you go with. Generally speaking, however, the total cost will be about $200. Bear in mind that that's for a combination package that includes everything you need. For more information about pricing, call one of these mail-order hobby shops. Don't be afraid to ask questions. Next month, I'll go over more of what you'd need to get started in this hobby.

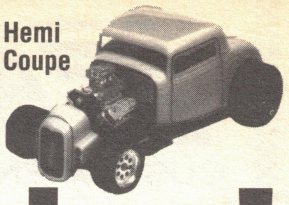
If you have any more questions, Nicolas (or anybody else, for that matter), write to me and I'll try to answer them. Also, If there's a specific subject you'd like to see covered in this column, write to me and let me know. The address is Starting Out, Box 2459, Capistrano Beach, California, 92624. See ya next month.

PRODUCT SOURCES:

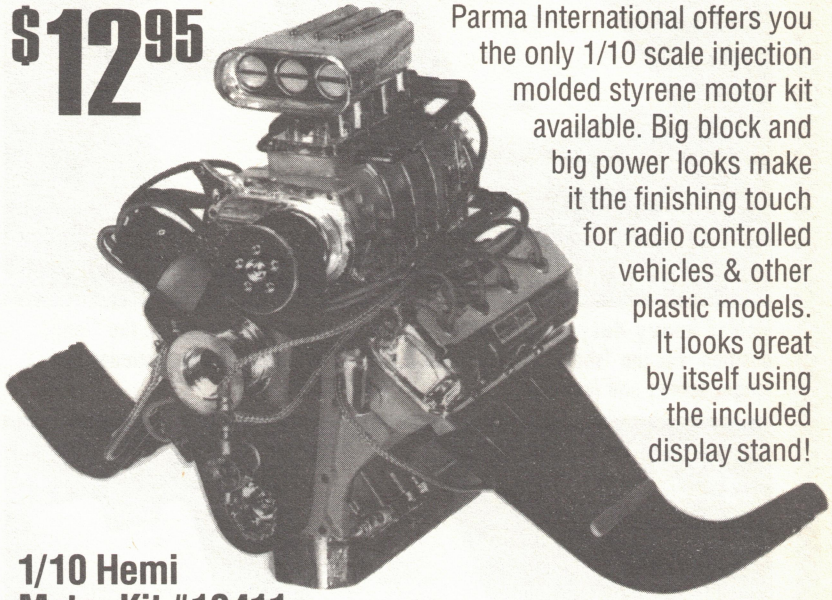
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FUNCAR CONTINUED FROM PAGE 18

24 by 60 foot oval. After hundreds of races, the trucks still looked and raced as if they were factory fresh.

Supporting all this activity, Novak chargers and speed controls, GE/Sanyo batteries, and Boca Bearings, once again met the challenge. *Radio Control Model Cars* magazines were given to each racer as they left the track. This made a hit with the new racers and assured they could find out more about the sport now and in the future.

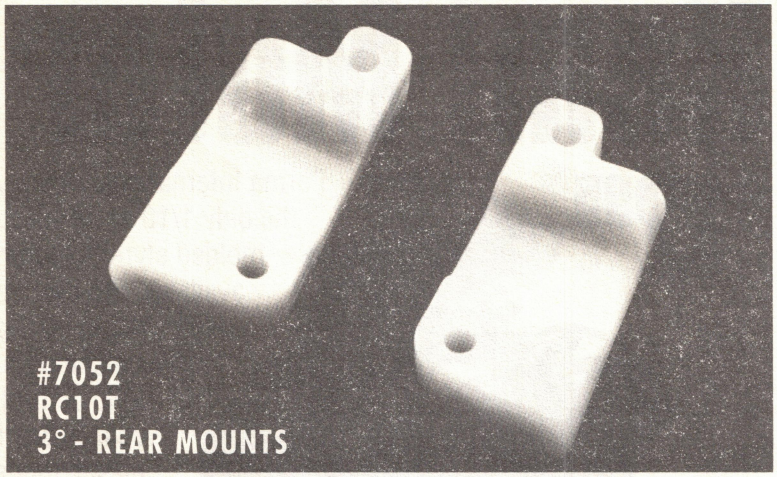
Throughout the nine-day marathon event, Dan Moynihan tested his announcing skills and durability. Information was the focus, How fast do they go, how much do they cost and how can you become a racer were the typical questions asked. Dan also explained the Funcar educational program and how it makes reading, writing and arithmetic relevant by the use of radio-controlled race cars. One of the highlights was on Thursday when 32 students from the Funcar program came to show not only their driving talents, but the knowledge gained by the program. They were joined by the news media, and representatives from the LA school district who endorsed the Funcar program. With over 640,000 students, a lot of work remains to be done.

In summary, this show witnessed some important firsts for our sport. A diverse group of individuals and companies came together acting as a team to get a broad message through loud and clear to a large group of consumers who, for the most part, had no concept of what the Hobby shop in their neighborhood has to offer.

continued on page 50

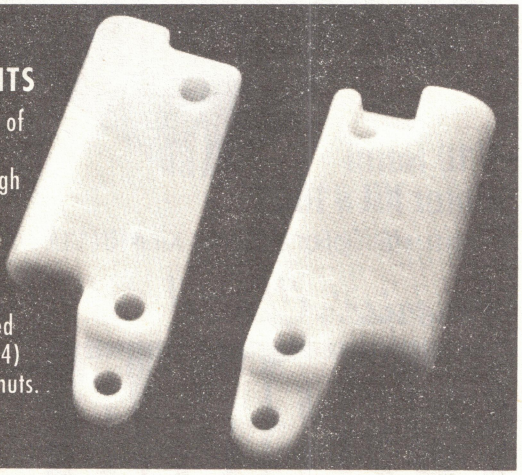
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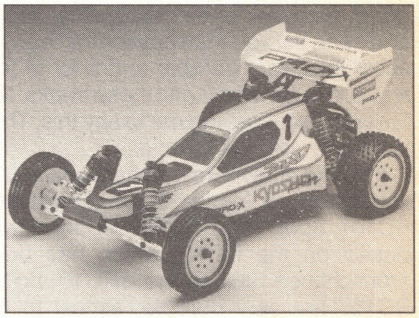
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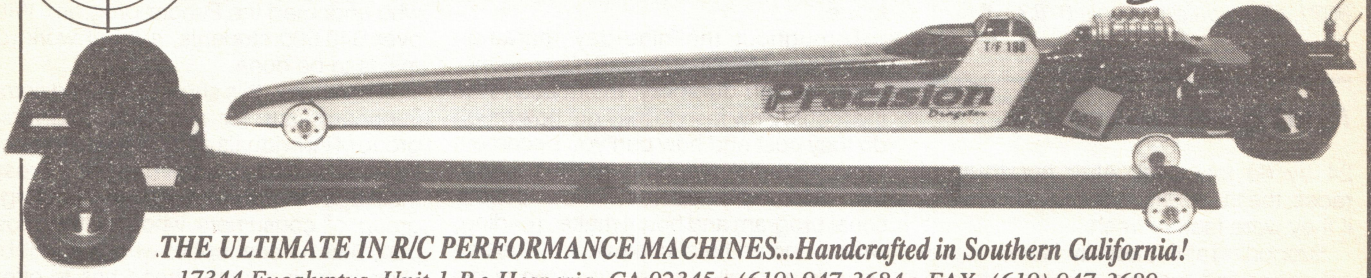


KYOSHO PRO-X

The electric Kyosho Pro-X is a 2-wheel drive buggy that comes race ready at a low price. The team version retails for $249.99, and the sport buggy, which can be upgraded later to the team version, retails for $169.99. The buggy features the compact Super Sprint transmission that is equipped with 11 ball bearings and designed to provide instant acceleration and easy spur gear changes. The Pro-X is built around Kyosho's new two-piece Kelron-II chassis, which simplifies maintenance and includes special bracing for maximum stiffness. The suspension geometry is on a par with the very best offroad vehicles. The wheelbase and rear toe-in are fully and easily adjustable, and a floating ball hinge pin installation automatically maintains pin alignment to prevent binding. The Pro-X has heavy-duty bellcrank steering, 6x10 bearings on the front wheel shafts and lightweight, one-piece racing wheels with Lexan dirt shields. For more information, see your Kyosho dealer or contact Great Planes Model Distributors, 2904 Research Rd., Champaign, Illinois 61826. (217) 398-3630.

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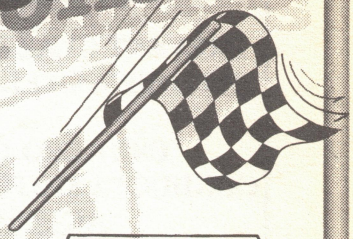
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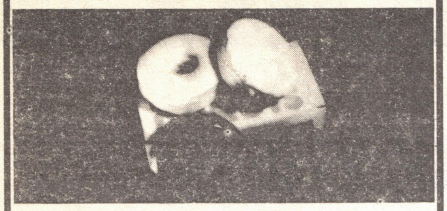
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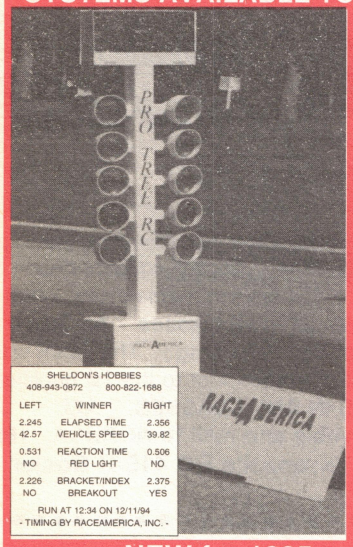
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FUNCAR CONTINUED FROM PAGE 47

Product display, interactive consumer participation, demonstrations, information, and a retail outlet to satisfy immediate demand for the aforementioned all under one roof with over half a million consumers. The initial beneficiaries was the Funcar program, raising over $10,000 and the children those funds will reach. But our sport has benefited as well, weeks after the event Pegasus reports daily visits from people who are coming into their shops due to the Auto Show.

If you couldn't find the time or resources to participate in this inaugural event, here's some good news. Dan has already been asked to repeat this year's activities at the 1996 Auto show as well as several others in 1995. If you need more information or want to join the effort, contact Daniel Moynihan c/o Funcar 9525 Cozycroft, Unit C, Chatsworth, California 9131 I (818) 700-6912. Office: (818) 700-2940 (Fax). ●

'41 WILLYS CONTINUED FROM PAGE 22

At this point, I'd love to be able to say, "Here's how to make the boxes. Go get some styrene and knock yourselves out." Unfortunately, the boxes were made specifically for this project, so unless you want to make boxes for an RC10, they might not be of any use to you. You might want to check to see exactly what size boxes would be most appropriate for your car, rather than going by the size I list here. In other words, be creative.

With that little "disclaimer" out of the way, let's get into how to make the boxes. I made the sides of the boxes first. Generally speaking, the sides of the boxes should be about a half-inch tall. Additionally, the boxes that I made were about four inches long and between 3/4-inch to one inch wide. This being the case, I cut four pieces of styrene from the sheet that were four inches by 1/2-inch, and four pieces that were 3/4-inch by 1/2-inch. I glued these pieces together with CA glue. The square stock was to help mount the boxes to the chassis, so four 1/2-inch-long pieces were cut and glued to the sides of the boxes. The photos should help illustrate this procedure.

I then placed the sides on the remaining piece of styrene sheet and traced around the sides with a marker. These traced areas, which were then cut out, would ultimately become the tops of the boxes. Next, I did the same thing with the Lexan sheet, as the pieces that resulted from that tracing would make the color filters.

The boxes were painted flat black, and the insides of the boxes also got a covering of chrome tape to aid in light reflection.

Now let's move on to mounting the lights in the boxes. For this project, I used the standard light sockets that Walther's markets for their tube-style lights. After debating how to mount the sockets to the boxtops, I eventually decided to go ahead and use small brass screws that are also used for trains. The unique thing is that the bolts go through the electrical contacts of the sockets, so I used the bolts to carry the electricity from the wires outside the box to the sockets. Otherwise, I would have had to cut holes in the boxes for electrical wiring to go through, and by avoiding the holes it makes the assembly look more trick.

CHASSIS MODS

Once I had the reflector boxes made, I figured, "No problem. I'll just drill two holes in each side of the chassis, and install the boxes on the car." I quickly found out things weren't going to be that easy.

When the Parma '41 Willys body was placed onto the chassis, I noticed that the body "tucked" itself near to the chassis right behind the front fender. With as close as the body was to the chassis, I knew that the boxes wouldn't fit under the body if they were just bolted to the side of the chassis. This left me with only one option: cut out the sides of the chassis. This certainly wasn't something I was happy doing, but it had to be done if I was to proceed with the project. I marked off the chassis sections to be cut out, fired up my Dremel tool, and cut the chassis. Afterward, I drilled the proper mounting holes in the sides of the chassis for the reflector boxes.

A SHINY TURN FOR THE BETTER

Several days later, I was talking with my editor again, and a company called Chrome-Tech came up in the conversation. In case you're not familiar with Chrome-Tech, they are a well-established company that has been doing chrome plating for scale plastic modelers for heaven knows how long. I thought that some chrome-plated parts would look pretty cool on this project, so I gave Chrome-Tech's Robert Shebilski a call to see about having various parts of this project chromed. After talking with Robert for a short while, I told him I'd go ahead and send him the parts to be chromed. That evening, I sent the RC10L chassis, T-bar, upper, lower and right-side motor pod plates and shock body to Chrome-Tech.

It took about a month to get the parts back. Needless to say, I was totally unprepared for the look of the parts when I got them back. All I could say was, "Wow!" To say they were shiny would have been an understatement; the chrome plating was practically blinding in the midday sunlight.

The chrome plating from Chrome-Tech is certainly some of the best I have ever seen anywhere. If you want to have something chrome plated for your RC car, give Chrome-Tech a call. Tell 'em you saw it in *RCMC*.

THE BIG BLOCK

This was something that I hadn't really

continued on page 55

ROAR Region 12
Electric
On-Road Championships
July 7th - 9th

hosted by

Revelation Raceway

"Jesus said, 'I am the way, the truth and the life'"

This year the electric on-road Regionals is being held at the new world-class racing facility in Southern California. Brand new asphalt racing surface, huge drivers stand, full service hobby shop, and plenty of pit space with A/C power awaits you at what will be one of the biggest on-road events in this region. Please call for more information.

Location: Revelation Raceway
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Montclair, CA 91763
(909) 464-8247

July 7th - Open practice 11am - 8pm
July 8th - 7am practice. 10am 3 qualifiers
July 9th - 7am practice. 10am 1 qualifier, Mains follow

Entry Fees: Modified classes $25.00. Stock classes $35.00 (includes one handout motor). Two additional motors can be purchased at $12.00 each. Pre-entries close June 30th. Late entries add $5.00.

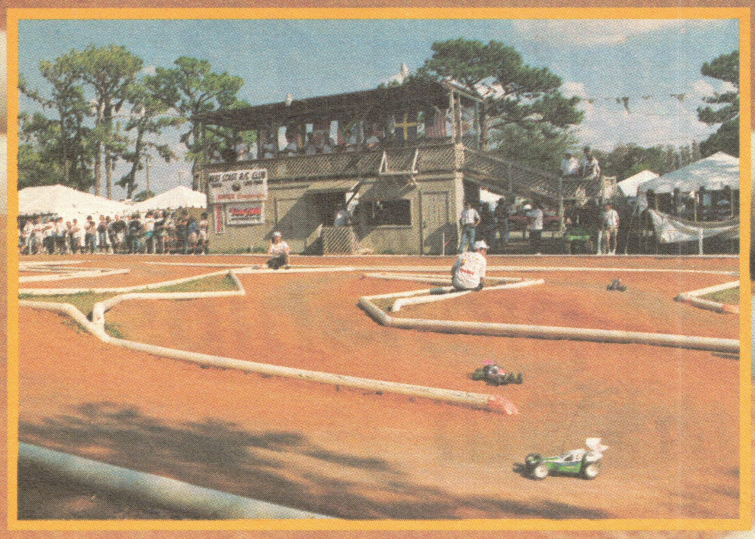
Classes: Direct drive stock (handout motors), Direct drive modified, F-1 stock (handout motors), F-1 modified, Sedan Stock (handout motors), Sedan modified, 1/12 scale stock (handout motors), 1/12 mod. 4-cell.

