



CARPET RACERS THE MOVIE? **THAT'S RIGHT A MOVIE!** pg. 130

Xtreme **RC CARS**

Performance Tests • News • How-To's • Race C • Saving the World

SAVAGE **FLUX HP**

1.21 GIGA
WATTS OF
POWER!

**SUPER
EXCLUSIVE:**

TAMIYA ARTA Garaiya

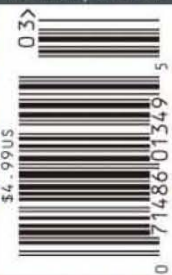
INTEGY iRock Crawler

LOSI 8IGHT-E

**SAVAGE
FLUX HP**

Replica Axial Crawler

MAR 2009 / ISSUE 160



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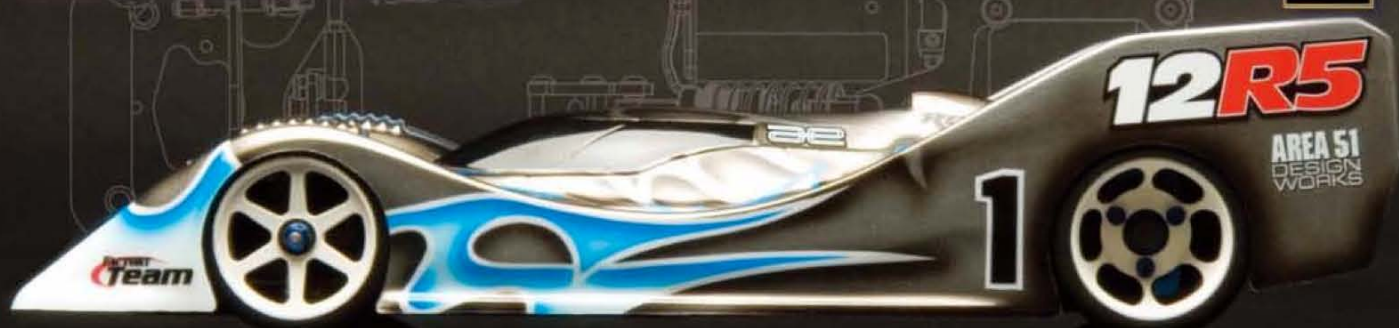


RACE COVERAGE:

IFMAR On-Road Electric Worlds
Puerto Rican Winter Nationals



12R5 FACTORY Team



2008 IFMAR 1:12 Scale Top Qualifier & World Champion!



Factory Team shocks with through-shaft design making for equal damping in both directions. Woven carbon fiber center shock tower



Updated active strut front end features symmetric components with adjustable caster and track width, as well as a new front axle with wheel nut.



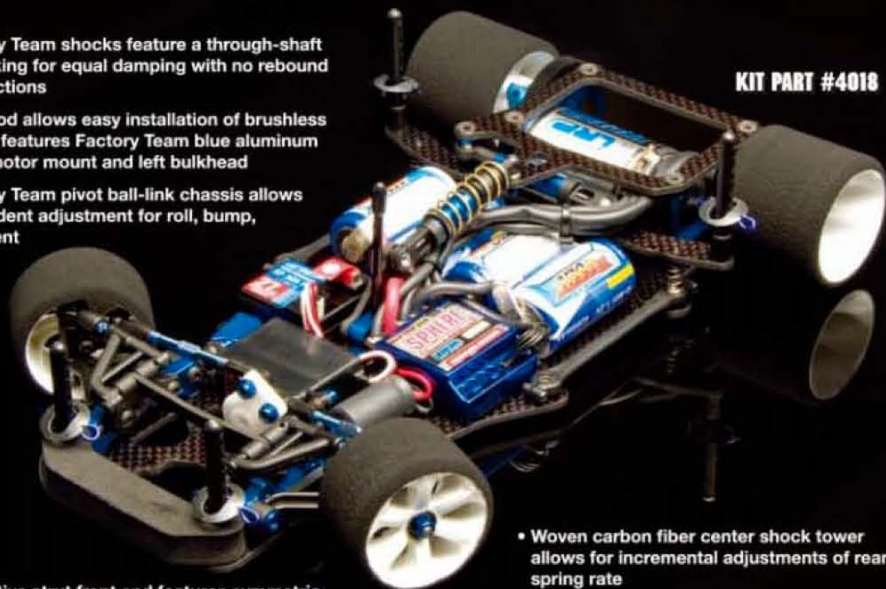
Wide rear pod allows easy installation of brushless motors and features Factory Team blue aluminum machined motor mount and left bulkhead.



New Factory Team pivot ball-link chassis allows for independent adjustment for roll, bump, and alignment. 2.5mm woven carbon fiber chassis

- New Factory Team shocks feature a through-shaft design making for equal damping with no rebound in both directions
- Wide rear pod allows easy installation of brushless motors and features Factory Team blue aluminum machined motor mount and left bulkhead
- New Factory Team pivot ball-link chassis allows for independent adjustment for roll, bump, and alignment

KIT PART #4018



- Updated active strut front end features symmetric components with adjustable caster and track width, as well as a new front axle with wheel nut

- Woven carbon fiber center shock tower allows for incremental adjustments of rear spring rate
- Factory Team T-plate chassis option is available

Take The Next Step In 1:12 Scale Racing Evolution

The Factory Team 12R5 is the latest evolutionary step in Associated's over twenty-five years of 1:12 scale racing history. The designers in Area-51 built the 12R5 on a 2.5mm woven carbon fiber chassis that utilizes a pivot-ball link rear suspension that allows for independent adjustments for chassis roll, bump and alignment. Having the ability to make these chassis adjustments independently gives the 12R5 greater potential for the best possible handling on any track surface. While testing, the pivot ball-link chassis has proven to be more durable in high speed impacts and excels in bumpy track conditions.

The 12R5 features new shocks with a through-shaft design providing equalized damping throughout the full stroke of the shock in both directions without any unwanted rebound. The center shock tower has four mounting positions that split the spring rates for even finer adjustments. The new center shock also controls the chassis droop and can be adjusted on the car with a turnbuckle wrench, making it easier and quicker to get dialed in.

The 12R5's 'Active Strut' front end has been optimized, featuring symmetric components with

adjustable caster and track width, as well as a new front axle with wheel nut. Factory Team blue aluminum servo mounts position the servo flat on the chassis for a lower center of gravity and include Ackerman adjustment spacers. The foam front bumper helps protect body and chassis during impacts.

The 12R5 comes ready for brushless featuring an optimized wide rear pod, woven carbon fiber top plate and Factory Team blue aluminum machined motor mount and left-side bulkhead. The woven carbon fiber top plate attaches to the motor mount and left-side bulkhead at four points, making the 12R5's rear pod more rigid and durable.

ae

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 TRI20810, 4200mAh side x side Li-Po, \$199.99 msrp
 Fits most 4wd buggies by Associated, Kyosho, MRC, J-Concepts, Losi XOK4, Hot Bodies, X-Factory, plus some touring cars, 2wd buggies, trucks & 1/12th scale.

TRI20811, 6000mAh side x side Li-Po, \$229.99 msrp
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Extra capacity yet still delivers high voltage. Hard case, bannana connectors, ROAR legal.
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TRI20287, 7 cell side x side with Traxxas connector, \$119.99 msrp

www.teamtrinity.com

SC8

SHORT COURSE



1:8 Scale Nitro 4WD Offroad Race Truck



XP3D Computerized Digital 3-Channel FM Radio System with 10 model memory comes standard in the SC8



Hard-anodized 3mm thick 7075 aluminum chassis and 3mm low-profile black anodized aluminum shock towers



Hard-anodized shock bodies with 4mm shock shafts and protective rubber boots provides consistent traction



Team Associated's S2008 metal gear high-torque steering servo is tough and comes standard in the SC8

Team Associated's SC8 is the next chapter in our great RC racing adventure. We have been proud of all of our creations here at Team Associated but the SC8 has captured our imaginations so completely, it's almost like we have discovered RC all over again. We think that you will agree, that the SC8 is another champion by design.

- Authentic, custom painted and finished scale licensed short course truck body
- Mounted and assembled scale wheels and tires with foam inserts and bead guards
- Functional full roll cage with integral dirt shields
- XP3D Computerized Digital 3-Channel FM Radio System with 10 model memory

- Powerful Pro.28 engine with slide carburetor and dual stage air filter
- Pro-Start hand held starting system
- S2008 metal gear high-torque steering servo
- Hard-anodized shock bodies with 4mm shock shafts and protective rubber boots
- Hard-anodized 3mm thick 7075 aluminum chassis



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Independently adjustable front and rear disk brakes lets you adjust the braking bias to suit your track conditions



Fully functional roll cage with integral dirt shields is removed quickly and easily with only four body clips



The powerful Pro 28 comes with Team Associated 2-chamber tuned muffler and the Pro Start starting system



The SC8 is an unprecedented realistic replica race truck that features 20+ inches of scale suspension travel (2.6" actual)

- Full ball bearings in drive train
- Independently adjustable front and rear disk brake bias
- 150cc quick fill fuel tank
- Team Associated 2-chamber tuned muffler
- 3mm low-profile black anodized aluminum shock towers

- 4.3:1 ratio gear boxes for maximum punch
- Precision universal drive shafts in six locations
- 3mm black anodized aluminum steering rack with ball-bearing steering system
- Sealed radio box with thread-through molded antenna mount
- Fuel bottle and glow igniter included

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WORLDS REPORT:



F1MAR

ISTC 1/10th World Championship

In November 2008, Marc Rheinard returned to the podium as the best electric touring car driver in the World...and once again he used a PROTOform body on his way to the top!

Marc overtook Round-2 winner & top qualifier Atshushi Hara, who also chose a PROTOform Mazdaspeed6, to take his second title in four years.

The Worlds Top Drivers...

- Rheinard
- Masami
- Wilke
- Groskamp
- Leino
- Surikarn
- Volker
- Hara
- Lemieux
- Moore
- Levanen
- Drescher

...choose PROTOform!



NEW FROM PROTOform



PF8-GT #1503-00
fits Kyosho Inferno GT, OFNA DM-1 Spec



R9-F #1498-00; #1498-01 (light)
fits 190mm TC, for rubber tire racing



Sophia GT #1502-00
fits 200mm World GT (pan-car)



LTC-R #1505-00; #1505-01 (light)
fits 190mm TC, for rubber tire racing

MARC RHEINARD

CAPTURES 2ND WORLD TITLE

MARC RHEINARD
2004 & 2008 TC Champion



PROTOform
MAZDASPEED6
EFRA, GBS, IFMAR, & ROAR approved
#1487-00; #1487-01 (lightweight)

PROTOform

12-TIME IFMAR WORLD CHAMPS

THE PULSE REVOLUTION



TRI10412, 10.5 Turn
ROAR Spec



TRI10413, 13.5 Turn
ROAR Spec
(19T Brushed Equivalent)



TRI10414, 17.5 Turn
ROAR Spec
(27T Brushed Equivalent)



TRI10415, 21.5 Turn
ROAR Spec

• "S" Stator Design For
Increased Power

• Gold Plated Buss Bars

• Heavy Duty
Hi-Grade
Ball Bearings

• Modular Construction

• Easy Disassembly For
Working On & Cleaning



• Infinite Adjustable
Endbell Timing

• Sintered NEO Rotor With Optimized
Field For ROAR Spec Class Racing

• Easy To Change Sensor



For more info on the Trinity handout
program for cost controlled racing
contact tonyp@teamtrinity.com

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CLEVELAND, OHIO**

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TQ Brushless Touring
1st, Brushless Touring

Pulse 4 Turn, Trinity IB 3800 Li-Po



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Controllers, You Are Not Locked In To Lower Performing
Motor/Speedo Combos.***

All New Proprietary Design Available Only From Trinity

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TRI10400, 3 Turn Modified
TRI10401, 3.5 Turn Modified
TRI10402, 4 Turn Modified
TRI10403, 4.5 Turn Modified
TRI10404, 5 Turn Modified
TRI10405, 5.5 Turn Modified
TRI10406, 6 Turn Modified
TRI10407, 6.5 Turn Modified
TRI10408, 7 Turn Modified
TRI10409, 7.5 Turn Modified
TRI10410, 8 Turn Modified
TRI10411, 8.5 Turn Modified

PULSE

brushless pro racing motors by
TRINITY

Trinity Products Inc.
47 Colonial Drive
Piscataway, NJ 08854
1.732.562.1234

WWW.TEAMTRINITY.COM

CONTENTS

MARCH 2009 / ISSUE 160

Xtreme RC Cars
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Printed in the U.S.A.

THINK
OMNIMEDIA LLC



Rock Crawling... the golf of RC.

124

156



DEPARTMENTS

- 36 STARTING BOX**
First Time Nitro
- 56 THE SKINNY**
And Sometimes Not So Skinny
- 142 X-TOOLS**
Skinny Redefines Tools
- 138 X-DYNO: O.S. SPEED 21 V-SPEC II**
Your Current World Champ in a Box
- 144 CUSTOM WORKS**
The Wet Look

PERFORMANCE TESTS

- 62 HPI SAVAGE FLUX HP**
Isn't an Electric Savage enough?
- 77 LOSI 8IGHT-E**
Better than New Wave music?
- 82 TAMIYA ARTA GARAIYA**
Weird name, we know.
- 96 INTEGY IROCK 4X4**
Big fun, no music.

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From coast to coast, at race tracks and events in every state, there's one color you're sure to see again and again – Blue.

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For unmatched quality, consistency and performance, trust Blue Thunder fuels in every nitro vehicle you drive.



CONTENTS

MARCH 2009 / ISSUE 160

116



150



77

FEATURES

- 108 IFMAR ON-ROAD WORLDS**
A Two-time Winner
- 116 PROJECT THUMPER**
2 Extra Strokes Makes It Feel Better
- 124 PUERTO RICO WINTER NATIONALS 2008**
Run Runner!
- 130 CARPET RACER**
The movie. Interview with the Producers

SCOPES

- 58 DURATRAX ONYX**
All Charged Up

LEARN HOW-TO

- 112 MAKE YOUR ELECTRONICS LAST LONGER**
Save the Circuits
- 150 DRIFTING IN 6 STEPS**
Do Donuts On Purpose

REGULARS

- 14 INSIGHT**
Math Correction
- 18 INSIDE LINE**
Everything New
- 28 THE POLLS**
Be a Number
- 30 EVENT CALENDAR**
Take Some Days off
- 33 QUICK TIPS**
Fast Fixes
- 48 MONSTER PIT**
Lil and Big'un
- 52 THE CIRCUIT**
New Name, Same On-Road
- 134 IN GEAR**
Parts Department
- 148 OVAL NATION**
Round and Round We Go
- 154 XRC CHRONICLES**
Memories
- 156 ASK THE PROFESSOR**
Stripping for Gears
- 158 XTRA STUFF**
It's Alive!
- 160 RACERS RIDES**
OR Crawlers Rides

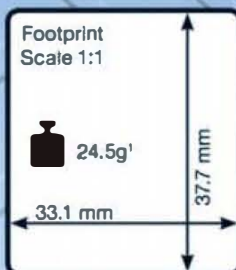


THE CHOICE OF WORLD CHAMPIONS

SPX Competition Stock Spec speed control

Get the edge over the competition with this speed control specially developed for stock racing. Features improved hardware and our special "Stock Spec" software which increases stock motor performance significantly. Get that edge over the competition you have been looking for!

#LRP80710: SPX Competition Stock Spec Speed Control



LRP Vector X11 Stock Spec Motors

The Vector X 11 Stock Spec Motor is tailor made for controlled stock and spec racing! Color-coded aluminium rings, laser engraving on the tear down, and black shaft and magnet, make identifying this motor and its turns easier than ever!

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- Sensored technology
- Standard 540 size and weight
- Complies with ROAR rules

VECTOR X11 Stock Spec	21.5 Turns	17.5 Turns	13.5 Turns	10.5 Turns	9.5 Turns	8.5 Turns
Part Number	#LRP50860	#LRP50850	#LRP50840	#LRP50830	#LRP50820	#LRP50810
Aluminum Ring Color	Green	Yellow	Orange	Blue	Purple	Dark Gray
RPM ²	12,960 rpm	16,560 rpm	23,040 rpm	27,360 rpm	30,240 rpm	33,840 rpm
RPM per volt, KV	1.8	2.3	3.2	3.8	4.2	4.7
Power ²	124W	153W	201W	255W	278W	303W
Efficiency ³	93%	93%	93%	92%	92%	92%
Min. speed control requirements	LRP A.I. Brushless LRP 80100			LRP A.I. Brushless Pro LRP 80150		LRP Sphere LRP 80500



LRP High Power Soldering Station.

LRP releases the first ever tailor-made Soldering Station for RC applications. Designed and fully setup to handle all the needs of a soldering station for R/C use. With its 90W power rating and 400kHz electromagnetic heating element, this soldering station reaches maximum temperature (480C) super fast, and is perfect to use for soldering joints on batteries, motors and speed controls. Equipped with the EasyTip-system, the tip of the 90W handle with its comfortable rubber grip can easily be replaced in seconds without any tools. 1.2mm and 0.5mm tip included.

#LRP65800: LRP High Power Soldering Station

for detailed technical data see current price list ¹measured at 7.2V ²For race usage in combination with the VECTOR X11 - 6.5 Turns the Brushless Worlds Option Kit (Order No. 82700) is recommended. ³For race usage in combination with the Vector X11 - 4.5 Turns motor the Brushless Worlds Option Kit (Order No. 82700) is recommended.



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ADMITTING MISTAKES

Lots of people think I'm not one to admit when I'm wrong or make a mistake, but the truth is quite the opposite. I'm not afraid to say, "Crap, I was wrong." Don't get me wrong: I'll still try to prove that the person discussing a situation with me might be wrong, and I'll look for flaws in their argument, but when I'm presented with a piece of data that shows fact and not just theory I can't really argue.¹

Not too long ago a person posted on the Internet that our X-Dyno readings seemed high. I argued tooth and nail that it is near impossible for them to read high as the software is locked, but I understand that numbers can be changed to alter data.² It was really hard for me to understand how we could be accused of bumping up numbers when our entire reason to have a dyno was to put them back in check. Why would we inflate numbers that were nearly half of what some manufacturers claim?³ It was sort of a dumb accusation. But after digging into the software and discussing things with Brian Kinney, I did find that a number had been changed, which resulted in some of the numbers being altered. It was when I was looking at somebody else's data that the software accepted a different flywheel weight than I was using.⁴ This number was supposed to be locked in our system, but a slight oversight when installing the program on a new PC allowed this to change.

What all this meant was that after the July 2008 issue, #150, our data was slightly off. And what was more frustrating or hard to figure out was that, due to how the software runs, it wasn't all the engines either. It seemed to only really alter engines that were started off the OFNA/PICCO Red Dot we tested. Now before everybody freaks out, the data is still valid; it was just a mistake in the equation that only resulted in a slight increase in peak results. For example, the Orion 28ZX we tested got 2.06 hp and 79.34 oz-in of torque, but really was 1.91 hp and 73.64 oz-in of torque. Basically it came down to less than 10% error, but it's error nonetheless. I'd love to correct all the data in this issue, but I don't have the space. I'll update the web with the corrected data.

It's not easy to admit a mistake and this one is a good kick in the junk after trying to convince people that it was impossible for a setting to be wrong. It happened, though, and we'll do our best to make things right by posting the correct data online.⁵

Godspeed,



Derek Buono

Executive Editor
derekb@rc411.com



1. You have to argue with fact and intelligence, not just an "I think" point of view.
2. I'll bet we still have higher numbers; we've never tested the same engine on the other dyno in question.
3. That would make sense to some, I guess. Hey, your data is wrong...but I'll lower it and add 8%. Yeah, that sounds smart.
4. I know it sounds like an excuse, but it was something that wasn't supposed to be changeable and something we didn't think about.
5. It will be updated with an online PDF of all current engines.

» TEAM RANTS

MIKE VELEZ (BELIEVES THE BLUE MEN ARE GIANT SMURFS)



SPRING SHOWERS BRING... That fresh, clean feeling.
MY PLANS FOR THE SUMMER ARE... Tour with Blue Man Group as an understudy.
MAC OR PC: Mac por Vidal!

DEREK BUONO (DIRTIER THAN A THIRD-WORLD COUNTRY)



SPRING SHOWERS BRING... Cleanliness to this filthy dust bowl we call SoCal.
MY PLANS FOR THE SUMMER ARE... Go on a honeymoon to a volcano.
MAC OR PC: I used to be PC now I'm all Apple. I don't even know how to fix them and I don't care.

JAMES REVILLA (JOHN McLANE > WOZZY MAC BOY)



SPRING SHOWERS BRING... Out the stupid drivers, and make them crash.
MY PLANS FOR THE SUMMER ARE... Um, we don't get summer vacation at the office.
MAC OR PC: Macs are 2-EZ, PC's are for the hardcore!

MIKE McMAHON (BECAUSE APPLES ARE FRUITY, TOO)



SPRING SHOWERS BRING... Less dust and more traffic jams in SoCal.
MY PLANS FOR THE SUMMER ARE... Switch from Guinness to Corona.
MAC OR PC: PC who?

DAVE PALACIOS (MAC PEOPLE CAN'T INSTALL THINGS)



SPRING SHOWERS BRING... Jackson Flowers, my dog was born in April actually.
MY PLANS FOR THE SUMMER ARE... To actually install the AC in my AE86 Corolla. Right now the parts are sitting in the garage.
MAC OR PC: Mac por Vidal!

CARL HYNDMAN (A WHOLE NEW MEANING TO 'AVALANCHE')



SPRING SHOWERS BRING... Snow in the mountains!
MY PLANS FOR THE SUMMER ARE... To utilize daylight savings. Yeah! Macho fun.
MAC OR PC: Mac all the way.

BRIAN SKINNER (HE ACTUALLY PLANS BY THE MINUTE)



SPRING SHOWERS BRING... Nitro powers.
MY PLANS FOR THE SUMMER ARE... Summer plans? Heck, I don't even know what my tomorrow plans are!
MAC OR PC: Mac for graphics, PC for everything else.

JEFF EVELEIGH (STILL GETS NAKED WITHOUT BEER)



SPRING SHOWERS BRING... The next nitro racing season.
MY PLANS FOR THE SUMMER ARE... Get naked and drink beer.
MAC OR PC: Both (and both suck)

JASON BOULANGER (ACTUALLY HE GOES 3 WAYS, WHAT?)



SPRING SHOWERS BRING... Horrible, horrible traffic to southern California.
MY PLANS FOR THE SUMMER ARE... To make some long-overdue updates to my website! (shameless plug: www.jasonboulanger.com)
MAC OR PC: I go both ways (sorry Carl, not like that!)

MICHAEL WORTLE (REFERRING TO THE HOOD OF HIS CAR)



SPRING SHOWERS BRING... Trick question. It never rains in my 'hood.
MY PLANS FOR THE SUMMER ARE... What? That's like 5-months away.
MAC OR PC: PC-like a normal person. Macs are for art %ags.

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**REINVENTED AND
READY-TO-ROLL**

**FOR USE IN
NOVAK'S
CONVERSION
KITS**



Novak Mod
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Gears Available

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HV PRO MOTOR

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Rebuildable Design
for easy maintenance

Shielded Sensor Cable

**EASY TO INSTALL
IN POPULAR
MONSTER
TRUCKS**

9 Adjustable Parameters

- ▶ Minimum Brake
- ▶ Drag Brake
- ▶ Dead Band
- ▶ Minimum Drive
- ▶ Throttle Curve
- ▶ Brake Frequency
- ▶ Brake (On/Off)
- ▶ Motor Rotation
- ▶ Li-Po Cut-Off



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Pinion Gears
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Factory-
installed
Heat Sink on
ESC & Motor



ESC Cooling
Fan included

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HPI BAJA 5B

TRAPPED?

TIMES ARE TOUGH ...

WHEN WILL THE DEPRESSION END?



"My Baja's like money under a mattress ... it's always there when I need it. 'Ol trusty-reliable - like gold!"





ESCAPE!

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A LITTLE HELP FROM HPI RACING.
THE RTR BAJA 5B. FUN, FAST, DESIGNED WITH STYLE
and BUILT WITH INDISPUTABLE HPI DURABILITY.**

HPI Racing has a tradition of designing innovative, high quality products since 1986. The 1/5 scale Baja 5B is no exception. Its design is revolutionary for large scale R/C cars, paying tribute to the classic style of real Baja buggies. It's a complete, pre-built chassis with radio gear included - just fill it with gas and go! The buggy is fun and durable, with numerous option parts you can bolt on, so you know you're getting a vehicle that is supported by a company that backs its products 100%. Go big, get the HPI Baja 5B.

#10600 RTR BAJA 5B

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WWW.HPIRACING.COM
Sold at finer hobby shops. See our website to locate one in your area.

NOT STREET LEGAL

Designed for mid- to high-power .21 and .28 nitro engines, the new Losi RE11 Exhaust System provides 1/8-scale buggies and truggies with added mid-range and top-end power. The RE11 is dyno-developed and track-tuned for reliable performance. A black-anodized finish offers unmatched heat dissipation, as well as style and durability, and a special reinforced stinger takes extreme abuse.

PART NUMBER: LOSR8001

DISTRIBUTED BY: HORIZON HOBBY

www.losi.com



KYOSHO GOES DESERT RACING

Kyosho's new DRT (Desert Race Truck) stands alone when it comes to power, handling, and overall performance. The DRT shares many of its parts, option parts, and performance with the DBX and DST, and comes fully assembled and ready to hit the dirt. It's powered by Kyosho's GXR .18 and features a dirt-proof radio box, fully digital servos, and a new two-channel radio.

PART NUMBER: 31082B (READY SET)

www.kyoshoamerica.com



BLUE LIGHT SPECIAL FOR 2009

GRP have announced their Worldwide GRP price reduction program, to be launched by the time you read this. "To help face up to the serious worldwide financial crisis which is involving all sectors their idea is to make all high quality GRP products, tires, engines, and gadget lines, available at greatly reduced prices compared with 2008. This price reduction is possible by reducing to a minimum their margins, by removing some steps in the traditional distribution chain, and by the distributors also accepting a reduction of their margins." What does this mean? How about an average retail price reduction of over 40%, for starters! Also, GRP will offer direct purchasing at race events whenever GRP's staff is present, direct technical assistance on behalf of GRP, tech support at race events whenever GRP's staff is present, and more. Sounds like a winner from GRP!

www.grpgandini.com

EQUALIZED CORNER SPEED DRIVESHAFTS

Soy thot five times fast! Team XRAY hops up their T2 line of touring cars with these new driveshafts. Designed specifically for the EU edition, these driveshafts ore made from HUDY Spring Steel, are 52mm in length, and ore available individually.

PART NUMBER: 305327

www.teamxray.com

DRIFT STANDARD

RC drifting has been around for a few years now, but so far no one has actively pushed to standardize the aspects of competitive

RC drifting—that is, until now. The RC Drift Network staff has one goal, and that is to offer the RC drifting community the means to not only standardize events but to get more organized in order to bring RC drifting into the spotlight. They benefit from having corporate backing from the biggest names in the industry; these include HPI Racing, Tamiya, Kyosho, Yokomo, Hot Bodies, Team Orion, Castle Creations, Tekin, KO Propo, Drift RC Magazine, and more—as well as drift-specific shops, local drift organizations, RC drifting communities, and RC drift teams from around the world. Now that's what you call global!

www.rcdriftnetwork.com



Moore Slashin' Stuff

MIP has a new ball diff kit for the Traxxas Slash. The diff features a large-diameter main gear, sealed thrust bearing assembly, and a moveable output shaft to allow for diff adjustment without taking apart the transmission. The MIP diff works in all Traxxas vehicles that use the Magnum 272 transmission.

PART NUMBER: 08116

MSRP: \$55

www.miponline.com



Sport the JConcepts

JConcepts latest T-shirt features a combination of the blue stone color and the splatter with familiar JConcepts bull horn front logo. Shirts are made of a heavy-duty 50/50 Cotton/Polyester blend, and the babe is NOT included. Sorry.

PART NUMBER: 2044

MSRP: \$19-22 DEPENDING ON SIZE

www.jconcepts.net



It was battle royale again for that Slash diff.

BLACK REVOLVERS

RPM's line of black wheels has steadily grown in popularity with a flood of constant request. So, RPM has decided to answer those request and offer their Black Revolver 2.2 rims for the Traxxas e-Rustler, e-Stampede and HPI RS4-MT Trucks. These wheels aren't just dyed, but are molded in black. The advantage to moulded black wheels is that if a scratch occurs, it is nearly invisible since there is no alternate underlying color to show through. AND just like all of RPM's other wheels, these new Black Revolvers are backed by their industry-leading warranty program. Go get some!

PART NUMBER: #82052 (BLACK REVOLVER REAR WHEELS—TRAXXAS E-RUSTLER & E-STAMPEDE UPC #672415820520)

#82062 (BLACK REVOLVER WHEELS—FT. FOR TRX. E-RUST. / E-STMP. FT. OR RR. FOR HPI RS4-MT UPC #672415820629)

MSRP: \$7.95 PER PAIR

www.rpmproducts.com



RPM Revolver: better than the movie "Revolver."

Team Orion's New ESC

Team Orion enters the ESC market with their new Vortex Race-Spec brushless ESC. Designed in conjunction with KO Propo, the Vortex Race Spec sports an ultra-low profile, variable frequency system, sensored technology, five preset profiles, and ICS connectivity. You can get the ESC by itself, with a cooling set, or in combos with Team Orion Vortex brushless motors, from 4.5 to 13.5-turns.

www.teamorion.com



DEUCE FOR THE 8IGHT-T

Losi updates their 8IGHT-T to 2.0 status with a bunch of new changes to improve performance. Changes include an extended TFT chassis, updated suspension geometry with extended suspension arms, heavy duty front and rear brake disks, revised radio tray, and a sleek updated body for better airflow.

PART NUMBER: LOSA0805

MSRP: \$1,150

DISTRIBUTED BY: HORIZON HOBBY

www.losi.com



The best experience with an R/C battery you will ever have.

As the world leaders in R/C battery technology Team Orion spent years developing what we felt was the proper solution to the dark ages of cycling, abusing and disposing. We decided to think differently and in December 2005 we began shipping our SLPB Platinum line of R/C batteries. Fast forward to today and our SLPB Lipo's are not only found in more hobbyist and racers vehicles alike, but are the choice and hand out for most racing series across the globe. Our innovative design and interface is now the most copied in the industry, so much so rules have been written around it. They say imitation is the finest form of flattery and to all our competitors we say thank you for the kind words.