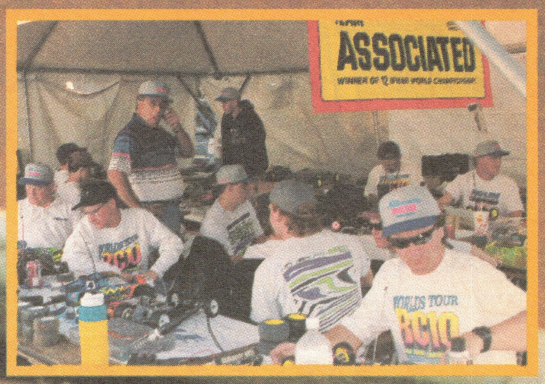
Trophies: 1st - 3rd all mains.

This is a ROAR sanctioned event. ROAR membership is required.
Mail entry to: Revelation Raceway - 882 W. 22nd Street - Upland, CA 91784

Name_____ Phone_____ ROAR #_____
Address_____ City_____ State_____ Zip_____
Classes : __direct drive stock, __direct drive mod., __F-1 stock, __F-1 mod.,
__sedan stock, __sedan mod., __1/12 stock, __1/12 4-cell.
Frequencies: 1. _____ 2. _____ 3. _____
Sponsors: _____

Mail in entry by June 30th for pre-entry rates.



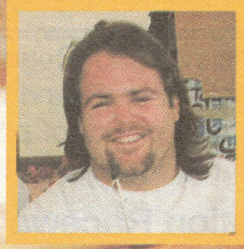


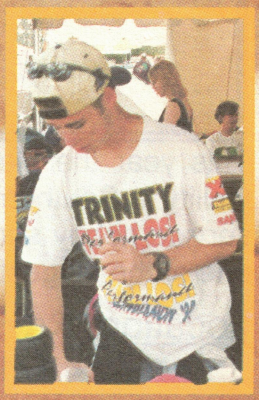
■ ABOVE: Jason Ruona, in the black hat to the left, was Top Qualifier in the Truck class after the second round, finishing second place in the main with his all new RC10T2 truck. Cliff Lett, on the right, came out of retirement and made the 2WD A-main. ■ RIGHT: Rick Hohwart took Top Qualifier honors in the truck class with his new Peak-powered RC10T2 truck. Rick uses Orion batteries, Novak ESC, Futaba radio and Pro-Line tires.



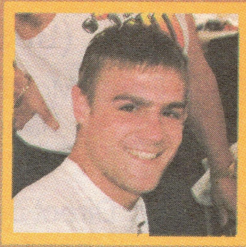


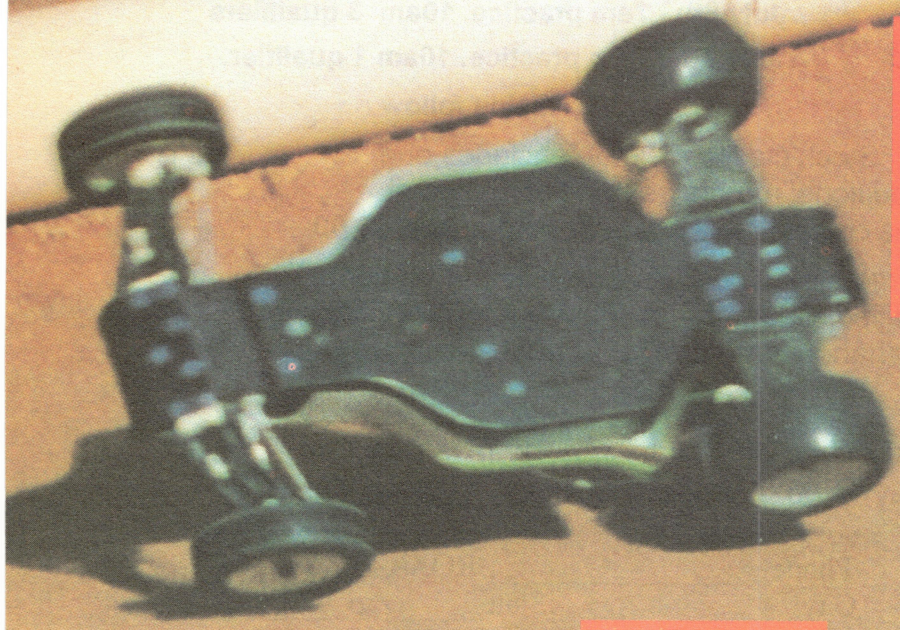
The West Coast RC Club of Tampa, Florida, hosted the 1995 Florida Winter Champs, with sponsorship from Team Losi. The track was enlarged from last year, making 30-second lap times the norm.

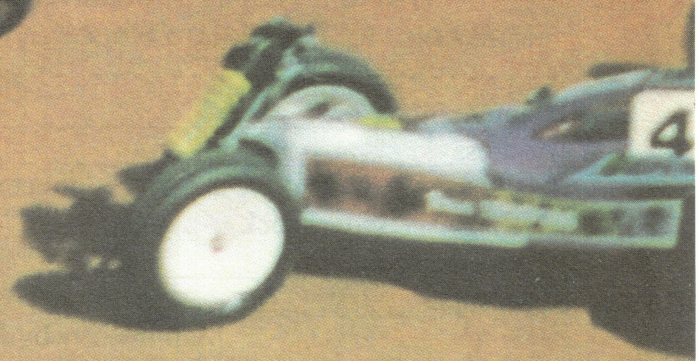




■ ABOVE: Rick Hohwart easily won the first Truck A-main. ■ ABOVE RIGHT: Brian Dunbar drove a good race to win the second Truck A-main. ■ RIGHT: Four-time European Champion, Craig Drescher, from England, won the first 4WD A-main and finished second overall.







The sweeper at the end of the straightaway was always a busy place for turn marshals. You can see the "blue groove" quite easily here.

BY GENE HUSTING

1995 FLORIDA OFFROAD WINTER CHAMPS



■ ABOVE: The Truck A-main finishers, from the left in the front row, Top Qualifier Rick Hohwart finished fourth, Barry Baker third, the winner Scott Brown, Jason Ruona second, Greg Hodapp seventh, Jay Robinette eighth, Jon Anderson ninth, Ellis Stafford sixth, Kevin Moore tenth and Brian Dunbar fifth.





■ ABOVE: Paul Wynn, on the left, actually won the Truck B-main in a time that was faster than any of the three A-mains. Mark Pavidis, on the right, had the fastest truck lap time overall, and won the 2WD Modified class. ■ LEFT: Jurgen Lautenbach came from Germany to learn how to run on the American tracks.

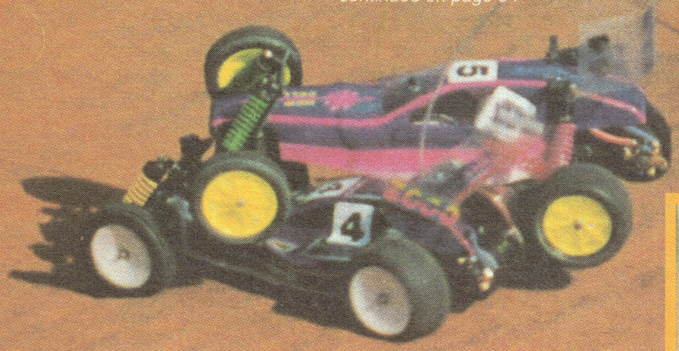
THE NEW T2 TRUCK MAKES A FAST DEBUT

1995 FLORIDA OFFROAD WINTER CHAMPS

England, Germany, Austria, Sweden, South Africa and Canada all had drivers competing in the 1995 Florida Winter Champs. It was great to see all the participation from these countries. Florida is a great place to be in the wintertime, as the weather cooperated with

continued on page 64





■ BELOW: The 2WD Modified winners, kneeling from the left: Top Qualifier Brian Kinwald; Ellis Stafford, second; and the winner, Mark Pavidis. In the back, Greg Hodapp, fifth; Barry Baker, sixth; Jeffrey Kindo, seventh; Brian Dunbar, eighth; Scott Brown, tenth; Cliff Lett, ninth; and J. R. Mitch, fourth.



Mark Pavidis' winning RC10 car uses Reedy motors and batteries, Novak ESC, Airtronics radio and Pro-Line tires.







■ LEFT: The 4WD winners, kneeling from the left: Top Qualifier and winner Patrick Feschtschen; Craig Drescher, second; and Jukka Steenari, third.
■ ABOVE: The Stock A-main winners.

planned on adding to the Willys project, but then again as I said, this project was hallway made up as I went along. And, frankly, I just couldn't resist the temptation to add Parma's Hemi Engine. This engine could make practically any project look better. This was not the first Parma Hemi that I'd built, and I obviously have my own little set of tricks for detailing the engine, but I'll share some of those tricks in another article, rather than right now. I will say, though, that I tried to detail the sucker as much as possible.

Mounting the Hemi was something of a challenge. For starters, I didn't want to go the typical "Velcro or servo tape it to the chassis routine" because of appearance's sake. At the same time, I wanted to be able to remove it easily. What I finally settled on was pretty simple; I took the oil pan off the engine, taped it in place on the chassis (being careful not to damage the chrome plating), then drilled two holes for 8-32-inch screws through the oil pan and the chassis. After that, I glued two 8-32-inch nuts to the inside of the oil pan, using CA glue. Once I countersunk the chassis bottom to accommodate the 8-32 screws, I attached the Hemi by simply screwing it to the chassis.

THE ROLLING CHASSIS

There were only a few more things that I needed to round out the chassis assembly. For starters, the Willys needed some new wheels to give it that custom look. This being the case, I naturally turned to the best place for custom wheels, namely JPS. With some of the nicest wheels on the RC car market, JPS certainly needs no introduction. I called Faye Schumacher at JPS and ordered a set of their LeMans-style wheels.

Once I received the LeMans wheels, they were shod with green dot foams all the way around. I mounted and trued the tires, then moved on to the electronics.

First of all, the Willys uses a seven-cell saddle battery pack. Why seven cells instead of six? Simple: the lights in the reflector boxes are 8-volt light bulbs, and I needed seven cells to make 8.4 volts. To outfit the rest of the vehicle, I fished around on my worktable for suitable electronic components. (Anytime I hunt around on my worktable, something interesting turns up. Last week, I found the keys to a Honda. I've never owned a Honda in my life.)

To turn those LeMans wheels, I chose a Race Prep 24-degree stock motor. In case you're sitting there wondering how I could install a standard stock motor rather than opting for a modified, it's because I don't intend to drive the Willys that fast. Let's just say I'm a little afraid of crashing the Willys, considering the amount of time and effort I've put into this project. Not only that, but the motor can's bright orange paint coordinated with the red-dyed nylon chassis parts.

Controlling the power from the motor to the batteries, I installed a Novak 610RV electronic speed control. No, it's not Novak's latest "hot trigger" speed control, but as I said, I didn't really intend to drive the Willys that fast. Even if the 610RV isn't Novak's latest, it's still one of the most durable reversing speed controls I've run across.

Novak's NER 2X receiver was added. I've been using it for about a year and a half, and it's only glitched really badly on one occasion, so I'd say it's pretty reliable. Up at the front of the chassis, you'll find a Futaba S148 servo that I almost forgot to leave room for.

BEAUTIFUL BODY WORK

The body, as I've said before, is a Parma '41 Willys body. What color to paint it? I don't know what made me decide to try to paint it Cheez-Whiz Orange, but after careful thought, that was my choice. If, however, you're looking at the accompanying photos and saying, "But, Joe, that doesn't look like Cheez-Whiz Orange to me," let me say that running out of one of the correct colors of paint for Cheez-Whiz at about 2:00 in the morning should explain a lot. Color aside, I wanted to be able to set the Willys body apart. This called for a good application of Bare Metal Foil-type chrome tape. Unfortunately, the foil is rather delicate, making the body rather delicate as well. Oh well. At least it looks good.

There was one more area of bodywork that needed to be completed: the working headlights and taillights. The headlights and taillights both use the same bulb type; that's to say they both use 6-volt "grain of wheat" bulbs. I did have to come up with reflectors for the head and taillights, For headlight reflectors, a cut-down 35mm film canister fit the bill. As for taillight reflectors, I used the nylon body post collars that come in RCIOL kits. Each reflector received a layer of Bare Metal Foil.

CRUISIN' WITH THE WILLYS

One of the great things about a project like this is showing it off. This being the case, I figured I ought to get some good pictures for publication here. Obviously, a night scene was going to be in order to show off the lighting system. As luck would have it, a thick fog was descending on St. Louis each night the week I got the Willys finished. I figured the fog would be ideal for snapping some photos of the Willys.

Very early one morning (at about 3:00 a.m.), I grabbed all my photo gear along with the Willys, and headed out to what I thought would be an ideal location for the photo shoot. Once I got there and set up my equipment, I proceeded to photograph the Willys. Unfortunately, lying on the ground to photograph the car attracted the interest of the local cops took in what I was doing. It's like they had never been anyone lying on the ground in the middle of a January night to photograph something.) I lost count of quite how many Officers stopped to ask what I was doing. All the officers that stopped agreed that the project was fascinating, but they all seemed to think that I was a little weird. I don't know why.

THE END

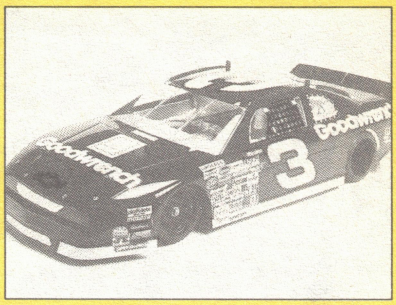
There are a number of people I'd like to thank for helping me out with this project. Let's start with the local hobby shops, listed in no particular order. Thanks to Chris, Mike, Trey and everybody at Astro Hobby; Steve and the rest of the guys at Checkered Flag Hobby Country South; and Lou, Steve and everybody at J&J Hobby. I'd also like to thank Faye Schumacher ("No relation to the English RC company.") at JPS Wheels, as well as

continued on page 59

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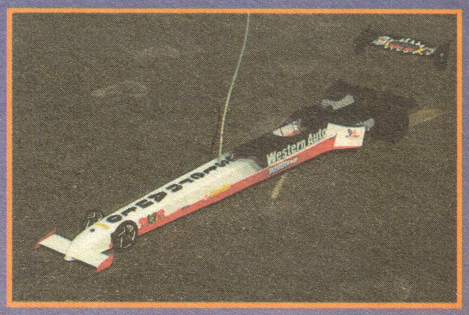


BL-2285 '95 CHEVY MONTE CARLO
(narrow width. Add -L for Pro-Lite)

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BY RICK EYRICH





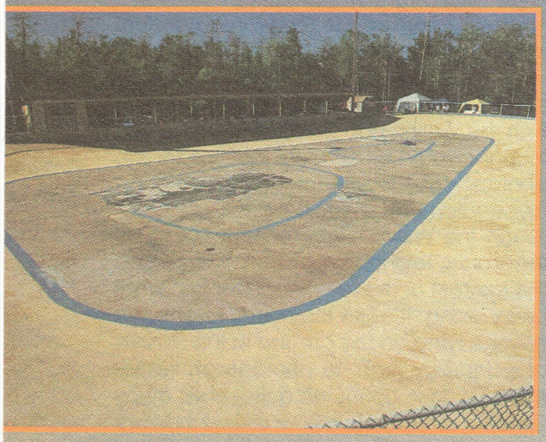
Besides taking the Dragster class win in concours, A.D. Rigmaiden (Houston, Texas) also took home the Top Alcohol/Funny Car title and the event awards for top speed and low E.T. as well.