SLPB® 5000mAh Lipo #ORI14010

- Proven Team Orion SLPB cells ensure quality
- 20C and 5000mAh for extreme conditions
- 2S2P cell construction for 7.4 volts nominal
- Cycle life measured in the hundreds
- Platinum look impact resistant case
- No cheap harness or balancing device needed
- Use of Team Orion's revolutionary balancing port design allows access to individual cells

SLPB® 3800mAh Lipo #ORI14009

- Proven Team Orion SLPB cells ensure quality
- 30C and 3800mAh for extreme conditions
- 2S1P cell construction for 7.4 volts nominal
- Cycle life measured in the hundreds
- Carbon look impact resistant case
- No cheap harness, sack or balancing device needed
- Use of Team Orion's revolutionary balancing port design allows access to individual cells



SLPB® 3400mAh Experience Lipo #ORI14008

- Proven Team Orion SLPB cells ensure quality
- 25C and 2400mAh for extreme conditions
- 2S1P cell construction for 7.4 volts nominal
- Cycle life measured in the hundreds
- Official hand out battery for Tamiya TCS Nationals! (GT1-Class)



SLPB® 2400mAh Experience Lipo #ORI14007

- Proven Team Orion SLPB cells ensure quality
- 20C and 2400mAh for extreme conditions
- 2S1P cell construction for 7.4 volts nominal
- Cycle life measured in the hundreds
- Official hand out battery for Tamiya TCS Nationals! (M-Class and GT2 Classes)



The Safest batteries in the industry! Don't just take our word for it...



THIS PRODUCT MEETS OR EXCEEDS THE SAFETY STANDARDS FOR INTERNATIONAL AIR SHIPMENT SET FORTH BY THE IATA

Manufactured exclusively for Team Orion by

Kokam®



The Use of Team Orion SLPB Li-Po Batteries from Kokam ensures the highest quality and safety in the industry. Beware of cheap imitators.

For more information regarding the latest breakthrough in battery technology go to: www.teamorion.com
All Team Orion racing components are designed and manufactured with pride by those who race. Patent Pending
20322 Valencia Circle, Lake Forest, CA 92630-8158 USA

MORE LIPO FOR YA

ProtekRC has some new LiPos available. The new packs are rated at 3800mAh with a 30C output and feature a hard shell case. A wiring harness is included with Dean's plug and balancing taps to get you running right away.

PART NUMBER: PTK-LPH-3800-2530

MSRP: \$90

DISTRIBUTED BY: A-MAIN HOBBIES

www.ainhobbies.com



CELL MANAGER HIRED

Team Trinity has a new I-Balancer battery manager for all your battery needs. The manager charges, discharges, and balances LiPo, NiMH, NiCd, Li-Ion, and even PB batteries! A built-in power supply means less stuff to lug around, and an optional interface allows you to connect it to your laptop.

PART NUMBER: TR122006

MSRP: \$279

www.teamtrinity.com

DESCEND INTO PERFORMANCE

Rock crawler fans, are you ready for a new competitive/scale body for your rig? Check out the Descender body from Pro-Line. Made from Genuine .040 Lexan, the Descender includes overspray film, window masks, and a decal sheet. You can get a 1/10 or a 1/18-scale version to fit most rock crawler chassis.

PART NUMBER: 3297-40 (1/10) / 3296-40 (1/18)

MSRP: \$27/EACH

www.prolineracing.com



NEW & HOT TRINITY

1-BALANCE BATTERY MANAGER
The I-Balancer battery manager is a powerful tool for managing your batteries. It charges, discharges, and balances LiPo, NiMH, NiCd, Li-Ion, and even PB batteries. A built-in power supply means less stuff to lug around, and an optional interface allows you to connect it to your laptop.

1/10 SCALE LEXAN BODY & RACE KIT
The Descender body is made from genuine .040 Lexan and includes overspray film, window masks, and a decal sheet. You can get a 1/10 or a 1/18-scale version to fit most rock crawler chassis.

1/18 SCALE LEXAN BODY & RACE KIT
The Descender body is made from genuine .040 Lexan and includes overspray film, window masks, and a decal sheet. You can get a 1/10 or a 1/18-scale version to fit most rock crawler chassis.

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www.teamtrinity.com

RACE *THIS!*



VENDETTATM TC
1/18 Scale Ready-to-Run EP 4WD Touring Car

PROTECTED BY
STRESS-TECH
GUARANTEE 1TM
YEAR

- The ready-to-run contender!
- Impressively fast – and totally adjustable!
- Loaded with high-quality, anodized aluminum parts.
- Compatible with many existing Vendetta hop-ups.

For more information and the location of the dealer nearest you, visit duratrax.com or call 1-800-682-8948 and mention code number 84K.

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DURATRAX[®]
duratrax.com

INSIDE LINE

1/8-SCALE GRIP

HPI Racing has some new 1/8-scale skins for your local track. The Proto features large tread lugs, making them good all around tires that are best suited for soft terrain and long mains. The Block tire features medium-sized lugs, and both come in two compounds to suit track conditions

PART NUMBER: VARIES BY COMPOUND

MSRP: \$22/PAIR

www.hpiracing.com



Reedy LiPo Packs!

STARTER BOXES!

#635 Starter Box Battery
2200mAh 14.8V 20C

MICROS!

#620 Micro Pack 1800mAh 7.4V 20C

RECEIVERS!

#630 Pro Rx Battery 1600mAh 7.4V 10C
#631 Rx Battery 2100mAh 7.4V
#636 6.0V Voltage Regulator

TRANSMITTERS!

#632 Tx Lightweight Battery 1350mAh 11.1V
#633 Tx Battery - 3PK, M11 3000mAh 11.1V
#634 Tx Battery - Helios, Z1 2400mAh 11.1V



PARMA'S MINI CRAWLER BODY

Parma has now jumped into the crawler market with their new Beetle inspired competition crawler body for the Losi Mini Rock Crawler. This body features a rounded profile for those unfortunate situations when your crawler finds itself on its lid. The rounded shape allows the body to almost always roll onto the sides where the wheels can get some traction to right itself. Not only does this body come with a competition desired profile, but it also comes with a detailed interior and driver for added realism. Now THAT'S what we call cool.

PART NUMBER: 10082

www.parmapse.com



SPEKTRUM'S SMALLER DSM2

Spektrum's new 3-channel micro receiver uses their latest DSM2 technology. The ultra-lightweight micro receiver weighs in at a scant four grams, and has a footprint of 21x26x12mm to fit virtually anywhere.

PART NUMBER: SPMSR3520

MSRP: \$120

DISTRIBUTED BY: HORIZON HOBBY

www.spektrumrc.com



Reedy 35C LiPo!

#710 Reedy 5100mAh 35C Saddle Pack



#709 Reedy 5000mAh 35C

Reedy 35C LiPo

The ultimate 7.4V competition LiPo battery has arrived! Reedy is proud to announce the release of the all new 35C hard case competition LiPo batteries. A standard version features a 5000mAh capacity with socket style connections and a saddle pack version features a 5100mAh capacity with 12AWG power wires and a balance connector. The high capacity provides more than enough run time for today's on and off-road competitions. But the best news is the battery's 35C rating. The C rating determines the battery's ability to deliver power efficiently. And Reedy's 35C rating delivers world-class power for all racing classes.

www.ReedyPower.com

REEDY

A Division of Associated Electrics
26021 Commercentre Dr., Lake Forest, CA 92630



Factory assembled gear differentials come filled with specific silicone fluids, and are tuned for maximum performance.



Team Associated 2-chamber muffler and header pipe are designed to provide maximum power to the Pro.28 engine.



Independently adjustable front and rear disk brakes let you adjust the braking bias to suit your track conditions.



Composite 'Big Bore' 16mm shock bodies and caps. 4mm shock shafts with protective rubber boots.



XP3D

3CH COMPUTERIZED DIGITAL RADIO

- FM High-Resolution Signal
- Easy-to-read LCD Display
- 10-Model Memory
- Interchangeable RF Module
- All Digital Adjustments
- Electronic Trim Adjustments
- Sub-Trim Adjustment
- End-Point Adjustment (EPA)
- Adjustable Rate Control (ARC)
- Steering Dual Rate Adjustment
- Battery Voltage Indicator
- Adjustable Steering Wheel Tension
- Low Battery Alarm

PRO28

Team Associated's powerful Pro.28 engine is designed especially for the RC8T-RS



Pro-Start, Glow Igniter
and Fuel Bottle included!





Team Associated's 1:8 Scale Ready-to-Run 4WD Nitro Truggy

The RC8T-RS is a winner right out of the box and is 100% pure Associated, having been designed with the many years of race winning experience and 22 IFMAR World Championships that only Team Associated can claim.

The RC8T-RS comes fully assembled and set up, ready hit the ground running. Team Associated's Pro.28 engine and XP3D Computerized Digital FM Radio system are factory installed. The differentials and shocks come filled with silicone fluids making it faster and easier than ever to get Team Associated performance out of the box and into the dirt!

The RC8T-RS's suspension features four composite 16mm 'Big Bore' shocks featuring extra large bladders and 4mm shock shafts for smooth action and durability. The shocks hang on 3mm low profile black aluminum shock towers for strength and reduced weight.

The RC8T-RS has a full-ball bearing drivetrain with 4.30:1 ratio gear boxes and a high-torque capacity three-shoe clutch does the

job of getting all the power to the drive train smoothly and efficiently. Getting the all the power to the ground is a set of six CVAs all featuring captured pins for bullet-proof reliability.

The backbone of the RC8T-RS is a strong and durable 3mm black hard-anodized 7075 aluminum chassis that has been designed to take all of the punishment and abuse that a competitive 1:8th scale truggy will have to face in stride.



Team Associated • 26021 Commercentre Drive, Lake Forest, CA 92630
www.rc10.com or www.teamassociated.com

POLL PAGE

100 people surveyed, top 5 answers are on the board. People love to be polled, and now you can be a part of a statistic on our website. Head over to www.rc411.com and join the forums. Once you join you can be a part of the numbers and become another statistic. Just remember 60% of the time it works every time.

18% of readers traveled 100+ miles for XMAS

RANDOM POLL QUOTE:

"I traveled from my couch, to my basement, and sat behind the bar."
-firesprink281



90% of you use Li-Po's every day (outside of RC)

RANDOM POLL QUOTE:

"In my phone, Dremel, drill, camera, DVD player, iPod, PSP... It goes on and on..."
-Reyzo14



James travelled 15,196 miles for Christmas, and still made it back in time for deadline!



HOW HAS THE ECONOMY AFFECTED YOU?

LOSS OF HOURS/PAY: 47%
NOT AT ALL: 29%
LOSS OF JOB: 12%
401K/STOCKS: 12%

RANDOM POLL QUOTE:

"I'm self employed in a field I thought would be pretty recession proof, but I guess I was wrong. I have seen a dramatic change. Hope I don't have to go out and get a real job."

-Knoc

Do you ever use RC as an excuse to get out of the house?



80% Do
20% Don't

RANDOM POLL QUOTE:

"Yeah I do, for my LHS and for Skinny's favorite, Harbor Freight, both of which make my wife cringe, because she knows I'll be dropping a few bills that day."

-DirtRacinFuel

AC/DC

What kind of charger do you use?

61%

use an AC/DC charger

39%

use a power supply

RANDOM POLL QUOTE:

"I like it both ways! Wait, that didn't come out right..."
-team3six



67% OF YOU CHOOSE A CLASSIC MUSCLE CAR AS YOUR DREAM RIDE.

RANDOM POLL QUOTE:

"I actually think I would get out of RC for a '69 Camaro. Wait. Did I just say that? I'll never get out of RC. Maybe trade the wife though."

-losinitro





SUPER SIZE CRAWLER SS01

Professional Super Size Rock Crawler Kit by Integy

MONSTER CRAWLER MC01



WHICH ONE?

FEBRUARY 2009 RC EVENTS CALENDAR

RACE GUIDE KEY

■ On-Road Race

■ Off-Road Race

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

SUNDAY

26

27

28

29

30

31

Bubblegum Day 1

Groundhog Day



2



3



4



5



Monopoly goes on sale, 1935 6

Great Lakes Super Series USTVA
Winthrop Harbor, IL — Harbor Hobbies
www.harbor-hobbies.net

No Limit R/C Points Series R4
Baltimore, MD — No Limit RC
www.noimitrc.com

Carpet Chiller
West Babylon, NY — 360 RC Speedway
www.360rcspeedway.com

7

8

Clean Out Your Computer Day



9

Umbrella Day



10

Marcus Velez's Birthday



11



12



13

Valentine's Day



14

National Gumdrop Day



15

President's Day



16

Paris Hilton's Birthday



17

Analog TV is dead



18

5th Annual February Freeze
Efters, PA — Bump and Jump RC Speedway
www.bumpandjumpac.com

19

Capital Carpet Challenge
Gaithersburg, MD — The Track
www.northeastgrandslam.com

20

Motorama
Harrisburg, PA — Farm Show Complex
www.motoramanevents.com/ccas

21

22

International Dog Biscuit Appreciation Day



23

National Tortilla Chip Day



24

Dave's Birthday



25



26



27

Ali Larter's Birthday



28

1

ELECTRIFYING PERFORMANCE



RACE TRACK DOMINATION GOES ELECTRIC WITH TEAM LOSI® RACING'S 8IGHT-E 2.0™

Take the redesigned and improved design elements from Team Losi Racing's 8IGHT 2.0 chassis and suspension setup, then install an ultra high-performance 1/8-scale Xcelorin™ 2100Kv brushless motor and speed control specially tuned for the 8IGHT 2.0 chassis. What you wind up with is the most feature-packed, track-tested 1/8-scale electric race platform ever developed.

8IGHT-E_{2.0}

And the 8IGHT-E 2.0 is a factory-built Race Roller® from Team Losi Racing, meaning that it's assembled and almost ready to tackle the track right from the box. The addition of Losi's race-tuned, high-power Xcelorin brushless motor and programmable speed control makes the package nearly complete. Just add your radio system of choice and a Losi performance hard case LiPo (LOS89834-18.5V 4000mAh 5S 25C and LOS89864-14.8V 5000mAh 4S 25C) and you're ready to take the checkered flag in no time.

No other 1/8-scale race buggy offers the precision, performance and potential of the 8IGHT-E 2.0, only from Team Losi Racing.

Learn more about all of the innovative new and redesigned features today at

WWW.LOSI.COM



MOTOR AND ESC

Fully installed and pre-wired with EC5 power connector



BATTERY TRAY

Will accommodate 3S, 4S or 5S LiPo battery (LOS89834 and LOS89864)



MOTOR MOUNT

Anodized slide mount for easy gear mesh setting



TEAM LOSI
RACING

KYOSHO

WELCOMETOTHETEAMJARED.



**WORLD CHAMPION
ELECTRIC MOTORS
ESC's
SERVOS
BATTERIES
NITRO ENGINES
PIPES**



www.teamorion.com



CLEAN YOUR MOUNTS

The next time you remove your engine and you're about to re-install it, be sure to remove any dirt, debris, or old thread-lock from your engine mounts before you bolt your pony-maker down (clean underneath the mounting ears on your crankcase, as well). Clean engine mounts and crankcase will

ensure a tweak-free fit between your mill and chassis. Any material that remains on the engine mount can cause your crankcase to twist, misaligning the moving parts inside, resulting in a loss of power. It sounds like a little thing, but you paid big bucks for that mill so you might as well ensure that you're maximizing its output.



GLOW PLUG LEAK

It isn't commonplace, but a small leak in the seal between your glow plug and your head button can greatly reduce engine performance and knock your tune out of whack. Look down your cylinder head while turning your engine over and if there is a leak, you should see fuel bubbles exiting around your glow plug seal. This is more of an issue with regular glow plugs (not turbo-style glow plugs) where a copper washer is used to make the seal. The problem is easily fixed by simply tightening your glow plug with a little more authority. Don't over-tighten, as you may stripe out your head button, but if you still have a small leak even after wrenching that sucker down, you may have to swap out the copper washer for a fresh one to keep all of your engines' explosive juices in the combustion chamber where they belong.



MOLDED LINES

After you've trimmed out your body along the manufacturer's molded cut line, you should mount the body onto your chassis to verify that it doesn't impede any moving parts on your car. Most body-makers lay out the trim lines in such a way as to maximize chassis coverage to keep dirt out of the main chassis area where all of the moving parts are. Sometimes the tolerances are too tight, causing components of your chassis to rub against your body during use. Use lexan scissors, a hobby knife, or a Dremel to cut, trim, or grind away any obstruction that your molded pile of lexan has with regards to steering linkages, suspension movement, or fuel tank access.



Run that Dremel at low speed. Trust us.



KNOW YOUR NEEDS

Chassis and setup issues have to be one of the most complex aspects of this great hobby. Knowing how to get more steering out of a turn or better "pop" off of a jump is vital in removing valuable seconds from your lap time; however, knowing what change to make to your chassis to get the desired result isn't always the harder part. The more important initial trick is to know what you need from your car to make it faster. It sounds simple but it isn't always. You have to be able to break down the track into smaller components and think about how your chassis is acting through each section to fully determine which adjustments need to be made. When you get off the racetrack, you must be able to tell yourself exactly what handling changes you want on the race course before you can even think about what changes to make in the pits. ⚙️

1 PART TERROR.



PRO 4WD

We followed the recipe to the letter. The Traxxas Slayer captures all the sheer terror and intensity of a 900+ horsepower 4WD off-road racing monster... grit teeth, white knuckles, and all. We know because we race both. The TRX® 3.3 Racing Engine is bred from the same DNA as its fear-inducing big brother. Grab a fistful of throttle and hang on. It's a rush that only a 50,000 rpm screaming nitro assault can deliver. The chassis is inspired by the 7X national champion Revo® so it's ready to lay down the power and handle whatever you can throw at it.

**The question now is:
CAN YOU HANDLE IT?**

900 PARTS HORSEPOWER



SLAYER

NITRO SHORT-COURSE
RACE TRUCK

50+
mph



FRIGHTENING VIDEO ONLINE AT
Traxxas.com

TRAXXAS

THE FASTEST NAME IN RADIO CONTROL™

*With optional gearing, sold separately. 45+mph stock.



STARTING YOUR NITRO RTR FOR THE FIRST TIME

TAKING YOU THROUGH THE 1ST TANK

words: Michael Wortel

Hurray! You have just purchased a new RTR. You don't have to worry about putting it together, buying all of the electronics, or painting a body. Your ready-to-run car or truck was designed with a sole purpose: to be driven right out of the box. But don't be confused. The fact that you purchased an RTR doesn't mean there isn't any work ahead. If you haplessly try to start your car immediately, blinded by anticipation, you may miss a few important things that should be done before you try to start the engine. If you rush your car's initial setup, you may jeopardize your car's immediate or future health. But if you're careful and check a number of simple things, you'll set up your car for a long, fast, glorious life. If you have just purchased a nitro RTR, this article is for you. It will teach you how to do an initial inspection of your car and start it up for the first time—the right way; because if you rush to get your car going immediately, you could mess up your \$400 purchase for good.

GETTING STARTED

DIFFICULTY

SCALE RATING: 1=NOVICE 5=EXPERT

2.0 **XRC Cars**

TIME TO COMPLETE

30 MINUTES

TOOLS NEEDED



• Wheel Wrench



• Hex Wrench



• Zip Ties



• Glow Plug Igniter



• Roto Start



• Charger



• AA Batteries



• Filter Oil



• Receiver Pack



• Fuel



• Fuel Bottle

**“When I race, it’s me against the world,
so if I’m facing those odds there
is only one clear choice.”**

- Jared Tebo Kyosho Factory Driver



www.kyoshoamerica.com

INITIAL INSPECTION

The following list contains a number of things to check just after you pull the car out of the box. Many people are tempted to fill up the tank and start the engine the second they remove the packaging, but even in your car is "ready-to-run," there are a few things that you must install and check before you can proceed to the next step.

ANTENNA



Chances are that the receiver antenna will be all bundled-up when you take your car out of the box. Unravel the antenna wire and straighten it out. Then, route the wire through the included plastic antenna tube. After that, attach the tube onto the chassis according to the instructions that came with your car. Oh - and don't forget to install that little plastic cap onto the end of the tube; it keeps the wire from fraying if you flip your car and it skids on its top.

OIL THE AIR FILTER



Some air filters are not oiled out of the box, and if you run the filter without oil, you could jeopardize the life of your engine. To determine whether your air filter has been oiled, take the air filter off the carb and give it a pinch. If your fingers come off a little oily and damp, the filter has already been oiled, and you're good to go. If your fingers stay dry, you'll need to oil the air filter according to your car's instructions. Ninety-nine percent of the time, the oil you need will be included in your kit.

CHECK FOR LEAKS

Factory assembly does not guarantee no mistakes. After you take your car out of the packaging, inspect it for leaks. Look at the shocks and transmission and make sure they are dry and leak-free. If there is oil in the box, or you can see that something is leaking, do yourself a favor and take the car back to the store. You don't want to deal with assembly problems when you just finished spending a few hundred bucks on your new ride!

SET THE GEAR MESH



Checking your car's gear mesh isn't the easiest thing in the world, but it's nothing most first-timers can't handle. If the mesh is set correctly, there should be a little play between the gears, but not too much. If there is zero play, or it feels considerably tight, loosen the engine mount screws and move the engine until the mesh is right. Running an incorrect gear mesh can have terrible effects on the life of the transmission and related parts, as well as its performance.

TIGHTEN WHEELS



Sometimes the wheel nuts aren't tightened all the way on your brand new car. To avoid a roll-away wheel during your car's first tank (which has actually happened to me more than once), check that all four wheel nuts are fully tightened. You don't have to use He-Man strength, but make sure they are pretty snug. Chances are your car even came with a wrench for this purpose.

CHECK THE ENGINE SCREWS



The screws used to attach the engine to the bottom of the chassis are critical. If one of them is loose, you run a high risk of stripping gears or ruining the car's drivetrain. To avoid disaster on your car's maiden voyage, check that the engine mount screws are fully tightened. Don't use 100% of your strength, but just give them a turn to make sure that they are pretty damn tight.

ROLL THE DRIVETRAIN



When you pick your car up, turn all the wheels with one hand to make sure they spin freely. You may notice that when you spin one wheel, the other rotates in the opposite direction; this is supposed to happen. You are just checking for binding in the axles, wheels, and transmission. Next, roll your car on the ground to make sure it moves pretty easily. If it doesn't, try to isolate the problem and fix it. If you're confused, bring your car into the hobby shop. Someone there will be glad to help out for sure.

ZIP-TIES

Zip-ties are a nitro RC's best friend. There are a number of moving parts on the chassis of a nitro car, and it is easy for wires to become caught-up in the workings and get ruined. You can avoid this by bundling and securing any loose wires with zip ties.

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STARTING BOX

DIFFERENT STARTING METHODS

Your car has just passed initial inspection and is ready for phase two of the process—becoming familiar with the car's starting method. There are a number of different ways to start a nitro car, and each manufacturer likes to be unique. The following is a list of the most common starting methods. Figure out which one applies to your car before you try to start it.

IGNITER

Just like a real car, your nitro RC car needs a battery to start. Ninety-nine percent of the time, a nitro car will need an igniter to zap it to life. An igniter is basically a 1.2V battery that provides enough energy to zap the glow plug and ignite the engine. If you have a Traxxas car or truck, it may feature an onboard electric starter, which doesn't require the use of an igniter. Most other cars, however, do require a glow igniter.



PULL START

A large percentage of cars use the pull-start method. This works like a lawnmower starter—you manually rotate the engine's crankshaft into motion with a rope and spool. Pull-starts are convenient, because you don't need to carry a starting device around, but they can also be a bit frustrating. Just make sure not to pull the string too far (about 4-6 inches of travel is all that's needed), as you may damage it.



ROTO-STARTER

Some RTRs, like many of the Losi and Associated vehicles, use a roto-start method. A rotary shaft is placed into the engine, and, with the push of a button, the shaft rotates and the crankshaft turns. A roto-start requires a battery of its own, which isn't too cost-effective, but many people prefer the roto-start to all others. Using one is even kind of fun!

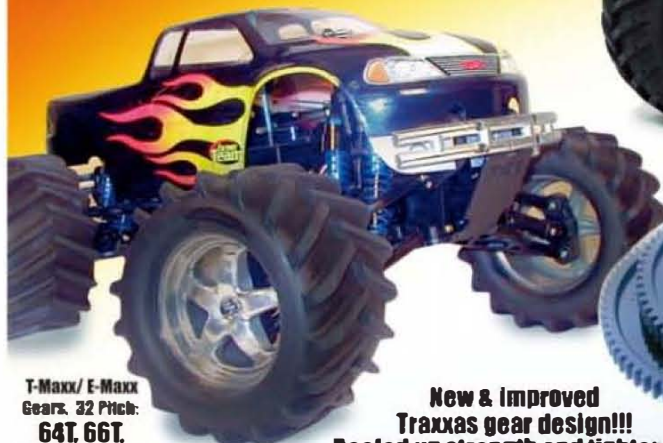


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BUMP START

Ninety-nine percent of the time an RTR won't use a bump start, but I am sure there are a couple exceptions around somewhere. A bump starter is a box that initiates a rubber rotor that actuates the engine's flywheel, thereby starting the car. If you stay in nitro for a while, chances are that you'll come into contact with one of these, as most "racing" cars use the bump-start method.

ELECTRIC START

As I alluded to previously, some cars—mostly Traxxas—feature an on-board electric starter. Before you fire-up one of these, you first need to charge the easy-starter's battery. Once it is charged, place the plug outlet into the inlet on the car. This method works like a full-scale car starter and is really convenient—you don't need to worry about an igniter.

CHARGE UP

Now that you're familiar with how to start your car, it's time to charge the batteries. If you bought a nitro car thinking that you'd never have to worry about batteries again, you're wrong. In nitro RC, there are actually more batteries to charge than with electric.

TRANSMITTER BATTERIES

All transmitters need batteries. Most of them take eight AAs, and some of them take four. Either way, you need to install the transmitter batteries before you can get going. If you have some rechargeable batteries lying around the house, use them here—transmitter batteries tend to die pretty fast.



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STARTING BOX



IGNITER

In order to start your engine, you will need to charge/install a battery for the igniter. If your car came with an empty plastic case meant for an alkaline D-cell, get a rechargeable igniter from the hobby store ASAP. It will become your new BFF.



STARTER BATTERIES

Cars that use any sort of electrical starting method will need to have their battery packs charged. Typically, these starters use a standard 6-cell rechargeable pack like the ones on electric RC cars. Before you can get going, you'll need to charge the pack.



RECEIVER PACK

Nitro cars still need electricity to power the electronics. For this purpose, a receiver pack is used, and it is usually located in the enclosed receiver box. Before your electronics can come to life, you need to install the appropriate batteries or receiver pack. Like with the igniter, it's much easier to use a rechargeable pack than to constantly install new AAs. A rechargeable pack will even give your servos a little extra voltage kick.

FUEL UP

Now that you have completed your initial inspection, figured out how the starter works, and charged the car's batteries, it's time to move on to the fueling process. As you may have guessed, there's more to fueling than simply putting it into the tank.



CHOOSING FUEL

There are many different fuels on the market, and some are more geared for use in RTR vehicles. Your car's instructions will probably recommend a specific fuel for the engine. It's a good idea to use the specified fuel and stick with it. If the manual doesn't make any fuel suggestions, go ahead and buy some fuel; "20%" is a good all-around fuel to use for an RTR, as most RTR engines are shimmed for its use.

FUEL BOTTLE

After you purchase your fuel, it's time to siphon it into a fuel bottle—which makes filling the engine easy. Before you fill the bottle, give the jug of fuel a couple of shakes—its components tend to separate over time. Mixing them up will make starting your car much easier.



FILLING THE TANK

With the fuel bottle filled, it's time to fill the tank. Simply flip the cap on the tank open, insert the nozzle into the tank, and give a little squeeze. When the tank is almost completely full, pull out the nozzle and let the cap snap back into place. Push down on the cap to make sure that the seal is completely compressed.



START UP

It's time! The car has been inspected, the starting method researched, the batteries charged, the tank filled—it's time to get going. This initial fire-up of the engine can range from problem-free to extremely frustrating. But if you have been following this checklist correctly and do it right, it won't be too much of a headache.

TRANSMITTER FIRST

ALWAYS turn on your transmitter before connecting the receiver batteries or trying to start the car. If you neglect to turn on your transmitter, and then proceed to start the car, the receiver may pick up erratic signals and careen into a full-out runaway! Turn the transmitter on first, and you'll be good.



ON-OFF SWITCH

With the batteries installed and connected, next turn the on-off switch to the "on" position. At this point, you should be able to move the steering and throttle servos with the transmitter. If the car isn't responsive, retrace your steps and make sure that everything is charged, connected, and turned on.



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STARTING BOX

PRIME

Most RTR engines will need a little priming to get going. The best way to prime your engine is by plugging the exhaust hole with your finger and giving a couple small pulls to the pull-start or revs to the electric starter. This will send a bit of fuel into the carburetor and make the engine easier to start. (!) Warning: excessive priming can result in flooding the engine, so only prime it a bit.

IGNITE

With the engine primed, place the glow igniter into the top of the engine head and over the top of the glow plug. Most igniters will lock into place with a 1/4-turn clockwise. Keep your hand on top of the igniter, as it serves as a nice “handle” when trying to start the car.

START

Now that the igniter is in place, it is time to start your car. Use whichever starting method applies, and actuate it—whether by giving rapid, abrupt pulls to the rope or pushing the button of the starter. If everything is done correctly, the engine should turn-over, ignite, and sit at idle RPM. Once it's fired-up, immediately remove the glow igniter and grab the transmitter.

TRIGGER WORK

With your engine now idling, give a few quick pulls to the throttle on the transmitter. This will circulate fuel through the engine and let it begin to warm up to a good running temperature. If you take your finger off the throttle and the engine RPM starts to slow and die, give a couple more pulls to the trigger. If it does die, simply start it up and try again. Most engines will die a few times before they will stay running for a whole tank.

NOT SO FAST!

Now that your engine is running and you're finally ready for some driving time, don't get overzealous and jam the throttle. Your nitro engine has delicate components which need to be properly broken in before the engine should be taken to high RPM. Breaking in the engine is one of those things not everyone will ever fully agree on, but the principles remain the same. Consult your owner's manual for specific instructions on breaking in your car. All you are looking to do during your car's first tank is make sure it is working properly.

CHECK THE TRIMS

During your first tank, when you are mostly just concerned with how the engine is running, take the time to also check the transmitter trims. If you drive straight and the car veers off to one side, adjust the steering trim and center it. If you take your finger off the trigger and the engine keeps moving, dial the throttle trim back a bit. And likewise, if the throttle isn't responsive after its initial tug, advance the throttle trim forward a tad.

THE REST OF THE TANK

For the rest of your first tank, just continue revving the engine a bit, then hitting the brake and letting the RPM drop—then do it again. Keep doing this for the entire first tank, and remember, do not let the engine RPM get very high. It's really tempting to, but rushing the break-in process could ruin your engine. During your car's first tank, you should just be concerned with getting the engine running and keeping it running. Break-in is an entirely separate article and will be covered in the next few issues.



THE END

The term “ready-to-run” (RTR) has been misconstrued a bit and can never be taken literally. Even if your car comes with everything it needs to work, and is mostly assembled, there are still a number of things to do before and while starting it for the first time. If you ignorantly rush to get it going, you will risk ruining your brand new car permanently. Spending a little time inspecting and preparing your car for its first run will not only payoff in the long run, but will also make the whole starting process much easier. To be honest, I really don't know a ton about “racecars,” but I do know a lot about starting an RTR—I have reviewed about a hundred of them over the years. So take it from one who knows: a little preparation and thought will go a long way in turning your RTR into your favorite toy instead of your biggest regret. ☺

PRODUCT GUIDE:

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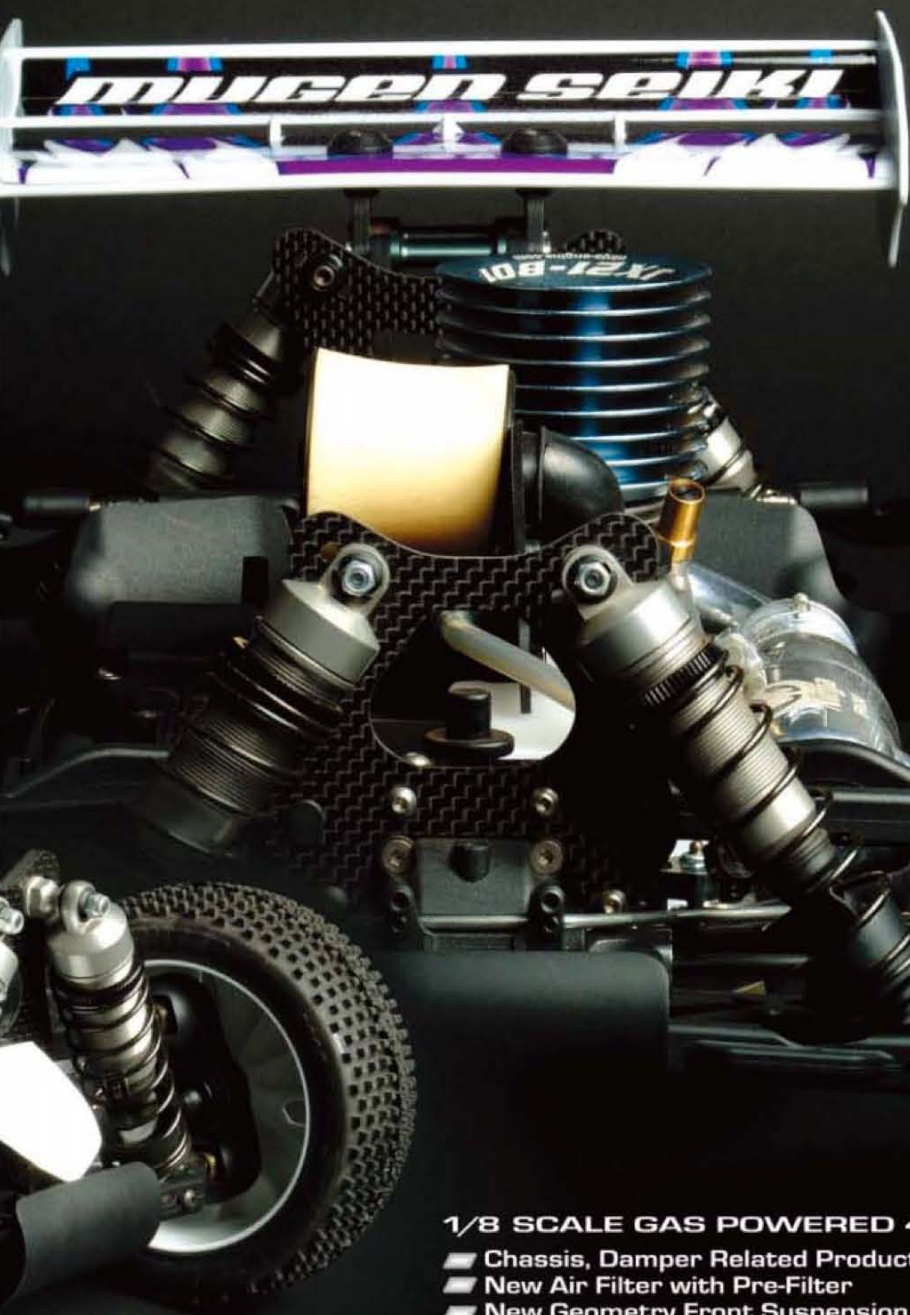
- Width : 309mm
- Wheel Base : 315~320mm
- Gear Ratio : 11.98 : 1
- Weight : N/A

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MONSTER PIT, our monthly department dedicated to nothing but monster trucks and crawlers: electric and nitro. Look for Monster Pit every month for the latest on new monster parts, kits, racer tips, featured rides, off-road news, and off-road how-to's. Got something you want to see in Monster Pit? Let me know at JamesR@rc411.com.

words: Matt Soileau

CKRC AXIAL SCALE RIG

READER FEATURED
CUSTOM BUILT PROJECT

CKRC owner Jake Hallenbeck works closely with Axial Racing to promote RC crawling. Together, they hold the West Coast Championships and the recent Nevada State Championships. Jake recently decided to dive into the realm of scale crawlers and called up his partners at Axial to get them involved. The result is one ultra cool and detailed replica of Jake's 1:1 crawler that is sure to attract attention everywhere they go.

Jake started his build by measuring his 1:1 rig. After checking the measurements of the HPI Jeep Rubicon body against a 1:1 Jeep, he found that the true scale was 8.15:1. He took all the measurements from his 1:1 and divided them by 8.15. This resulted in a very scale replica.

A Tekin FXR and Spektrum receiver hide behind the dash.

3/16" and 1/8" brake lines were used to build the chassis.

Jake's fullsize rig, the inspiration for the build.

» RIG SPECS.

SPECS.	1:1 BUGGY	SCALE BUGGY
Wheelbase	110"	13.5"
Width	92"	11.25"
Chassis Width	53"	6.5"
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MONSTER PIT

Axial supplied Jake with AX-10 axles, transmissions, and drivelines to begin the project.



» THE DETAILS



Steering wheel and shifter is from a Tamiya Wild Willy's.



A Parma engine sits under the hood.



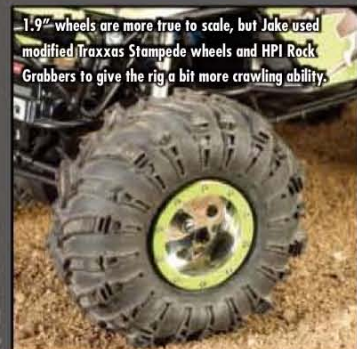
Trick, scale looking shocks.



Hey there's beer in there!



Axial used their high resolution printer for many of the details including the stereo, speakers, tail lights, gauges, and beer cans.



1.9" wheels are more true to scale, but Jake used modified Traxxas Stampede wheels and HPI Rock Grabbers to give the rig a bit more crawling ability.

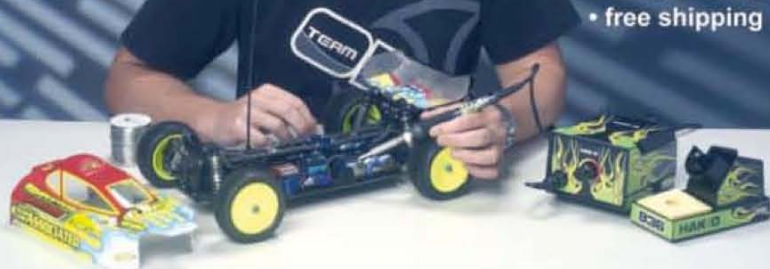
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TQ Truggy, 2008 R/C Pro Series
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THE CIRCUIT

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words: Carl Hyndman

THE CIRCUIT (FORMERLY KNOWN AS TOURING CORNER)

TAMIYA TRF416 CHASSIS KIT WORLD EDITION

At the recent 2008 IFMAR Touring Car World Championships, Marc Rheinard put on a display of driving that many still talk about. He drove his TRF416 tight and fast and made a pass in the third A-main that gave him the win and the overall, making him the 2008 Champion. With the success of the car, Tamiya decided to release a new version with some improved features.

The following changes have been made to improve the vehicle's balance and roll characteristics:

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- A front direct cup has been added.
- Teflon sealed ball bearings are included.
- High lubrication dampers have been added.



www.tamiyausa.com

CS AND RP TIRES BACK ON THE SHELVES

As many of you asphalt racers know, RP30s and CS27s are often hot tickets when racing rubber tires, but over the past year availability has been pretty much zero due to manufacturing issues overseas. Well, according to Shawn Palmer at Schumacher, the issues have been resolved and supplies are back on hand. Time will tell if these new batches are up to the same standards as the old ones, but things are looking good.

www.racing-cars.com

» RUMOR MILL

Rules for batteries just seem to keep revolving with no set standardization in sight. At the 2008 IFMAR Touring Car World Championships, it was decided to go with the older 6-cell sub-C battery rule, yet some other key organizations are still sticking to 5-cell and 2-cell LiPos with **many deciding to allow all three** variations. Time will determine the final outcome, but with improvements in technology and design, the LiPos are probably a good bet.

Things may not be as complicated for 1/12th scale and 1/10th scale World GT, but with many racers pushing toward LiPo, some manufacturers like SMC have come out with a **single cell 3.7V** hardcase pack. Unfortunately, these one-piece packs don't work well in t-plate cars, but at least they provide another option for LiPo lovers.



Corally has always been a highly specialized on-road specific brand and recently there have been sightings of a new **RDX Phi 2** touring car. It maintains the same standard internal gearing, but the upper deck has been raised to accept lipos with taller bulkheads, new chassis, and a few other key upgrades to make the car more current. Time will tell when this latest car will be ready for production.

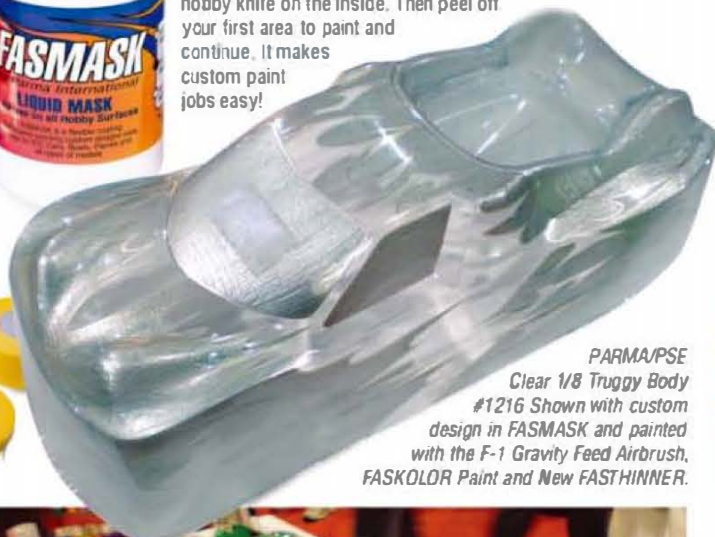
In **1/8 nitro**, **Serpent** is in the process of developing a new car dubbed the 966. Expected release is February of 2009. Only CAD drawings are available at this time.



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Custom mix metallics like the pros! Our ultra fine metal flake powder gives you the highest quality results. Mix one vial per bottle of FASKOAT CLEAR #40200. (Do not mix directly with paint). Shake the bottle thoroughly. Spray 1-2 thin, even coat(s). Let dry and back it up with any color(s) for a dazzling metallic effect. FASKOAT can also be used as Photo Glue inside clear bodies.



40210 PEARL	40213 GOLD	40216 GRAPE	40219 SKYBLUE
40211 SILVER	40214 ORANGE	40217 RED	40220 BLUE
40212 YELLOW	40215 COPPER	40218 GREEN	40221 LAVENDER

Online Catalog >
 FASKOLOR Shop

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 Hobby Shop!

www.parmapse.com



XRAY

XII 1/12TH PAN

XRAY is known for their high quality racing cars, and they recently released their newest chassis in a class that has a lot of tradition. Specifically designed and optimized for brushed and brushless systems, the high-competition design focuses on ultra-low weight, resulting in super-lightweight construction. Top quality self-developed composite mixtures, HUDY Spring Steel, premium Swiss 7075 T6 aluminum, and highest-grade graphite are just some of the materials used. The design is basically the tried and true t-plate configuration with development tested at the recent 2008 IFMAR On-road World Championships held on asphalt. XRAY driver Teemu Leino drove the car to an A-main finish and showed some of the potential the car is capable of.

www.teamxray.com

HOT BODIES 12X

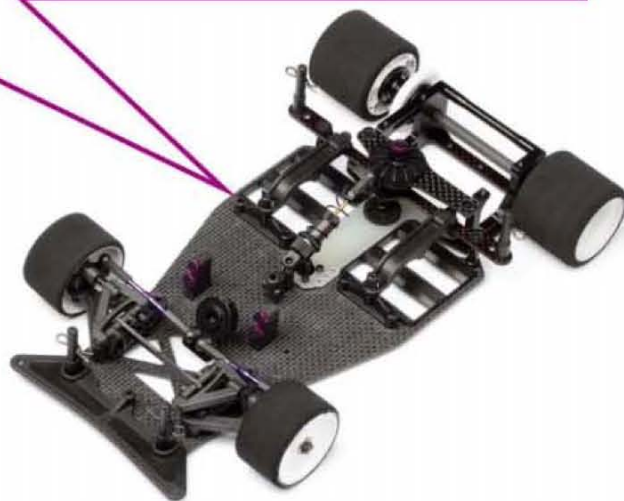
1/12th scale has always had a strong and loyal following, and with winter sending most people indoors, the class's popularity just seems to keep followers coming back for more. Hot Bodies has just released their new 12X with many improvements over their successful Cyclone 12. A new one-piece graphite axle replaces the older aluminum axle, and a new left wheel hub clamp provides easier access to the new ride height mount adapters.

Hot Bodies made the most changes to the front of the 12X. The basic layout of the 12X front suspension is identical to the Cyclone 12, but a few critical parts are new. The 3-way reactive caster suspension is still in place, with convenient clips to adjust the caster angle. Metal locknuts hold the wheels in place for a secure fit.

The hingepin and the kingpin now come with ultra-hard titanium nitride coating the (pieces #61223 and #61224). The 12X is also equipped with graphite lower suspension arms (#66265), which are lightweight and extremely strong. These arms feature an adjustable ball clamp to help eliminate slop in the steering.

The newly designed steering knuckles (included with #66265) allow a lower ride height and are also easier to fit the new-style axles (#66266). Finally, the new FRP cross brace (#66267) gives extra steering feel. For extra front end stiffness, use the optional #61673 woven graphite front brace instead of the standard FRP version. These, plus many more improvements, are on the new 12X.

www.hotbodiesonline.com



GRAND MOTORSPORTS

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#2100



ProStock Kit
#800



Funny Car Kit
#1900



ProMod Kit
#1800



Grand's electric dragster chassis have run over 100 mph in 132 feet... In just 1.4 seconds!

Over 100 mph...
In 1.4 seconds...
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The **AFTERSHOCK...** the state-of-the-art
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#1000



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SC2000..... Under \$200 Bucks



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At The Right Price!

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The Hardcore!

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- + Traxxas HC Connector
- + Light Weight, Longer Runtime, Low Maintenance

LP2s5000 (LP2s5000D w/Deans Plug) \$105.99
Dimensions: 24mmx47mmx137.5mm (street price)



+ POWER SOURCES YOU CAN DEPEND ON!

SP4400HC	6 Cell 4400mah NiMH Sport Pack.....	\$51.19
	W/Traxxas HC Connector	
SP3300HC	6 Cell 3300mah NiMH Sport Pack.....	\$34.39
	W/Traxxas HC Connector	
SP2200HC	6 Cell 2200mah NiCd Sport Pack.....	\$22.39
	W/Traxxas HC Connector	
SP33007HC	7 Cell 3300mah NiMH Sport Pack.....	\$39.99
	W/Traxxas HC Connector	
5088	1600mah NiMH RX Flat Pack	\$26.39
5087	1600mah NiMH RX Hump Pack	\$26.39
SP4400	6 Cell 4400mah NiMH Sport Pack.....	\$47.99
	W/Standard Connector	
SP3300	6 Cell 3300mah NiMH Sport Pack.....	\$31.99
	W/Standard Connector	
SP2200	6 Cell 2200mah NiCd Sport Pack.....	\$19.99
	W/Standard Connector	
SS1500	6 Cell 1500mah NiCd Sport Pack.....	\$7.99
	W/Standard Connector	
2804	2300mah NiMH Rechargeable AA's....	\$9.59
2807	Alkaline AA's.....	\$1.99
2479	HC To Molex Adaptor	\$4.20

(All prices are listed as street price)

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THE SKINNY



FORTUNE COOKIE SAYS:

"YOU ARE A PRO DRIVER-
YOU JUST CRASH ALOT"

words: Brian "Skinny" Skinner



STANDARDIZE THIS!

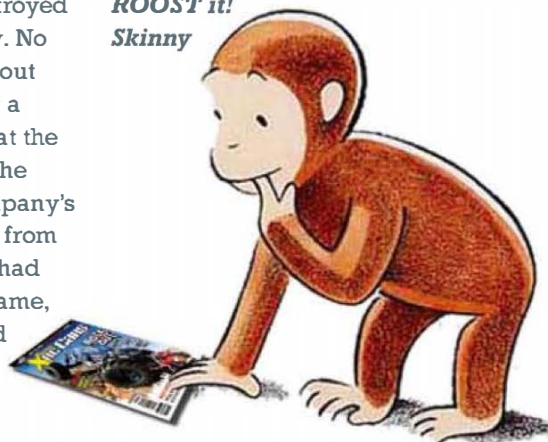
OK, IT'S THE NEW YEAR and I have a new rant since most of the manufactures are working on new products for the year. My harangue this year has to do with standardizing some of the components we use all the time. Really, do we need three sizes of splines for servo horns? Do screws that secure the servo horns need to be different sizes as well? Why do some RC cars come with S.A.E. screws when 99% of the cars today have metric screws and come from countries that are totally on the metric system? And what about the use of Torques screws—what's that all about? How many sizes of screws do we really need for one car? I worked on a car the other day that had five different hex sizes... is that really necessary...I don't think so! I could go on with examples of things that can

be standardized, and don't get me started on electronics, but I think you get my point. I'm just saying—it sure would be helpful if certain components of RC cars were standardized to make wrenching and buying parts a little easier for end users. Here's a good example of why it would be nice to standardize some of our products, and it is a true story: I was in a rush to fly out to an event, and discovered that on my last flight, TSA had destroyed my LiPo starter box battery. No problem, I thought; I'll run out to the hobby shop and buy a new battery and charge it at the races. So \$125 later I'm at the track and find that "X" company's charger plug was different from the battery charger plug I had been using. It looked the same, but it was a little larger and would not fit my charger... so guess what? I was 2000 miles from home with no

working starter box—I had to buy another \$125 battery to fit my system—and I was stuck with the poochy \$125 battery I bought at the hobby store because they don't refund on electrical products. So either I'm an idiot, or things need to be a little more standardized so Joes like me can buy and wrench on stuff without having to bring a roll-away or hobby shop along for the ride. The world is your sandbox—

ROOST it!

Skinny



Skinny likes monkeys.



WE'RE FROM CANADA, EH!

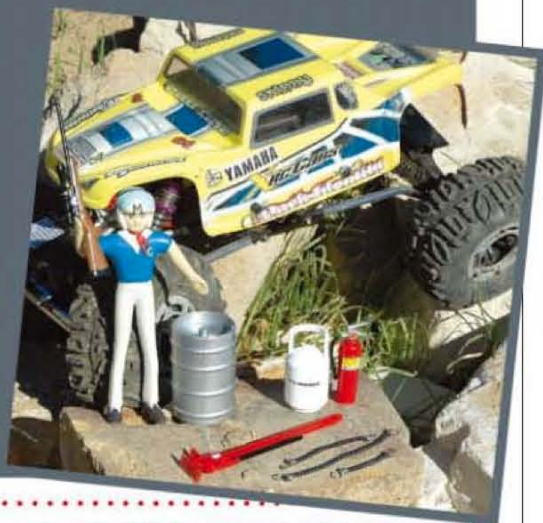
GH Racing is from Canada, eh, and they have some nice aluminum hop-up parts for your particular vehicle. Case in point: I have a tendency to bend or crack the stock plastic wing mounts on my truggies...I think it's because I like to land upside down on my wing after jumps for some reason. Recently a buddy of mine saved my race day with this cool aluminum wing mount from GH, and now my bent mounts are a thing of the past. GH parts look really nice, and if you have a problem with the plastic kind, maybe an aluminum part is the answer...I know it was for me! GH Racing makes hop-up parts for most popular cars, and their prices are reasonable.

www.ghhobby.com

LIFE-LIKE FAMILIARITY

Want to add a little realism to your next RC adventure? I've found just the thing for you! New from Hobby Gear are these sweet 1/10-scale props to make your next rock crawling or day of drifting a little more realistic. Hobby Gear is now offering 1/10-scale props such as water coolers, bungee-cords, shovels, riffles, and even beer kegs to make RC a little more life-like. Now you can accessorize your rig with scale stuff to make it even more realistic as you four wheel drive through the outback. Want a cool diorama set-up for your drift car as she sits on the shelf at home? How about setting up a pit scene with a fire extinguisher, five gallon Jerry can, and maybe a cooler! The possibilities are only limited by your imagination thanks to these new props from Hobby Gear. Each package comes with three scale props, and costs \$15.00. Note: Speed Racer and Skinny's crawler not included!

www.pacificcoasthobbies.com or: www.phoenixtoys.com



MY NAME IS SKINNY

Over the last couple of months, a lot of people have asked why my name is Skinny. After all, weighing in at 300 pounds certainly classifies me as a Clydesdale! Well, here's the story. Back about a hundred pounds ago, way back in the 80s, I was kind of a honcho mountain bike racer. I was still a big guy, but I was thin back then, as you can see in the photo (believe it or not, I'm the guy on the right getting



big air!]. It was fashionable to have a nickname back then, and since I was skinny, and my last name is Skinner, people called me Skinny or Skin Game. Skinny seemed to stick, and since then most everybody has called me Skinny. Now that I'm Clydesdale status, the irony of the nickname makes it all the more funny, so people and friends still call me Skinny. As for the photo you see, it was an advertisement in Mountain Bike Action back in 1984 for the first ever MTB Gant Challenge race series, which I helped produce and run. Gant is a

clothing company (and was the first "outside sponsor" of a mountain bike event), and believe it or not, I was a model in their clothing catalog as well! That's the short version of the "Skinny story," but since a lot of you have asked lately I thought I would clue you in. And the next time you hear me rant about our industry needing to do this or that, at least you know I have some grounds for it...after all...I saw it all before in the mountain bike world!

PIT TIP #5150

We all know how turn marshaling an hour long A-main can be grueling, and how it can zap you of energy. Well, thanks to Travis Amezcua I can breeze an hour A-main with no problem. Travis showed me the "fried chicken on a string" technique, and now I'm passing it onto you guys. Here's how it works...

1. Find a nice chicken breast, and make a strap around your neck like in the photo. While you turn marshal it sits right where you can get to it, and it looks rather fashionable, I might add.
2. When you need some nourishment simply lift the breast to your mouth and take a bite. Study the photo carefully, and notice how I still have my eyes on the track while I take a bite. If a car tumbles while I'm eating, I can drop the chicken and marshal the car. The chicken is safe from getting dirty and everybody is happy. This is as close to "hands free" eating as you can get, and is ROAR approved for turn marshaling.



I prefer the T-Bone neckhere.

MAGIC 8-BALL SAYS...

We all want to know what the future holds for RC, and the Magic 8-Ball is as good a source of information as anything. So give it try and ask your question about RC's future. Just so you know, I actually ask the 8-Ball a question once and shoot the photo. There are no tricks and I don't keep asking until I get an answer I want.

Email me at: brians@rc411.com.

This month's Magic 8-Ball question!

"8-Ball, do you think the 2010 off-road 1/8-scale World's will be in China?"

Magic 8-Ball's answer...

"Don't count on it!"



Got a Question OR IDEA?

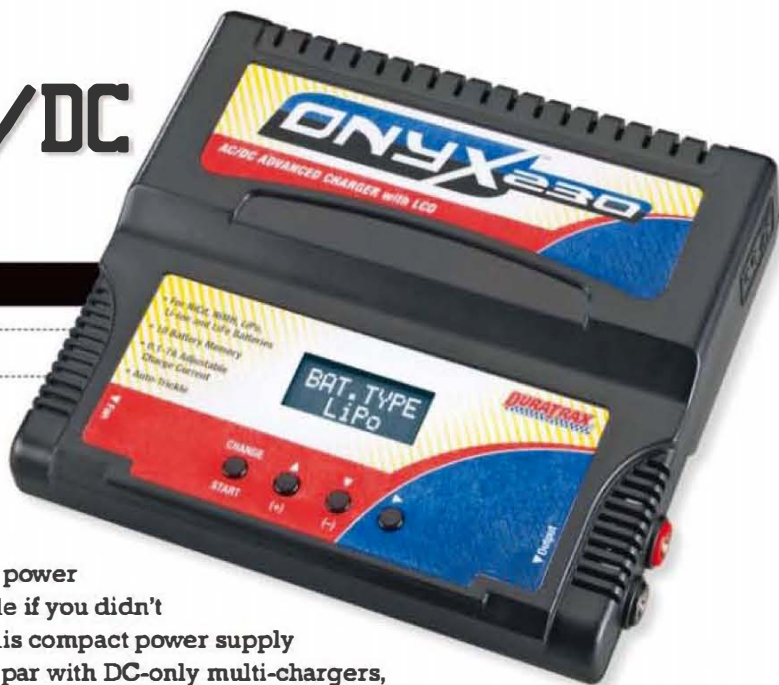
If you need the skinny right now about what's going on in RC, or have a burning question you need answered, just log onto Xtreme's website at: www.rc411.com and look for "Ask Skinny." I'll be happy to answer your questions online, and they may even wind up in the magazine. You can also reach me at brians@rc411.com. Of course, this will help keep my cell phone bill down and help you get an answer to your thoughts.

DURATRAX ONYX 230 AC/DC CHARGER

DO IT ALL

words: James Revilla

Usually, when you think of AC/DC chargers, you think big and heavy, as compared to DC-only units. Duratrax is out to change that impression with its new Onyx line of chargers, like the 230 we have here. With its small, lightweight, built-in AC power supply, you wouldn't know it was AC-capable if you didn't see the three-prong AC plug on the side. This compact power supply allows the Onyx 230 to have dimensions on par with DC-only multi-chargers, but that's just the tip of its feature list.



FEATURES

- 1-8 Ni-Cd/Ni-MH, 1-3 Li-Po, Li-Ion, or Li-Fe
- 7-amp maximum charge current / 9900mAh capacity range
- Peak-detection (Ni-CD/Ni-MH) and CC/CV (Lithium's)
- Adjustable safety shut-off timer
- 4-button control with reversed 2x8-line LCD display
- Programmable beep/melody tones
- 10-battery charge memory slots
- Reverse polarity and current overload protection
- AC/DC operation

TESTING

For being an AC/DC charger, the Onyx measures in at 6" x 5.28" x 1.69" with a weight of about 24 ounces—very similar to the personal, DC-only multi-charger that I use. The included output plug had a Tamiya-style connector on it, but Duratrax does offer optional harnesses with Dean's plugs, receiver packs, etc. Speaking of charging, the unit is simple to use: a few button pushes get you going in no time. Its 10-slot memory allows you to program charge methods for practically any battery pack you have. The unit has a built-in cooling fan on the side, which, thankfully, ran virtually silent, compared to some hairdryer chargers I've worked with before. The start-up and charge melodies

remind me of an 80s cell phone ring, but luckily, Duratrax gives you the ability to turn off the sounds.

CONCLUSION

It may not have motor break-in capability or the ability to charge gel cells, but when it comes to charging batteries, the Onyx 230 seems to have what it takes to do what the more expensive chargers out there can do. The added convenience of having AC-compatibility built in, combined with the thrifty \$85 price point, almost makes this a steal for any hobbyist, from beginner to advanced. Very flexible and easy to use. Give the Onyx 230 a good look the next time you're in the market for an AC/DC multi-charger. ○

SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT



KATE HUDSON

HITS

- Flexible battery compatibility
- Small size for being AC/DC
- Very affordable

MISSSES

- Can do Li-Fe, but not gel cells?
- DC input plugs aren't removable

CONNECT

Manufacturer: Duratrax
Distributor: Distributed by Great Planes
Web: www.duratrax.com
Part Number: DTXP4230
Street Price: \$85



Products for Large Scale R/C



HPI BAJA 5B & 5T Front & Rear Upper & Lower A-arms *(fits all versions)*

Front:

- Stronger and less flexible than stock.
- Uniquely designed shock skid plate included to help protect the bottom of those expensive shocks from impact damage.
- Stronger Pivot Ball area with 15% more material eliminating a common breakage point.
- Reduced Pivot Ball slop for more consistent steering & suspension settings.
- Replacement shock skid plates also available separately.

(Both Front & Rear arms are available in black & dyeable white. See our website FAQ pages for information on how to dye RPM parts. Backed by our limited lifetime warranty.)

Rear:

- The shock mount on the lower A-arm has been moved forward to **eliminate** the severe rubbing issue of the wheel at the shock mount.
- Increased amount of material around the shock mount, preventing it from being the lowest hanging component of the A-arm assembly.
- A third inside hinge pin boss and tied in structural ribs help disperse impact energy & rotational forces over three hinge pin bosses for added strength.
- We moved the rear hub carrier forward by 1/8" over stock geometry **reducing** the tendency of the Baja to squat under acceleration.
- **RPM** rear upper A-arms have had a shape change for added lateral stability, providing a more consistent feel to the performance of the Baja.

FEATURES

MONSTER CAMBER GAUGE

Capable of accurately measuring camber angles on 1/5th to 1/18th scale R/C vehicles. Can be used to check toe angles as well (see our FAQ pages for more details.)



BEARING BLASTER- THE ULTIMATE BEARING CLEANER

Cleans bearings up to max O.D. of 13/16" (21mm)



HEX DRIVERS

Sizes available: 0.50", 1.5mm, 1/16", 2mm (5/64"), 3/32" Straight, 3/32" Ball, 2.5mm Straight, 2.5mm Ball and 3mm.



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CYCLONE TC

67700 CYCLONE TC

ATSUSHI HARA & CYCLONE TC
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REEDY
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No matter what your game is, the Cyclone TC has you covered. From world class sedan racing, indoor carpet racing, outdoor parking lot racing and even drifting. This car truly is a Jack of all trades!

New Thicker
Low-Mount
Shock Towers

New Stronger
Upper Bulkheads

New Easy-Adjust
Sway Bar Holders

New 18T Center Pulleys
more leverage for extra
acceleration and braking power

New Pro Spec
Ball Differential

Huge 3mm diff-balls
are super smooth
and last super long.

New Reversible
Suspension Arms

Flip your a-arms for
more adjustment holes.