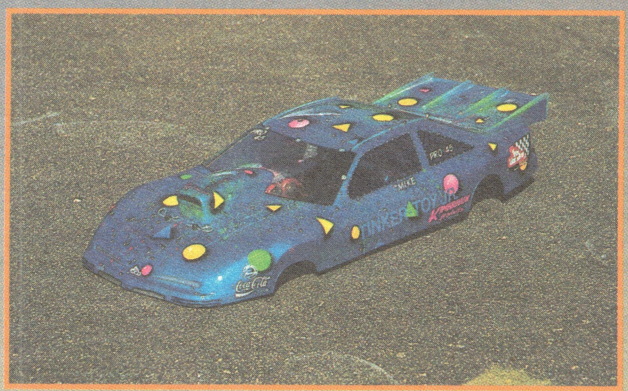
Considered to have one of the smoothest asphalt surfaces around, the Southwest Florida RC Raceway was the site of the IEDA Seminole Nationals earlier this year.



Prior to the final elimination rounds on Sunday, concours judging was held at the strip's finish line. With so many fine-looking RC drag vehicles to choose from, it was rather tough to single out the three class winners.

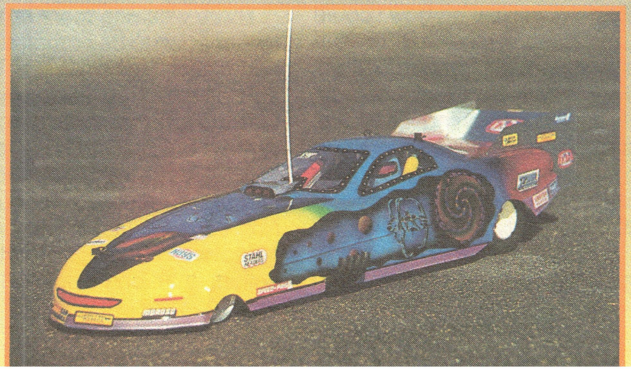


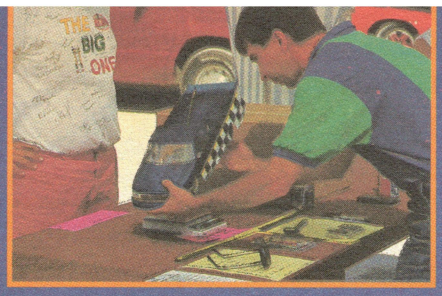
Located in Naples, Florida, Southwest Florida RC Raceway also has an 1/10-scale concrete oval and a large asphalt onroad circuit to complement their drag strip. The ROAR '95 Onroad Nationals is scheduled in June for Clyde Armstrong's unique RC racing complex.



Two south Florida IEDA members took the concours wins in the Pro Stock and Funny Car divisions: (#6) Mike Blair, North Miami Beach and (#7) Jim MacQuarrie, Naples.







The new IEDA president, Corbitt Marshburn, was a very busy man during the Seminole Nationals. Besides doing signups and car tech, he also conducted daily drivers' meetings and helped this novice drag racing editor as well.



SEMINOLE DRAG Nationals

RECONSTITUTED IEDA COMES BACK STRONG

The winners with their Seminole Nationals awards pose for the post-race photos. Many of the competitors at the Florida IEDA event claimed more than one trophy, making the long drive for some a lot easier to deal with!



A TALK WITH THE IEDA'S CORBITT MARSHBURN



Besides working hard as the new IEDA president, Corbitt Marshburn is also taking on the responsibility of doing signup and car tech duties at many of the IEDA nationals this year. Here he's conducting the final day's drivers' meeting at the early 1995 Seminole Nationals in Florida.

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

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

CM: I've been drag racing for about ten years now mostly in full-sized NHRA-IHRA stock eliminator class cars. So, when I learned about RC car drag racing in 1991 it of course caught

continued on page x

Right now, many hardcore RC Model Cars readers are saying to themselves; "Hey, what's a Q-scale writer-guy doing reporting on an electric 1/10-scale drag race?" Well, the regular RCMC's drag experts Rich Lacharite was unable to attend the early '95 IEDA event due to Rich's Stroker club work, so yours truly was asked to help out. Being the wonderful guy I am, I found myself heading southbound toward Clyde Armstrong's Southwest

continued on page 62



Staying competitive with Team Losi's upgraded JRX-2.

JRX TO LXT

INCREASE THE PERFORMANCE OF YOUR LOSI TRUCK

BY ROB TUCK

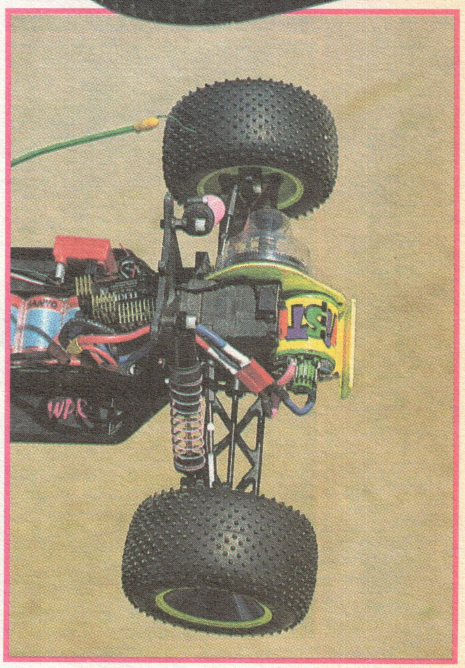
In light of the release of new offroad truck models from several top manufacturers, I've been approached by people wanting to know, "Should I buy a new truck?" Well, I've given that a lot of thought. Let me start by saying that if you can afford a new truck, and your driving can benefit from the new technology, then definitely go buy the latest and have a blast. The new XXT and Associated's T2 kits look to be the finest we've seen in years.

However, if you don't want to invest in a new kit, or you just bought an earlier model, there are a number of ways to stay competitive with the truck you have, By no means is the your truck obsolete.

In any effort to stay competitive, a thorough inspection is required. If your kit is new, obviously you can skip the inspection phase, and go straight to the hop-up procedure. As a racer, you should be inspecting and cleaning your truck after every outing.

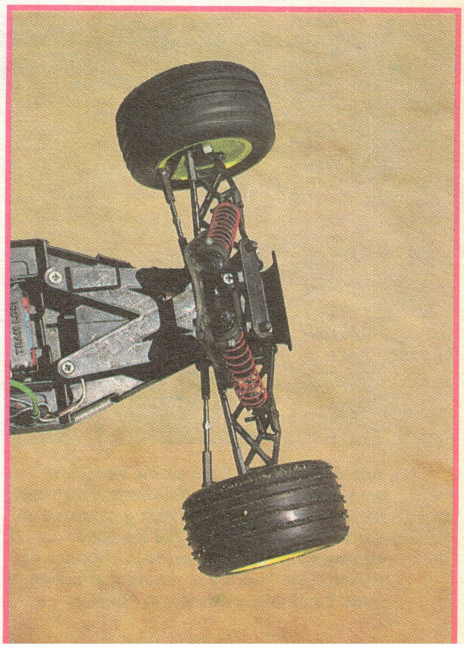
My kit is an upgraded Losi JRX-2 truck.

continued on page 66

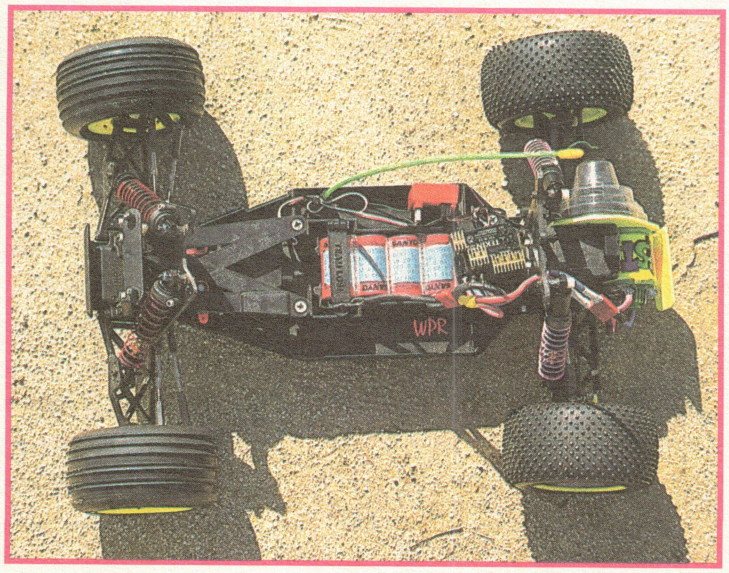


The Twister motor is installed using Deans Ultra Plugs. Note the Lunsford Punisher turnbuckles.

Pro-Line's The Edge front tires help the LXT's steering performance.



Team Losi's LXT is still one of the best stadium trucks available. Note how nicely the Tekin speed control fits on top of the cut-down RPM shelf.



'41 WILLYS CONTINUED FROM PAGE 55

Robert Shebilski at Chrome-Tech.

I'm not quite sure what my next project is going to be, but I'm relatively certain it's going to be four (or more) wheel-drive. But you'll certainly be able to see it here in the best RC magazine in the world, *RC Model Cars*.

PRODUCT SOURCES:

Parma International, 13927 Progress Parkway, North Royalton, Ohio 44133.

Chrome-Tech, 2314 Ravenswood Rd., Madison, Wisconsin 53711. (608) 274-9811.

JPS Wheels, Box 746, Lakehead, California 96501. (916) 238-8122. •

RUSTLER CONTINUED FROM PAGE 26

which colors should be painted first and beyond. However, I was itching for something a little more out of the ordinary than what my meager talents could produce, so I enlisted the talents of airbrush graphics extraordinaire, Traci Hotchkiss. Traci used a Paasche VL airbrush with Pactra Polycarbonate Paint to create what I call the "Pink Square Nightmare." As usual, she did an exceptional job. One painting tip that she has passed along is to back every color with a coat of white. This helps make the colors brighter and less transparent.

RADIO INSTALLATION

There is plenty of room in the Rustler to mount just about any radio gear. In fact, the servo-mounting brackets were a little oversized even for the Airtronics 94831 standard-size servos I used for the included mechanical speed control and up front for steering duty. The included servo horn for the speed control will only fit Futaba or Traxxas servos, so I replaced it with one that came with my servos. With that completed, I noticed there was a slight mismatch between this servo and the speed control in both height and length. I fiddled with it a bit and got them to line up by only mounting the servo with two screws on one end and raising the mounting height with some washers. It's not very elegant, but it worked solidly.

I generally like to use a high-torque servo in any truck due to the larger tires and added strain these servos have to deal with. However, since the Rustler was designed with the novice in mind, I thought I would see how well a standard servo would work because that is most likely what a novice would probably end up using. For the rest of the system, I installed the venerable JR-756 PCM/PPM radio. A bit of overkill for a sport truck, but its flawless performance is always welcome.

SETUP

First thing was to adjust the front wheel alignment. The Rustler comes with turnbuckle tie rods for steering adjustment. For our testing purposes, the stock setup was more than adequate. Since the wheel camber is fixed, there really wasn't much else to do. We were ready for the track.

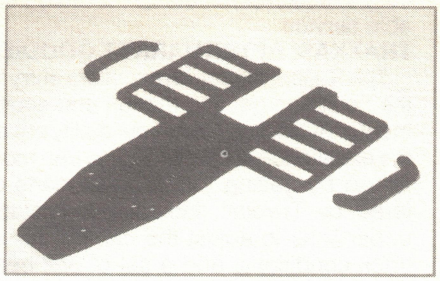
DRIVING IMPRESSIONS

Out here in California, we've been pelted with what the news has called the "worst storm of the century." This turned our local tracks into lakes and swamps. This storm was so bad that even our regular alternate test track was destroyed. To test the Rustler, we resorted to the only dry patch of land we could find, out on the range.

We charged up a couple of 1700 mAH six-cell packs and went at it. The tire grip was very good with the stock motor. The transmission was surprisingly quiet, and the long-travel suspension soaked up every bump. A little understeer was quickly cured by softening up the front suspension. Note: when trying out your truck, refer to the tuning guide for tips on setup. If you are unsure as to what adjustments to make so that the Rustler performs to its potential, seek out a more experienced RCer at the local track—just about everyone is willing to help a newcomer.

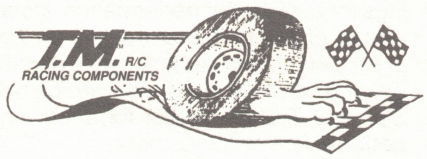
For a real test of durability, I let my neighbor's oldest son drive the Rustler for an afternoon. Little Joey can break anything and unfortunately, he usually does. Well, I have to report that the Rustler is one tough truck. No two ways about it. It survived the onslaught of Little Joey with flying colors. Nothing broke. This is a

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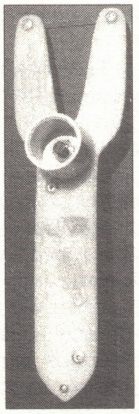
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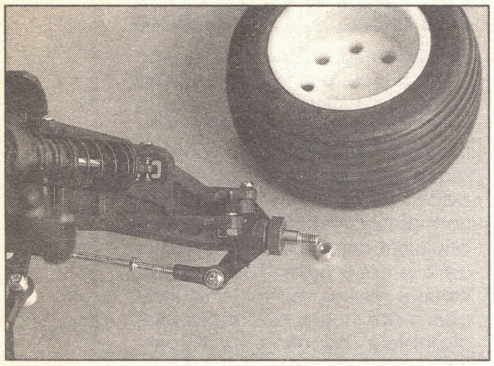
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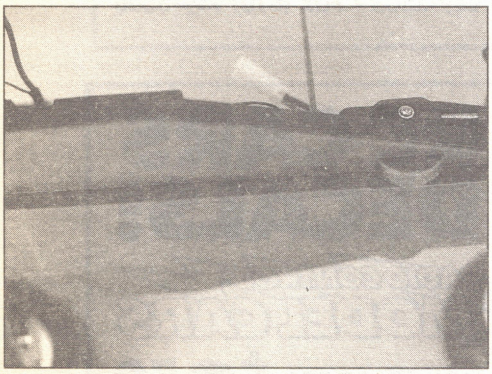
statement that other manufacturers can't claim. Indeed a credit to Traxxas.

BACK AT THE RANCH

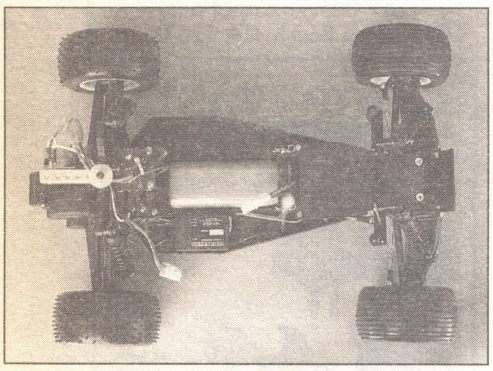
If you have a youngster in mind for the Rustler, or if you are looking for a nearly maintenance-free, super-durable truck that performs better than many others, and do not have the notion of later converting it into a World Championship contender, this Traxxas offering would be a very good choice. You can choose from the kit version as I did, or there is an assembled version of the Rustler rather than the kit version. It comes complete with pistol grip radio and electronic speed control installed. It costs a few dollars more than the kit, but it does offer significant dollar and convenience value. Traxxas does offer advice via an 800 number in case you run in to some difficulty in assembly or setup—a really valuable service.



The front wheel spindles feature an inboard bushing/bearing design. This allows the steering king pin to remain in the center of the wheel. Team Losi XX vehicles also use a similar design.



Note the smooth underside of the fiber-composite, center-channel, double-deck chassis. The advantages of such a design are numerous. See text.



There is plenty of room for mounting any radio gear. Note the wide stance that the long suspension arms provide. The Rustler chassis can accommodate any six-cell stick or seven-cell hump pack with no modifications required.

TRAXXAS' AFTERMARKET GOODIES

The Rustler makes an excellent entry for the novice to get into the fun and excitement of RC racing. Once your ability equals the excellence of this truck, you can move ahead by getting the upgrade parts offered by Traxxas, including adjustable upper links to adjust the camber to suit track conditions, add a set of ball bearings for even better performance, install a slipper clutch for better traction on loose or slippery tracks, and pick up a dual-ball bearing ball differential with carbide balls. See your Traxxas dealer for a full line of performance enhancements.

Happy trails and be fast!

Product source: Traxxas Corp., 12150 Shiloh Rd., Dallas, Texas 75228. (214) 613-3300. Call or write for FREE catalog! ●

FULL VS. 1/10TH CONT. FROM PAGE 36

changed since he began with a '56 Pontiac at age 18. His now-familiar Western Auto racecar ranks among the best in its class.