New 2.0mm FRP Middle Block Deck
increased lateral flexibility and rear traction

New 2.5mm Main Chassis & 2.0mm Upper Deck
compatible with Adjustable Torsion Control (ATC) Posts
new shape and slightly tweaked layout enhance driving performance

ATSUSHI HARA
HB FACTORY DRIVER
2008 REEDY RACE CHAMPION

New 'Two-Way' Front One-Way
Differential/Locking Spool

easily converts from a one-way to a
spool with insert pins



Check out website for setup sheets and
upgrade parts list:

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TRACTION 101



MEGABITE

67758 ●
67761 ○
67771 ●

CODE
● SOFT
○ MED
● HARD

Get excellent corner speed on surfaces where the race line is "clean" and does not have a thick layer of loose soil or rocks.



BLOCK

67769 ●
67756 ○
67759 ●

These tires work best in conditions where there might be a little too much loose dirt on the race line for Megabite tires. Block tires have great sidebite and can be used in various combinations with the Khaos tire to tune how the car handles.



KHAOS

67757 ●
67760 ○
67770 ●

These tires work best in loose soil or rocks. Using Block front tires with Khaos rear tire combination will provide more steering. The Khaos front tires with Block rear tire combination will provide less steering.



PROTO

67744 ●
67745 ○

These tires perform best on high traction tracks like Astroturf, and hard packed abrasive dirt with high sand content (like you would find in Arizona). They will make your car more stable with improved tire wear on this surface to outlast other tires.

HB FACTORY DRIVER / TIRE DESIGNER
JESSE ROBBERS

Professor
Jesse Robbers

UNDERSTANDING AND USING COMPOUNDS

Choosing the right compound is dependant on several conditions: track temperature, soil type (sand or clay content), how "clean" the surface is, how smooth or rough the track is, and the overall traction level.



Softer compounds perform better than harder compounds when the soil is damp or fairly wet.



If the temperature is very hot, harder compounds can perform better making the car more stable and easier to drive while still creating excellent traction.



On abrasive surfaces and/or high traction surfaces, a harder compound can perform better. Tracks with larger clay content, softer compounds usually perform better. If the sand content is more dominant on your track, a firmer compound may perform better.



Rougher tracks tend to like the softer compounds, the soft tires conform to absorb bumps and ruts better.

An easy way to help you tell if the compound you are using is too firm for your track is that you will notice the rear end will slide or "trail brake" into the turns.

BIG WHEELS

HB wheels utilize the maximum diameter allowed under the current rules and regulations. This makes for quicker response from the tires due to less side wall flex.

**BUY
ONLINE**

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67423 (YELLOW/4PCS)

HB DISH WHEEL
67427 (WHITE/4PCS)



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HPI SAVAGE FLUX HP

**YOU DON'T NEED NITRO
TO BE A SAVAGE**



GAS

GAS

words: **Joe Muldoon** | photos: **Jason Boulanger**

WHEN I TOOK THE SAVAGE FLUX OUT OF THE BOX for the first time I could only think of one word to describe it:

tough. Everything about this truck says tough, from the giant Tork brushless motor to the indestructible-looking suspension components. The facts that you need to bolt a wheelie bar on the back and that the instructions suggest using two 3S LiPo packs are testaments to its toughness. I have driven quite a few monster trucks in the past, including this truck's nitro counterpart, but something about this one made me think it might be a different type of animal all together. Let's put some power to this thing and see what sort of savage beast HPI has created.

Joe takes his turn at reviews.





He has a computer on his desk. He should use it.

HPI SAVAGE FLUX HP

PART #: HPI100646
STREET PRICE: \$639
PRICE AS TESTED: \$839
SETUP TIME: 1 hour
EXPERIENCE LEVEL: Intermediate

SCALE	POWER	TYPE	DRIVE
1:8			4WD

TOUGH BUMPERS: Everyone hits something eventually; the bumpers are extra tough and should hold up to almost anything.

SUPER-HEAVY DUTY BONES: HPI went with some meaty dogbones to keep the power going to the ground.

EVERYTHING IN THE BOX:

The receiver box is nice and roomy without the need for a receiver pack or throttle servo.

02

01

BATTERY BOXES: The side-mounted boxes allow for a variety of packs to be used.

WHEELIE BAR: With this kind of power on tap anything to keep the front end down helps.

03

Sometimes we hit things on purpose, because it's fun.

01

CAUTION HIGH VOLTAGE •

The Flux HP Brushless system is a real winner. A good portion of this truck's appeal comes straight from this motor and ESC. HPI says the motor is capable of handling 25 volts, which is more than enough to have some fun. The motor is held in place with two 8mm aluminum motor clamps to make sure it stays put as you are hurling the Savage around.



...this truck could do a standing backflip just by mashing the throttle; it's pretty sweet.



02

BUILT TOUGH •

The transmission is filled with all-metal gears and rubber-shielded ball bearings to handle the power the Flux system creates. The transmission is a single-speed unit that didn't cause any troubles during testing. The gears withstood multiple full-throttle takeoffs without so much as a hiccup.

03

BIG BORE •

HPI went with a single big-bore shock instead of the standard dual-shock system they use on the nitro versions of the Savage. Each shock uses two springs to keep the truck under control in the rough stuff. HPI says the truck's reduced weight is what allows the use of this single-shock setup.



VEHICLE INFO

**CHASSIS**

LAYOUT:	Twin vertical plate
THICKNESS:	2.5mm
MATERIAL:	Aluminum

**SUSPENSION**

TYPE:	4-Wheel independent
TURNBUCKLES:	No
STEERING:	Belcrank with built-in servo saver
SWAYBARS (F/R):	None

**SHOCKS**

BODIES:	Nylon
DAMPING (F/R):	Stock 30wt.
PISTONS (F/R):	4 hole
SPRINGS (F/R):	Block

**DRIVE TRAIN**

TYPE:	4WD
DIFFERENTIAL:	2 (ring & pinion)
AXLE TYPE:	Dogbone
TRANSMISSION:	Single-speed all-metal gears
SPUR GEAR MATERIAL:	Machined steel
BEARINGS:	Rubber sealed bearings

**GEARING**

PINION/SPUR:	20/44, 32-pitch
GEAR RATIOS:	
PRIMARY:	2.2:1
INTERNAL:	3.3:1
FINAL:	7.26:1

**BODY, TIRES & WHEELS**

BODY:	HPI GT2
TIRES (F/R):	HPI GT2
DIAMETER/WIDTH:	6.2 in. x 3.25 in. (157mm x 83mm)
HEX SIZE:	17mm
WHEELS:	HPI Warlock

**DIMENSIONS**

WEIGHT:	11 lbs., 5 oz. (5,131g)
TRACK WIDTH (F/R):	16.2/16.2 in. (411/411mm)
WHEELBASE:	13.5 in. (343mm)
RIDE HEIGHT:	2.75 in. (70mm)

Then we get sad when we hit things and they break.



TAMIYA

TRF
TAMIYA RACING FACTORY

801XT

Anti-Gravity Prone!

HOP-UPS



#84041- Lightweight Universal Shaft



#84036- Lightweight chassis 330g



#84038- Aluminum Rear Hub

TRF
TAMIYA RACING FACTORY

801XT

Making the all-new TRF801XT gravity exempt is our goal! This 1/8 scale competition level race Truggy kit was designed and tested in Southern California, USA. The highly efficient drive system comes from the optimized position of the front and rear propeller shafts. The drive-line is virtually straight, which makes the TRF801XT the most efficient truck in its class. The chassis has plenty of adjustability to fine tune it for the most demanding of race tracks across the globe. With the new line of Hop-Ups available for this bad boy, it just keeps getting better and better. Get to your local R/C shop and prepare to conquer new ground with the new TRF801xt and its Hop-Ups. Please visit www.trf801xt.com for more information.



Tamiya's new factory pilot, Ryan Lutz will be leading the way for total conquest!



#84037- Aluminum Brace Front / Rear



#84040- Lightweight Universal Prop Shaft



www.tamiyausa.com

PERFORMANCE TEST

TESTING

Testing was conducted at two local parks on warm and sunny days. The parks presented a variety of terrains, including grass, rocky dirt roads, asphalt, and gravel. There was also some testing done in the parking lot behind the office, but it didn't go so well.

ACCELERATION AND SPEED • The Savage Flux accelerates like no other monster truck I have ever seen. With its dual 2S LiPo packs, the truck is a handful to control off the line. If it gets any sort of traction it goes over backwards when you punch the throttle. After installing dual 3S packs it was almost impossible to stab the throttle without the front tires going skyward. During testing with the 3S packs, a blip of the trigger caused the Savage to lift the front tires while it was going about 20 mph. I also found that this truck could do a standing backflip just by mashing the throttle; it's pretty sweet. With upwards of 22 volts flowing through the motor the top speed was simply unreal for a truck of this size. Even when testing on a soccer field the Savage ran out of room in a hurry. HPI claims a top speed of 62 mph with the right setup and I believe that may be possible.

Rating: 10/10

BRAKING • Monster trucks are not typically known for insane braking ability, as getting on the brakes too hard can often result in a front flip. The brakes on the Savage Flux were actually very controllable. I had to make a very quick stop to avoid hitting some of the local wildlife. When the back tires did start to lift off the ground, a little work on the trigger was all it took to coax the truck into a quick and controlled stop. After some time behind the wheel I found that the brakes were effective and predictable.

Rating: 9

LOW-SPEED HANDLING • I suspect that most of these trucks will spend the majority of their time at high-speed, but everyone has to slow down from time to time. The truck handles pretty well at low speeds. Considering its size, the Savage has a pretty good turning radius and the stock SF-5 servo moves the front tires pretty well at anything faster than a dead stop. The Flux brushless system puts out power pretty smoothly at low speeds, as long as you are smooth on the trigger. It takes a little while to get used to the throttle response, but once you do low-speed maneuvers become smooth and easy.

Rating: 8

HIGH-SPEED HANDLING • The Savage Flux really starts to get fun at high speeds. Seeing a truck this size blasting down a dirt road at break-neck speeds is impressive to say the least. During high-speed runs the truck was very controllable, as long as I was careful on the steering and throttle inputs. If I got on the throttle too hard during high-speed turns the front tires lifted right off the ground and left me without steering. As long as you keep this in mind the truck handles great at speed. HPI positioned the motor and the batteries low in the chassis in order to maintain a low center of gravity and it is apparent at high speed. This truck seems to be more stable than many nitro trucks in the same class.

Rating: 9

ROUGH-TRACK HANDLING • Monster trucks are supposed to flatten out the rough stuff, and the Savage Flux does not disappoint. I spent some time driving on an old fire road filled with small rocks and deep ruts. The suspension soaked up the bumps and rocks very well. HPI opted to use a single-shock setup on each corner of the Flux instead of the dual-shock setup Savage owners may be accustomed to. The crew at HPI must have done their homework, because the truck just ate up everything I threw at it without missing a beat. Considering the speed at which this truck travels, that is impressive.

Rating: 9.5

HPI SAVAGE FLUX HP

1:8



4WD

RTR GEAR

RADIO: HPI TF-3 AM

RECEIVER: HPI RF-6 2 channel

STEERING SERVO: HPI SF-5

SPEED CONTROL: HPI Flux Blur

MOTOR: Flux Tark 2200

TEST GEAR

BATTERY: Trinity 2S 3600mAh
TR120180, \$139

CONTACT

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PERFORMANCE TEST

JUMPING • Getting the Savage off the ground was no difficult task; after all, this truck does back flips without a ramp. In the air it was real easy for the Savage to fly out of control with too much throttle, but it was very responsive to inputs while in the air. With tires that big spinning that fast, there was a lot of force being applied. Again, after getting a feel for how it acted in the air, keeping it level wasn't too difficult. Thanks to the truck's extra long suspension, hard landings were not too bad. Although I never really aired it out to insane levels, it took the landings pretty well. It sometimes took a little extra bounce, but nothing uncontrollable. Some shock tuning to suit running conditions would clear this right up.

Rating: 9

WRENCHING

MAINTENANCE • Working on the Savage felt a little cramped sometimes due in part to the design of the chassis. The TVP design does not leave a ton of room for components to be spread out. As a result, you may have to remove a few extra screws to get at what you are working on. HPI worked with the space pretty well, so although the truck wasn't a dream to work on, on all the major parts were pretty easily accessible.

Rating: 8

WEAR AND TEAR • The Savage has always been a truck that seemed to be nearly indestructible and the electric version seems to carry on that torch. Several times during testing the truck rolled or flipped and it just kept going. During one high-speed run the front end came up a little too much resulting in a high-speed cartwheel. I thought for sure at least a suspension arm would be toast, but upon inspection everything was fine. There was also an issue with the switch on the speed control; it can be a little finicky about turning on and off. Once I got it to come on I just stopped using it and simply unplugged the

batteries. This is always a good idea with LiPo packs anyways.

Rating: 8.5

TUNING • I found out within a minute or so of testing that the slipper was too loose from the factory. It was slipping a lot, but after adjustment, which was pretty much locking it down, it held just fine. Other than that I left everything as it came out of the box. The shocks use a two-spring setup. This allows for a variety of tuning options to adjust for conditions. The stock setup worked well for the terrain on which I was running. If you plan on going for high-speed street runs you could take out some spring spacers and run some stiffer shocks; otherwise the stock setup works well for general monster truck madness.

Rating: 8

CONCLUSION

The Savage Flux HP was a blast to drive; there is really no other way to put it. Wheelies at high speed, catrwheels, and standing backflips add up to a great time. While it could be tuned to run on a track I don't think that's what this truck was intended for. It is ridiculously powerful, takes jumps like a champ, and is pretty much bulletproof. It was made to go bashing. It really is everything I have ever expected out of a monster truck. ○

HPI SAVAGE FLUX HP



SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT

8 INSTRUCTIONS

8.5 PARTS QUALITY/FIT

8.5 DURABILITY

8 TUNABILITY

9 OVERALL PERFORMANCE

8.5 VALUE

HITS

- Power is incredible
- Handles the rough stuff great
- It does backflips!

MISSSES

- ESC switch
- Too much throttle early = flip

MAIN COMPETITION

Traxxas E-Maxx, Traxxas E-REVO

WHO IT'S FOR

Anyone who wants a super-powerful, bash-over-anything monster truck



Chrome Air Filter
1/10 RC09823 / 1/8 RC09804

Blue Chrome Air Filter
1/10 RC09822 / 1/8 RC09821

Purple Chrome Air Filter
1/10 RC09824 / 1/8 RC09823

1/10 Dark Blue Air Filter Set
with 6 Sets of Replacement Filters
& Pre Filters

1/8 Dark Blue Air Filter Set
with 6 Sets of Replacement Filters
& Pre Filters



Nitro Starter Set
RC04299

Contents
Fuel Bottle: 300cc
Glow Starter
1.2V 1800mAh Ni-Cd Battery
5-Way Wrench (5.5/7/8/10 & 17mm)
4-Way Wrench (4/5/5.5 & 7mm)
Mini Screwdrivers
Charger: Input: AC-120V, 60Hz
Output: 250mA
Charge Time: 5-7 hours



Nitro Electric Starter Set
RC04298

Contents
Fuel Bottle: 300cc
7.2V Ni-Cd Battery
5-Way Wrench (5.5/7/8/10 & 17mm)
4-Way Wrench (4/5/5.5 & 7mm)
Mini Screwdrivers
Charger: Input: AC-120V, 60Hz
Output: 250mA
Charge Time: 5-7 hours

Fuel Bottles

Glow Starters



Fuel Bottle
IMX9601 / 250ml.



Fuel Bottle
IMX9602 / 500ml.



1700 mAh
Sub C Glow Starter
with Battery and Charger
IMX9660



1800 mAh
Sub C Glow Starter
with Battery and Charger
IMX9665



Glow Starter
Alkaline Type C Cell
(Not Included)
IMX9662



Glow Starter
Alkaline Type D Cell
(Not Included)
IMX9663



Small Body Pins
RC04000- Blue / RC04001- Green
RC04002- Dr Blue / RC04003- Orange
RC04004- Purple / RC04005- Red
RC04006- Yellow / RC04007- Black



Large Ring Body Pins
RC04008- Blue / RC04009- Green
RC04010- Dr Blue / RC04011- Orange
RC04012- Purple / RC04013- Red
RC04014- Yellow / RC04015- Black



Medium Ring Body Pins
RC04016- Blue / RC04017- Green
RC04018- Dr Blue / RC04019- Orange
RC04020- Purple / RC04021- Red
RC04022- Yellow / RC04023- Black



Long Ring Body Pins
RC04024- Blue / RC04025- Green
RC04026- Dr Blue / RC04027- Orange
RC04028- Purple / RC04029- Red
RC04030- Yellow / RC04031- Black



Long Body Trucks Pins
RC04032- Blue / RC04033- Green
RC04034- Dr Blue / RC04035- Orange
RC04036- Purple / RC04037- Red
RC04038- Yellow / RC04039- Black



Bent Med. Body Pins
RC04040- Blue / RC04041- Green
RC04042- Dr Blue / RC04043- Orange
RC04044- Purple / RC04045- Red
RC04046- Yellow / RC04047- Black



Magnetic Parts/Pcs Tray
RC04240 Silver
RC04241 Blue
RC04242 Purple
RC04243 Red



Heavy Duty Servo Saver
RC09688 Silver / RC09689 Black
RC09690 Blue / RC09691 Silver
RC09692 Black / RC09693 Blue
RC09694 Silver / RC09695 Black



5mm Aluminium/Nylon Flange Nuts
RC09775- Blue
RC09776- Gold
RC09777- Purple
RC09778- Red



4mm Aluminium/Nylon Flange Nuts
RC09640- Blue
RC09641- Gold
RC09642- Purple
RC09643- Red

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HPI

SAVAGE FLUX HP

SCALE POWER TYPE DRIVE

1:8



4WD

GAS

POWERPLANT INFO

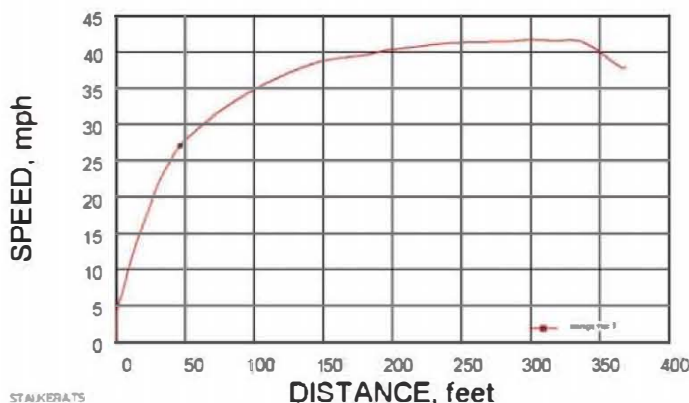
The Flux brushless system is really what this truck is all about. It can handle 22 volts and it never seems to run out of power. I haven't seen a nitro monster that has the off-the-line grunt that this combo provides. The ability to flip the truck over backwards while already moving at a pretty good clip is a testament to this system's power.



PERFORMANCE INFO

ACCELERATION CURVE

0-60 FT: 2.62 sec. @ 29.5 mph
 TOP SPEED: 41.68 mph @ 300ft.
 AVERAGE RUN TIME: 7 minutes



STAIKERRATS

TEST CONDITIONS

WEATHER: Medium-sunny
 TEMP/HUMIDITY: 72° F / 24%
 BAROMETRIC PRESSURE: 29.97
 ALTITUDE: 652 feet
 TRACK TYPE: Rough dirt and grass

HANDLING

TURNING RADIUS: 6 feet, 6 inches
 ON POWER: Understeer
 OFF POWER: Oversteer

BRAKING

CONTROL: Poor Satisfactory Good Excellent
 FADE: Poor Slight None
 OVERALL: Poor Satisfactory Good Excellent

Swap the 5th wheel for a blade and you could cut some grass with it.



T-MAXX 3.3

KING OF MONSTERS

Nitro-powered 4x4 monster truck fun starts with T-Maxx. No other truck can top T-Maxx's versatility and performance. Thundering TRX 3.3 power gives T-Maxx incredible speed, a high-torque digital servo delivers razor-sharp handling, and T-Maxx's **class-leading durability** goes beyond 'monster tough' to 'Traxxas tough'. And nitro is easy with the Traxxas EZ-Start. Traxxas makes experiencing the **brutal torque and searing horsepower** of the TRX 3.3 engine as simple as pressing a button. Power, performance, speed, convenience... T-Maxx brings it all together and unlocks a whole new level of **monster thrashing potential**. Go faster, jump higher, and let your creativity find new forms of **torturous off-road pounding**. It's stronger, bigger, and meaner right down to its monster core. **Make no mistake, T-Maxx reigns supreme as King of Monsters.**



Plush Maxx Suspension

Wicked long travel (nearly four inches at each wheel) and eight oil-filled shocks (two at each corner) deliver the plush feel and 'bottomless' suspension travel that T-Maxx is famous for. The suspension is fully tunable with up to 10 shock-mounting positions, adjustable front caster angle, front and rear toe, and front and rear camber angles. The heavy-duty Revo-Spec axle carriers house large diameter rubber-sealed bearings for ultra-smooth and practically maintenance-free running. For true Maxx performance, rubber-sealed pivot balls maintain factory smooth performance even in the harshest environments.



Skill Level



POLISHED
RESONATOR
TUNED PIPE

T-Maxx 3.3's gleaming Resonator pipe is tuned for maximum muscle and gives T-Maxx 3.3 a custom look. Steering is enhanced by the new 2070 digital, ball bearing servo. It packs 125 oz.-in. of tire-swinging torque to keep T-Maxx 3.3 under your precise control.



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BALL BEARING SERVO



45+
mph

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10% Bigger Than Original T-Maxx



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SLAP AN INTERNAL GRAPHIC INTO YOUR BODY AND HIT SOME PAINT~ SIMPLE (PART # R001 TO R023_ RETAIL \$8.49 EACH)

R001 - Chromal Blaze

R002 - Wickedness

R004 - Fire

R005 - XXXtreme Voits

R023 - Carbon Fire

SCRATCH-AND-PEEL RESISTANT BECAUSE THEY'RE ON THE INSIDE

CUT

STICK

PAINT

R022 - Ice Internal

EXTERNAL DECALS

STICK THESE ONTO YOUR DOGS BUTT~ THEN BARK AT HIM (PART # S001 TO S034_ RETAIL \$5.49 EACH)

Part # H005
Diamond Fiber Flames

S001 - Got Nitro?	S009 - Pro Flames	S018 - Wicked Flames	S019 - Tribal Death
S002 - XXX Main	S010 - XXX Main	S019 - Wicked Flames	S020 - XXX Main
S003 - XXX Main	S011 - XXX Main	S020 - XXX Main	S021 - XXX Main
S004 - XXX Main	S012 - XXX Main	S021 - XXX Main	S022 - XXX Main
S005 - XXX Main	S013 - XXX Main	S022 - XXX Main	S023 - XXX Main
S006 - XXX Main	S014 - XXX Main	S023 - XXX Main	S024 - XXX Main
S007 - XXX Main	S015 - XXX Main	S024 - XXX Main	S025 - XXX Main
S008 - XXX Main	S016 - XXX Main	S025 - XXX Main	S026 - XXX Main
S027 - XXX Main	S028 - XXX Main	S026 - XXX Main	S027 - XXX Main
S028 - XXX Main	S029 - XXX Main	S027 - XXX Main	S028 - XXX Main
S029 - XXX Main	S030 - XXX Main	S028 - XXX Main	S029 - XXX Main
S030 - XXX Main	S031 - XXX Main	S029 - XXX Main	S030 - XXX Main
S031 - XXX Main	S032 - XXX Main	S030 - XXX Main	S031 - XXX Main
S032 - XXX Main	S033 - XXX Main	S031 - XXX Main	S032 - XXX Main
S033 - XXX Main	S034 - XXX Main	S032 - XXX Main	S033 - XXX Main
S034 - XXX Main		S033 - XXX Main	S034 - XXX Main

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DVD1 - Action

Part # DVD2

DVD2 - Action

Part # DVD3

DVD3 - Action

Part # DVD4

DVD4 - Action

Part # DVD6

DVD6 - Action

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LOSI 8IGHT-E

TURNING ELECTRIC UPSIDE DOWN



GAS

GAS

words: Michael Wortel | photos: Jason Boulanger

A BOUT A YEAR AGO, the first 1/8-scale electric conversions started hitting the market—manufactured by electronics companies, not the car manufacturers themselves. But since then, car makers have been producing conversion kits of their own, and although the growth hasn't been mind-blowing, the class has started to catch on. The latest conversion on the market is for Losi's hugely successful race buggy—the 8IGHT. Made entirely by Losi, this conversion looks to add a new twist to an already winning platform.

LOSI 8IGHT-E

PART #: LOSA0912
STREET PRICE: \$125 (conversion and body alone)
PRICE AS TESTED: \$1550
SETUP TIME: 12 hours
EXPERIENCE LEVEL: Advanced



Load up the New Wave music in your iPod when driving this machine.

02

EASY ESC MOUNT: To bolt in the ESC, simply use four screws, a spacer plate, and the existing holes on the chassis. The ESC has plenty of leg room.

ESC COOLING FAN: Things get hot at 11.1V+; an ESC fan helps to keep ESC temps down.

NEW RADIO BOX: The conversion kit comes with a brand new radio box, so there is no need to cut anything off the upper deck to fit in the new hardware.

ADJUSTABLE MOTOR MOUNT:

The motor mount easily adjusts to accommodate different pinion gears and to set the gear mesh. Everything is accessible; nothing has to be removed.

01

REAR MOTOR SUPPORT:

Since this large-rotor motor is long, Losi provides a rear motor support to hold up the ass end of the can.

VEHICLE INFO

01

WORK IN THE CENTER • A major component of the conversion kit lies in the center of the chassis. Losi needed to find a way to strap in a large brushless motor and make it look like it was supposed to be there to begin with. Crafted out of high-quality aluminum, the motor mount fits flawlessly in the chassis and lets you get rid of all of the braking components that were needed when this was a nitro car.



And unlike other conversions I have tested, this one doesn't require any fabrication.

02

STRAPPING IT IN •

The 8IGHT-E uses a single Li-Po battery pack—a HUGE one. The battery tray accommodates between a 3S and 5S Li-PO, and it uses three velcro straps to hold the gigantic battery in place. And unlike other conversions I have tested, this one doesn't require any fabrication.



POWERPLANT INFO

Losi sent me their 1/8 Xcelorin motor to use in the 8IGHT-E. The 1/8 Xcelorin features a huge 5mm rotor, four pole design, and 12 slot stator. The motor is available in various winds, but Losi sent me the most powerful—the 2100Kv model. Paired with a 4S Li-Po, the motor did what I expected, giving more low to mid and torque than I ever could have imagined! This motor is perfect for an 1/8-scale electric conversion, whether in the 8IGHT or another 1/8-scale buggy you're looking to electrify.



CHASSIS

Single deck (aluminum) with front and rear braces (plastic)

LAYOUT:



SUSPENSION

TYPE: 4-wheel independent

TURNBUCKLES: Steel

SWAY BARS (F/R): 2.35/2.75mm



SHOCKS

BODIES: Aluminum (threaded)

DAMPING (F/R): 35 wt.



DRIVE TRAIN

TYPE: 4WD center shaft

DIFFERENTIAL: Gear (3)

AXLETYPE: CV-style

TRANSMISSION: Direct, center

SPUR GEAR MATERIAL: Steel

BEARINGS: Rubber-sealed



GEARING

1"

PINION/SPUR: 15/45

GEAR RATIOS:

PRIMARY: 3.00:1

INTERNAL: 3.3:1

FINAL: 9.9:1



DIMENSIONS

WEIGHT: 7 lbs., 7 oz. (3,378g)

TRACK

WIDTH (F/R): 12.13 in. (308mm)

WHEELBASE: 12.64-12.80 in. (321-325mm)

RIDE HEIGHT: 1.25 in. (32mm)



TIRES, WHEELS

TIRES: Losi, Step-Pin

WHEELS: Losi, Yellow Dist-Type



ACCELERATION

0-60FT: 1.98 sec. @ 31 mph

TOP SPEED: 42 mph @ 152 ft.

AVERAGE

RUN TIME: 10 minutes



MAIN COMPETITION

Mawik's Losi 8IGHT Electric Conversion



WHO IT'S FOR

Anyone with electric experience and the desire for something new.

Just don't go to the track looking all flock of Seagulls.

PERFORMANCE TEST

TESTING

The nitro version of the 8IGHT is definitely meant for the racetrack, and that carries over to the 8IGHT-E as well. Although I am sure that some 8IGHT-Es will make their way onto the bashing paths and streets of America, the majority of them will find lots of track time—chasing down their nitro counterparts. For testing, Jason and I headed down to Revelation Raceway on a cool, windy afternoon.

ACCELERATION AND SPEED • Anyone who knows a decent amount about RC cars knows that one of the biggest advantages of going electric is found in the low to mid RPM range—where electric motors thrive. The 8IGHT-E was no exception. From the second I took a pull on the trigger, the buggy bit hard and took off. Even though the surface was dusty and the Step-Pin tires I was using weren't ideal, the 8IGHT-E still found a lot of forward traction and was stable under hard acceleration. The E gave the perfect mix of torque and speed demanded at the track.

Rating: 10/9

HANDLING • When the nitro version of the 8IGHT first came out, the engine-forward chassis distribution was pretty revolutionary and gave the buggy tons of stability in the air and steering on demand. With the nitro engine and fuel tank now on the backburner, I wasn't sure how the E's new weight distribution would affect its handling. At the end of the day, however, I was surprised to find that the E and its nitro counterpart handled similarly. The E had all the steering of the nitro version, as well as the in-air stability. The weight bias, created by the gigantic battery pack, favored the driver's side of the chassis—making left hand turns tighter than rights—but altogether, Losi did an excellent job choosing the layout of the electric conversion and its new components.

Rating: 9

WRENCHING

MAINTENANCE • The E was really easy to work on. The layout and construction of the buggy were straightforward, symmetrical, and intuitive. It isn't over engineered, as many newer 1/8-scale cars are, and assembling and working on the chassis was a pleasure. Everything was bolt-on, made sense, and was easy to install onto the chassis. The E comes with high-quality hex hardware and is accompanied by a great instruction manual.

Rating: 10

WEAR AND TEAR • After a full day of beating the hell out of E, nothing was broken or prematurely worn on the chassis. And after a few stomach-jarring lawn-darts and inadvertent broadsides to the pipes, I was happy to see the E drive away unscathed. The E's high-voltage battery and high-drain motor onboard made me a little concerned about overheating the ESC and motor before testing—especially at low speeds. But I was pleasantly surprised to find them running cool and efficiently at all times.

Rating: 10

TUNING • Since the E is a racecar at heart, it is full of various tuning options to keep you busy. Losi includes extra shock pistons, springs, and swaybars to choose from, as well as a helpful setup sheet in the back of the manual. The manual also includes a valuable setup section that explains how the different adjustments on the chassis work, and how to achieve a desired effect by changing a setting. The E is a true racer, and it responds to changes well.

Rating: 9

CONCLUSION

Although this review is for the 8IGHT-E conversion kit alone, you can probably expect to find a complete buggy—kit, electronics, and all—at some point soon. But for now, you have to purchase everything separately. Compared to aftermarket conversions, everything here fits in preexisting locations, and when the conversion is complete, the huge ESC, motor, and Li-Po look like they're supposed to be there. If you're looking to convert to electric, the combo of the Losi 8IGHT kit and the 8IGHT-E conversion is pretty hard to beat. ☺

LOSI 8IGHT-E



TEST GEAR

ROLLING CHASSIS:	Losi 8IGHT, LOSK0800, \$599	
RADIO:	Airtronics MX-3FHS DSS, \$150 (in combo)	
RECEIVER:	Airtronics 92324 DSS, included with radio	
STEERING SERVO:	JR Racing Z590M, \$30	
SPEED CONTROL:	Losi Xcelarin Sensorless ESC, LOSB9516, \$190	
MOTOR:	Losi Xcelarin 2100Kv, LOSB9422, \$180	
BATTERY:	Losi 14.8V 5000 mAh Li-Po, LOSB9864, \$225	

CONTACT

LOSI (DISTRIBUTED BY HORIZON HOBBIES):	www.losi.com
JR RADIOS (DISTRIBUTED BY HORIZON HOBBIES):	www.jrradios.com
XXX MAIN:	www.xxxmain.com
AIRTRONICS:	www.airtronics.com

SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT

9	INSTRUCTIONS
10	PARTS QUALITY/FIT
10	DURABILITY
9.5	TUNABILITY
9	OVERALL PERFORMANCE
9	VALUE

HITS

- No fabrication needed!
- Everything fits excellently
- Motor mount and battery tray give you options

MISSSES

- Needs the 8IGHT-E body to accommodate most batteries
- Expensive for a "novelty"

It takes a lot of hairspray to rock the seagull look.



DON'T TAKE OUR WORD FOR IT.

TAKE THEIRS.



"I am really impressed with Losi's Xcelorin Brushless Systems inside and out. Several Losi drivers and I used Xcelorin Brushless Systems in our Losi vehicles in the Modified Truck class at the 2008 Reedy Truck Race. Everyone's vehicles ran flawlessly all weekend, and we were all really happy with their overall performance."

-MIKE TRUHE



"I am a very big fan of the new Losi Xcelorin system not only for its unbelievable power and reliability, but also for the amazingly easy adjustable settings. No more counting blinking colored lights, just point and click on exactly what you want to change... It's just that easy!"

-BILLY FISCHER



"The 1/8-scale Xcelorin brushless system in my Team Losi Racing 8IGHT-E has unbelievable acceleration with instant power. At the RC Pro Finals, I was the only 1/8th buggy that could clear the double like it was nothing. The 8IGHT-E with Xcelorin brushless power is the fastest 1/8th off-road buggy I have ever driven."

-QUINCY HUGHES

XCELORIN

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1/8 Xcelorin Brushless Combo



1/10 Xcelorin Sensored Brushless Combo

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TAMIYA ARTA GARAIYA

ULTRA TAMIYA CHASSIS COMBO



GAS

words: James Revilla | photos: Carl Hyndman

When I first saw pre-release shots of Tamiya's new chassis, I couldn't place it. At first I thought it was a TA-05 when I saw the suspension. Then I saw the shaft and inline motor, and thought maybe it was a new TT or

TB. But then I noticed that the front shocks were laid

sideways like an IFS. Then I read references to

the suspension of Tamiya's top of the line

TRF416. Being a Tamiya fan, that was the

last straw—I had to know what it was,

and now I have it here: Tamiya's

new TB-03. It's almost if Tamiya

took the good stuff from

all of their current

4WD platforms and

combined them all

into their latest
mid-level circuit car.

We've seen mixes

like this before,

but the ultimate

question is—do

they work?



TAMIYA ARTA GARAIYA

PART #: 58409

STREET PRICE: \$220

PRICE AS TESTED: \$1,162

SETUP TIME: 8 hours

EXPERIENCE LEVEL: Novice to Advanced

SCALE	POWER	TYPE	DRIVE
1:10			4WD

ADJUST ME: Adjustable turnbuckles on the upper links are standard issue, and allow for adjustment on all four corners.

01

BATTERY TRAY: The molded tub is formed to allow for use with stick packs, side-by-side packs, and Li-Pos.

03

STEEL OR ALUMINUM: The TB-03's center driveshaft is made of steel for strength; Tamiya USA sent us this blue aluminum center shaft that was too pretty not to install.

AIR COOLED: A built-in molded channel underneath the ESC mounting area allows cooling air to reach the motor end bell.

02

SHOCKER: Tamiya's standard but reliable CVA shocks feature molded bodies, are oil-filled, and use o-ring and bladder seals.

Then again, the new TT-01E chassis comes with a GFR...

VEHICLE INFO

01

IFS • The highlight of the TB-03 chassis is the inclusion of the Inboard Front Suspension (IFS) design, first seen on Tomiya's TA-05 IFS. This design places the front shocks inboard on the

main chassis, and a combination of rocker arms and pushrods attach the shocks to the front lower arms. The rear end of the chassis is in a more conventional touring car layout, with the rear shocks mounted directly between the shock tower and rear lower arms. All four shocks are Tomiya's standard, oil-filled, "CVA" shocks – which have been around for a long time, and work as well as (if not better than) some other manufacturer's shocks.



...the TB-03 felt like it was in its natural stomping grounds on the track...



02

SLIDING MOUNT • A much-needed upgrade from the TB-02 is the new "sliding" motor mount on the TB-03. Whereas the 02 had fixed mounting holes for the motor depending on pinion size, the 03's cast motor mount is more conventional in that you adjust gear mesh by sliding the motor side to side. Not only does this remove the limitation of using only certain pinions, but a standard spur gear mounting hub will allow for the use of 48- or 64-pitch spur gears if you choose to skip on the metric 0.4-module gear set provided in the kit.



03

ALL IN THE FAMILY • Tamiya decided to incorporate parts from other race-worthy platforms in their stable of touring cars to give the TB-03 a lower-than-usual suspension that has been track proven. They started by giving the 03 a set of TRF416 reversible suspension arms. The front hub carriers were also taken from the championship-winning TRF416, while the ball differentials are virtually identical to the TB Evolution 5. If you opt to add sway bars (sold separately) the TA-05 set fits right onto the TB-03 mounts.



CHASSIS

LAYOUT:	Molded tub
THICKNESS:	NA
MATERIAL:	Plastic

SUSPENSION

TYPE:	4-Wheel independent
TURNBUCKLES:	Steel
STEERING:	Dual bellcrank
SWAYBARS (F/R):	None

SHOCKS

BODIES:	Plastic
DAMPING (F/R):	#400/#400
PISTONS (F/R):	1-hole / 1-hole
SPRINGS (F/R):	Silver / silver

DRIVE TRAIN

TYPE:	4WD center shaft
DIFFERENTIAL:	Ball / ball
AXLE TYPE:	Steel dogbones
TRANSMISSION:	Single speed
SPUR GEAR MATERIAL:	Plastic
BEARINGS:	Metal-shielded bearings

GEARING

PINION/SPUR:	22/64, 0.6 module
GEAR RATIOS:	
PRIMARY:	2.91:1
INTERNAL:	2.43:1
FINAL:	7.07:1

BODY, TIRES & WHEELS

BODY:	Tamiya ARTA Garaio
TIRES (F/R):	Tamiya slicks
DIAMETER/WIDTH:	2.56 in. x .94 in. (65mm x 24mm)
HEX SIZE:	12mm
WHEELS:	Tamiya 6-spoke, 2mm offset

DIMENSIONS

WEIGHT:	2lbs., 13.1 oz. (1,277g)
TRACK WIDTH (F/R):	7.40/7.44 in. (188/189mm)
WHEELBASE:	10.03 in. (255mm)
RIDE HEIGHT:	0.39 in. (10mm)

...but that chassis isn't as fancy.



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PERFORMANCE TEST

TESTING

I headed out to Bending Corners Raceway in Orange, CA for some track testing. The Bending Corners track is an outdoor permanent on-road facility, with an asphalt surface and islands to give that true racing feeling. The weather was sunny, and since it was a practice day the track wasn't sprayed down with any additives.

ACCELERATION AND SPEED • After I built the chassis, the shaft drive felt smooth and free-rolling. Even with "just" a 13.5 motor, the TB-03 had good acceleration. Also, being that it was shaft-driven, I sensed no torque steer. With some shaft-driven vehicles, you can feel torque steer right after you pull on the trigger. However, even with the kit tires, the TB-03 launched straight as an arrow. Top speed wasn't ballistic, but enough to satisfy, even if I was geared a little high.

Rating: 8/8

BRAKING • When you're dealing with touring cars, braking isn't a physical thing like nitros with brake discs. It's all on the ESC and motor combo to slow you down. However, a stable chassis will be consistent during braking—and the IFS passed this test easily. The kit springs were on the soft side, so the nose dived under hard braking, but I still felt like I had enough control to steer the TB-03 IFS in the right direction under deceleration.

Rating: 9

LOW-SPEED HANDLING • Low speed handling was good and controllable. The TB-03 IFS kit suspension setup was very forgiving, almost as if it was taking it easy through slow-speed corners. On power the TB-03 IFS felt neutral, but if I let off too fast, the rear end wanted to swing around. Still, it wasn't super reactive with every steering input. For the beginning weekend warrior or parking lot terror, a forgiving setup makes it easier to learn how to drive, and this is where the TB-03 IFS will do most of its good work.

Rating: 8

HIGH-SPEED HANDLING • At high speeds, the TB-03 IFS tracked straight. Hitting the big sweeper, the chassis had a little bit of roll, and a few times the rear end swung out—I attribute this to the rear-heavy body and lack

of grip with the kit tires. When the tires did hold, the chassis felt controllable and neutral, moving at a decent rate. I had the gearing set on the high side for more top end, and I got to take advantage of it on the back straightaway. If I had to change directions at full throttle, the TB-03 IFS would do so in a calm manner, kind of like it was taking it easy. With a few tuning changes and some better tires I'm sure I could get the chassis to react faster, without making it squirrely, as out of the box the TB-03 IFS felt pretty neutral at speed.

Rating: 7.5

WRENCHING

MAINTENANCE • There's a lot of molded plastic here, and a lot of screws holding the chassis together. That said, if you ever need to get to the front or rear differentials, grab a seat. Gaining access to the rear diff requires removing six screws that hold down the rear gear cover (because it blocks two bulkhead screws) and then six more screws for the bulkhead cover. The front diff requires the same volume of screw-removal, but you also have to remove the front shocks since they sit on top of the front brace. To change the spur gear, you basically have to do the same disassembly in the rear. Maybe in the future Tamiya can take a cue from 1/8-scale buggies and use a front bulkhead cover (instead of the top) so that diff access isn't such a chore.

Rating: 7

TAMIYA ARTA GARAIYA



TEST GEAR

RADIO: KO Propo EX-TUR, 80180, \$207

RECEIVER: KO Propo 2.4GHz SS System, 15500, \$190

STEERING SERVO: Futaba S9350, FUTM0235, \$110

SPEED CONTROL: LRP SPX, LRP80400, \$250

MOTOR: LRP Eraser 13.5 "Stock Spec," LRP50470, \$100

BATTERY: Tekin 3400 Li-Po, TT1600, \$85

CONTACT

TAMIYA USA: www.tamiyausa.com

FUTABA: (DIST. BY GREAT PLANES) www.futaba-rc.com

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PERFORMANCE TEST

WEAR AND TEAR • Shaft driven chassis usually have sealed bulkheads, since they don't need provisions for a belt to go in and out. The TB-03 is no exception; not even the smooth molded chassis has diff cutouts. The rear gear cover is a nice touch, and keeps pebbles and rocks away from both the spur and pinion gear. The only wear I noticed was in the kit servo saver. The molded plastic "spring" didn't seem to be able to handle the rigors of track driving, and at times I'd find myself in a situation where I thought the trim went off, when it was actually the kit servo saver acting up. Seeing as the TB-03 is advertised for "the circuit" I would have preferred to see their high-torque servo saver (which uses three metal rings as a spring) included in the kit instead. Other than that small inconvenience, the rest of the chassis held up just fine.

Rating: 8

TUNING • Mid-level Tamiya racing chassis always have full lists of hop-ups for your upgrading pleasure. Because the TB-03 utilizes specs and parts from other Tamiya platforms, a lot of the tuning parts for those platforms also work for the TB-03. For example, need sway bars? Use the TA-05 set. Aluminum shocks? You can easily fit the TRF416 units in a jiffy. Want to alter rear-toe? Suspension blocks from the Evolution 5 are perfect. Even in box-stock form, you get a majority of the adjustments you'd need to go racing, from down stop screws to multiple shock positioning. I only gave the TB-03 an 8 because there are none of these extra tuning parts in the box.

Rating: 8

CONCLUSION

You can't blame Tamiya for coming up with this chassis, which can be easily passed off by the ignorant as a weird experiment to combine features on current platforms to come out with a "new" chassis. However, Tamiya did pick the right stuff, and it showed on the track. Compared to the previous TB-02, the TB-03 felt like it was in its natural stomping grounds on the track. The inclusion of TRF416 suspension pieces makes it easy for anyone to tune, and the shaft drive setup similar to the Evo 5 gives the TB-03 excellent response. Although some racing routines (diff rebuilding, motor swapping) are more time consuming with the TB-03, this is easily forgotten when you hit the asphalt. The kit tires don't grip for too long before the wear makes them a little loose, but with the right shoes the TB-03 should be able to hang with other chassis that cost much more.

If you are a weekend racer who prefers not to have to deal with carbon fiber and super aluminum, high-dollar chassis, you should take a look at Tamiya's latest platform. Your wallet will thank you. ○

TAMIYA ARTA GARAIYA



SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT

8 INSTRUCTIONS

8 PARTS QUALITY/FIT

8 DURABILITY

8 TUNABILITY

8.5 OVERALL PERFORMANCE

8 VALUE

HITS

- 416-derived suspension works
- Tamiya bodies always look bitchin'
- Excellent parts and hop-up support

MISSSES

- Only the Japanese seem to use 0.6 module
- Kit tires don't grip that well
- Changing motors awkward

MAIN COMPETITION

Kyosho TF-5

WHO IT'S FOR

Shaft-drive Tamiya fans looking for a capable performer without the EVO.5 price

Thank you, Dave, for converting the paint scheme into the 2008 model.



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TAMIYA ARTA GARAIYA

SCALE POWER TYPE DRIVE
1:10   4WD

GAS

POWERPLANT INFO

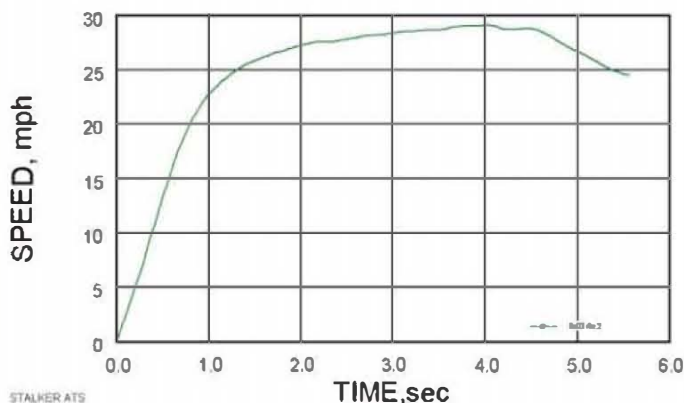
LRP's Eraser brushless motors are targeted for the budget-friendly who want brushless technology without breaking the bank. The same goes for their versatile SPX brushless ESC. This combo in the TB-03 gave me good all-around performance. Acceleration and top speed were up to par with the other cars on the track, and being that the motor was brushless, there was little maintenance required. No issues came up during my test day, and for the sportsman racers who don't need top-of-the-line equipment, the Eraser/SPX combo should fit their needs on both the track and in the wallet.



PERFORMANCE INFO

ACCELERATION CURVE

0-60 FT: 2.08 sec. @ 27.4 mph
TOP SPEED: 29.1 mph @ 139 ft.
AVERAGE RUN TIME: 9 minutes



STALKER ATS

TEST CONDITIONS

WEATHER: Sunny
TEMP/HUMIDITY: 75° F/60%
BAROMETRIC PRESSURE: 29.84 in.
ALTITUDE: 652 ft.
TRACK TYPE: Asphalt

HANDLING

TURNING RADIUS: 2 ft., 8.1 in.
ON POWER: Neutral
OFF POWER: Slight oversteer

BRAKING

CONTROL: Poor Satisfactory Good Excellent
FADE: Poor Slight None
OVERALL: Poor Satisfactory Good Excellent



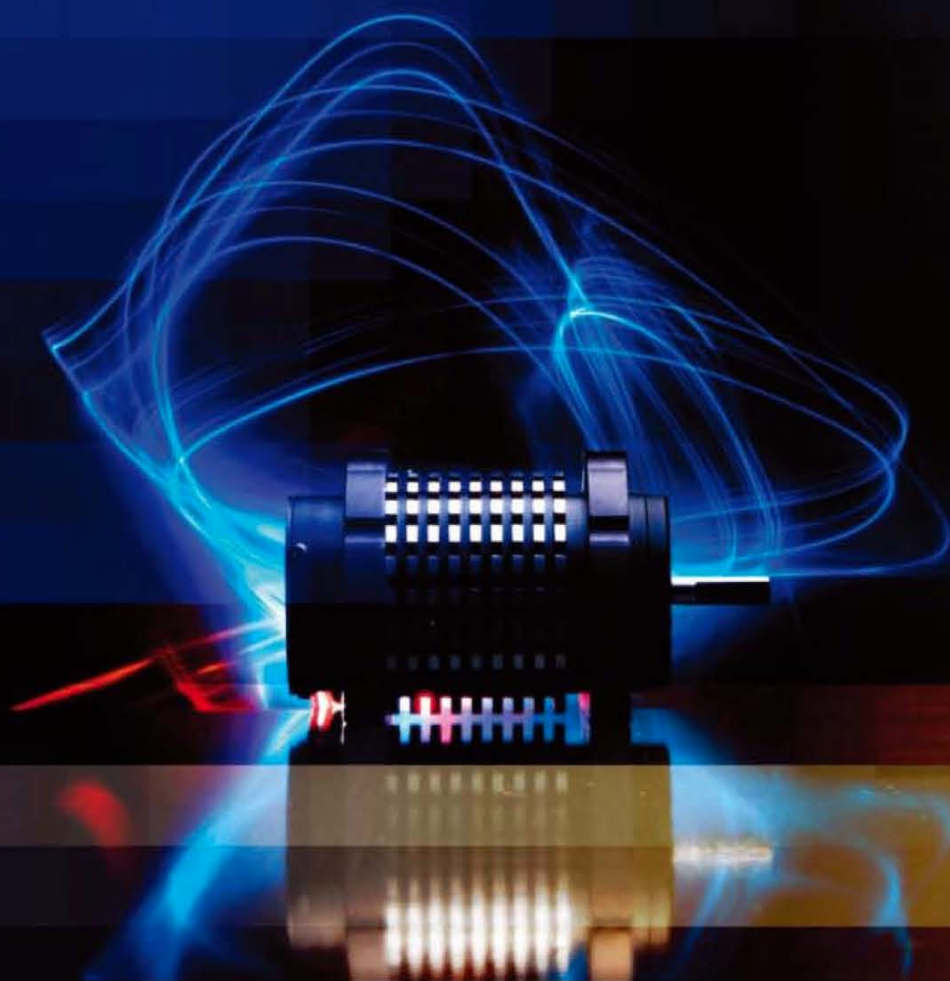
Hey, the ESC fits into the Tamiya TRF color scheme!

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PERFORMANCE TEST

INTEGY iROCK 4x4

BIG FUN FOR NEW CRAWLERS!

Sweet one more iPod name to something that doesn't make sense!



Skinner's crawling course goes into his house and to the bridge.

words: **Brian Skinner** | photos: **Jason Boulanger**



GAS

GAS

ROCK CRAWLING IS OFFICIALLY POPULAR, and a lot of people are looking to get into it. Many of the larger manufacturers are answering the call with a RTR 2.2 crawler, but not a lot is offered when it comes to the “Super Class” crawlers, which are 1/8-scale crawlers that are a little easier to drive over rough terrain. Integy, which is known for offering hop-up parts for the basher crowd, has taken advantage of this oversight and has introduced a 1/8-scale RTR crawler to fill this niche. This makes sense for Integy; they have tons of parts for monster trucks and crawlers, and since they cater to the basher and newbie, a large crawler in RTR form is perfect for the weekend warrior or person looking to try rock crawling. The new Integy iRock 1/8-scale crawler has a good price point, is easy to go rock crawling with, and has plenty of parts and hop-ups to support it. This sounds like a good recipe for getting a whole lot of newcomers into our hobby. After all, if my wife can rock crawl with the Integy iRock, then anybody can do it—which is the whole point of offering an RTR. Join me for a day at Casa De Skinner, and let’s see how this RTR “super class” crawler performs.

INTEGY iROCK 4x4

PART #: AFA01
STREET PRICE: \$279 - \$299
PRICE AS TESTED: \$330
SETUP TIME: 5 minutes
EXPERIENCE LEVEL: Novice to Intermediate



Some pro crawlers will laugh at the iRock.

The iRock comes with an ESC cooling fan ... nice touch!

Twin vertical plate chassis is roomy and could easily hold another stick-pack for incredible run-times.

Stainless steel skids help protect the pumpkins.

The stock shocks are durable aluminum threaded bodies which make for quick spring adjustments.

Bead-lock rims are stock, and the design is the cleanest I've seen; the tires mount very easily.

VEHICLE INFO

01 ARCHING I-BEAMS

• Since the 1/8-scale crawler has long links, Integy used plastic I-beam suspension links to fill the gap. The rise in the I-beam gives it ground clearance and makes for a stiff link to mount shocks to.



...AFTER ALL, IF MY WIFE CAN ROCK CRAWL WITH THE INTEGy iROCK, THEN ANYBODY CAN DO IT—WHICH IS THE WHOLE POINT OF OFFERING AN RTR.



02 AUTONOMOUSLY SOVEREIGN DRIVE UNITS

The iRock has motor mounted axles that work independent of each other much like the Clodbuster-designed drive system. The front and rear axle have large 540 motors to give you plenty of power at the wheels, and the possibility of all sorts of modifications to power, and steering control.

03 BIG NUTS, & WHITE KNUCKLES

• The iRock uses large 32mm nuts to mount 40-series wheels too, which means they'll never come loose or round-out. The knuckles are universal so they will fit on any end of the vehicle, and are capable of turning the iRock into a four wheel steering crawler.



CHASSIS

LAYOUT: Twin vertical-plate aluminum chassis
THICKNESS: 2mm
MATERIAL: Aluminum

SUSPENSION

TYPE: Multi link-solid axle articulation
TURNBUCKLES: Aluminum
STEERING: Standard steering bar linkage
SWAYBARS (F/R): None

SHOCKS

BODIES: Threaded aluminum
DAMPING (F/R): 30wt./30wt.
PISTONS (F/R): Stock/Stock
SPRINGS (F/R): Silver/Silver

DRIVE TRAIN

TYPE: Axle-mounted gearbox
DIFFERENTIAL: Two (front and rear locked)
AXLE TYPE: Dogbone straight axle
TRANSMISSION: Single-speed
SPUR GEAR MATERIAL: Injection molded plastic
BEARINGS: Rubber-shielded sealed bearings

GEARING

CLUTCH/SPUR: 15/50, 64-pitch
GEAR RATIOS:
PRIMARY: 3.33:1
INTERNAL: 3.46:1
FINAL: 11.52:1

BODY, TIRES & WHEELS

BODY: Integy truck body (pre-cut, pre-painted)
TIRES (F/R): Integy rubber tire with foam inser
DIAMETER/ WIDTH: 7.25 in. x 3.25 in. (184.15 mm X 82.55 mm)
HEX SIZE: 23mm
WHEELS: Integy plastic bead-lock rims

DIMENSIONS

WEIGHT: 9 lbs., 4 oz. (4,264 g)
TRACK WIDTH (F/R): 15.25 in. (387.35 mm)
WHEELBASE: 17.5 in. (444.51 mm)
RIDE HEIGHT: 2.25 in. (57.15 mm)

Something bothers us about a big truck that goes less than 5mph.

TESTING

Testing was conducted on a beautiful winter day in sunny Southern California. The area of choice was Casa De Skinny's world famous crawling test course. Other testing was done on a sofa and on a steep off-road stair case.

TORQUE AND POWER • As tested, the torque and power of the iRock are decent for an RTR. The torque can handle just about anything you throw at it, but it falls a little short when the wheels are in a tight place. It has plenty of torque to spin the wheels anyplace else, and will grunt the big crawler over most obstacles. The power of the twin 540 motors is what you would expect from the off-the-shelf Mabuchi motor. These motors are standard RTR issue, because they are reliable and last forever. The gearing could be a little lower to make the best of the motors, but for an RTR it's a good starting point for newbies. The power of the motor stopped if I locked a wheel between rocks, and in some situations it seemed the power was inconsistent. Overall I would say the iRock is set up well for torque and power, because a lot of new comers to crawling burn up motors learning how to crawl. Of course, you can always up-grade to a new motor if you want to trick it out.

Rating: 7.5 / 8.0

BRAKE HOLD • I found the iRock's brake hold erratic. Sometimes it stayed where I left off the throttle, and other times it wouldn't stay put. I think this might be an issue with the controller adjustments, but overall I only noticed it a few times and it didn't really interfere with the fun I was having.

Rating: 7.5

MANEUVERABILITY • The iRock is pretty good at maneuvering obstacles in its stock form. It articulates well, and even the stock servo works decently. It will need a better servo when you get better at crawling; this will improve the power to turn the wheels smartly in tight spots, and the ark of the steering will improve as well!

Rating: 7.5

CRAWLING ABILITY • The iRock is a price-point conscious RTR crawler; the crawling ability is pretty good, and the truck will surely entertain you right from the box. However, it has its limitations in stock form. The stainless steel skid plates (which are pretty cool btw) cause the iRock to hang up, and will need to go bye-bye for serious crawling. The bottom of the chassis is ribbed for her pleasure, but snags on protruding rocks—which in turns causes the truck to hang up. The other RTR item that

holds the iRock back are the tires; they are too stiff. If you want the iRock to perform better right from the get-go, I suggest taking a few minutes and doing a little prep work to bring out the true crawling ability of this beast. I would suggest removing the skids and covering the bottom skid with a solid skin. Next I would recommend cutting the tire foams down to increase flex in the tires. And finally, I would add a lot of weight to the wheels to make them grab better. These little fixes will instantly make the iRock crawl over obstacles like it should. I've made these adjustments to my iRock—what a difference.

Rating: 8

COMPETITION POTENTIAL • 1/8-scale super class crawlers are pretty gnarly, and there're not a lot of competitions for them at the moment. Regardless, the iRock is a decent platform to making a competition based crawler. It would need a lot of work and various hop-ups, but the nuts and bolts of a competition vehicle are there. Luckily for you, Integy has a plethora of after market parts for rock crawling and is kind of your one-stop-shop to make a competition super class crawler. If there

INTEGY iROCK 4X4



RTR GEAR

RADIO:	Integy AM digital proportional	
RECEIVER:	Integy 3-channel	
STEERING SERVO:	Integy servo (9kg)	
SPEED CONTROL:	Integy ESC	
MOTOR:	Integy 540 motor	
BATTERY:	Integy 2000mAh 7.2V Battery	

TEST GEAR

BATTERIES:	Duracell AA, \$3.95	
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CONTACT

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	HS-5065MG	35065S	HIGH TORQUE FEATHER	25 / 31	0.14 / 0.11	TOP BB	METAL	0.92" x 0.45" x 0.94"	0.42
	HS-5085MG	35085S	PREMIUM DIGITAL MICRO	50 / 60	0.17 / 0.13	TOP BB	METAL	1.14" x 0.51" x 1.18"	0.77
	HS-5245MG	35245S	DIGITAL MINI	61 / 76	0.15 / 0.12	DUAL BB	METAL	1.27" x 0.66" x 1.21"	1.12
	HS-55	31055S	ECONOMY FEATHER	15 / 18	0.17 / 0.14	NONE	NYLON	0.89" x 0.45" x 0.94"	0.28
	HS-65MG	32065S	MIGHTY FEATHER	25 / 31	0.14 / 0.11	TOP BB	METAL	0.92" x 0.45" x 0.94"	0.44
	HS-82MG	32082S	STANDARD MICRO	39 / 47	0.12 / 0.10	NONE	METAL	1.17" x 0.47" x 1.16"	0.66
	HS-225MG	32225S	MIGHTY MINI	54 / 67	0.14 / 0.11	TOP BB	METAL	1.27" x 0.66" x 1.22"	1.10



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PERFORMANCE TEST

were a stock class...the iRock could easily be made to compete with just a little work and parts, and would probably do well.

Rating: 8

WRENCHING

MAINTENANCE • The beauty of rock crawlers: they don't need a lot of wrenching, and maintenance is pretty much the same. The Integy iRock fits right in with all the rest. I had little work to do on it, and the wrenching I did was straightforward due to the iRock's open design. I do have one wrenching rant though... what's up with having 18 screws on each side of the rims for the bead-locks? Jeez, that's 36 screws to undo to get to one tire, or 144 screws to change to different tires; this means I have to screw and unscrew 288 times to change out all of my wheels! You know...if the rock rings were aluminum instead of plastic, you could use half that many screws. The funny part is that the wheels look way cool with bolts on them—it's a love/hate thing for me!

Rating: 9

WEAR AND TEAR • I have about 80 minutes of run time on my iRock, and so far so good. Everything is still tight and running smoothly, and there are few signs of wear overall. I did lose a spring retainer clip, but I've had that happen on other crawlers. The plastic rock-rings I just ranted about are not long for this world, as they show signs of major wear on the outside rings. But in

general, the iRock appears to be of decent stock, and looks like it will last for a lot more punishment at Casa De Skinny.

Rating: 9

TUNING • Not much is needed in the way of tuning right out of the box—the choice is yours if you want to do the prep work I mentioned earlier. The iRock has huge possibilities for tuning in the way of adding hop-ups. Basically the drive system is like the Clodbuster's, so plenty is available for that. Plus, the iRock—like most super class rigs—has an open platform to be tweaked any way you want. It just depends on how much money you want to spend.

Rating: 9

CONCLUSION

I haven't had a lot of time on super class crawlers, but I do love rock crawling and the Integy iRock fits the bill for me just fine. I had a lot of fun with it...it took a beating and was ready for more, and it looked pretty sweet in its element. Remembering that this is a price point RTR "large" crawler, I have to say that Integy offers a decent product that will turn a lot of people on to rock crawling...and that's what an RTR is for! ☺

INTEGY iROCK 4X4



SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT

7	INSTRUCTIONS
8	PARTS QUALITY/FIT
9	DURABILITY
9	TUNABILITY
8	OVERALL PERFORMANCE
8	VALUE

HITS

- Good price for a super class crawler
- Easy to set up and drive
- It's large and looks like a monster truck

MISSSES

- Tires are not soft enough
- Way too many bolts for the bead locks, and the rings are plastic
- Radio and ESC needs improvement

MAIN COMPETITION

Red Cat Racing Valcano RTR, Hobby Craft Canada HBX RTR, XTM X-Crawler Super Class ATR

WHO IT'S FOR

People who want to check out rock crawling, bashers, and people who like big toys.