A major crossroads for Al came in 1978 when he sold his construction business and began professional racing. His focus was on match racing, which provides a guaranteed purse which national events do not. In 1988, Al married his wife Helen, whose background is in Australian racing, and the two continued the match race touring until 1991. Helen continues her role today as team manager and clutch mechanic. They began national-event racing in 1990 and hired Tom Anderson, former FC pilot and team owner, who also had worked for K. C. Spurlock and Scott Kalitta. Since then, they have added three mechanics, bringing Al's Western Auto team experience from Roland Leong, Del Worsham and Tom Hoover teams. In their first four years of competing in the Winston Championship points series, they finished seventh, third, fourth, third respectively and became the second funny car to break 300 mph (Epler was first).

Racing at national-level events requires a major sponsor. In 1994, Western Auto, an 80-year old company with over 1500 stores nationwide who also sponsors Darrell Waltrip (three-time Winston Cup champion), backed Al Hofmann. Their logo provides a very distinctive and attractive paint scheme. For 1995, Western Auto will continue their sponsorship with Al Hofmann' s new Pontiac.

BOB SMITH, RC DRAG RACER

Bob Smith, radio control drag racer, grew up just a few miles from his hero, Al Hofmann. Bob began dirt oval racing with an RC10 in 1988 and later moved on to carpet racing with a BoLink Eliminator. He then modified the BoLink for drag racing, but that was soon replaced by a Fine Design (fiberglass chassis) funny car. Several upgrades and much experience later earned him the 1993 IEDA Alcohol (10-cell) Funny Car Championship. Other commitments in 1994 limited Bob's involvement in racing, but he is planning to return to a full schedule this year.

Although Bob Smith has little in common with Al Hofmann, Bob's car for 1995 will look similar to Al's. The body prepared by S&S Speed & Hobbies of Norwich, Connecticut displays the same Western Auto graphics. Bob may not experience the 5.5G acceleration of Al Hofmann's 300-mph funny car, but he will have just as much fun racing his RC model. The only drawback is that RC drag racing doesn't demand the same respect from the public. ●

HOW TO TWEAK CONT. FROM PAGE 44

TWEAKIN'

While any car can be tweaked, in the RC world, tweak refers to pan cars exclusively. Tweak is adjusted by tightening or loosening the two tweak screws, found on either side of the T-bar. When you tighten one tweak screw, you should loosen the other screw to remove the tension created. (Actually, you should loosen the opposite screw first before you tighten the first screw the same amount of turns, but you get the idea.)

TO TWEAK OR NOT TO TWEAK

Which screw you need to tighten and which screw you need to loosen depends on your desired results. As I mentioned earlier, for road courses, having no tweak is desirable. For oval racing, tightening the right (as seen from the rear of the car) tweak screw will produce more understeer (push) in left hand turns, and more oversteer in right-hand turns. This reduces the oversteer tendency and seems to take out some of the "twitchyness" out of oval pan cars. This is like setting "the wedge" in an independent rear suspension car. (We'll discuss the wedge and other handling topics in the near future.) Alternately, tightening the tweak screw on the left side will cause the car to understeer more to the right, and oversteer more to the left. In other words, reduce push. I know this can be confusing. A good way to remember about which screw does what is to think of it like this. *To increase push, push (tighten) the tweak screw on the opposite side.*

Now armed with this information, the problem becomes how much tweak do you need or don't want. Unfortunately, I can't give you any exact numbers since tweak, like other car setup variables, isn't an isolated adjustment. Track conditions, the equipment that you use, the way that your car is setup, and your driving style will dictate how much tweak you'll need. If

you're not looking for zero tweak, you're going to have to just experiment to find out what is good for you.

CHECKIN' TWEAK

Currently there are three methods for checking tweak. Two of these methods allow for tweak measurements. Also, the cost of each method rises with its capabilities. Which is best for you depends on what your requirements are. We'll discuss each method and their pros and cons. Once you get an idea of what's what, you'll be able to decide which method is right for you. When using any of the methods listed below, check tweak with a fully loaded, race-ready car.

COIN DROP

This is the cheapest method for checking tweak and the most widely known. Basically, what you do is scratch a mark on the center of the car widthwise at the rear of the motor pod with a hobby knife. Then place the blade exactly on that mark and lift the rear of the car off the table. While lifting the car off the table, see if either rear wheel raises before the other. If they both raise at the same time, your car has no tweak. While it is fairly good for checking for zero tweak, as you can imagine, it can't do any more than that with any type of accuracy.

Here's a tip. Most people will tell you to measure the exact center of the motor pod, by dividing the distance between the outer edges of the rear wheels. I've found that if you use a good straight-edge lined up along the center of the T-bar screws, you can find the exact center of the pod. Just make sure the bottom pod plate lies flat against the straight edge and you can't miss.

TWEAK BOARD

A tweak board is a device that is specifically designed to measure tweak. Most have a large stationary platform for the front wheels and a pivoting bar or balance beam for the rear wheels. You place the car on the board and the balance beam shows how much the rear wheels tweaked or not. It is very simple to use and it is much easier to see the actual amount of tweak. The standard way to measure tweak was via some marks on the board used to measure tweak angle.

A recent entrant into the tweak board market is from a company called Niftech. The Niftech unit stands out from the others for several reasons. The most obvious is the light and compact design which can be packed away into a very small package. It is manufactured out of U-shaped aluminum and other metal pieces. This is a major departure from the standard wood tweak board and durability should reflect this fact. Another difference is that the Niftech unit uses a bubble level for its measurements. While this may seem to be lacking in accuracy, Niftech claims a 3-5 gram accuracy. Needless to say, a tweak board (any tweak board), is a major improvement over the coin drop method.

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

SPLIT TWEAK BOARD

On the high end of the scale (no pun intended), we have the split tweak board. This method uses a tweak board designed for the front wheels of the car and two digital scales. (Analog scales aren't as sensitive and are generally harder to read.) Each rear wheel rests on its own scale. This type of unit provides the ultimate in accuracy. There is no better method for measuring tweak. It is also the easiest to use too because you can read the digital read out easier than you can read the print on this page.

So why isn't everyone using this method? The price is very high. This is due to the costs of the scales (approx. $80-$90 each) and cost of the board itself. The board must be absolutely flat, and the scale platform must be absolutely parallel with the board face. Craftsmanship like that doesn't come cheap. The board shown in the photo is made by Norm Blackburn (805)595-7277. He makes them on a custom order basis. There are none better.

Here is one question that frequently comes up. If two scales are good, wouldn't four scales (one under each wheel) be better? At first glance, you would think so, but the truth is, with four scales, it would be difficult, if not impossible, to determine how much was tweak and how much was actually weight distribution. Good question though!

CONCLUSION

So there you have it. Each method has its strengths and weaknesses. The coin drop method is cheap (for all intents and purposes, free) because it doesn't require any additional hardware than what you probably have in your toolbox already. However, its usefulness is limited to checking zero tweak and its accuracy is highly user dependent. Accuracy depends on your hand/eye coordination.

The Niftech tweak board allows for accurate and repeatable tweak measurements. It is easy to use, and can comfortably fit into a toolbox. The drawbacks to this method are that it's not cheap (not expensive either), and can't take into account the use of T-bars of different thicknesses. Since each rear wheel is coupled together on the balance beam, even though you measure the same angle of tweak, this won't measure how much weight each wheel actually carries if you check a thicker or thinner T-bar. For instance, a thicker T-bar will carry more weight on the lower wheel than a thinner T-bar set at the same tweak angle due to its lower flexibility. Nevertheless, a tweak board such as the Niftech unit is probably the best compromise of usability, portability, accuracy, and cost for the majority of racers.

If you require no compromise tweak accuracy, and the ability to measure actual wheel weights regardless of T-bar stock, the split tweak board is the way to go. It can reproduce a cars tweak settings extremely accurately. This is a great help if you do major damage to your car (not due to a handling problem of course) and want to reproduce your settings. The drawbacks are the size and weight of the unit and its high cost. But then again, the best usually costs more. Unfortunately in this case, that is definitely true.

Have fun and be fast!

PRODUCT SOURCE:

Niftec, 5565 Wilson Dr., Mentor, Ohio 44060. (216) 257-6018.●

IEDA DRAGS *CONTINUED FROM PAGE 57*

Florida RC Raceway to my first taste of IEDA drag racing.

During my ride, I had plenty of time to mull over what I might write about the Seminole Nationals. With about fifty miles to go to Naples, I decided to concentrate mainly on what any first-time RCer might reflect on at his first IEDA event. And as it turns out, it was an all-around good time.

The first eye-opener was the Naples, Florida racing complex itself. The Southwest Florida RC raceway not only has one of the best 1/10-scale drag strips, it also boasts a concrete high-banked oval and an asphalt onroad circuit as well. Upon meeting track owner Clyde Armstrong, I also found out that ROAR will hold its 1995 Onroad 1/10-scale Nationals at the south Florida RC track. Armstrong's facility has ample pit space, concessions, restrooms and parking.

Each track also uses computer scoring, and there's an on-site hobby shop for raceday parts sales. The drag strip, an ultra-smooth, flat asphalt surface, uses a metal building for scoring and radio impound. Each racer's pass down the strip is recorded via computer and he/she receives a paper printout after the run showing speed, E.T. and reaction time.

My second pleasant surprise was meeting and talking with the IEDA's new president, North Carolina's Corbitt Marshburn. Corbitt relayed to me how the IEDA organization was showing an increase in interest over last year. Fellow IEDA member and regional director A.D. Rigmaiden also helped Corbitt to guide their "drag novice" through the final day of qualifying and eliminations.

As this was south Florida, sunshine, warm temperatures, and a stiff variable wind was the order of the Seminole National's final day. Hats, canopies and sunscreen helped; but even this writer came home with the total "lobster-Look" on parts of his body.

After a short practice run session, concours judging was held at the far end of the track. Each of the three class winner's paint work was unmatched and here's each of the winner's names and hometowns:

FUNNY CAR: Jim MacQuarre, Naples, Florida.

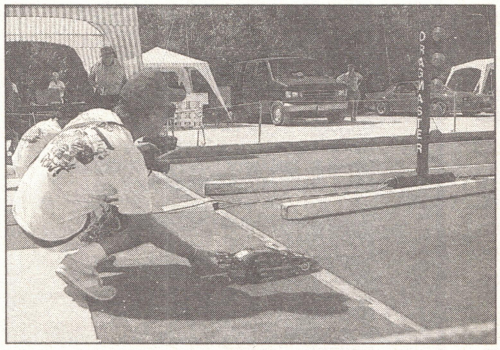
PRO STOCK: Mike Blair, North Miami Beach, Florida.

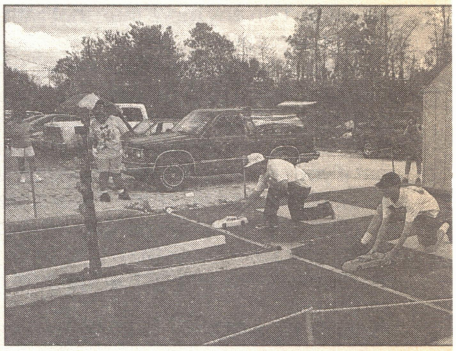
DRAGSTER: A.D. Rigmaiden, Houston, Texas.

The final round of qualifying came at 11 a.m. and here's where I got my first real taste of IEDA drag racing. The 42 entries were all trying to lower their elapsed times for the eliminations to follow, and the racing in some cases was intense. IEDA pres. Marshburn, handled the technical inspection before and after each pass and no glitches were noted. As for on-track glitches, most came in the doorslammer classes: these high-powered, short-wheelbased drag vehicles could produce some hairy-looking rides due to either driver error or a lack of traction.

But should a competitor have an on-track problem, his fellow IEDA racers were quick to lend a spare axle, gearset, body post, or whatever it took to make the next round. Plus, with a 30-minute break between each section of racing, most were able to make their appointed start times. These breaks also allowed the track staff to realign the classes for the next series of elimination's. Marshburn was also a part of this process as he's sat aside his own racing this year to concentrate on making each IEDA race the best, most professional event it can be.

By the time the final round was underway, most of the competitors left had their





As a first-time drag correspondent, I found out that pre-staging the cars prior to a pass was extra-critical to most of the racers. As with their full-sized counterparts, these IEDA competitors knew a good start/reaction time on the Race America Pro Tree would improve their chances of making it into the finals.

cars dialed-in to the Florida drag strip. Also by this time, this RC drag beginner had met and talked with many of the racers present. I found the IEDA crowd to be a very closely knit group, with many pitting side by side with plenty of laughter being heard throughout the day—something not heard much in some other types of RC car racing lately.

But as is also the case in RC car racing, when it came time to make that final pass down the strip, the atmosphere turned serious. Besides winning their respective divisions, a couple of drivers were looking to either set a new IEDA E.T. record or take claim to the event's twin plaques for top speed and lowest elapsed time for the meet. The Pro Stock truck class winner, Larry Western (Lehigh, Florida) also claimed the new low elapsed time for the division as well. As for the event awards for top speed and low E.T., both were attained by Twister, Protoform and Lightz-sponsored Rigmaiden with a 1.738 clocking and a speed of 74.92 mph. A.D. also captured the top alcohol/ Funny Car class as well making the long drive back to Texas a bit easier —I think!

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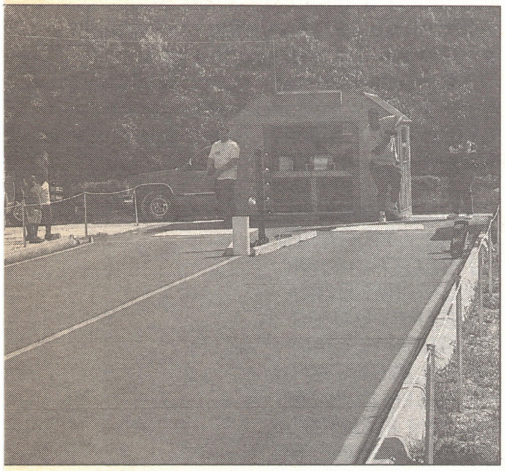
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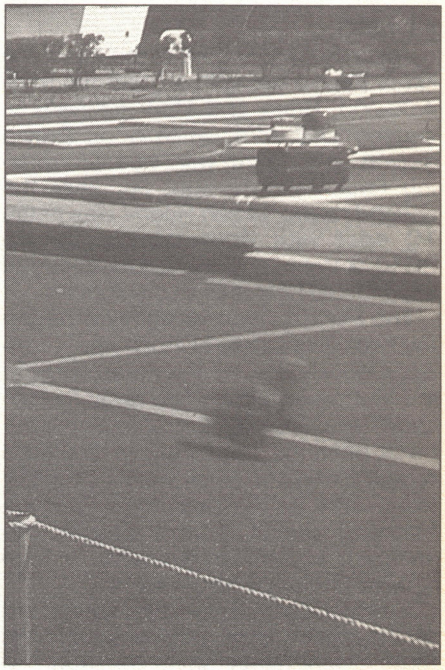
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Of course no RC car event of any kind can go on without some crashes. These can range from going sideways off the line (LEFT, note the driver's attempt to correct via body language), to airborne adventures (CENTER & RIGHT) at the far end of the track. Both of these car flights were caused when the vehicles veered to the center lights at the far end of the strip, thus lifting them skyward quickly.

SEMINOLE NATIONALS FINAL RESULTS

CLASS	*WINNER*	*RUNNER-UP*	*CONSOLATION WINNER, B-SIDE*
BRACKET	Gerald Pollard	Timmy Williams	Scott LeMaster
COMP. ELIM	Sean LeMaster	Jim MacQarrie	Randall LeMaster
SUPERSTOCK	Bobby Rackley	Randy Harris	Ricky Branch
PRO STK. TRUCK	Larry Western	Brian Brown	Mike LeMaster
PRO STOCK	Bud Bratton	Larry Western	Steve Powell
TA/FUNNY CAR	A.D. Rigmaiden	Keith Pierson	Mike Blair
TA/RAIL	Lance Richards	Keith Pierson	———
TF/FUNNY CAR	Kent Vahlsing	Charles Williams	Brian Brown
TF/RAIL	Kent Vahlsing	Keith Pierson	Lance Richards
JR. PRO STOCK	Randy Harris	Sean LeMaster	Jim MacGuarrie

The rest of the finals winners, runners-up, and B-side consolation winners are listed below in the results section along with their times.