NITRO WARS

Only the fastest survive, America's #1 fuel!

Chad Phillips, Team Trinity, 2008 Worlds Team

Psycho Nitro Blast - February - Atlanta, Georgia - 1st Place

Motorama - February - Harrisburg, Pennsylvania - 1st Place

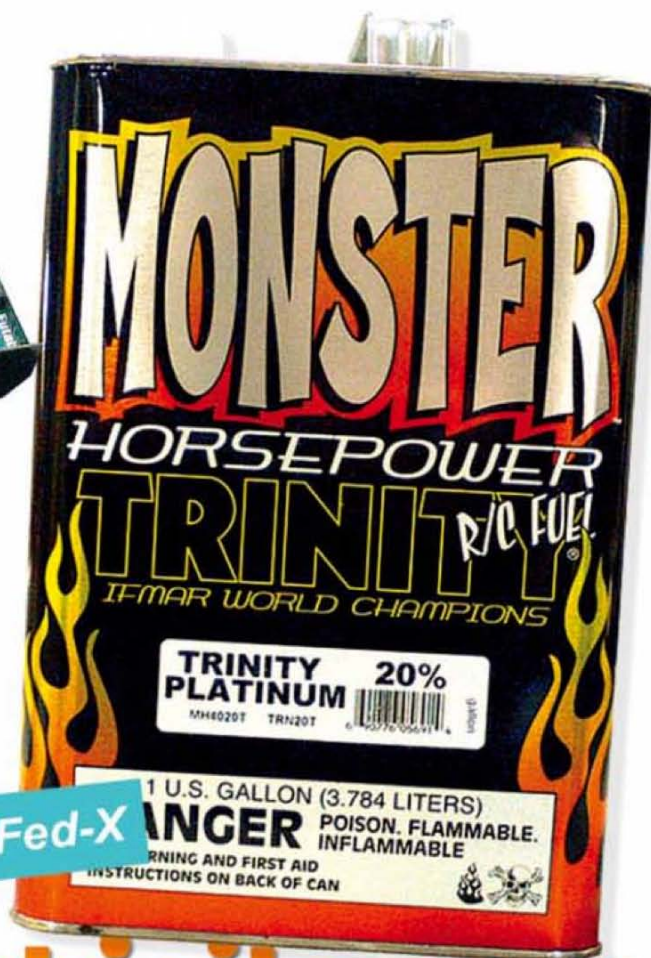
East Coast Nitro Series - May - Harrisonburg, Virginia - 1st Place

R/C Pro Series Round 1 - June - Rome, New York - 1st Place

Nitro Racing League Round 3 - June - Harrisonburg, Virginia - 1st Place



Ex-Tech .21 EB Race Prepped Engine (TRI40064)
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Plated to military specifications, The ProBar 3.0 is designed for RC3000H cells.

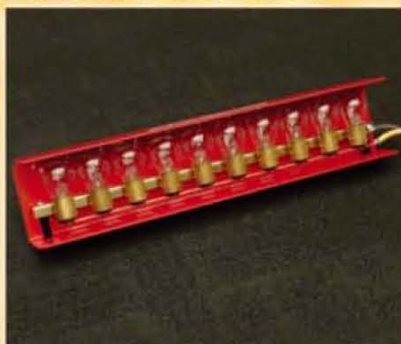
#18106pcs
#161125pcs
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"The best building jig on the market" - R/C Car
#2040

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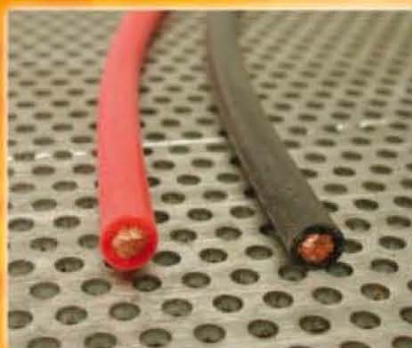
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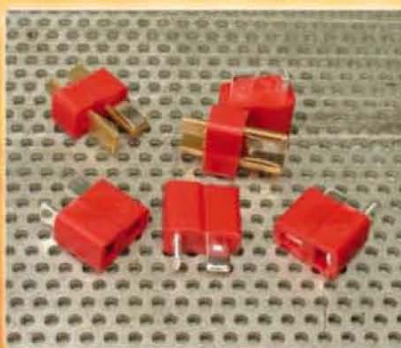
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INTEGY iROCK 4x4

SCALE POWER TYPE DRIVE



GAS

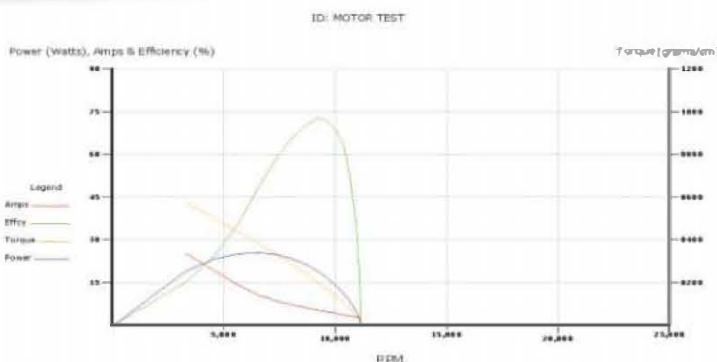
POWERPLANT INFO

The iRock comes equipped with off-the-shelf, wonderfully reliable twin 540 motors front and rear. The Mabuchi 540 motor is the standard issue motor for so many things, and has been for so many years, that it's a no-brainer for long-long use applications.



X-DYNO DATA

POWERPLANT DYNO PERFORMANCE



MOTOR DATA

MOTOR:	Mabuchi 540
WIND:	30-turn
MAX POWER:	25.38 @ 6,490rpm
MAX TORQUE:	653 gm/cm

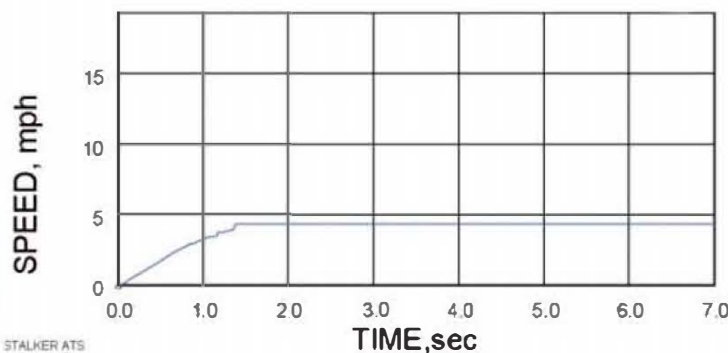
MOTOR SETTINGS

TIMING:	Fixed
BRUSHES:	Internal
SPRINGS:	Internal

PERFORMANCE INFO

ACCELERATION CURVE

0-60 FT: 1.15 sec. @ 3.05mph
TOP SPEED: 4.17 mph @ 8 ft.
AVERAGE RUNTIME: 35 minutes



TEST CONDITIONS

WEATHER:	Sunny
TEMP/HUMIDITY:	75/45%
BAROMETRIC PRESSURE:	29.97
ALTITUDE:	652ft.
TRACK TYPE:	Medium grip smooth rocks

HANDLING

TURNING RADIUS:	2 feet 2 inches
ON POWER:	Slight Understeer
OFF POWER:	Moderate Understeer

BRAKING

CONTROL:	Poor Satisfactory Good Excellent
FADE:	Poor Slight None
OVERALL:	Poor Satisfactory Good Excellent

I'll have to make the Casa De Skinny course larger now!

TC5F FACTORY Team

FOAM TIRE EDITION



1:10 Scale Electric 4WD Touring Car Kit

TC5R FACTORY Team

RUBBER TIRE EDITION



1:10 Scale Electric 4WD Touring Car Kit



Adjustable differential height and belt tension
Blue titanium turnbuckles
Blue aluminum clamping wheel hexes



Adjustable roll-centers and hinge-pin angle
Mono-bellcrank steering with adjustable servo-saver
Light-weight and durable high-impact bumper



Twenty precision ball-bearings
Woven carbon fiber battery strap and knurled
blue aluminum thumbscrews included



Hardened steel CVAs with cross-pin retaining clips
Adjustable front and rear vertical ball studs
Durable composite front and rear A-arms

Optimized Touring Car Performance for Foam & Rubber Tires

Based on Associated's successful Factory Team TC5, the TC5F (foam tire edition) and the TC5R (rubber tire edition) are electric touring car chassis' that have been optimized for their respective elements. The TC5F has the desired attributes that are sought after for indoor carpet racing with foam tires, and the TC5R has had the same treatment but focusing on rubber tire performance making both the TC5F and TC5R even more lethal racing machines in their environments!

The TC5F & TC5R starts with a full ball bearing, dual belt-drive system that transfers all the power from the motor smoothly and efficiently. With today's motors and batteries delivering more power than ever before,

the belt-drive system gives both the TC5s a very predictable throttle response and feel, making it easier to drive fast and carry more speed through the corners.

The blue aluminum ball differentials are super light for reduced rotational mass. Reducing the weight of the diffs lets the TC5F & TC5R accelerate harder out of the corners. The diffs are also quick and easy to maintain, and are very strong. Hardened-steel CVAs with cross-pin retaining clips and blue aluminum clamping wheel hexes offer reliable service getting all the power to the wheels.

The TC5F has a fully adjustable and durable 'hard' composite suspension package, while the TC5R features a 'soft' composite sus-

pension package that delivers the extra traction needed for rubber tire racing. The rugged A-arms pivot on 3mm inner hinge-pins and 2.5mm outer hinge pins, making it easier than ever to drive away from some of the most severe mishaps. Fully adjustable roll-centers and hinge-pin angles (anti & pro-squat) help you to squeeze every last ounce of handling potential out of the TC5F & TC5R. The steering is handled by a mono-bellcrank with adjustable Ackermann for more precision and less play. An integrated adjustable servo-saver releases only when you need it to and not before.

Both the TC5F & TC5R are built tough enough to take it, whether your tearing up the carpet burning down the tarmac!

12R5 FACTORY Team

2008 IFMAR TOP QUALIFIER #1
AND WORLD CHAMPION!

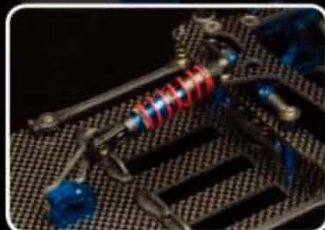


1:12 Scale Electric 2WD Competition Car Kit

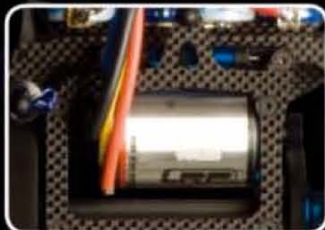
10R5 FACTORY Team



1:10 Scale Electric 2WD World GT Car Kit



Factory Team shocks with through-shaft design making for equal damping in both directions. Woven carbon fiber center shock tower



Wide rear pod allows easy installation of brushless motors and features Factory Team blue aluminum machined motor mount and left bulkhead.



Updated active strut front end features symmetric components with adjustable caster and track width, as well as a new front axle with wheel nut.



New Factory Team pivot ball-link chassis allows for independent adjustment for roll, bump, and alignment. 2.5mm woven carbon fiber chassis

Take The Next Step In 1:12 & 1:10 Scale Racing Evolution

Electric pan-car racing has been known as one of the most fun forms of R/C on-road racing because of the simplicity in design, high performance and value. The Factory Team 12R5 & 10R5 are the latest evolutionary steps in Associated's over twenty-five years of on-road racing history, yet they both stay true to the principles of simplicity and value.

The designers in Area-51 built the 12R5 & 10R5 on a 2.5mm woven carbon fiber chassis that utilizes a pivot-ball link rear suspension that allows for independent adjustments for chassis roll, bump and alignment. Having the ability to make these chassis adjustments independently gives the 12R5 & 10R5 greater potential for the best possible handling on any track surface. While testing, the pivot ball-link chassis has

proven to be more durable in high speed impacts and excels in bumpy track conditions.

The 12R5 & 10R5 features new shocks with a through-shaft design providing equalized damping throughout the full stroke of the shock in both directions without any unwanted rebound. The center shock tower has four mounting positions that split the spring rates for even finer adjustments and also controls the rear droop. The 12R5 & 10R5 both have the new 'Active Strut' front end that has been optimized, featuring symmetric components with adjustable caster and track width, as well as a new front axle with wheel nut.

The 12R5 & 10R5 both come ready for brushless featuring an optimized wide rear

pod with woven carbon fiber top and bottom plates, and Factory Team blue aluminum machined motor mount and left-side bulkhead.

So, spend more time on the track, less in the pits and discover the pure joy that is the 12R5 & 10R5!

TEAM ASSOCIATED

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IFMAR

Onroad World Championships Two Thousand Eight

Words and Photos: Courtesy of LRP

FROM THE 9TH - 16TH OF NOVEMBER, the world's best onroad drivers battled it out for who would become the new IFMAR World Champion in 1/12 and 1/10 for the next two years.

At this prestigious event, most well-known RC manufacturers were personally present during all the days in order to support their products at the world's highest level of competition. Obviously, the car manufacturers like Tamiya, Hot Bodies, XRAY, etc., were on hand, but also, the successful accessory manufacturers, like LRP Electronics, Team Orion, NOSRAM and many more, were present at the racetrack.

1/12TH ONROAD EVENT

The 1/12 On-Road event was the first class on the schedule for this World Championship. Unlike the last 1/12 Worlds where the event was placed indoors on a carpet, this year the challenge proved to be much more difficult. The 1/12 event was run at the same place as the 1/10 track with a different layout, which meant asphalt racing in extreme heat conditions. This, everybody knew, would mean that the biggest challenge of setting a competitive pace during the practice and race would go down to the perfect combination of finding the best tire and power performance. In the extremely demanding racing of the 1/12-scale, runtime and power during the long 8

minutes of racing is of greatest importance. The favorites before the event were, as many times before, the Japanese drivers. In Japan 1/12 racing on asphalt is much more common than in the rest of the world, and therefore double Japanese 1/12 champion Naoto Matsukura, together with Atsushi Hara, both of whom had spent several days testing there before the event, were the biggest favourites.

Surprisingly, the five-time 1/12-scale on-road world champion Masami Hirosaka decided not to compete in the 1/12 event, opting to fully concentrate on the 1/10-scale touring event that would take place after 1/12 class.

A1 As soon as the start signal went off in the first of three A-mains, the two top drivers in qualifying pulled out a gap of several seconds and left the others to fight for third position. Out in front, it was Naoto Matsukura who pulled out to a comfortable and steady lead ahead of the Finnish LRP/Team Associated driver with just over a minute to go. However, terrible bad luck hit Naoto Matsukura while lapping the third-position car of Marc Rheinard. Marc accidentally lost the rear end of his Hot Bodies car going into the hairpin at the end of the straight, and this was enough for Juho Levänen to take the lead, where he would stay towards the end. Recovering from the crash, Naoto was able to hold on to second position in front of Japanese Hot Bodies driver Hideo Kitazawa.

The stakes are high since this only happens once every 730 days.



At least it's not every four years like the Olympics.



A2 Again, Naoto Matsukura got an early lead that he kept with a comfortable distance towards the end in front of Juho Levänen to hold the decision for the World Championship title alive to the very last final. Further down, the fight for third place was far more entertaining, with CRC/LRP driver Hupo Hönlgl and Marc Rheinard enjoying a really close battle. In the end, Hupo Hönlgl was able to hold on to his third spot from the grid.

A3 As the third and deciding final started, it was almost like a re-run of the second main. Naoto impressed in the beginning by stretching out a comfortable lead of a couple of seconds and never looked back. Thus, Team

Associated/NOSRAM driver Naoto Matsukura dominated the last and final race of the 1/12 World Championship 2008 to become the youngest IFMAR World Champion ever in RC history. Second place overall went to Team Associated/LRP driver Juho Levänen, who also impressed throughout the entire championship by never finishing lower than second place. In third position overall after some very intensive battles, CRC/LRP Factory Team driver Hupo Hönlgl took the last prestigious place on the podium. We'd like to congratulate young Japanese driver Naoto Matsukura, the youngest driver ever to win an IFMAR World Championship!

1/10 TOURING EVENT

A1 The tension was high among the crowd as the start tone went off. Everybody went off to a clean start for the first couple of laps, but on lap 3 things started to happen. Tamiya factory driver Marc Rheinard accidentally touched the rear end of Hot Bodies hot shoe Atsushi Hara's car, making it spin out. Marc showed great sportsmanship and waited; however this caused LRP driver Viktor Wilck to go straight into the back of Marc's car, ending any hopes of a good result for them. After the dust had settled, it was all-time on-road legend Masami Hirotsuka of Team Yokomo out in front, ahead of LRP driver Ronald Völker and new up-and-coming driver Elliot Harper with his

RACE COVERAGE



RACE RESULTS

1/12-SCALE

1. Nao to Matsukura
2. Juho Levanen
3. Hupo Honigl

TOURING CAR

1. Driver's Name
2. Driver's Name
3. Driver's Name



XRAY T2'009 chassis. This was the order they kept all the way to the end of A1, with Masami looking as a strong competitor for the one elusive electric world's title he is still missing.

A2 When the tone went off in A-main 2, the thought on everybody's mind was whether Masami Hirotsuka would still beat the ghost and win the last elusive Electric World Championship he is still missing. But it was Atsushi Hara who proved why he had taken the top-qualifying spot in the earlier days as he put on a great display of racing to pull out a comfortable gap down to Marc Rheinard. The 1-2-3 finish had Hara in front of Rheinard and Ronald Völker.

A3 Before the start of the last and final leg of this year's World Championship, it was clear that five drivers still had a shot at becoming the new IFMAR World Champion 2008. The name on everybody's lips was Atsushi Hara, as he had shown an incredible speed in the previous leg despite the fact that overtaking was almost impossible on this very tight track that didn't open up any spots. As the tone went off, the two top drivers pulled off, opening a small gap ahead of the rest of the field, and put on one of the greatest shows in RC history. The crowd was on its feet as Marc never was more than a foot or two from the rear of Hara's car. For four minutes they showcased the best touring driving in the world and kept the racing clean and fair, without any of the drivers making any mistakes or leaving any chance for a pass. When the time started to wind down it was time for Marc to do an overtaking maneuver that nobody even thought would have been possible to make. On the inside of the first corner after the straight, Marc pulled up next to Hara and eventually passed Hara going into the corner over the curbing! Marc had been able to find an almost impossible gap and passed Hara, with less than a minute to go of the last final. With only a few laps to go, Hara tried everything he could to regain his first place but instead went too high on the curbs and crashed, going out on the straight, entering the track again in fifth place. This left Marc Rheinard out in front of Ronald Völker in second place and Swedish driver Viktor Wilck in third, who finally got a clean run without bad luck.

At the top of the podium, after four days of racing and three thrilling and exciting finals, ended up being Tamiya's Marc Rheinard from Germany after a fantastic last final and an incredible overtaking move that will go down in history as one of the best overtakings in RC ever. At the same time, Marc also became the first driver to win the IFMAR 1/10th Electric World Championship twice! 🏆



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ORI28131 Vortex 2008 Racing 6.5
ORI28132 Vortex 2008 Racing 7.5
ORI28133 Vortex 2008 Racing 10.5
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MAKE YOUR ELECTRONICS LAST LONGER

LET THEM LIVE!

words: James Revilla

ELECTRONIC EQUIPMENT PLAYS A BIG PART IN ALLOWING US RC FANATICS TO ENJOY OUR HOBBY. Controlling our cars and trucks depends on electronic equipment in the form of radio transmitters; we charge battery packs with electronic equipment; and so forth. At the same time, anything electronic does take some green from your wallet. So, to get as much life as possible out of these things, it only makes sense to spend a few minutes to ensure a long and reliable timeframe of usage. For this how-to, we'll give you some tricks and tips on how to make your various electronic equipment last longer, which means fewer trips to the shop and more time behind the wheel!

1 SEAL THAT DEAL

Every RC vehicle, from car to truck, on- to off-road, nitro and electric, all have a common feature: servos. These servos are precision equipment that have delicate components inside. A reliable servo can be the difference between a win and a crash, and the difference between pinpoint control and lack thereof. With a small tube of silicone RTV or Shoo Goo, you can easily seal the servo case at the seams to protect your servos against dust, dirt, mud, and even water from getting in there and messing things up. You don't need a giant glob; you can either put a dab of silicone on your finger, running a bead across the joint where both servo halves meet, or you can open up the servo case and run some silicone between the case halves for even more protection. You don't have to go overboard with a 1/2" thick bead.



GETTING STARTED

DIFFICULTY

SCALE RATING: 1=NOVICE 5=EXPERT

1.0

XRC Cars

1 2 3 4 5

TIME TO COMPLETE



15 MINUTES EA.

2. LIKE PILLOWS

Your receiver is your link to your vehicle, and without it, you'll have no control. It's also subject to a lot of vibration and impacts (especially in nitro offroad). If you have a vehicle with a dedicated receiver box, give your receiver extra protection by wrapping it in thin foam. When done properly, the foam will surround the receiver at all sides – effectively making it “float” inside the receiver box. This extra amount of cushioning will absorb most of the impacts that occur in RC, keeping your receiver from being damaged.



3. PLEAD YOUR CASE

If you look, you'll see this a lot at the track: people tossing all their gear into a single, undivided bag - including their transmitter. While this “carry everything in one bag” approach seems convenient, it's not that fun for your electronics when they're bouncing around inside with your tools, fuel, and other stuff. For sensitive equipment like radios and chargers, check your hardware store for some universal carrying cases. Available in different styles and sizes, these cases range from \$20-up. Add some easy-to-cut foam to hold items in place, and you now have a dedicated electronics carrier that also offers more protection, as compared to a standard duffle-type pit bag.



4. COOL IS ALWAYS COOLER

Sure, nitro engines have an operating temperature—but when it comes to your electronics, cooler is always a good thing. One important item you want to keep cool is your ESC. Depending on the chassis or even the body you run, cooling air to the ESC might be limited or obstructed. Also, the body itself acts somewhat like a hot-air balloon, where the temperature under the body is hotter than the outside. With all this potential for heat, a simple addition of a small cooling fan will keep air moving. Some ESCs have a cooling fan option; on others you can use a universal fan, powered off your receiver. Either way works, as the whole point is to keep air moving across and through the ESC's heatsink, regardless of vehicle speed or underbody airflow.



5. CLEANING BLOW

Inexpensive canned air (like that used to dust keyboards) can be very handy when maintaining your electronics. There are some places where a rag won't reach, or spraying a motor cleaner isn't suggested; but you can easily hit those same areas with a short burst of canned air and clean them in no time. Canned air can be used to clean dirt from heatsinks, dust from radio switches, lint from charger cooling fans, grime near engine needles, and so forth. It's relatively inexpensive, and costs a lot less than a full-blown air compressor. Plus, you can always keep a can in your pit bag for on-the-spot quick dusting.



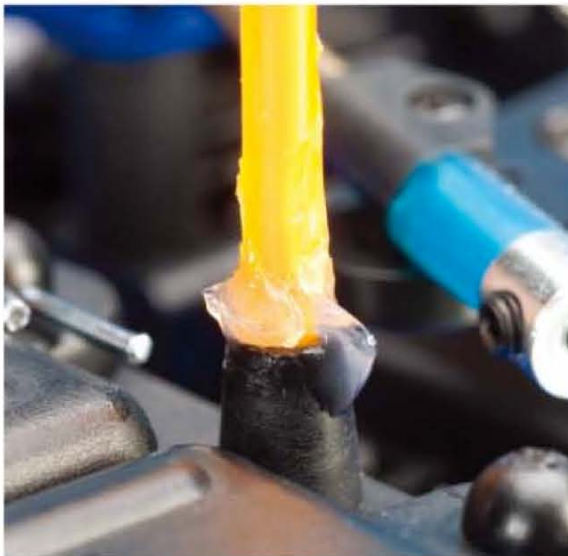
6. IGNITION CYCLE

As simple as a glow igniter may be, it's still an electronic device, and there is some maintenance involved. Inside most quality igniters, you'll find a Ni-CD or Ni-MH cell. This cell can be cycled just like ordinary battery packs. Make yourself a simple charge adaptor that will allow you to connect your igniter to your peak charger (with cycle capability) and run it through like you would regular 6-cell packs (make sure you don't charge/discharge at the same rate as a pack – remember, you're dealing with just ONE cell here). As cycling extends the lifespan of regular stick packs, the same method will also give your igniter more hours of service as a whole.



7. GOO STICK

Shoo Goo or silicone RTV can also be used in other ways besides sealing components. For example, a drop of silicone RTV on your chassis can hold servo wires away from drive belts or shafts. Another idea is to run a small bead along the side of your exposed ESC, servo, or receiver case to act like a protective bumper. You can also dab some silicone where your antenna tube mounts to the chassis, to help keep the tube from getting accidentally yanked out of place.



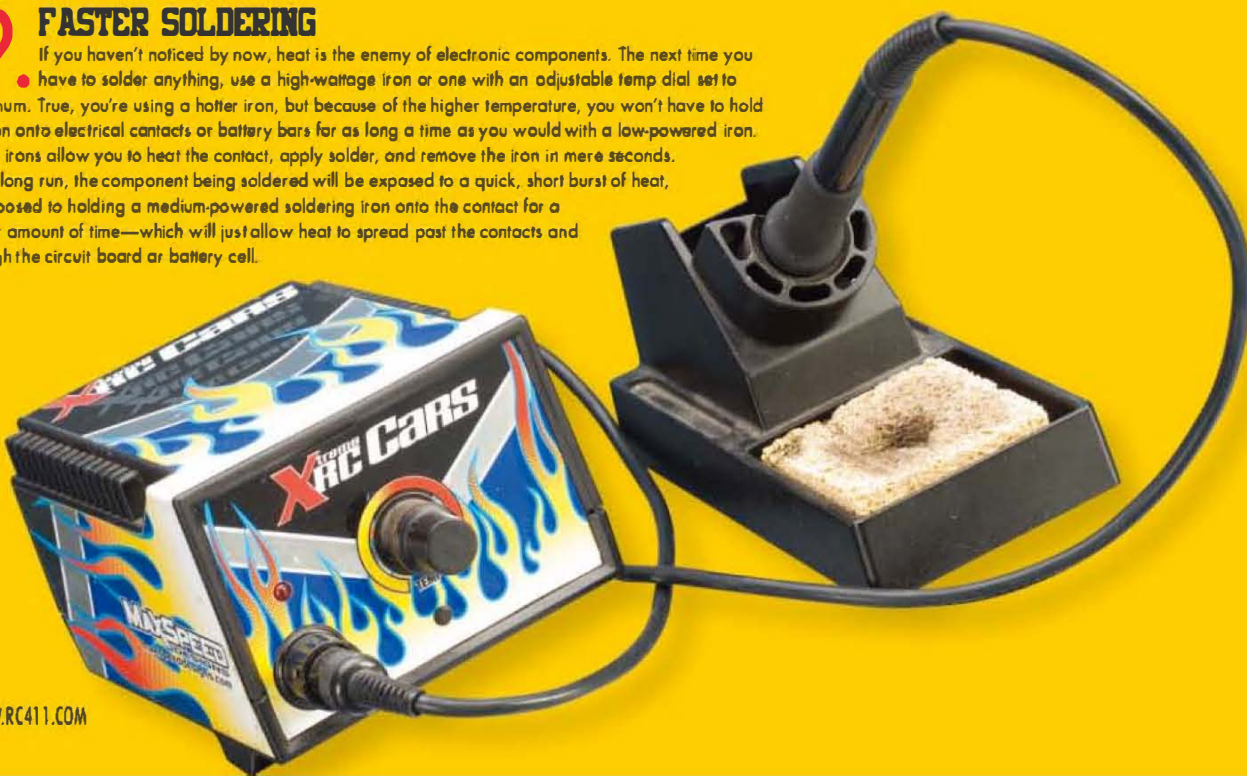
8. GET A CLEAN START

Every nitro racer knows that fuel, exhaust oil, and grime tend to accumulate inside a starter box. It can get pretty messy in there, but you can do a simple mod to keep your starter motor and battery clean and grime-free. Just get some thin foam and trim it to the same size as the starter box lid. Cut a hole where the starter wheel is located (cut $\frac{1}{2}$ " larger than the wheel) and stick the foam on the underside of the starter box lid. This will cover up all the extra openings and holes, and the foam will act as a barrier, keeping fuel, dirt, and grime from dropping into the starter box. If you use servo tape to attach the foam, you can easily replace it with a new foam sheet every two months or so. Regardless, the foam will keep the inside of the starter box nice and clean.



9. FASTER SOLDERING

If you haven't noticed by now, heat is the enemy of electronic components. The next time you have to solder anything, use a high-wattage iron or one with an adjustable temp dial set to maximum. True, you're using a hotter iron, but because of the higher temperature, you won't have to hold the iron onto electrical contacts or battery bars for as long a time as you would with a low-powered iron. Hotter irons allow you to heat the contact, apply solder, and remove the iron in mere seconds. In the long run, the component being soldered will be exposed to a quick, short burst of heat, as opposed to holding a medium-powered soldering iron onto the contact for a longer amount of time—which will just allow heat to spread past the contacts and through the circuit board or battery cell.



10. VENTING

If mounting a cooling fan is not possible, you can always get cooling air to electronic components mounted to your chassis by cutting simple vents in the body. Using Lexan scissors or an X-Acto knife, you can strategically cut small vents in the body that will allow component-cooling air to flow inside the body, past the ESC. Some bodies are designed with this in mind; for example, a lot of buggy bodies have molded-in cooling vents—why not use them!



CONCLUSION

Sometimes you might not be able to keep your cool on the driver's stand, but at least with these tips you'll be a little more at ease knowing that your electronics are staying clean and cool. With less heat and less grime, all of your electronic equipment will give you hours and hours more of service. ♦



■ Revo 3.3



■ Losi 8ight



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■ RB Concepts C6 BB



■ NovaRossi Plus 21-5K



■ Kyosho 777 WC



■ King Headz



■ Xray XT8



If you don't know me, well, you should.



PROJECT THUMPER

Custom-Built Four-Stroke Tamiya CR-01

Author and Builder: Dave Palacios

THOSE WHO KNOW ME, KNOW I LIKE TO BUILD CUSTOM RCS, so when Derek told me he had a project idea in mind for Xtreme, it peaked my interest. But as soon as he said he wanted me to build a crawler, I knew there had to be a catch, something no one else has done, something special. Well, to my surprise, he wanted me to build a four-stroke, or thumper, crawler. After a little bit of a conversation as to why nitro rigs don't make good crawlers, we decided to do it anyway. Think of it as more of a novelty rig and built not because it's a well-performing machine, but because we had the engine and the kit. And while some may ask the question, "Why?," my answer is, "Because we can."