With that, the first IEDA Nationals of '95 was complete, and of those polled afterward, this writer found everyone, even the non-winners, had enjoyed their stay in sunny south Florida. As for my final thoughts, I'd give the Southwest Florida RC raceway, the IEDA personnel and racers, and the excellent drag racing all a major thumbs up. So stay tuned to *RC Model Cars* for future IEDA dates throughout the year, and if possible, attend one near you—you won't be disappointed! •

WINTER CHAMPS CONT. FROM PAGE 54

temperatures in the low 70s the whole week.

The Florida club had enlarged the track so that a 30-second lap now was a good lap. The new track was a good layout. Certainly not an easy track to go fast on, but nevertheless a track that all the drivers liked. P.A. announcer Bill Hock did his usual outstanding job announcing and keeping the program running on schedule.

The track was quite rough during the practice days, but there were still 20 or more drivers on the stand all day long. All the European drivers said they don't have tracks like this at home, but after a couple days running on the track, they adapted to it quite well.

TRUCK QUALIFYING

Brian Kinwald led the first round of truck qualifying with a quick run of 8 laps in 4.00 minutes and .920 seconds (8-4.00.920). Mark Pavidis was just a truck length behind with a close 8-4.01.060. Paul Wynn was in third with a good 4.03.150, with Matt Ledger next at 4.03.830 and Rick Hohwart in fifth with 4.04.830.

Jason Ruona jumped to the top of the list in Round two with a great run of 8-4.00.300. Brian and Mark followed in second and third, while Scott Brown moved up to fourth with 4.01.470 moving Paul Wynn to fifth. So, after the second round, Jason Ruona was in the TQ spot with Associated's all-new RC10T2 truck, and there was a total of seven RCl0T2 trucks in the A-main.

The Florida club was lightly watering the track every three or four heats, keeping it consistent, as the times show in the first two rounds. Then for some unknown reason, they quit maintaining the track after the third heat of the third round. Brian and Mark were in the first two rounds. As the track dried out in the following rounds, a "Blue Groove" developed, and all drivers know a blue groove track is a faster track.

Consequently, Brian and Mark and all the other drivers who ran in the first three or four heats, never got to run on the blue groove track, and therefore got bumped to the B or lower mains. The club's officials and ROAR made a big mistake here to allow this to happen. ROAR's policy has always been to keep the tracks as consistent as possible throughout qualifying, so it's equally fair for everyone. That didn't happen here.

We ran into a similar problem at the ROAR Nationals at Norm's Raceway in Texas. Back then, after three rounds of qualifying, the computer broke down. It was about 11 p.m. and Norm announced that racing would resume in about two hours. So, everyone left to get some dinner.

When we came back, Norm had completely rebuilt the track, making it perfectly smooth and fast. This was supposed to be done after qualifying, and when we asked why he had done it between qualifying rounds, he said it was easier for him to do it at that time, rather than after the last round of qualifying. Not a good reason. Qualifying resumed at 2 a.m.

In the first three heats of the last round, everyone who was in the A-main was bumped out of the A-main! This was definitely wrong, so ROAR stopped the qualifying and held a meeting of all the top teams, who unanimously agreed that one round qualifiers was not the right way to qualify, so the final round was canceled.

So, now we were in Florida with a similar one-round qualifier (actually it was a half-round qualifier), and nobody seemed to know how we got there or what to do about it. So, nothing was done. Consequently, Brian, Mark and others, who were in the A-main, now found themselves in the B- or C- mains.

Rick Hohwart, who just changed back, and was now racing with Associated again, took Top Qualifier honors first time out with his new T2. Rick turned a quick 9-4.20.560, closely followed by Ellis Stafford from England at 9-4.20.580, Brian Dunbar with 9-4.21.560, Kevin Moore, also from England, with 4-21.920 and Greg Hodapp at 4-22.560.

2WD QUALIFYING

Greg Hodapp led the first round of qualifying with a fast 8-4.03.260, with Brian Kinwald right behind at 8-4.03.830. Mark Pavidis and Ellis Stafford followed with identical 8-4.04.240. Jason Ruona was fifth with 8-4.04.860.

Ellis Stafford led the way in the second round with 8.00.520, followed by Brian Dunbar at 8.01.140, then Brian Kinwald 8-4.02.610, Greg Hodapp 8-4.03.260 and Sohrab Tavakoli with 8-4.03.610.

Brian Kinwald took the TQ spot, just beating out Mark Pavidis again, with a great 9-4.17.960 to Mark's 9-4.18.170. Ellis Stafford followed with 9-4.20.300, then Greg Hodapp at 9-4.21.330 and Jeffrey Kinoo with 9-4.21.480.

4WD QUALIFYING

The 4WD A-main was all Europeans, except for James Brown. Patrick Feschtschen won the TQ spot with 9-4.12.070, followed by Jurgen Lautenbach at 9-4.16.150, then Jukka Steenari with 9-4.16.630, Thomas Jeschek at 9-4.17.350 and Craig Drescher with 9-4.17.560.

2WD STOCK QUALIFYING

Jeffrey Kindo blew Stock class away with an 8-4.06.550, three seconds quicker than the next car. He looked more like he was running a modified than a stock motor. Michael Spehn took second with 8-4.09.160, followed by Matt Lee at 8-4.09.820, then Todd Lewis with 8-4.10.110, and Larry Wilson with 8-4.11.800.

TRUCK A MAIN #1

The trucks were all lined up at the beginning of the straightaway, the drivers were all announced to the spectators, the buzzer sounded and we were underway. Rick Hohwart took off in the lead from his TQ spot, down the straightaway, around the sweeper, around the tight RH turn, with Ellis Stafford right on his rear bumper.

Then Ellis made a clean inside pass in the second corner, but went too wide in the third corner, and Rick retook the lead. From then on, no one saw Rick. He was long gone, pulling further and further away from second.

The race was now for second place. Ellis just wasn't going quite fast enough, and one by one he was being passed by other trucks. Scott Brown took over second. But the fastest truck on the track was Jason Ruona. From his tenth starting position, Jason passed truck after truck. Then, on the last lap, he was right behind Scott, who was in second. He made a clean pass on Scott, but Scott bumped Jason in the next straight, and Jason got stuck in the wall.

Rick won the race quite easily over Scott by four seconds, with Jason following in third, Barry Baker fourth and Greg Hodapp fifth.

TRUCK A-MAIN #1

1. RICK HOHWART
2. SCOTT BROWN
3. JASON RUONA
4. BARRY BAKER
5. GREG HODAPP
6. ELLIS STAFFORD
7. BRIAN DUNBAR
8. JON ANDERSON
9. JAY ROBINETTE
10. KEVIN MOORE

TRUCK A-MAIN #2

Hohwart took off in the lead again down the straightaway and turned into the sweeper, whereupon Stafford went straight on, and drilled Hohwart in the side, bouncing Hohwart's car off the wall. Hohwart managed to get around the right-hander still in the lead, but then got hit by Dunbar and turned upside down, dropping to last place.

Dunbar now had the lead, with Ellis second, but the fastest trucks were the last three trucks. Scott Brown, Rick Hohwart and Jason Ruona were coming up through the field, in a three-car freight train.

Lap after lap they passed truck after truck, and they ended up with Scott second, Ellis now third, Hohwart fourth and Jason fifth.

TRUCK A-MAIN #2

1. BRIAN DUNBAR
2. SCOTT BROWN

3. ELLIS STAFFORD
4. RICK HOHWART
5. JASON RUONA
6. GREG HODAPP
7. BARRY BAKER
8. KEVIN MOORE
9. JAY ROBINETTE
10. JON ANDERSON

TRUCK A-MAIN #3

Once again Hohwart took the lead, while Scott Brown and Barry Baker managed to drive around the usual first corner pileup. Scott held second for awhile, but got tapped and Barry Baker took over second. On the next lap, Hohwart cut a corner a little too tight and got stuck in the wall and dropped to last.

Baker now had opened up a good lead over Jason Ruona, who again moved all the way from tenth to second, with Scott finishing third.

TRUCK A-MAIN #3

1. BARRY BAKER
2. JASON RUONA
3. SCOTT BROWN
4. JAY ROBINETTE
5. GREG HODAPP
6. ELLIS STAFFORD
7. JON ANDERSON
8. KEVIN MOORE
9. RICK HOHWART
10. BRIAN DUNBAR

Scott Brown with his two second-place finishes and a third-place finish, beat out Jason Ruona with his two second-place finishes and a fifth place. Barry Baker with a win and a fourth place took a third-place overall.

TRUCK CLASS OVERALL FINISH

PLACE, DRIVER, TRUCK, MOTOR

1. SCOTT BROWN, XXT, TWISTER
2. JASON RUONA, RC10T2, REEDY
3. BARRY BAKER, XXT, MAXTEC
4. RICK HOHWART, RC,10T2 PEAK
5. BRIAN DUNBAR, XXT, TRINITY
6. ELLIS STAFFORD, XXT, TRINITY
7. GREG HODAPP, XXT, MAXTEC
8. JAY ROBINETTE, XXT, EXTREME
9. JON ANDERSON, XXT, TRINITY
10. KEVIN MOORE, XXT, LRP

TRUCK B-MAIN

The fastest trucks were actually in this B-main. Paul Wynn and Mark Pavidis actually had to start from the fifth and seventh places, ending up with Paul winning, Mark second and Brian Kinwald third. Paul Wynn's T2 time was actually faster than all three of the Truck A-mains, and Mark's time was second fastest overall, and Mark also had the fastest single lap time overall.

TRUCK B-MAIN

1. PAUL WYNN
2. MARK PAVIDIS
3. BRIAN KINWALD
4. BRAD REELFS
5. RICHARD SAXTON
6. MIKE MELLIN
7. DEREK FURUTANI
8. MIKE WEED
9. CLIFF LETT
10. JEFF LEWIS

2WD MODIFIED A-MAIN #1

Brian Kinwald took the lead with Mark Pavidis close behind, followed by Ellis Stafford. On the second lap, Brian went way wide in the sweeper, so Mark shot down the inside line to pass, but Brian came sweeping across to close the door. The two strange lines resulted in them bumping and getting stuck on the wall.

Ellis then took over the lead, with J.R. Mitch second, Brian Dunbar third, followed by Brian and Mark. With one minute to go, Brian rolled coming off a jump and Mark moved into third.

2WD MODIFIED A-MAIN #1

1. ELLIS STAFFORD
2. J.R. MITCH
3. MARK PAVIDIS
4. BRIAN KINWALD
5. BARRY BAKER
6. BRIAN DUNBAR
7. GREG HODAPP
8. CLIFF LETT
9. SCOTT BROWN
10. JEFFREY KINDO

2WD MODIFIED A MAIN #2

This was the most exciting race of the week. Brian took off in the lead but went a little wide in the sweeper again, and Mark took advantage of it to made a clean pass to take the lead. Brian was second with Ellis third.

Mark and Brian were always within a few feet of each other. Then, at the two-minute point, Brian made a clean pass on Mark, but then stuffed it trying to cut the next corner too tight. Ellis then moved up to second and tried to catch Mark, but then he too stuffed it trying to cut a corner too tight, with Mark taking the win, Ellis second and Hodapp third.

2WD MODIFIED A MAIN #2

1. MARK PAVIDIS
2. ELLIS STAFFORD
3. GREG HODAPP
4. BRIAN KINWALD
5. BARRY BAKER
6. J.R. MITCH
7. JEFFREY KINDO
8. CLIFF LETT
9. BRIAN DUNBAR
10. SCOTT BROWN

2WD MODIFIED A MAIN #3

Mark won the horsepower drag race, and passed Brian on the straightaway, and took the lead going through the sweeper. Brian was second with Ellis third.

This was another real close, tight race. Brian couldn't catch Mark, while Ellis couldn't quite catch Brian either. This was exciting to watch. Then at the three-minute point, Mark cut a corner too tight, got stuck, and Brian took the lead and the win, with Mark second and Ellis third.

2WD MODIFIED A-MAIN #3

1. BRIAN KINWALD
2. MARK PAVIDIS
3. ELLIS STAFFORD
4. GREG HODAPP
5. JEFFREY KINDO
6. BRIAN DUNBAR
7. J.R. MITCH
8. SCOTT BROWN
9. BARRY BAKER
10. CLIFF LETT

2WD MODIFIED OVERALL FINISH

PLACE, DRIVER, CAR, MOTOR

1. MARK PAVIDIS, RC10, REEDY
2. ELLIS STAFFORD, LOSI XX, TRINITY
3. BRIAN KINWALD, LOSI XX, TRINITY
4. J.R. MITCH, LOSI, TRINITY
5. GREG HODAPP, LOSI XX, MAXTEC
6. BARRY BAKER, LOSI XX, MAXTEC
7. JEFFREY KINDO, LOSI XX
8. BRIAN DUNBAR, LOSI XX, TRINITY
9. CLIFF LETT, RC10, REEDY
10. SCOTT BROWN, LOSI XX, TWISTER

2WD MODIFIED B-MAIN

1. PATRICK FESCHTCHEN
2. JACK JOHNSON
3. JAY ROBINETTE
4. MIKE MELLIN
5. KEVIN MOORE
6. JON ANDERSON
7. CHRIS WHITE
8. MATT LEDGER
9. CRAIG DRESCHER
10. MIKE WEED

4WD MODIFIED OVERALL FINISH

PLACE, DRIVER, CAR, MOTOR

1. PATRICK FESCHTSCHEN, YOKOMO, EVOLUTION
2. CRAIG DRESCHER, SCHUMACHER, REEDY
3. JUKKA STEENARI, SCHUMACHER, CORALLY
4. JURGEN LAUTENBACH, YOKOMO, LRP
5. WERNER BERGBAUER, YOKOMO, EVOLUTION
6. THOMAS JESCHEK,YOKOMO, LRP
7. JAMES BROWN, YOKOMO, PEAK
8. OLIVER BRANDT, KYOSHO, EVOLUTION
9. SOEKINKE MATZ, YOKOMO, EVOLUTION
10. BEN STURNHAM, SCHUMACHER, TANAPLAN

2WD STOCK A-MAIN

1. MATT LEE
2. JEFFREY KINDO
3. TODD LEWIS
4. JEFF MASSE
5. LARRY WILSON
6. BOKY LEE
7. BRIAN BOHLMAN
8. ROB SCHAFFER
9. MICHAEL SPEHN
10. ROB MICHAEL •

LOSI JR TO LXT CONT. FROM PAGE 58

When the LXT upgrade came out, I ran to my nearest dealer and begged him to order the upgrade. The only item that didn't come with the upgrade at the time was the newer, laydown-style tranny. I still have the original! Now that I've had it a couple of years, there are lots of aftermarket and factory options available for this truck to keep it up to speed with the new releases in technology. Let's check a few out.

REBUILDING

As with anything, you will need to inspect your kit for obvious wear. In my case, it was time to completely disassemble the truck and rebuild from the ground up. After removing the body, speed controller and receiver, I got out the tools and went to work.

The first thing to inspect is the condition of the bearings. After removing them from the wheels, hub carriers and transmission, I cleaned them and found that they were just plain worn out. It was time for new bearings rather than wasting any more time on these.

I called Boca Bearings and ordered up a set of their renowned "Ultra Seal" bearings. They give a six-month warranty and claim they need no other maintenance above using a toothbrush to get rid of surface dirt. That's my kind of maintenance. Installing these is simply a replacement from old to new.

TRANSMISSION INSPECTION

Next, I looked at my old, tired transmission. Losi offers a replacement transmission to update it. However foolish as I may be, I decided to keep the old one.

After disassembling my transmission, I inspected the case halves for wear, and found them to be in pretty good shape. When inspecting the transmission halves, look for signs of wear in all of the holes and look for wear on the gears. The gear wear will show up as deformed angles on the teeth, or spots where the teeth are nearly worn down.