PROJECT THUMPER

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CONCEPTION

When Derek told me about the project at our favorite teppan grill restaurant, we had just received the Tamiya Unimog CR-01 kit, so naturally we decided that was going to be the starting point for this build. To power the beast, Derek had the inspiration for the project, an O.S. Engines FS26c engine. So now that we had the project base and power plant, it was time to work on the technical aspects of getting a nitro engine into the CR-01 chassis. So I got together with my father-in-law in his shop and we came up with a few ideas and got to work right away. It's a good thing my father-in-law has a few machine tools in the garage and access to some pretty cool tooling. This made the project go along a lot quicker and nicer.

POWER PLANT

Getting the engine mounted to the chassis wasn't that difficult; it's simply mounted to a plate under what was the battery tray. There are no engine mounts like in a traditional setup. Instead, the plate has a gap down the center and the engine is mounted directly to this plate so the engine sits as low as possible.

Mating the engine to the transmission was the more difficult part. To make things a little easier, the stock CR-01 transmission was discarded and in its place went an RC4WD R2 transmission. This transmission features 32-pitch steel gears and a black, anodized case. The R2 transmission is typically used in electric applications, so where the electric motor mounts was a custom-machined hub. The hub houses a Tamiya touring car stub axle with a 5mm shaft and metal-shielded bearings (See inset photo). The reason I used the stub axle was so that I could use Novak's 32-pitched 5mm bore pinions and so that the drivetrain would be as bullet proof as possible. Since the hub mounts using the same mounting holes as an electric motor, the gear mesh is also adjustable in the same manner.

The clutch for the FS CR-01 came from a Tamiya Nitroge we had lying around in the back warehouse. It was chosen because it would allow for an adjustable

gear mesh and didn't require any fancy custom machining. If you aren't familiar with the Nitroge clutch, it's a pretty interesting design. Instead of a pinion gear on the clutch, it has a drive cup in which a very short dog bone is inserted, which is why I used a touring car stub axle. This design allows the engine to be mounted in a fixed position and the hub on the transmission to be adjusted.

Of course, to stop the FS CR-01 I mounted yet another Tamiya product, this time from their TG 10 Mk II nitro touring car, their machined aluminum brake disk and brake hub. The calipers required a custom-machined mount that is bolted to the skid plate. Since the brakes were at the very bottom of the chassis and there wasn't any room for servos and linkages, I ended up using a cable system typically used in R/C airplanes.

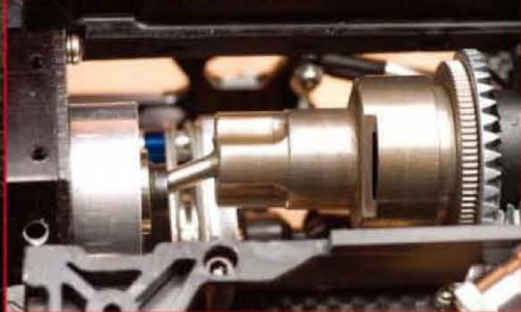
In the excitement of building the FS CR-01, I actually overlooked how I was going to start the engine. The FS26c engine didn't come equipped with a pull start and there wasn't one made for it that I was aware of. So, instead, I decided to fabricate my own type of rotostart system. Basically, the system consists of two bevel gears, one (the ring gear) mounted to the backside of the flywheel, and the other (the pinion) mounted to an aluminum mount that is bolted to the underside of the same plate the engine is mounted to. Luckily, everything fit right into place with just enough room to allow the starting system to work.

WHY A NITRO CRAWLER?

Some of you may be asking, "Why build a crawler using a nitro-powered engine?" Well to be honest, because it was different. We were aware what a nitro-powered crawler's capabilities were when we came up with the idea, but decided to do it anyway. I know, I know, some of you are saying that nitro rigs can't crawl; well, you'd be somewhat right. With the nature of current nitro clutch designs (centrifugal type), they aren't the perfect match for crawling applications. They slip a lot and don't give you the subtle low-speed throttle control that electric can, since they engage at a set RPM. There are a couple of other drawbacks to using a nitro power plant; one major one is dealing with reverse. Unless a transmission that is capable of shifting into reverse gear via third channel is used, then forward only we shall go. The second issue being because of the clutch slip, incline climbing can be a bit difficult; but we took care of that issue, as you can see.

Losi NXT and XX-T Nitro conversions, also before Losi had a GT...

INPUT DRIVE HUB AND BONE



SIDEWINDER SWEEPS

The Dirt Nitro Challenge



photo courtesy : Brian "Skinny" Skinner Xtreme RC Cars

Ryan Cavalieri -

-Takes the Win in two classes. Expert 1/8th scale Buggy and Truggy at the 9th Annual Dirt Nitro Challenge. Ryan used 30% World Champ Blend to power his vehicles. With the amount of International and American Pro Drivers in the field this race was like a World Championship event. Proof that with our Two World Championships, Multiple National and Major Race Titles, Sidewinder Fuels are a Force to be Reckoned With.



PROJECT THUMPER

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SUSPENSION AND CHASSIS

After taking care of the power plant issues, it was time to move on to the rest of the build. Being as this was a custom project, we enlisted the help of a few other manufacturers, along with Tamiya, to help upgrade the FS CR-01 chassis.

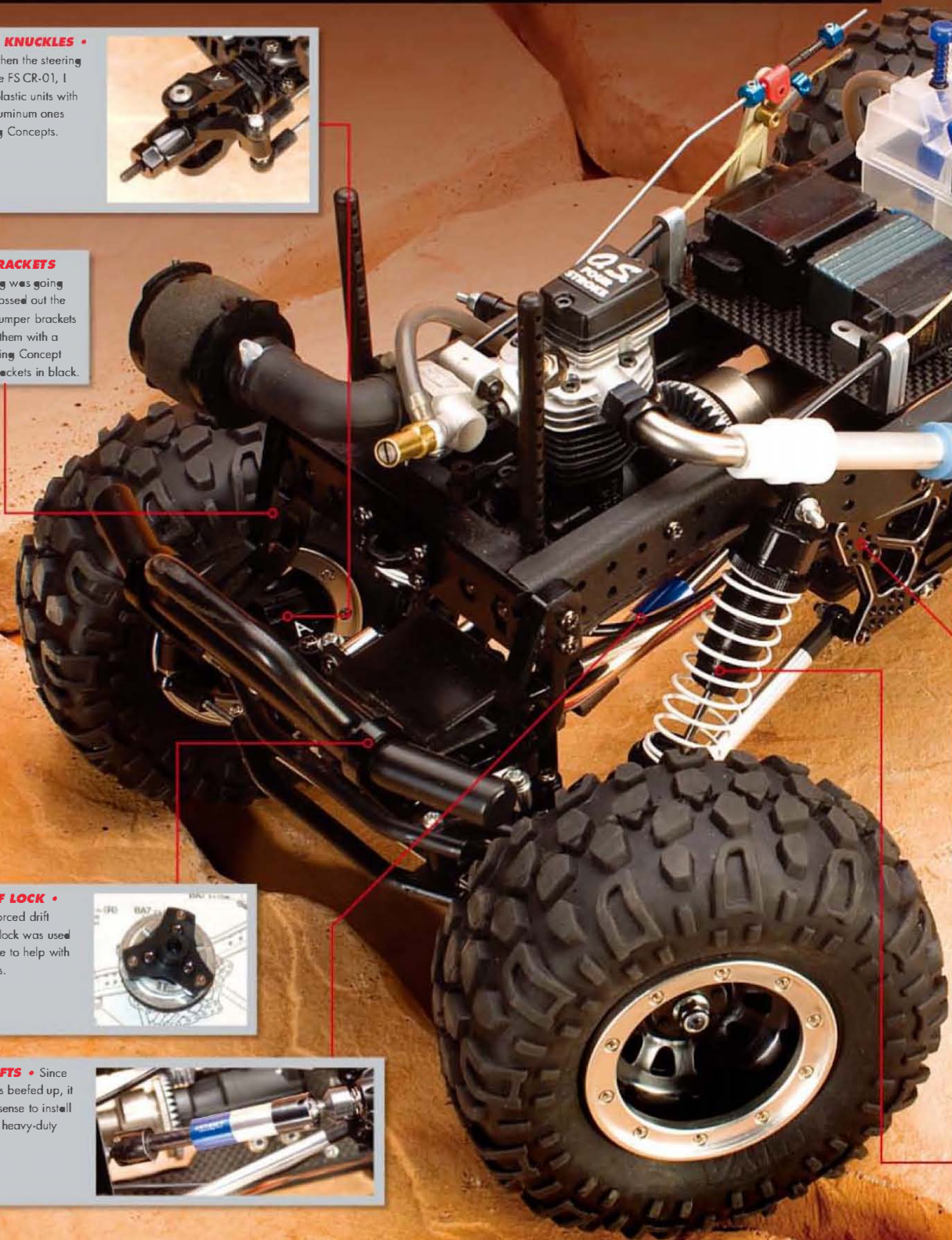
BEEFED-UP KNUCKLES •

To help strengthen the steering knuckles on the FS CR-01, I replaced the plastic units with some black aluminum ones from ST Racing Concepts.



BUMPER BRACKETS

• Since this rig was going to get beat, I tossed out the plastic stock bumper brackets and replaced them with a pair of ST Racing Concept HD bumper brackets in black.



FRONT DIFF LOCK •

Tamiya's reinforced drift shaft with diff lock was used in the front axle to help with climbing duties.



DRIVE SHAFTS • Since everything was beefed up, it made perfect sense to install a set of Integrity heavy-duty drive shafts.





RADIO BOX • To protect the receiver and battery, a radio box from the Jammin' CRT-5 was mounted to the rear of the chassis.

FUEL CELL • Tamiya's fuel tank from the TG10 Mk II also helped in delivering fuel to the FS26c engine.

PAINTED CHASSIS RAILS • The chassis rails were painted black to complete the stealthy, military-type look I was going for on this build.

ALUMINUM CHASSIS PLATES • Black anodized aluminum side plates from Tamiya were used to enhance and strengthen the FS CR-01 chassis.

BRAKES • As mentioned before, I used Tamiya's machined aluminum brake disk from the TG10 MkII chassis. To improve stopping power, some Tamiya fiber brake pads were also used on the calipers.



COIL OVER SHOCKS • Since space was tight and the stock CR-01 cantilever system hindered the use of my starter design, I opted to use an ST Racing Concepts threaded shock conversion. These shocks use the stock internals and springs for easy installation.

REAR LOCK-OUTS • To eliminate the stock cumbersome rear setup I replaced it with the ST Racing Concepts rear lock-outs with stainless steel axles.



ROTOSTART BUILD

Since it was a pretty unique part of the whole build, I have decided to show you the start to finish process of how I built the RotoStart mechanism.

STEP 1: I started out with an HPI Wheely King bevel diff gear set. The first thing I did was bore out the center of the gear to fit around the flange on the back side of the flywheel. (The back side of the flywheel is the right side where the pins are longer.) Making the right size hole was critical for centering the gear on the flywheel. While I was at it I milled down the locating pins on the gear as well since these would only get in the way.



STEP 2: Next I needed to remove the stock clutch shoe pins from the flywheel. The stock pins were too short to perform double duty as clutch shoe pins and locking pins for the gear, so out came the short pins and in went the longer ones. My original plan was to drill and tap some holes to screw the gear on the flywheel, but since the flywheel was made from hardened steel, it was easier to just put in longer pins. When the longer pins were installed they protruded on both sides of the flywheel.



STEP 3: To mount the gear, I drilled matching holes in it so the pins would lock the gear in place. Then it was just a matter of pressing the pins completely into the flywheel until they were flush on the gear side. With the pins taking all the torque when the engine was started and the gear sandwiched between the flywheel and crank case, all I needed to hold the gear in place was a little bit of JB Weld.



STEP 4: The last step was to assemble the pinion gear and shaft from the bevel gear set with the bearings and drive cup. Then I machined a bracket to house the input gear and shaft assembly. Simple, huh?



To start the engine, I use a cordless drill with a Yokomo TC drive shaft with a one-way bearing. Once the engine starts it overtakes the one-way so it is able to stay running.



PROJECT THUMPER

Custom-Built Four-Stroke Tamiya CR-01



That's what I enjoy about this hobby... building custom stuff.

PERFORMANCE

This project wasn't built with sitting on the shelf in mind; it was built for running. As you can see from the photos, we got a fresh layer of snow in the local mountains and decided it would be the perfect way to break in the FS CR-01 Unimog.

Okay, to be honest, the maiden voyage for this rig wasn't in the snow. Since it was a thirty-minute drive to the mountains, I decided to run the rig on the rocks in front of the office first to make sure everything was in working order. Plus, I wanted to see how the rig performed in drier conditions versus the wetter conditions of the snow.

As expected, the FS26c engine provided plenty of torque to get the CR-01 chassis up and over the rocks. The gear reduction also helped by providing gobs of torque while slowing down the RPMs from the nitro engine at the wheels. This meant that more RPMs from the engine were needed to get the rig moving. The higher RPMs allowed the clutch to engage before the CR-01 barely started to move. Therefore, slow acceleration was accomplished with tons of torque and power.

On steeper climbs I engaged the third channel brake hold and was able to ascend with hardly any roll back. Again, with the four-stroke engine and gear reduction, there was more torque than I expected and the engine was able to overcome the brake hold at 50% without any problems whatsoever. Even at 100% brake hold there was still some over powering from the engine. Of course, I didn't push it too much at that point because I didn't want to risk burning up the clutch. Still, I'd have to say that the brake hold idea worked flawlessly.

The only part I was disappointed in was the lack of reverse. I'm going to have to rethink and

possibly rework the rig so I can incorporate a reversing mechanism in the drive train. Maybe I'll work on that and give you an update.

Overall, Project Thumper FS CR-01 was a success. Although it's not going to win any competitions, it is fun to drive around and have some fun with. The deep throaty sound of the four-stroke engine adds to the realism of the rig and is awesome to hear as the Unimog powers over the terrain.

CONCLUSION

Building the FS CR-01 was probably the easiest-going project I've had in a long time. Everything on this project seemed to fall into place without much of an issue. Of course, there are still a few things I'd like to do on this build to help improve the coolness of it all, such as a cooling system for the FS26c engine. But those ideas will have to wait for another time. Hmm, maybe we'll do a part-two article. Well, until then, I hope this project has inspired some of you to build projects of your own. And if you do, be sure to post them up in the Project Garage section of our forums so we can watch your progress. ⚙️



For video clips of this article check out
www.rc411.com

BRAKE HOLD THIRD CHANNEL

To overcome its problem of clutch slippage and rollbacks on steep or difficult inclines, I decided to add a brake hold feature, using the DX3R's three-position third channel. The brake hold allows me to engage the brakes independently from the throttle servo (throttle servo still actuates the brake cam like normal), using the third channel. The added feature of the DX3R's three-position AUX channel gives me the flexibility of how much brake hold to apply. I have it set so that neutral, or first position, is set at 0% brake, second position is set at 50%, and the third position at 100%. Why the different amounts of brake? Well, on an incline I can set the brake hold in the second position, or at 50%, which is enough to allow the engine to overcome the brakes, but not to allow the rig to roll backwards if I let off. It also allows for better control over difficult climbs instead of nailing the throttle and powering over everything. The third position, or at 100%, is so I can lock the rig in place while I reposition myself to get a better view of what I'm running on or to get a better footing on the rocks. All in all, the brake hold feature works really well and provides better control of the nitro engine's power to the wheels. And of course, as mentioned before, the throttle servo still operates the throttle and brakes in the normal nitro setup manner for general running around.



CONTACT INFO

Tamiya

www.tamiyausa.com

RC 4WD

www.rc4wd.com

O.S. Engines

www.osengines.com

ST Racing Concepts

www.leanstrc.com

Integy

www.integy.com

Airtronics

www.airtronics.net

Spektrum

www.spektrumrc.com

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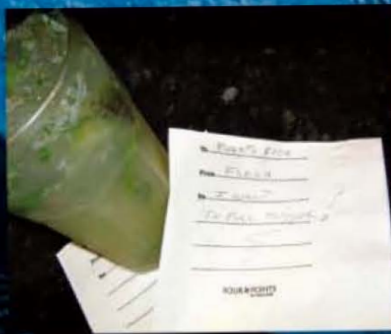
PUERTO RICO

WINTER NATIONALS

TWO • THOUSAND • EIGHT

Words & Photos: Skinny. Special thanks: Juan Santiago, Juan, and Juanjo

RING, RING...HELLO? "HEY, SKINNY, IT'S CARLTON FROM RC PRO. I KNOW IT'S THE WEEK BEFORE CHRISTMAS, AND IT'S LAST MINUTE, BUT HOW WOULD YOU LIKE TO COVER A SWEET EVENT IN PUERTO RICO?" UH, LET ME THINK FOR A SECOND...OK! That's how my day started out, and two days later I was in Juncos, Puerto Rico escaping the winter in the States to race in warm Caribbean weather...yes, it gets cold in Los Angeles sometimes. You may not know it yet, but Puerto Rico is a burgeoning RC hot spot. This Caribbean Island has ten or more tracks, and at least three RC clubs to accommodate its booming RC community. To make a world statement about RC in Puerto Rico, a group of enthusiasts banded together to build the largest, most dialed facility on the island, and probably the largest track this planet has ever seen. To kick things off, the Puerto Rico R/C Revolution Association decided to hold a winter race that would be attractive not only to the locals, but to the rest the world that's suffering RC withdrawal during the winter. To make it even more attractive, the first annual Winter Nationals was free of charge, and there was at least \$15,000 in prizes given away! Yes, my fellow racers, for the average price of a plane ticket in the States, you too can be bound for Puerto Rico to dip your toes in the warm waters and pull trigger on one of the largest tracks in the world. Considering all my travels, I would say that this is one of the friendliest places to have an RC vacation, and surely you should make the trip at least once in your life. So let's take a tour of the 2008 Winter Nationals and plan our winter vacations for next year!



BROUGHT TO YOU BY: PUERTO RICO R/C REVOLUTION ASSOCIATION,
JUAN SANTIAGO, AND JUAN SUREN

FRESHNESS
Race Date:
12.20.08
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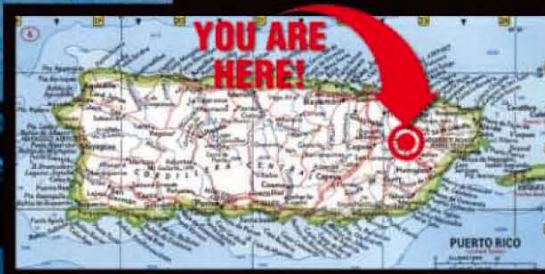


Ryan Mayfield and Cody King gave away their signed car bodies in a special draw; that's pretty cool!



IN CASE YOU WERE WONDERING ABOUT PUERTO RICO

Puerto Rico is a Caribbean Island vacation destination for the world over, and is roughly the size of Connecticut to give you some scale. It's a territory/commonwealth of the United States, which means it's just like going to another state, but not really. You'll have to study your history to understand the connection. Basically it means that for U.S. citizens, going to Puerto Rico is like going anywhere else in the country, but more exotic. Flying costs about the same as it would to fly a couple of states over from your home, and the currency is good old U.S. greenback. You don't even have to worry about going through customs or getting a visa. The weather is always balmy and summer-like, and the island is pretty much a tropical paradise with plenty of fun things to do and see. English and Spanish are the island's languages, and even though you're far from home, you kind of feel at home. Now that RC racing is booming over there, it's a great destination for us RC adventurers!



We would never give away our bodies.

THE TRACK



Landfill RC Track is a huge place with enough room to host a world event. The track is 260'X 180', and the sheer size of it made it challenging...do you know how small your car looks when it is 180 feet away? The layout was fairly simple, but the jump structure made for difficult negotiation, and the huge layout (40-45 second lap times) made it difficult to really tell how fast you were going. These two elements made the track challenging and fun. Three sections of the track cut through the center of the layout and stood out to me. In center field was a huge 30 foot gap jump set on a turn that was almost impossible to make consistently (unless you were Adam Drake!) In the next corner was a blue corrugated strip that was a blast to rip through. Way out back was a huge table top that gave most racers a hard time, mainly due to the fact that it was narrow and far away. Of course, if you crashed out in the back forty you were done! Overall it was a great track, especially when you consider that the whole complex was built in three and a half weeks...more on that later.

ODDS AND ENDS IN THE PITS

Being in the pits is what makes racing fun...here's some of the fun!

1. TEAM AMERICA—world RC force! This motley crew from the States put on a great show for the local racers, and acted as great ambassadors for the hobby by showing car set-ups and posing for photos...nice work, Team America!

2. LADIES AND GENTLEMEN, I bring you the next level in track-side bathroom technology. How about an air-conditioned bathroom complete with

running water? Yep, The Landfill had one, and I'll never go back to a Port-a-Potty again. All race tracks need to have one of these; Al Bundy would be proud!

3. I WANT YOU TO COME TO JUNCOS and do some racing! Jimmy Babcock and his JBRL crew were flown in to run the races. They did a great job showing the locals how we do it California style.

4. THE MAIN REASON TO RC IN PUERTO RICO is the night life...just ask these guys.

5. THE LOCALS REALLY TOOK ADVANTAGE OF THE PROS being there, and asked for set-ups, autographs, and the occasional photo. The US drivers did a great job representing.

6. MONSTER ENERGY DRINK had an RC team at the event and gave out free drinks...nice!

7. TEE-HE-HE, how do you say it again, Skinny? Booggy...Trooggy? You got it, Ronda...that's how they say it in South America.





8. WOW, LOOK AT THE PRIZES and sweet trophies, they were some of the best offerings I've seen.

9. JUANJO IS A LOCAL HOT-SHOE and a great guy to hang with. The drivers here are fun to be around.

10. YEAH, SO IT'S MAYBE NOT PC, but how could I resist? A Cuban from the Mayor, and a killer local drink called "Ko-Ti-Ku" from one of the racers. An editor has to have some fun, you know!



10

RC IN PUERTO RICO?

RC has seen a huge growth spike over the last two years in Puerto Rico and is where stateside racing was about five years ago...it's kind of the "wild west" of RC if you will. Off-road racing is popular just like everywhere else, with a good spattering of on-road racing as well. Everybody is enthusiastic about the hobby, and you won't find a more passionate group of people to drive or party with; people in Puerto Rico love to have fun! Currently there are about ten RC facilities and three RC clubs on the island. RC Pro has expanded to include Puerto Rico, and just recently some of the clubs have adopted ROAR rules to structure their events. The crown jewel of the island is the new "Landfill RC Track" (simply called "The Landfill"), which is the home of the Winter Nationals. This track was built in just three weeks, and is a thing of beauty. For being only three weeks old, it rivals any world class race facility, and I can just imagine what the place will look like a year from now. Here's a little background on this sweet new track.

MEET JUAN AND ANDRÉA. Juan (on right) is the brain-child behind The Landfill; he came up with the idea of the track for his hometown, and, with a little help from his friend Rafa, talked the Mayor of Juncos into donating the land. Andréa did the renderings of the new facility to show the Mayor, and helped build the new facility.



JUAN AND TORI SANTIAGO are a true father and son RC team. Juan loves RC, and teamed up with the other Juan to invest and promote The Landfill. He made building the new track in just three weeks possible, and his son Tori helped with the designing and construction. Juan Santiago also made sure the first event was a success by rounding up most of the prizes and trophies and flying the top talent in the US to the event. All of us state-side drivers want to thank Juan for the early Christmas present—a sweet trip to Puerto Rico—thank you,

Juan! Juan really should get a round of applause for making this track happen so quickly. His backing and resources helped make this place a huge success for its inauguration!

THANK YOU, MAYOR! Alfradio Alejandro is the Mayor of Juncos, and was instrumental in getting the property for the new facility. He had never heard of RC before, but once the guys clued him in on the fun, he was all for the idea. In fact, he has since bought three RC cars for his sons, and asked me to tell you all that Juncos invites everybody from the U.S. and all over the world to come and race at the new track, and hopes everybody will have a great time in Puerto Rico.

THE LANDFILL is a planned moto facility, and the off-road track was just the first stage. The Landfill will one day be a moto-complex featuring a BMX track, an MX track, a Drag Strip, and of course, the RC facility. The rendering here shows the finished RC facility with off-road and on-road tracks, spectator amenities, and a RC drag strip...pretty ambitious, but from what I saw, it will be sweet when it's done!



U.S. Customs, we'll hold him until you arrive. Bring reward money.

RACE COVERAGE

Great, now we have two more classes to keep track of - Trooggy and Booggy.

THE MAIN EVENTS

GAS TRUCK: Yes, gas truck is alive and well in Puerto Rico, and the twenty minute A-main started clean with Omar Gonzalez leading the pack. Omar looked to be the clear winner, but with just two laps to go he had a problem, and Roy Rodriguez, who had been following closely, took over first. Juan Sanchez (not to be confused with Dawn Sanchez), had a chance to move into second, but ran out of time and finished third, with Omar holding on to second.

MONSTER TRUCK: Monster trucks are popular the world over and there was a pretty good field of trucks in Puerto Rico. As the REVOs and Savages (the popular MTs here) took off on their thirty minute A-main, Jose Martinez pulled the holeshot with his HPI Savage and pretty much checked out finishing with a three lap lead. The real battle was for second and third as Aramis Velez (no relation to Mike Velez) and Juan Medina duked it out for second place. It took the whole race, but Juan finally put a lap up on Velez (again, no relation to Mike Velez), for second place. Did I mention that Aramis Velez was no relation to my boss Mike Velez?

TROOGGY: This was THE incredible race of the weekend, and the best Trooggy race I'd seen in a long time...great racing, guys! Adam Drake

jumped out in first at the start of the 45 minute A-main with Ryan Mayfield and Cody King right behind. Right from the start you could tell it was going to be a battle. Soon Cody took the lead, but all three were just seconds apart. Ronda Skelton (soon to be Ronda Drake!) worked her way up to fifth after a bad start, but she looked pretty quick....I guess hanging out with Adam is rubbing off! Coming up on the first pit stops, Ryan Mayfield jumped up to first after Cody and Drake bobbled, and Ronda quickly moved into third. At the halfway mark, Cody had a mechanical issue and dropped back. Adam Drake moved back into first after a pit stop, with Mayfield very close behind. Ronda was solidly in third place. Sitting in fourth place was Juan Santiago—who was the first Puerto Rican to get in the top five, and Tori Santiago, who designed and help build the track was in fifth. Coming down to the last minutes the group was sitting about the same, but Mayfield and Drake were going at it like wild animals! They were only a car space apart and continually swapping for first. Mayfield would get out in front, but Drake consistently got huge air over the big gap jump, and made up time. Right at the end a local lapped driver tangled with Drake and Mayfield took over first. Mayfield was in first with a minute to go, and it looked like he was going to win, but fate was not on his side. Suddenly HE

tangled with a local lapped racer, and Drake took over first. Mayfield was right there, but Drake got some space from making the gap jump. In the end, Drake took first and Mayfield second, while Ronda took third one lap down from the two and two laps up on the field.

BOOGGY: As the crowd gathered for the main event and the sun set on this wonderful Caribbean island, the booggy drivers warmed up. At the start of the 45-minute A-main booggy class, it was again Ryan Mayfield out in front controlling the race. Adam Drake, Jesse Robbers, and Trevor Clement all chased him trying to gain position. At the halfway point Ryan was on fire, and totally dominated the race; even through the pit stops he retained his lead! Meanwhile Drake was in second, and Jesse Robbers—who had flamed out early in the race, worked hard to un-lap himself and moved into third. Ronda Skelton was on fire and was working hard to repeat her third place position. In fourth place was local Juan Torres, with Tori Santiago in hot pursuit. The second half of the race was the same as the first with Ryan Mayfield winning by one lap over Drake. Jesse Robbers ran great and finished third, and Our Diva of RC Ronda did great and finished fourth. Juan and Tori ran a great race, and were the top finishers for Puerto Rico.