Next, I looked at the differential. My diff was in serious need of a rebuild. Rotating the diff gears sent chills down my back as the made grinding noises similar to those most cement mixers make. I needed new and bearings badly. The gears, were in good shape, but the bearings, man. They had worn a groove into the rings. Remember, if you're going to replace your diff, do it as a set, rings and bearings.

For the new diff set, I called MIP. They had just what I needed, a set of polished rings with new ball bearings and diff lube to boot. I also replaced the thrust washer assembly with a new stock Losi replacement. As a rule of thumb, I usually replace my thrust washer set once for every three sets of diff rings.

Okay, new bearings, new diff and new thrust washer. The tranny was ready. Remember to cover the transmission differential adjustment hole to avoid dirt getting in there.

Outside the tranny is yet another story. I added a Team Losi slipper clutch, with a Kimbrough's 87-tooth spur gear, and I installed a set of MIP CVD outdrive/axle shafts. These trick little units are based on the same technology used in real cars. The CVD (constant velocity drive) unit is kind of a ball-in-socket joint. They are smooth and work well. Installing these units was a mild challenge, but the results are worth the effort.

The kit includes new outdrives, new axles, new driveshafts, wheel nuts, shims and a special-formula lube for the CVD joints.

Since the rear-end was apart, it was time to install a new squat block provided by RPM. They guarantee this piece against breakage. If it breaks under normal wear and tear, RPM will replace it. Not bad! RPM cautions that you not throw the old one away—it has to be sent back to claim the warranty.

The kit includes new outdrives, new axles, new driveshafts, wheel nuts, shims and a special-formula lube for the CVD joints.

Well, since I replaced the squat block, I might as well replace the turnbuckles. Once again, Lunsford makes just the thing. I installed a set of new Punisher titanium turnbuckles and a set of titanium hinge pins. These new parts drop the truck's total weight nearly two ounces. These new turnbuckles are direct replacements for stock, and require no modifications to the truck.

Lunsford also makes a nifty tool for adjusting the turnbuckles. Machined out of aircraft aluminum, it works much better than scaring up you new parts with an old pair of pliers. My dad always told me, "The right tool for the right job." He still says that.

In keeping with my "lighter is better" philosophy, I also installed Robinson Racing's titanium ball ends. Again, these are direct replacements for stock, but are lighter and stronger than stock. These new Punisher turnbuckles are so good, in fact, I will be installing them on every kit I own. These are not only thicker, but the manufacturing process used makes them stronger than the previous generation of titanium. My advice to anyone with any kit, is to get a set of these! They are well worth the investment.

TO THE SHOCKS

It was time to tackle the shocks. I know many of you dread this chore, I do. I disassembled mine, pouring out the black goo that was once shock oil. To clean the shocks out, I take the shock bodies and put them in a tub of hot soapy water for about 15 minutes to loosen up what's left in them. Then, I use a cotton swab to clean the inside, until, when I pull the swab out, it comes out clean.

Losi shock cartridges are great. Of all the kits I've spent time with, these are the easiest to rebuild and bleed. By removing a snap-on cover and using a blunt tool, the cartridges are apart and ready for cleaning.

I removed the shock shafts to check them for wear. Just as I had suspected, they had wear marks all over them. Even small imperfections affect the shock's ability to operate smoothly. The cartridge seals may also leak if the shaft is worn far enough. I also found one of the plastic ends was cracked and needed replacement. I installed a new end from Losi. Once again, a thorough inspection is needed to ensure your truck will perform on the track without breakage.

My shock shafts were toast; they had wear patterns in nearly every conceivable direction. Help was needed. I replaced my old shafts with new MIP Gold shafts and installed new MIP blue seals in the cartridges. I have used these since they were first introduced and have had great results. I might add, the Team Losi silicone seals are just as good. Either can be used with excellent reliability. To finish off, I re-installed my shock pistons, and reassembled the shocks.

LET 'EM BLEED

Now for the fun part, bleeding the shocks. I put Team Losi shock oil in, and began the drudgery of bleeding. Usually, I have to find a small crescent wrench, and a screwdriver to insert in the top shock-mounting hole, and a rag to accomplish this task. However, the folks at RPM have engineered a tool to make this job a whole lot easier. Using this shock tool is like installing a wingnut on your shock. What used to take me all day, and all of my patience, now takes only a few minutes per shock. Thanks RPM!

STEERING EXCELLENCE

Okay, the power transfer function is cleaned up, and new suspension parts are in place. What's next? Ah, yes, steering!

I selected a Futaba S9301 ball-bearing servo for the steering chores, hooked up to a Team Losi ball-bearing, bellcrank steering kit. Then I attached new Team Losi ball cups to new Lunsford Punisher titanium steering (tie) rods. The whole setup works as smooth as glass. There are higher-speed servos available, but for my driving style, the S9301 is my choice. With a Kimbrough's servo-saver in place, this is virtually a zero-maintenance setup.

With the new steering components in place, I re-installed the Team Losi chassis brace and tested my servo. We'll fine tune it later. For now, I just wanted to center the servo with the steering system and ensure the steering operated snag-free through

the suspension travel.

ELECTRONICS

The speed controller is probably the most important ingredient in the competition package. For the state-of-the-art, I contacted world-famous, 1994 world champion, Tekin Electronics. After asking them a few questions, and letting them know what kind of driving I do, they recommended the TSC P-12 electronic speed controller (ESC). I took it to my creation and wired it in. Tekin supplies Deans Ultra Plugs with the ESC. After installation, I set it up. Tekin's QuickTune takes less than five seconds to set up. According to the specs, this thing has 100 amps of braking power, and only .0025 ohms of "on" resistance. That is, if you're into specs, phenomenal. Its big brother, the G-12 is even better.

Second in line of importance from the ESC is the radio. For my driving, I wanted really good radio, one that was comfortable in my hand and virtually glitch-free. My choice was the Futaba Magnum FP-T2PDF FM. This radio operates glitch-free in nearly any environment. I've had this radio at events with over 150 entries attending and never experienced a glitch. If you can't control it, you can't win. I also like the way it feels. It's nicely balanced letting me concentrate on driving instead of holding on to the transmitter.

Next order of business was battery, motor, body and connector selection. Most people don't think too much about the connectors, but they are nearly as important as the battery and motor.

For racing, you want to send as much current as the speed controller wants to send to the motor. The best way to achieve this is "hard wiring." I personally don't care for this method, though many serious racers swear by it. In order to change a motor and battery pack, you have to solder in and out each time. This is time-consuming and messy, not to mention potentially dangerous having a hot soldering iron sitting around the pits.

I wanted "zero loss." I wanted excellence. I turned to the masters of this concept, Deans. I spoke with them and decided to use Deans UltraPlugs and Deans 12-gauge wire. The Deans plug is said to have the lowest loss of all connectors available in the RC market. Further, they cannot be plugged in reverse since their design won't allow them to be plugged in but one way. I wired up all of my existing battery packs, and my two new motors.

Where I race, we have a 24-degree timing restriction, so I picked up a couple of Twister green motors. These are new, with laydown-style brushes.

To top off the truck, I used an old style A&L Slam-It lower body. Although it's the old style, I like the way it sits, and the way it looks. The new bodies are much more contoured to the way the truck is designed, but I couldn't see throwing away a perfectly good truck body!

SETTING UP CASTER AND CAMBER

Once everything was finally put together, it was time to set up my camber and steering adjustments. I'll start with camber.

Camber is the angle at which the wheel rests vertically, looking at it from in front or behind. I usually run about minus two degrees of camber. This process is made much easier than the old eyeball method with RPM's caster/camber gauge. Simply set the gauge to desired amount of camber, place it against your wheel, and adjust the turnbuckle until the gauge is resting flat against the wheel.

For racing, you want to send as much current as the speed controller wants to send to the motor. The best way to achieve this is "hard wiring." I personally don't care for this method.

To set up the steering, I used a Kimbrough's large servo saver, the only size recommended by Team Losi. I needed a short arm from the servo to the bellcrank, Lunsford had the solution. They make a 15mm turnbuckle that fits perfectly. I attached Losi ball cups at each end and screwed them on as far as they would go. I attached the servo end to the top hole on the servo saver, and trimmed off the unneeded sides. At the bellcrank end I attached it to the inboard hole on the bellcrank. A couple of adjustment turn here, and I was ready to trim the rest with the radio.

One of the advantages to having a radio like to Futaba FP-T2PDF Magnum, is the nearly endless amount of electronic trim that can be dialed in. I took about 20 minutes to mechanically adjust all the steering turnbuckles to a nominal length. Then, with a practice battery pack, I ran the truck down the sidewalk and made the initial adjustments on the radio. The Futaba lets me individually set the travel for left and right, and allows me to set the wheel trim back to center with a master and a sub-trim. It may sound complicated, but the whole process only took a minute or two.

OFF TO THE RACES

Once the truck was set up, it was time to test its abilities. I went to one of my local venues and signed up. This track has a high bite, but is also hard-packed. To compensate, I chose Pro Line's Pro 90 XTR for the rear, and their new "The Edge" directional tires for the front. All mounted on Losi rims.

This setup proved to be the ticket. A couple of practice laps around the track proved that no matter how I came into a turn, with the speed control brakes and those front tires, the truck would steer through the corner rather than push.

The truck went so well in fact, I set the second-fastest qualifying time for the Main. I decided to give the truck a once-over before the main.

The shocks were working flawlessly and the Twister motor was now nicely broken in. In short, it was as perfect as it was when I got there. I finished second to my racing partner in the main. I got tangled with another car, and once he passed me, I could run just as fast, but couldn't gain any ground on him. It was great fun anyway.

FINAL THOUGHTS

I have been running this truck close to two years now. During that time, I have run a lot of different setups. My LXT has been competitive against the competition in my area without fail.

I would like to thank all of the participants for this test. All of the parts installed made a difference. The great part is, they can be installed in any combination of the way I have done here, and you can expect great results.

I must point out, that if you add all the components I've mentioned here to your truck, that you can spend nearly as much or more than if you bought a new XXT kit. If you wish to recycle your existing truck and are careful—for example, going for new steering arms, pivots and suspension parts, you can expect better performance without spending too much money. Everyone wants an individual RC vehicle, and there are certainly a lot of parts on the market that can customize your car or truck. You have to analyze what you are attempting to accomplish and then find the proper component to reach that end. Don't expect any one part to be the magic bullet that will put you on top. The most important part of your RC racing program is still practice, practice, practice. Add to that proper maintenance, and you can be on your way to a satisfying racing experience.

Most of all, stay competitive and have fun.

PRODUCT SOURCES:

Boca Bearing, 7040 W. Palmetto Park Rd., Ste. 2304MC, Boca Raton, Florida 33433. (407) 998-0004.

RPM, 14978 Sierra Bonita Ln., Chino, California 91710.

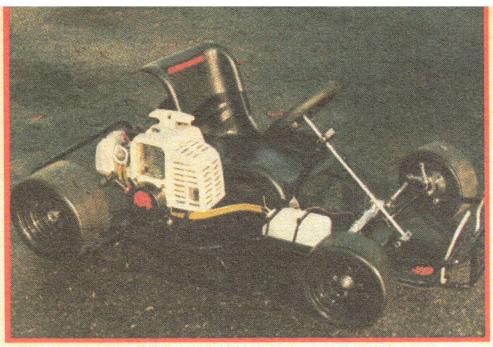
Team Losi, 13848 Magnolia, Chino, California 91710. (909) 465-9400.

Tekin Electronics, 940 Calle Negocio, San Clemente, California 92672.

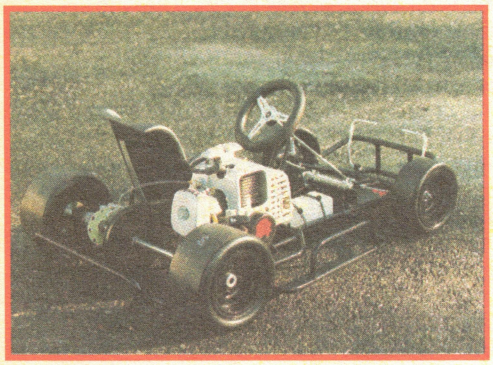
MIP, 746 E. Edna, Covina, Calif. 91723 ●

NEW ERA'S HALF-SCALE GO-KART

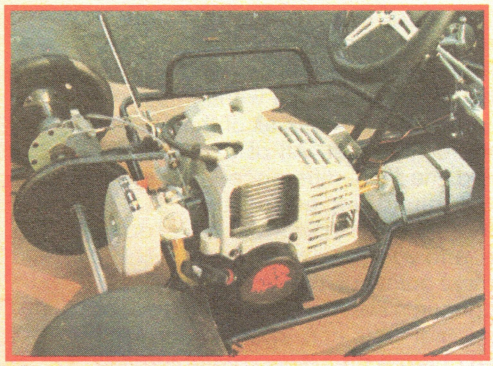
BY A. NOVOTNIK



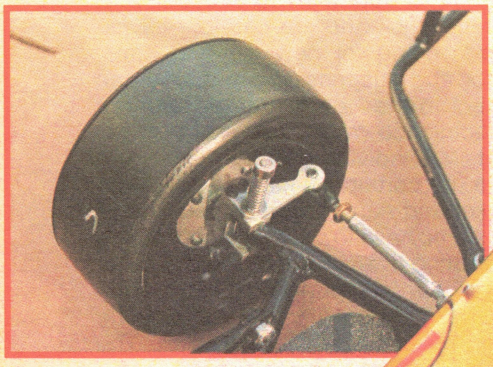
New Era's half-scale Go-Kart comes complete as you see it here. All you add is the radio system and fuel.



Realism of the Kart is obvious in this photo. It replicates the full-size version (which really isn't all that big to start with).



The .23cc engine comes with pull starter and centrifugal clutch.



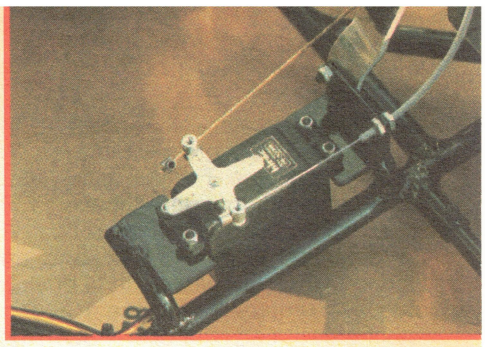
Springs mounted to the front kingpins offer a small amount of dampening.

This one-half scale (that's right, 1/2 scale) Go-Kart is distributed by Hobby Etc., located in Nashua, New Hampshire. The Kart is manufactured by New Era Models, also located in Nashua, long a manufacturer of RC model cars. New Era is one of the few manufacturers in the country of quarter-scale drag racing cars.

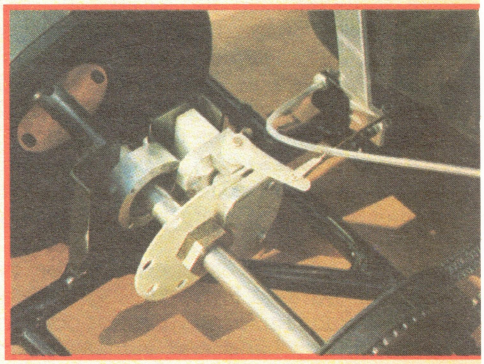
Many successful drivers of the full-scale racers have come from the ranks of the Go-Kart racing. Grand National drivers like Ricky Rudd, Terry Labonte and Sterling Marlin, to name a few, all got their taste of racing in the Karts. Formula One champions Ayrton Senna, Nelson Piquet and Alain Prost all graduated from World Karting competition. USAC Midget champion Sleepy Tripp was another Kart driver in his youth.

This half-scale Go-Kart is an ideal place

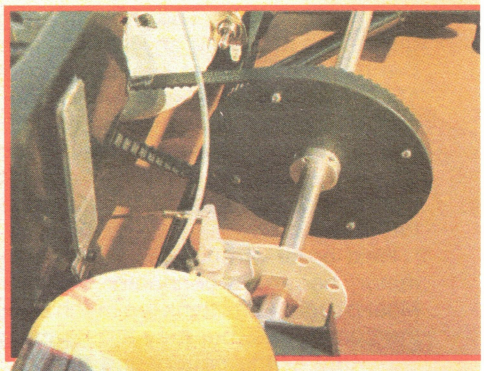
continued on page 73



A heavy-duty servo operates the throttle and brake on the Kart. Here, a Hitec servo suitable for quarter-scale models has been installed.



Rotating disc brake is activated by cam action when throttle is in low-motor position.



A timing belt from the engine to the axle gear provides power to the rear wheels of the Kart.

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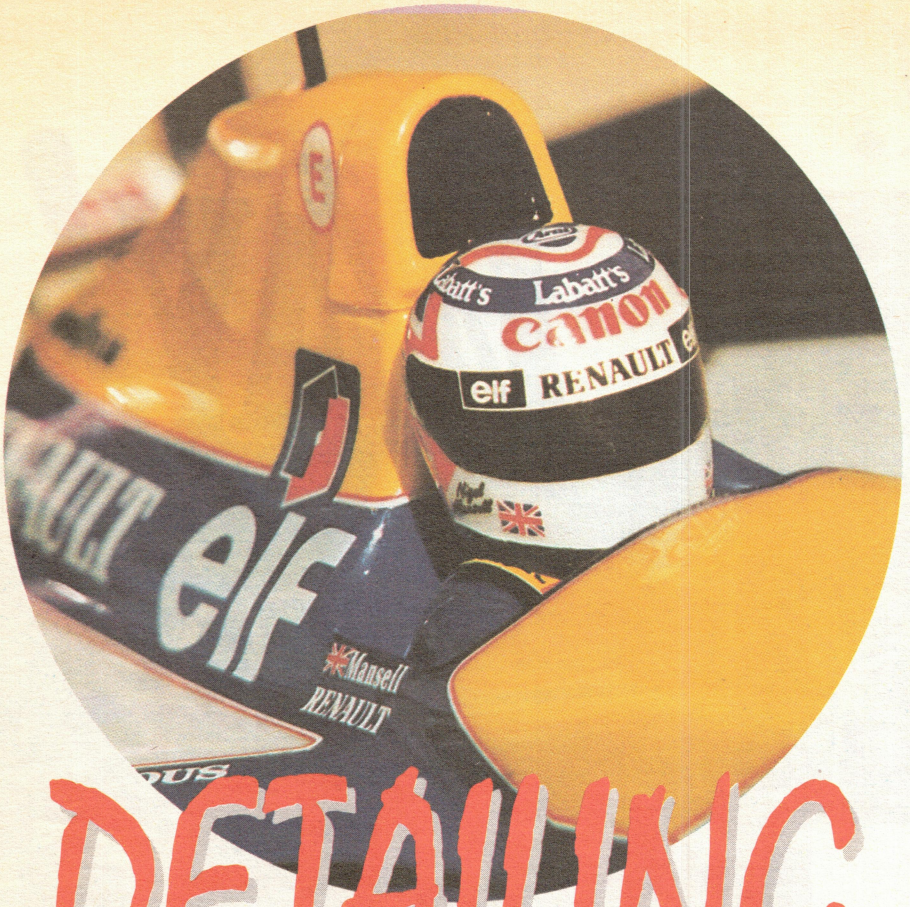
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Length: 18.1 in (460mm)
Height: 9.8 in (250mm)
Width: 11.6 in (295mm)
Weight: 3.9 lb (1770g)
Motor: 550-size (included)

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The combination of the decal accuracy and quality, along with the body detail can really get an F1 enthusiast revved up. You could almost expect the '92 World Champion to flip open his visor and wave to the spectators in the stands.

DETAILING

TAMIYA'S F1 WILLIAMS RENAULT

Parking lot racing is at a fever pitch as we enter the heat of the racing season. So put away your pushed battery packs, your dynoed motors and slick radio electronics. Grassroots racers are bringing back to this hobby what many have forgotten about: the fact that it's fun! With the increased popularity of the F1 and Indycars, hobbyists are spending hours building their chariots of fire. Then putting in even more time making their racer as authentic-looking as possible.

To make painting and detailing your cars easier, I'll cover some helpful hints. First, I'd like to state that I picked up some of these ideas from our very competent editor, Richard Dowdy. Some of this information was originally published in RCMC December '93. I feel a good hobby tip can never be repeated too many times, especially for the benefit of our new readers.

FIRST STEPS

The place to start is by washing the body shell with



With so many points of interest on the Tamiya FW-14 body, the eye is very busy trying to take in all the detail and realism of this racer.

BY KEVIN MEYER

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Track Address: Dominguez Hills College, 1000 Victoria Blvd, Carson, CA.
Entry Fees: All classes except the Speed Run are $40.00 if pre-entered. Speed Run Entries are $25.00. To enter the Speed Run you must be entered in another class. Free shirt for all pre-entries. 1 shirt per racer. **All heats and mains will be 20 cars. Bring extra frequencies.**
Hotel Info: Holiday Inn, 310-781-9100. **Rooms are 1st come 1st serve. Make your reservations before September 1st. Ask for the NORRCA Race Rate.**
Tables and chairs will be available to rent for out of state racers only. **No phone or fax entries.** Power will be provided at the event. Bring your own extension cords, power strips, tables and tarp. **Each racer Must have 3 sets of frequencies prior to race day.**

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

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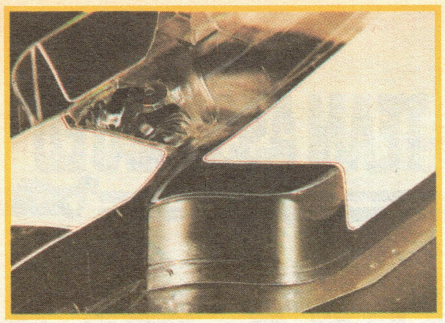
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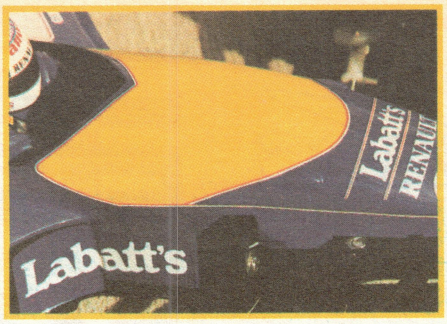
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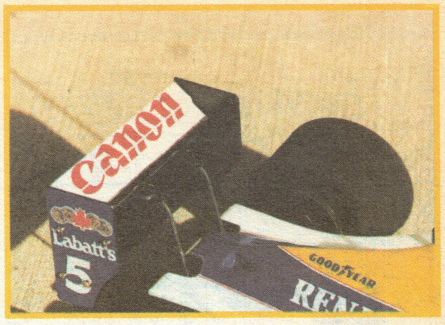
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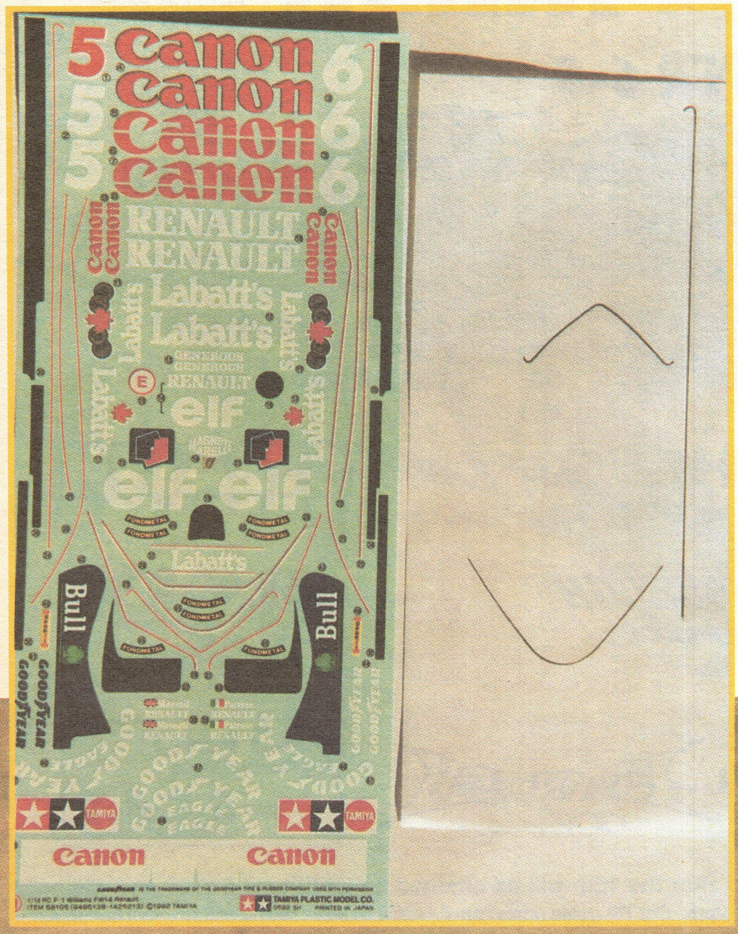
FREQUENCIES 1._____ 2._____ 3._____ FREQUENCIES 1._____ 2._____ 3._____







■ LEFT: Pinstriping was applied to the outside before the body was masked. This will help keep the paint separation lines matched up with the decal. ■ CENTER: Backing the yellow sections with two coats of red will give a darker hue to the yellow. ■ RIGHT: The bi-level wing is an excellent piece of work in itself. Once again a blast of the hair dryer can help snug those decals down to the wing surface. I painted the mounting wing buttons black so they would blend in with the wing.

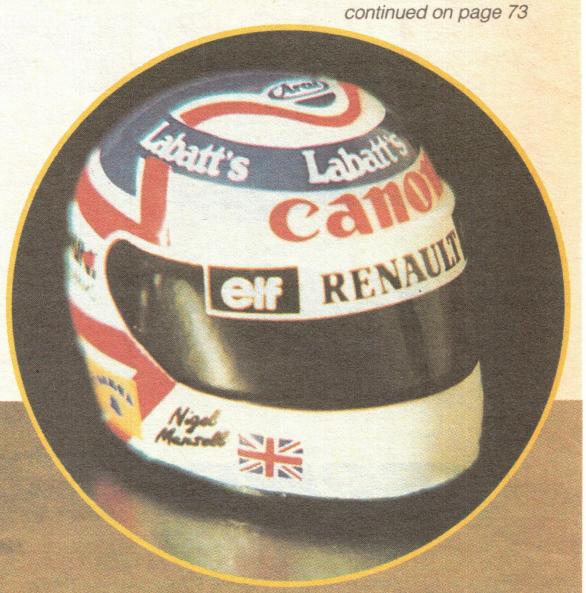


Making tracings of the pinstriping for the masking template will make masking and painting much easier.

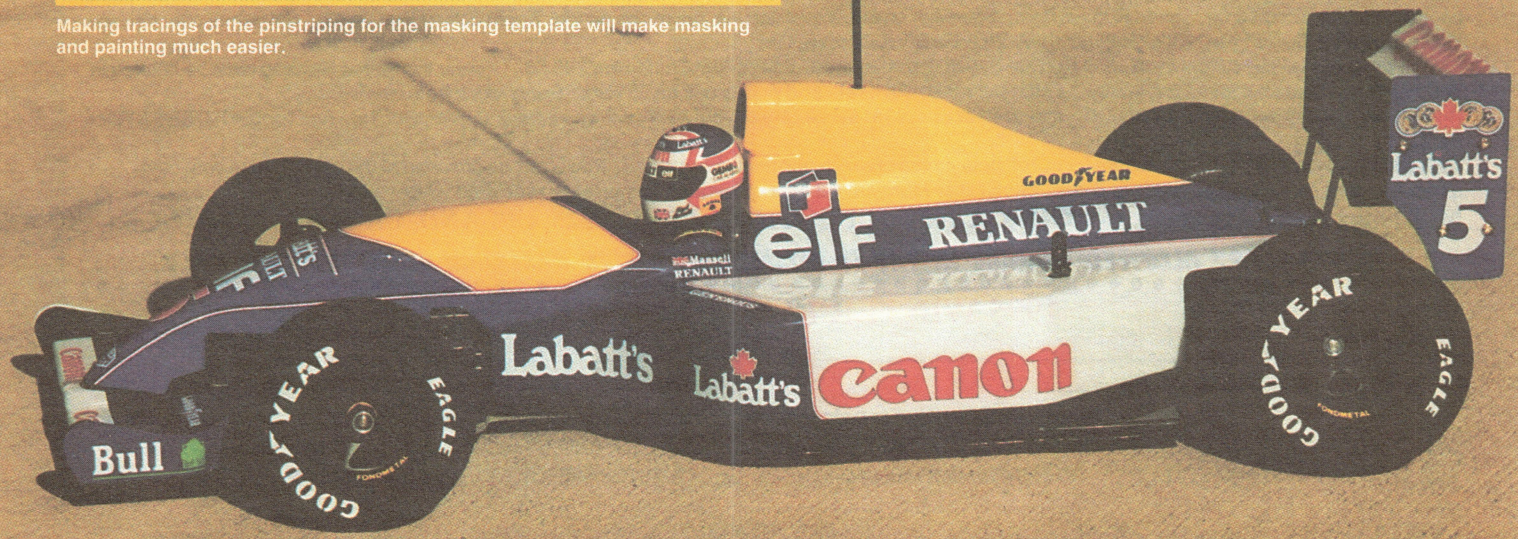
warm water and a mild liquid dish soap. Dry it completely inside and out. The next step would be to do the small detail painting in the cockpit. The shoulder harness and cockpit area can be painted with a #1 brush. I applied Pactra's Outlaw Black in this area. The harness buckles were covered with Indy Silver. Three even coats of each color should be adequate.

Take care when attempting the masking process. I don't like to cut masks on the body because of the confined area to work with, so I make precut mask sections. To do this, place a piece of tracing paper over the decal sheet or a copy of the sheet and trace the trim pieces to make a template for the mask. This can

continued on page 73



Over an hour was spent on the helmet alone. Trimming those decals carefully will really pay off in the completion of the work here. The hair dryer trick works great for smoothing things down.



NEW ERA KART CONTINUED FROM PAGE 68

to start with a RC car. It's affordable, the setup of the Kart is easy, and there are very few adjustments necessary before getting it to the track. There's no guarantee that this is the steppingstone to Indy or Daytona, but it is a great place to start.

The Kart is almost two feet long, and close to two feet wide. There are no suspension setups necessary. The rear end is hard-mounted to the chassis through bearing blocks, and the front is also hard-mounted. The entire chassis is a copy of an Enduro Kart, and like its big brother, it's all chrome moly and tig welded. The frame is shipped with the 23cc engine, factory installed. The engine is complete with the recoil starter and centrifugal clutch assembly. A couple of hours are all that it takes for assembly, using a small number of hand tools. Power to the rear wheels is achieved with a timing belt running between the gear on the engine, and the large gear fastened to the rear end. Also mounted on the rear end is a very effective disc brake assembly. The rotating disc is actuated by a cam that is controlled by a cable from the throttle servo. When you pull the throttle servo into the low motor position, the disc brake is actuated. One common servo does a dual job of being the brakeman and the throttleman. Steering is handled through a heavy-duty servo mounted behind the front axle. The servo drives the steering linkage which in turn steers the front wheels. Small springs are mounted on the front spindles to give a little spring action to the front assembly. Four-inch diameter rims are provided and have rubber tires mounted to them. The tires are approximately six inches in diameter.

A scale steering wheel and vacuum-formed plastic seat make the Kart look like the full-size counterpart. Nerf bars are held in place with #6 nuts and bolts. The fuel tank is 8 oz. in size, and holds plenty of fuel before it will need refilling.

About the only thing left to do is install the radio system. A two-channel system is all that's required to operate the Kart. One important consideration: make sure you have heavy-duty servos, at least a heavy-duty one for the steering. You can squeak by with a regular servo on the throttle, but it's not recommended. A small piece of Velcro will mount the receiver and the battery pack to the floor pan. Plug the servo wires and battery pack together with the harness that holds the switch, and your radio should be ready. (Oh, yes—don't cut the antenna wire. It must be left at the length it was when manufactured.)

There is one more thing that you will have to purchase—gasoline. That's right, gas, not expensive glow fuel. The 23cc engine that comes with the Kart is designed to burn gasoline and a mixture of oil—the same type you put in your chainsaw or trimmer. One gallon will go a long, long way. You can also probably go a whole season on one set of tires. No need to buy a set of tires for each weekend of racing. Tire wear is practically nil.

Now that everything is together, it's time for a test run. Before you go to the track or parking lot to run your Kart, take a few minutes to make sure you have either charged your batteries, or you have new fresh batteries in your transmitter and battery pack. Check all nuts and bolts to make sure everything is secure and nothing is loose.

Fill the fuel tank with your gasoline mixture, choke the engine and give a few pulls on the recoil starter, and you should be running. Advance the throttle until the Kart starts moving; run the Kart until you feel comfortable with the steering and throttle. Once everything feels good, advance the throttle and have a ball. As I mentioned before, this is an ideal way to get acquainted with RC model cars. The cost is fairly low; maintenance is practically nil.

Size-wise, this little speed demon is 21-inches long, has a tread of 20 inches and tips the scale at just about 20 lbs. Just as with full-size cars, there are a few accessories available from the distributor or hobby shop. Plastic number boards for both sides and nose are available. Replacement parts are always available should you ever need them.

The driver is not available as an accessory, but is available from any toy store that carries Power Ranger play figures. This one is a 39-inch Power Ranger with moveable arms and legs, plus a uniform that resembles a driver's suit.

The half-scale racer retails for $599.95, plus shipping and handling.

PRODUCT SOURCE

New Era, Box 7378, Nashua, NH (603) 888-4453. ●

F1 DETAILING CONTINUED FROM PAGE 72

be transferred to your masking tape by laying the traced side down on the tape and retracing the lines. On this particular paint scheme it's easier to apply the decals to the outside of the body first using the stripping as a guide for masking the color separation lines. If you tape and paint first you may find the trim decals don't quite match up with the paint job.

To keep those paint lines clean and crisp be sure to press all the masked edges down firmly before shooting that first coat of paint. Don't forget to cover the holes in the body (mounting holes and helmet-mounting hole) with a piece of masking tape to avoid over-spray from sneaking in. Now, cover the outside of the shell with plastic food wrap. (Always paint in a well-ventilated area and wear a paint mask.)

SPRAY TIME

The usual rule of thumb for painting polycarbonate bodies is to spray the dark colors first. So, we'll begin with Pactra's Blue Streak. Make the first coat a light mist. This will seal the masked edges and prevent the following coats from bleeding under the tape. When painting Fl bodies, pay close attention to paint coverage. Be sure to get good, even coats on all areas especially the nose of the car.

After three or four even coats, about 15 minutes apart, we're ready for the next color. Here, to make sure we have a bright shade of blue, back up the Blue Streak with two coats of Sprint White. If you desire a darker blue (Navy), backup the blue with two coats of black. Now remove the mask from the areas to be painted yellow. Be sure to look for bleed-through and clean it up before continuing. A mixture of two parts nail polish remover (acetone) and one part rubbing alcohol works good. On some polycarbonate, straight polish remover will work better. Make a test on a scrap piece first. For small areas of overspray use a Q-tip, and a cotton ball on larger areas.

Following three to four coats of Daytona Yellow, shoot two coats of Racing Red to achieve a darker shade of yellow on these sections.

The final area to be painted is Sprint White. When the last coat has dried remove the remaining mask and plastic wrap and check for over-spray that may require clean up.

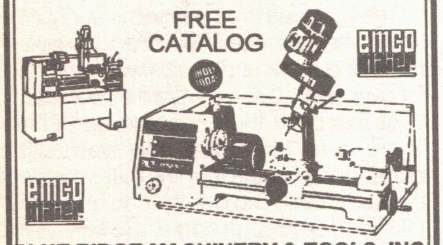
At this point the body can be trimmed. There is no big trick to this step, just be careful to follow the trim line that's molded in the body shell. The Dremel can be helpful in taking off any rough edges. Be sure to wipe the body off before applying the decals.

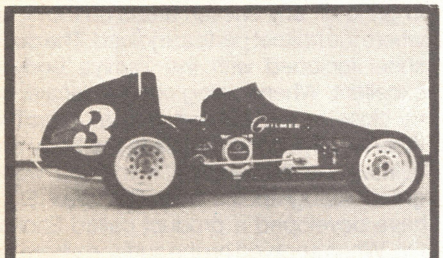
THE DRIVER

Now let's turn our attention to the driver's helmet. After piecing the two halves together, once again I use my handy Dremel to grind off any uneven areas on the seam where the helmet parts are joined. The decal sheet included with the Tamiya body is excellent. When cutting out the decals, cut as close to the colored part as possible. When applying the decals to the body and helmet, the float-and-stick method works great. Autographics and The Wax Shop have developed a product called Sticker-On. When sprayed on the surface where the decal is to be located, it allows you to float the decal into position before the adhesive takes effect. Once the decal is in place, squeegee out the air bubbles and excess liquid with a paper towel. Sticker-On doesn't have the ammonia smell of Windex and it won't cloud up. For the Mission Impossible job of applying the stickers to the helmet use the same method. When the decal is in place give it a shot with the hair dryer. This makes the vinyl very pliable and it snugs right down on to the convex surface. This eliminates all those wrinkles and bubbles.

The Williams Renault FW-14 was, along with the multicolored Benetton, among the most colorful cars on the '92-'93 circuit. Patience and a steady hand are the main ingredients for over all success on this paint project. Of course it goes without saying that you must start with high-caliber products such as those offered by the Tamiya group. This paint scheme is a challenge, but, the end result is worth the work involved. With the right attitude, anyone can produce an eye-popping paint job. But above all, relax, enjoy yourself and have fun with it! ●

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* Includes 540 motor and rotary speed control



From beginner to expert, on the water or in the dirt, Traxxas builds the right model for every demand. Ready-to-run or kit, Traxxas gives you unmatched features, performance, and value. Plus, our Built Traxxas Tough™ reputation has made us number one. From start to finish, it's Traxxas!



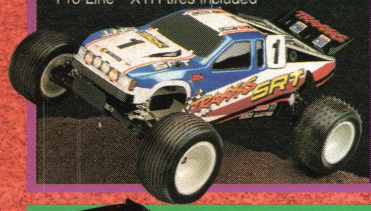
STAMPEDE

* The **first** high-performance monster truck
* Four-wheel independent suspension with long, high-performance, fully-tuneable, oil-filled shocks
* 2.72 transmission with race-proven, 48-pitch gears and tough, metal, planetary-gear differential
* Giant, soft-compound mud-hog tires
* Great-looking monster truck body
* Rigid chassis is Traxxas Tough™
* Super-high ground clearance tackles large obstacles
* Includes 540 motor and rotary speed control



SRT

* Pro-level race truck kit
* 2.72 Magnum transmission with dual ball-bearing pro differential and carbide diff balls
* Easy-to-adjust slipper clutch
* Complete set of ball bearings
* Bearing-compatible, bellcrank steering
* Hard-anodized, teflon-coated, T-6 aluminum shocks in long and XX-long lengths
* Sleek-looking, low-slung, stadium racing body
* Fully-adjustable suspension geometry
* Telescoping U-joint driveshafts
* Turnbuckles, 2.2" dished "lite" wheels, and Pro-Line™ XTR tires included





SLEDGE HAMMER

* Wide-track, independent suspension
* Eight oil-filled shock absorbers
* Giant 51/4 inch mudder tires
* Voted "Best Two-Wheel Drive Monster Truck" two years in a row by R/C Car Action magazine
* Satin-finish wheels look like real aluminum
* Unique design delivers the highest possible ground clearance
* Wide gear ratio selection- even 30:1 for monster pulling power
* RTR has Fwd/Rev electronic speed control

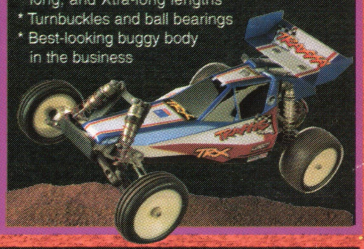


TOM CAT

* Voted "Best 2WD Ready-To-Run" for two years in a row by RC Car Action Magazine
* Adjustable oil-filled shocks
* Three-point floating rear axle
* 32-pitch gears and rugged gear differential
* Oilite, not plastic, bushings are used
* Radio tray cover protects the electronics
* Long-lasting rotary speed control
* 6 or 7-cell capability
* 540 motor for great acceleration and speed
* Knobby rear tires and ribbed front tires
* Large front bumper

TCP

* Total Competition Package
* Pro-level race buggy kit
* 2.14 Magnum transmission with dual ball-bearing pro differential, slipper clutch
* Includes long and short front suspension arms
* Includes both telescoping U-joint driveshafts and metal "dogbone" style driveshafts
* Includes Pro-Line™ XTR and Pro-Trax tires, 2 complete sets of rims
* Bearing-compatible, bellcrank steering
* Includes 3 pairs of hard-anodized, teflon-coated T-6 aluminum shocks in medium, long, and Xtra-long lengths
* Turnbuckles and ball bearings
* Best-looking buggy body in the business



NITRO



BUGGY

* **TRX-12** power for 35+ MPH speed & long run times
* Long suspension arms for excellent off-road stability. Nitro Street features lowered suspension for tight on-road handling
* Heavy-duty transmission with metal planetary-gear differential, slipper clutch, and telescoping U-joint driveshafts
* Bearing-compatible, bellcrank steering
* T-6 racing shocks for superb control





HAWK

* Nitro Street features exotic, super-car styling
* Nitro Buggy uses an integral roll cage for protection
* Complete turnbuckle set
* Heavy-duty recoil starter
* Flip-top fuel tank allows quick, easy refueling
* Easy engine access
* These are the only nitro models which are available ready-to-run with or without installed radio system. All you have to do is fuel them up and drive!

STREET



* Our most feature-packed ready-to-run
* Turnbuckle-adjusted independent suspension
* Oil-filled shock absorbers,
* Super-efficient, 48-pitch gears
* Satin-finish wheels look like real aluminum
* Rock-crunching, metal, planetary-gear differential
* Wide gear ratio selection, & adjustable slipper clutch
* Optional Fwd/Rev electronic speed control



* Kit includes 540 motor and reliable rotary speed control.
* Ready-to-run with pistol grip radio system



1/5 SCALE ON ROAD MONSTER BUGGY

OVER 3 FEET LONG!

* Giant 1/6-scale off-road buggy or 1/5 scale on-road sedan
* Powerful 23cc Zenoah racing engine with recoil pull starter
* Four-wheel independent suspension
* Giant, T-6 aluminum, oil-filled shock absorbers
* Adjustable camber, caster, toe-in
* Adjustable slipper clutch (buggy only)
* Powerful disk brake
* Variable gear ratios
* Dual-servo bellcrank steering
* Factory assembled
* Tough aluminum chassis
* Turnbuckles Complete ball bearings
* Runs on pump gasoline with two-stroke oil
* On-road features a tuned pipe for increased power



* **R.T.S. (Return-To-Shore™)** auxiliary electric motor powers the Nitro Vee to shore if the main engine stalls
* Propshaft clutch allows the prop to remain stopped while the engine is at idle
* Dual, through-transom exhaust system
* Steerable outdrive, adjustable trim
* "Deep V" off-shore hull
* Speeds up to 20MPH with long 15-minute run times
* Watercooled TRX-12 marine engine with heavy-duty recoil starter



NITRO VEE

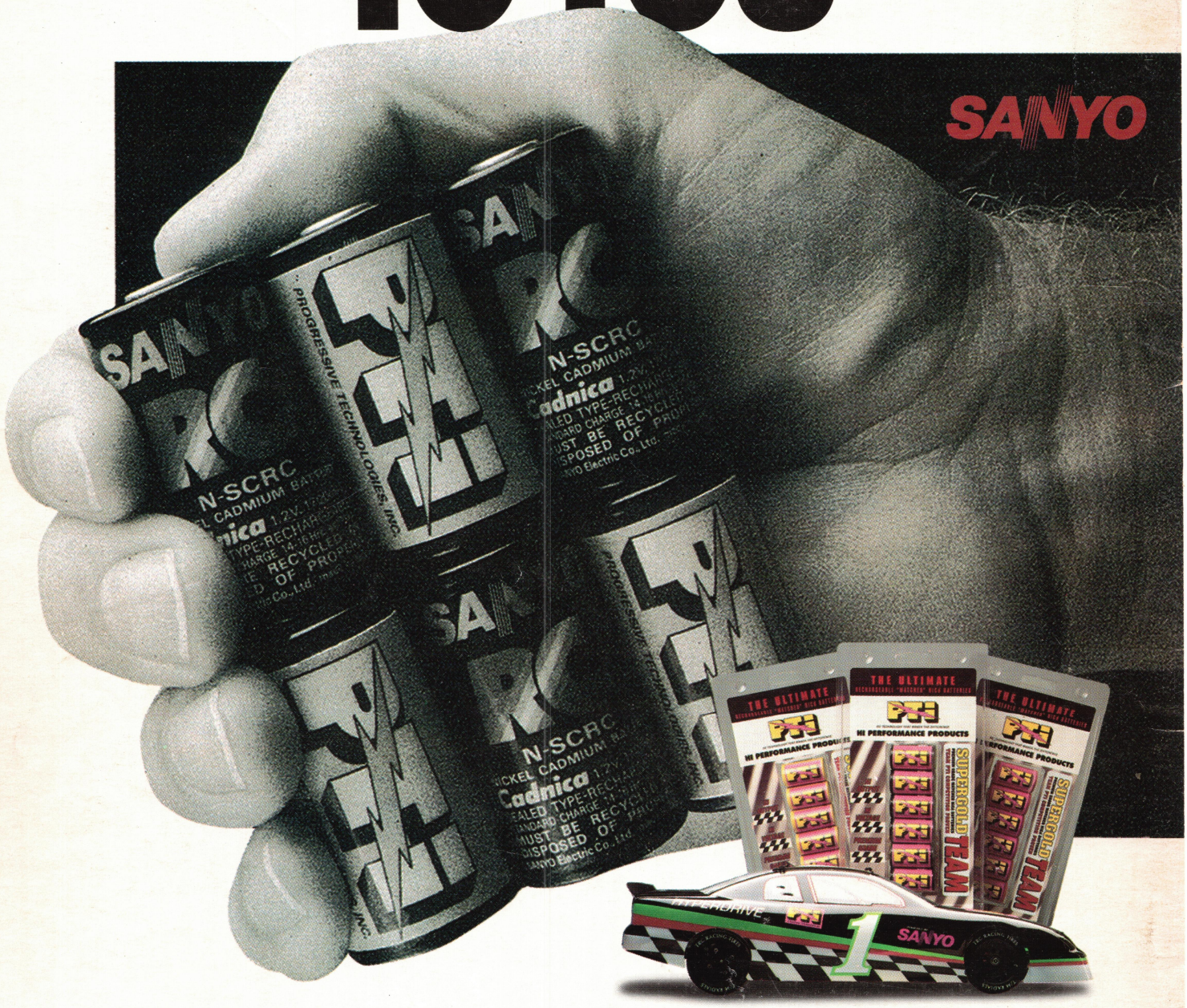
* The only boat with twin 540 motors powering dual counter-rotating, surface-piercing propellers
* Dual, steerable outdrives deliver precise control
* 2:1 Adjustable gear reduction
* Holds one or two battery packs for run times up to 15 minutes
* 6 or 7-cell capability
* Stable, 31-inch "deep V" hull
* Ready-to-run includes radio system and the smooth power of a fully-proportional electronic speed control.



Villain IV

Traxxas Corp. 12150 Shiloh Rd., Dallas, TX. 75228 Ph. (214) 613-3300 Fax (214) 613-3599. Traxxas U.K., P.O. Box 1128, Winterbourne, Bristol, BS17 2SH, England. Specifications on all models subject to change without notice. Write for complete catalog. Copyright Traxxas Corp. 1995. Pro-Line is registered trademark of Pro-line Corp. manufacturer of R/C model car tires.

MORE POWER TO YOU



With PTI Power Pack batteries the power is in your hands. Whether you're racing flat out or just flat out having fun, you have the power to cut the juice loose right in the palm of your hand. PTI's batteries are cycled until they are stabilized before being precisely matched into packs. So crank it up with the PTI power pack, and turn up the juice.

FOLLOW THE LEADER PTI

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