GAS TRUCK

MONSTER TRUCK

TROOGGY

BOOGGY

FINAL RESULTS

1-10 NITRO TRUCK (A MAIN)

F	Q	LAPS, TIME	DRIVER	CAR	ENGINE	PIPE	FUEL	BODY	RADIO	TIRES
1	9	20,54.568	Roy Rodriguez	XXNT Losi RTR	Mugen	Losi RTR	O'Donnell	Pro-Line	JR	Losi
2	1	18, 51.634	Omar Gonzalez	AEGT2	OS	AE	AE	Pro-Line	Airtronics	Pro-Line
3	3	18, 54.504	Juan G. Sanchez	AEGT2	OS	AE	Sidewinder	JConcepts	Futaba	Pro-Line
4	6	18, 58.184	Claudio Rivera	Mugen MST-1	OS	TOP	Sidewinder	Mugen	JR	Pro-Line
5	7	18, 59.574	Angel Martinez	Jammin'	OFNA	Jammin'	Maxy's	JConcepts	JR	JConcepts
6	4	12, 57.606	Enrique J. Nieves	AE	AE	AE	Sidewinder	Pro-Line	Futaba	Pro-Line
7	5	01, 00.000	Gury Lebron	Losi	OS	Drake	Corozo Racing	JConcepts	Spektrum	Losi
8	8	-	Alexis Deltoro	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	2	-	Luis Santiago	N/A	N/A	N/A	N/A	N/A	N/A	N/A

MONSTER TRUCK (A MAIN)

F	Q	LAPS, TIME	DRIVER	CAR	ENGINE	PIPE	FUEL	BODY	RADIO	TIRES
1	9	33, 48.953	Jose Martinez	HPI Racing	GO	HPI Racing	Blue Haven	HPI Racing	Spektrum	Pro-Line
2	4	30, 52.803	Juan Medina	HPI Racing	GO	HPI Racing	O'Donnell	Pro-Line	Nomadio	Pro-Line
3	3	29, 55.905	Aramis Velez	HPI Racing	HPI	HPI Racing	Trinity Monster	Pro-Line	Futaba	Pro-Line
4	6	25, 55.328	Luis Mercado	Traxxas	GO	RB	Sidewinder	Traxxas	Spektrum	Pro-Line
5	7	23, 52.668	Jan Carlos Peniza	Traxxas	Traxxas	Traxxas	Maxy's	Traxxas	Futaba	Pro-Line
6	2	19, 53.524	Alexis Carderov	Traxxas	OS	Traxxas	Sidewinder	Majestic	Futaba	Pro-Line
7	11	18, 59.254	Christian Rodriguez	HPI Racing	Axial	HPI Racing	Sidewinder	Pro-Line	HPI Racing	Pro-Line
8	1	03, 50.286	Hector Colon	Vantage	OS	Traxxas	Radical	Pro-Line	Airtronics	Pro-Line
9	10	-	Midiael Cuevas	N/A	28	Jammin'	O'Donnell	HPI Racing	Spektrum	Pro-Line
10	8	-	Joselito Torres	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1-8TH TRUGGY (A MAIN)

F	Q	LAPS, TIME	DRIVER	CAR	ENGINE	PIPE	FUEL	BODY	RADIO	TIRES
1	6	64, 40.027	Adam Drake	Losi	GRP	GRP	Losi	Losi	Airtronics	Losi
2	2	64, 40.501	Ryan Mailfield	AE	Reedy	AE	Sidewinder	JConcepts	Futaba	JConcepts
3	4	59, 42.974	Ronda Skelton	Mugen	Ninja	Ninja	Byron's	Pro-Line	Airtronics	Pro-Line
4	10	56, 42.068	Jose Martinez	Jammin'	GO	Jammin'	Blue Heaven	Jammin'	Spektrum	Pro-Line
5	3	55, 45.174	Tory Santiago	Mugen	Ninja	Ninja	Sidewinder	Pro-Line	Futaba	AKA
6	5	54, 42.496	Peter Alvarado	Kyosho	Ninja	Ninja	Sidewinder	Kyosho	Futaba	AKA
7	7	54, 44.505	Miguel Cotto	N/A	N/A	N/A	Fuel used	Body brand	Futaba	Tire brand
8		51, 45.843	Jaime Ramos	RCBT	OS	Jammin'	Sidewinder	stock	Airtronics	Pro-Line
9	11	50, 47.733	Luis Santiago	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	14	49, 46.036	Angel Rodriguez	Kyosho	RB	RB	Radikal	Kyosho	Spektrum	Pro-Line

1-8TH BUGGY (A MAIN)

F	Q	LAPS, TIME	DRIVER	CAR	ENGINE	PIPE	FUEL	BODY	RADIO	TIRES
1	1	62, 41.158	Ryan Mailfield	AE	Reedy	AE	Sidewinder	JConcepts	Futaba	JConcepts
2	3	61, 42.117	Adam Drake	Losi	GRP	GRP	Nitrotane	Losi	Airtronics	Losi
3	2	60, 41.035	Jesse Robbins	Hot Bodies	GRP	GRP	Sidewinder	Hot Bodies	JR	Tire brand
4	6	56, 44.644	Ronda Skelton	Mugen	Ninja	Ninja	Byron's	Pro-Line	Airtronics	Pro-Line
5	9	54, 45.965	Juan Torres	Mugen	Ninja	Ninja	Sidewinder	Pro-Line	Airtronics	AKA
6	7	53, 46.204	Tory Santiago	Mugen	Ninja	Ninja	Sidewinder	Pro-Line	Futaba	AKA
7	8	51, 47.023	Eliud Hernandez Jr.	AE	GO	AE	Maxy	JConcepts	Airtronics	AKA
8	12	50, 42.802	Trevor Clement	Kyosho	Orion	Team Orion	Sidewinder	Kyosho	KO Propo	AKA
9	X	47, 47.426	Alex Vazquez	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	10	42, 44.576	Peter Alvarado	Kyosho	Sirio	Sirio	Sidewinder	Kyosho	Futaba	AKA

FIN!

If you ever plan an RC adventure, you should absolutely plan on going to Puerto Rico! This Caribbean island is exotic and offers plenty of things to do, and the RC community is high-spirited. I guarantee the racers there will make you love RC all over again...they are an enthusiastic and fun loving group of drivers for sure. The Landfill track is something to behold, and even though it was just built, it is close to being a world class facility. Those of us who came from Stateside had a blast, and thank RC Revolution and Juan Santiago for inviting us. I know we want to return next year for some winter RC fun. I could gush about Puerto Rico all day, but I think you get the idea. All I can say is that for the price of an average plane ticket, you can explore beyond your shore and have the time of your life! ☺

This explains Slimy's weird accent when he came back to the office.



CARPET RACER

THE MOVIE?

Interview by: Derek Buono | Photos by: Mike Rooney

A FEW YEARS AGO WE NOTICED A FEW GUYS walking around the Snow Bird Nationals with a video camera. We immediately walked up and asked what was going on. When we learned that they were producing a documentary on carpet racing, we couldn't help but chuckle. Could a movie about our obscure little racing segment be something that people would watch? Well just a flip through the TV Guide and you'll see the pages littered with "reality" shows that honestly are easier to laugh at than a bunch of guys racing toy cars in strange places. You've got shows about dwarfs, half-ton people, wives of football players, and that's only the surface of what documentary styles films could be. So over the years we've kept in touch with the two who were responsible for this film and we've even seen a few cuts...and you know what. If anything it was much more than we expected and who knows, maybe somebody will see it and want to find out more. The debut of the film is coming and we thought it was time to sit down and talk to Mike Rooney and Jay Thames to see what it's all about.



OKAY THE OBVIOUS QUESTION, WHY DID YOU CHOOSE TO MAKE A DOCUMENTARY ON THE LIFE OF AN RC RACER?

Mike Rooney: I have been in and out of RC all my life. When I bought a T-Maxx in 2003, I was amazed at how far RC cars have come since the late 1970's and early 1980's. I was so impressed with the technology, and so unimpressed with customer service in the hobby world, I opened up a shop called Steel City Hobbies (www.steelcityhobbies.com) I had an off-road track at my pilot test store in Oakland Maryland, and when I opened a shop in Pittsburgh, PA I built what was considered to be one of the nicest RC carpet tracks in the country. From there I went to large RC events such as the Snowbird Nationals where I sponsored top end racers like Ray Darroch and Jon Orr.

WHY DID YOU CHOOSE CARPET TOURING AS THE SUBJECT?

Mike Rooney: Carpet Racing is close in nature to real life racing such as NASCAR—with all the rules, regulations, and vast differences in technology. I found that there were many carpet tracks around the world, which kind of formed this underground "cult-like" group of people. Some places have between 50–100 entries per week, which is amazing. If you asked a person off the street, chances are he never heard about carpet racing. It would have been great to cover all of RC racing, but with Carpet Racing already so huge, it would have taken a mini series to cover all forms of racing.

Jay Thames: It just kind of emerged that the faction inside carpet racing was the most compelling. The track itself seemed extremely difficult to navigate, especially given the unreal velocity of these little cars, and the drivers were literally getting EVERYTHING out of the cars and themselves that they could possibly get. I found that the on-road drivers, by the time they left events like Snowbirds and the IIC, were absolutely spent. They were not getting any sleep, and they were frequently not even eating or if they were they were eating garbage—just to squeeze every last drop out of their potential. It was a sight. When people go to those extremes, it's good for film.

DID YOU FIND YOURSELF MORE INTERESTED IN THE SPORT AS THE FILMING WENT ON?

Jay Thames: Definitely. Once I started to grasp more and more what really goes into making these cars go around the track—the work, the discipline, the practice—I became more and more interested in the type of person that can be good enough at this to do it for a living. The way these guys interact with each other in this very encapsulated world is fascinating. I hope we can go public with the movie and attract more people who want to experience this sport from the inside. Hopefully we can make some fans, both young and old, out of the people who see this film.

WAS IT HARD TO FIND PEOPLE THAT HAD PERSONALITY TO KEEP THE AUDIENCE'S ATTENTION OR GET THEM ATTACHED?

Mike Rooney: The world of carpet racing is a reality show in its own world. There were so many characters for us to choose from. Choosing who to follow was one of the easier tasks in making this film—it was quite natural. We decided to make this a documentary not only for the entertainment value, but to raise the awareness level of RC. If this were going to be a feature film, we would have had to script it and use actors. The way we shot this film tells the story of what it really is like to be a carpet racer more accurately, since we used real racers and not actors.

Jay Thames: As the director, I initially tried to film as many people as possible, as they ALL interested me. But once I started to notice certain things, the subjects of the film started to emerge. People like Barry Baker and Chris Tosolini have tons of personality, and are great at their craft, and people like Jilles Groskamp and Paul Lemieux, while not the most outspoken of people, are so dedicated, so good, so 'into it' that the camera just finds them. These two different types of racer really balance the film. Hopefully, you see it from both sides of this 'racer extreme.'

Thankfully, neither is Denise "I have a reality show and no one knows why" Richards.

CARPET RACER

Rumor has it Derek's cameo is Oscar worthy!



DID YOU LOOK FOR PEOPLE WHO WERE INTERESTING OR JUST CHOOSE PEOPLE TO FOLLOW AND SEE WHAT HAPPENED?

Mike Rooney: Being around big races for a few years gave us a head start on who was doing what, etc. It was pretty easy to figure out who were the naturals and who would provide entertainment value.

WHO TURNED OUT TO BE MORE INTERESTING THAN YOU FIRST THOUGHT?

Mike Rooney: Originally I wanted to follow Jon Orr. He is from Western PA (Pittsburgh) and was a sponsored racer from Team Associated. Here you have a guy who was a white-collar worker with a very respectful job. Jon would take limited time off to practice before an event, then go to Nationals and win! He was a natural. Due to real life circumstances, work prevailed and he had to retire. The other guys we followed were great and very interesting. Jilles Groskamp was a level headed guy who was very consistent and enjoyable to work with. Barry Baker was on the other end of the spectrum, as he was more vocal on any concerns he had while racing—but he was a lot of fun to watch.

Jay Thames: No simple answer there. They are all very interesting. Even the racers that are only in the film for brief glimpses or not in it at all were interesting. They all have stories to tell, all of them. But I would have had to make an 80-hour film to be as in depth as I would have liked to be with each racer. There were just too many people to cover. If I had to pick one guy who really stood out I would say Mike Dumas. When I first met him, he kind of stayed to himself, out of camera's way so to speak. But once I started filming him more, and started watching him race, he opened up a little more each time the camera came around. I think he shines as one of the people you really root for in the film, and people will wonder what his future holds for him, both in and out of racing.

HOW MANY HOURS OF TAPING DOES IT TAKE TO MAKE SOMETHING LIKE THIS? HOW LONG HAVE YOU BEEN TAPING?

Mike Rooney: We have over 100+ hours of HDV video tape with about 20+ hours of standard video tape from earlier tapings. I have been building this production since the 2005 Snowbird Nationals in Orlando, Florida. It grew from there as I brought in experienced people such as Jay Thames—whom I have known for years. I helped produce a film that Jay wrote ("Automatic") which won a few film festival awards. I knew that my ideas and resources combined with ideas and production experience from Jay would result in something special.

WHAT ARE THE PLANS FOR THE FILM WHEN IT'S FINISHED?

Mike Rooney: To tour the film festival circuit and maybe hit DVD sales. Full feature length movies have not been ruled out—one step at a time for me.

WHAT DO YOU HOPE THE FILM WILL ACCOMPLISH?

Mike Rooney: To build experience for my film making career and to possibly get into more filmmaking. This is a serious hobby for me alongside my "day job" of working in NY. The main purpose of this documentary was to augment my shop's credibility, as well as to become an informative source for RC enthusiasts around the globe.

We're only a month or so away from getting to see a final product and hopefully hearing that the documentary made it into some film festivals. If you want to stay up to date or find out more about the film be sure to check out the website www.carpetracers.com.

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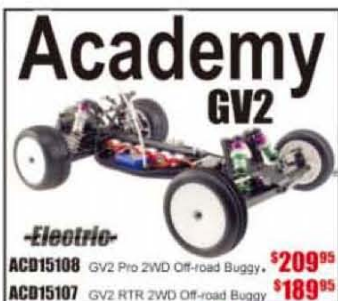
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OS SPEED V-SPEC 21VZ-B II

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words: Brian Kinney

Atsushi Hara captured victory at last years Off Road Worlds, owing the victory in large part to the strong engines he was competing with. Great power and even greater fuel mileage were some of the claimed contributing factors in Hara's awesome accomplishment. We got our hands on the new OS Speed 21VZ-B V-Spec II used by Hara and got ready to tear it down, check it out, strap it on, and run it for all it was worth!



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ENGINE SPECS:

CON ROD LENGTH:	30.00mm	INTAKE PORT DURATION:	215°
EXHAUST PORT HEIGHT:	5.8mm from BDC	CRANKSHAFT BORE:	9.5mm stepped to 10.0mm
TRANSFER PORT HEIGHT:	3.4mm from BDC	GLOW PLUG TYPE:	OS P3
EXHAUST PORT TIMING:	163.5° duration	CARB TYPE:	3-needle slide
TRANSFER PORT TIMING:	124° duration	CARB BORE:	XXXX
INTAKE PORT OPENING:	35° ABDC	SUPPLIED CARB INSERT (VENTURI):	6mm, 6.5mm, 7mm (tested)
INTAKE PORT CLOSING:	70° ATDC	SUGGESTED CARB SETTINGS:	NA



PISTON AND SLEEVE: The piston is an intricately CNC machined aluminum bar based piston, precision ground to ensure a perfect fit. 5.0mm boost ports are located on the sides of the skirt to promote efficient scavenging.

CARBURETOR: Aluminum three-needle carburetor (Black OS 21.1) with resin insulator to keep heat from transferring to the carb body. Like other high-end OS engines, this carb has a full length adjustable mid-needle that allows more precise metering of transitioning fuel mixture (mid-throttle) and a light weight aluminum hard-anodized slide. Additionally, OS Speed comes equipped with three beautifully red anodized Venturi inserts ranging from 7mm (std.) to 6mm in 0.5mm increments.

CRANKCASE: The OS max VZ crankcase gets the OS speed black color treatment, yet shares much with most of the current crop of OS .21 engines. Rear crank bearing has been upgraded to the uber-racy ceramic bearing seen today in nearly all high-end engines. Added bosses for short type exhaust pipe springs, and widened exhaust port outlet to match the ultra wide exhaust port of the sleeve. Sadly the V-Spec II (like most others in OS's line up of engines) is missing the transfer to boost ports channels made popular by Italian race engines. Perhaps we are seeing a key to the V-Spec II's race-winning fuel mileage advantage?



CONNECTING ROD: The con-rod is CNC'd aluminum and is typically knife-edged for windage, sports a 10.5mm big end diameter, and has been burnished to remove any stress risers that may contribute to premature rod failure during extreme use. Kudos on this one, OS!

CRANKSHAFT: OS Speed crankshafts are always works of art (at least to a gearhead like me), but this one has to be the coke topper! The beautifully smooth black oxide crank is knifed, wedged, scooped, filled, and now slugged with two tungsten weights. (These slugs are tuned to allow the engine to balance out at or near the engine's peak TQ point thus allowing the engine to produce power more efficiently through the rev range where the power is most effective.)

COOLING HEAD: The standard OS VZ head gets the speed treatment and is anodized black, laser logo'd with 2008-2009 IFMAR Off-Road World Champion to remind you of this engine's lineage. But the bonus here is the 18x5.0mm venting holes that surround the base of the head and penetrate through to the 8th fin. The company claims this increases cooling substantially and reduces weight by a whopping 14grams (that's half an ounce to you and me).

Of course, he also had maximum best driving skills too.

X-DYNO TEST

PERFORMANCE

I have tested perhaps 500 engines in my days as a tuner, and this engine has to be in the top 2% of the toughest engines to break in to date! Not that it doesn't run well almost right off the bat, but to get the power levels to the point I was expecting and tuning for I did have to spend some extra time giving the engine the TLC it wanted to free itself up. After several hours of break in running and dyno tuning, it finally welcomed the settings

and reached power levels rarely seen in the .21 buggy engine class.

1.47hp was the high mark of the day at 24,050rpm and a whopping 63.5oz.in. of torque at 22,950rpm. And boy is this engine a screamer! I was seeing 45,000 rpm regularly and the engine could still probably pull another 3000 or more rpm if I wanted to let it (no need to over stretch the limits and chance failure though). This kind of rpm equates to car lengths at the end of a long straightaway!

Although this engine shares a lot with the previous version V-Spec and the new Ninja, the VZ-B V-Spec II has a bit more up its sleeve. A bit more power than its siblings, lower weight (however slightly), and a small appetite at the pump guarantees a notch at the top of the list in the ongoing battle for top performer in the .21 buggy engine race.

CONCLUSION

OS Speed has long been producing masterpiece engines with quality and craftsmanship on par with the best of the best. Their engines are produced with such care that it is almost a shame to run them. Granted, these engines are not for everyone and the cost definitely reflects that point. However, if you've got the coin and want the cream of the crop in your buggy, the OS 21 VZ-B V-Spec II is a proven winner. Worlds winner that is! ●



It almost looks like a real Japanese ship, all dressed in black.

OS SPEED 21VZ-B V-SPEC II

SCORECARD

SCALE RATING: 1=POOR 10=EXCELLENT



9.0

ANN HATHAWAY

HITS

- Excellent fuel mileage
- Awesome carburetor
- Beautifully crafted balanced crank

MISSSES

- Way on the pricey side!
- No bypass ports
- Very tight piston/sleeve fit (break in)

CONNECT

Manufacturer: OS Engines mfg.co.ltd

Distributed by: Hobbico

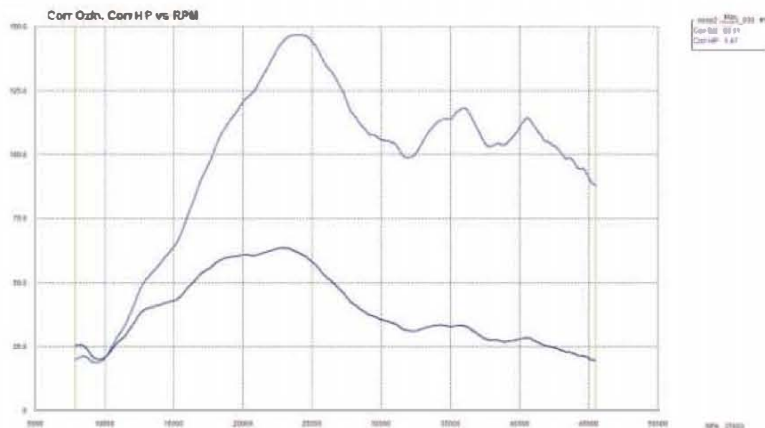
Web: www.osspeed.com

Part Number: 13911

Street Price: \$475-\$550 (varies)

X-DYNO DATA

POWER PLANT DYNO PERFORMANCE



TEST EQUIPMENT

FUEL: 30% Nitro, 12% Oil

PLUG: P3

PIPE: X-Dyno Standard

OPERATING TEMP: 190-230-degrees

MOTOR DATA

ENGINE:	OS Speed 21VZ-B V-Spec II
BORE:	16.6mm (0.654 in.)
STROKE:	16.0mm (0.630 in.)
DISPLACEMENT:	3.46cc (0.211 cu. in.)
PORTS:	3
PISTON/SLEEVE:	ABC
HEAD BUTTON:	Turbo
CRANKSHAFT:	14mm / Pilot shaft (SG)
PEAK X-DYNO HP*:	1.47hp@24,050 rpm
PEAK X-DYNO TQ*:	63.5 oz.in. TQ 22,950@ rpm
PEAK X-DYNO RPM:	45,500 rpm
AVERAGE TQ*:	40.57oz. in
AVERAGE HP:	98hp
POWER FACTOR	
LOW END (TQ/HP):	49.99/.92
TOP END (TQ/HP):	35.99/1.13
CORRECTION FACTOR:	1.047

*All numbers are SAE corrected

POWER FACTOR: We are using an average HP/TQ for a set range of RPM: 10,000-25,000 and 25,000-40,000 (low/high). This will allow comparison of engines with two power ranges.



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XTREME TOOLS

Xtreme Tools is devoted to anything and everything that can be used for wrenching on your RC. We search the world over for tools that will be helpful in your wrenching sessions and may even help you around the house for the "honey-do" list. There's no limit to what Xtreme Tools may bring you each month so kick back and enjoy. If you have a killer idea you want to share with fellow RC fanatics, send it on over to: brians@rc411.com. Who knows... maybe it will wind up in here for everyone to see!

words: Brian "Skinny" Skinner

2008 FAVORITE TOOLS OF THE STARS



I LIKE PUNCHING HOLES

Factory Kyosho driver Cody King loves his Harbor Freight leather punch. This light-weight leather punch with the "rubberized" handle is the bomb-diggity for punching air vents in tiers, and Cody's favorite tool. It will run you about four bucks...I'm not the only one who likes Harbor Freight!

www.harborfreight.com



SCREW THIS TUNE THAT!

Travis Amezcua, maverick of RC that he is, doesn't have to do a lot of wrenching, but if he did his tool of choice would be the new sweet Hot Bodies tuning screwdriver. It has a strong steel blade and a handle large enough that you can actually get a good grip with your hand...amazing!

www.hotbodiesonline.com

RAPPING IS MY LIFE!

This one is for track owners and race announcers around the world. Jimmy Babcock, world renowned race director and announcer, says his life as an announcer would not be complete without the Sony F-V100 Omni-directional, dynamic vocal microphone. This baby is rock solid, and it's cheap! You have to have a dependable microphone at the races...the drivers will kill you if they can't hear you. The Sony fits the bill, but remember...it has to be Omni-directional!





I LIKE POWER TOOLS

Factory AE honcho Ryan Mayfield's favorite tool is this sweet RIDGID 12v Lithium drill ... just ask his girlfriend. This puppy is the best of both worlds; it's small like a cordless screwdriver, but has the power of a hand drill, and it's very robust! It has an 18 Position Clutch, 12v lithium battery that fully charges in 30 minutes, and an ergonomic "rubberized" grip. It even has a powerful L.E.D light to illuminate the work area. This is probably the best drill/driver tool you can find, and I think I want one!

www.ridgid.com

I HAVE EXCESS BAGGAGE

Factory Kyosho mechanic Paul King (father to Cody King and all around nice guy) came up with this cool idea. The pouch Paul is holding is an electrician's belt pouch that clips to your pocket or belt, and makes for a great "in pitlane" tuners kit. You can find these electricians' or gardening belt pouches at any hardware store for only a few bucks. They hold your temp-gun, plug wrench, igniter, tuning screwdriver, and a few other goodies right at your side. This will make your life in the pitlane much easier... just ask Paul!



Skinny just said that he likes power tools.



FRP GEL SHEET 1.0

The new latest greatest thing in body protection! You may not know this, and you have to really hunt for it, but Kyosho has an abundance of cool tools and accessories for your RC needs. For instance, Kyosho sells these gel sheets that reinforce and repair your car body... who knew? FRP stands for fiberglass-reinforced plastic, and the FRP Gel Sheets are sheets of resin gel that hardens to the form of your car body when exposed to ultraviolet rays (sunlight). Simply cut a piece of the gel sheet to fit a cracked or high-stress area of your car body, and stick it on. Let the gel dry in the sunlight for a few minutes, and your car body will be repaired or strengthened for maximum performance. This stuff is really neat, and can be used for a number of applications—for instance—as a quick fix for a cracked fuel tank.

www.kyoshoamerica.com



ADDING THE "DROPLET" TECHNIQUE TO A BEER-THEME PAINT SCHEME

words: M. R. Ogle

You think a pint will fit in that body?

GETTING STARTED

DIFFICULTY

SCALE RATING: 1=NOVICE 5=EXPERT

4.0



TIME TO COMPLETE



2 HOURS

TOOLS NEEDED



• Airbrush



• Solvent based paint



• Water spray bottle

Here's a paint trick for the more advanced airbrush artists out there: the "droplet" technique. This is one of those paint tricks that will have people running their fingers over the finished body to "feel" the drops, just because they look so convincingly three-dimensional. Although "overspray" is a negative word in most instances of custom painting, it's exactly what's utilized in this technique to render the water droplets... overspraying them in two directions. It's not particularly difficult to get good results on your first attempt, but it does require some patience to allow your work to dry completely before you apply the final backing colors. If you're ready to add the "wet look" to your portfolio of paint tricks, here's the lowdown on how it's done:

01

This technique is easiest to do on large, relatively flat expanses of your car's body, so I got out one of my long-nose ProtoForm Funny Car bodies for this demonstration. Here, I have already masked the windows and the "Beer Magazine" logos and graphics out, allowing us to concentrate on the open areas where we'll apply the "wet" look.





02 After making sure the body was wiped out thoroughly and free of any tape or mold release residue, I secured the body to a small piece of wood with a square of servo tape so it would remain relatively stable during the water drop painting process.



03 Next, I actually sprinkled the inside of the body with water to form the "droplets." I used both a spray bottle for the fine-small droplets and just flung water off my fingertips for the larger drops. You might want to practice on some other slick surface to get your "drops" just right before applying them to your car's body.

04

When you get the drop pattern you want, start by spraying them with a very fine, well-thinned dusting of white solvent-based paint (water-based will not work). Start from the edge where your light source would be. Spray at a very low pressure at the lowest possible angle to just try to hit the "side" of the drops, without blowing them away or getting much paint on any of the rest of the body. Gentle...don't overdo it!



05

Next, repeat exactly the same technique with well-thinned black or some other dark-color solvent-based paint from the "opposite" direction to form the shadowed "bottom" edges of the drops. Be very careful when handling the body to not "jostle" or run the water drops during these steps. I secured the body to a small board to keep it from moving around and ruining the "drop" pattern.



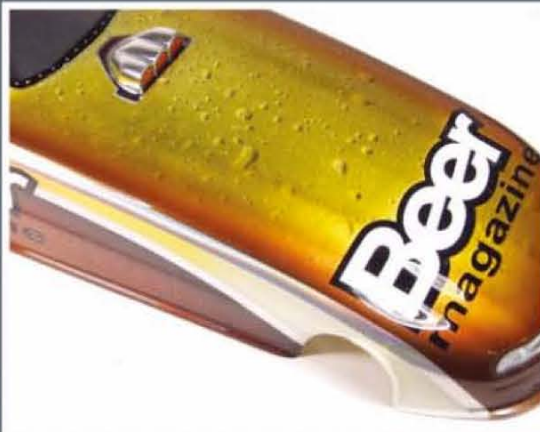
06

After you're finished "overspraying" the drops, put the body away for a few hours (or overnight) to allow the water to completely evaporate the next morning, your droplets should look like this, ready for your backing color coats.

That doesn't look like an ordinary "light" drink.



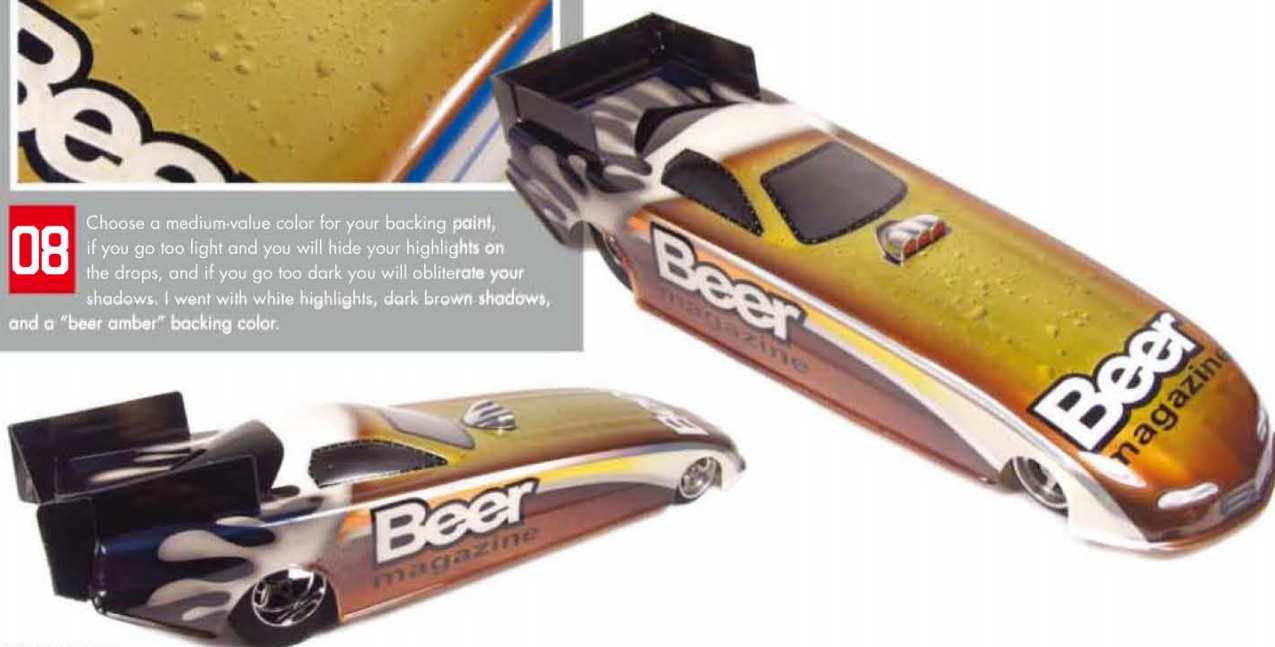
07 Because I was doing a “beer” theme, I also added some fine white splatters from a small paintbrush dipped in thinned white paint... to simulate tiny carbonation bubbles.



09 The finished body looks like it actually is “wet,” but it’s all protected under clear Lexan. This is one of those paint tricks that you’ll get better and better at each time you do it, as you fine-tune your technique. Then it’ll be time to kick back, pour yourself a tall one, and admire your handiwork! ☺



08 Choose a medium-value color for your backing paint, if you go too light and you will hide your highlights on the drops, and if you go too dark you will obliterate your shadows. I went with white highlights, dark brown shadows, and a “beer amber” backing color.



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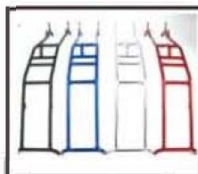
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Can't get enough circle track racing? Want the lowdown on the newest parts and news in the world of oval? Got a picture of your buddy dancing on a stool at Hooters? Check in every month to get the inside line on all things oval. This is Oval Nation!

Got something cool you want to see in the Nation? E-mail it to RCThunder@aol.com.

words: Mike Boylan

TWO BIG RC OVAL EVENTS ARE COMING UP IN MARCH!

FIRST UP IS THE 2009 ROAR CARPET NATIONALS at Greeneville Speedway, March 13th-15th. The newly renovated facility, located in Tennessee, hosted the US Oval Masters in November with great success, with plenty of indoor pitting, a large and smooth track, fully-stocked hobby shop, and wonderful food onsite. Allan and the crew put on an awesome event and are excited to be working with Roar and the RMT staff for the upcoming Nats. Mandatory classes are 4cell 17.5, LiPo 21.5 (3200 max), and LiPo 17.5. Look for more classes listed on the race website. Hotels are super-cheap too for that weekend. www.greenevillespeedway.com

NEXT UP IS THE ANNUAL SPEEDWAY SPECTACULAR, taking place March 27th-29th at Daytona Speedway, Florida. This is an asphalt oval event held on a super-size track, hosted by MB Racing, featuring a mix of classes with something for everyone. The thrill of racing inside Daytona cannot be beat, and being able to pit inside the actual Nextel Cup garage is priceless. The race has had over 100 oval entries in the past several years, so look for another great event coming up.

www.rcthunder.net



Hey, it's an oval inside an oval.

Balancing Lipo's 411: THUNDER POWER RC

We sat down with the staff from Thunder Power RC and got some great insight into LiPo balancing and their thoughts about it. A lot of oval racers have been wondering what exactly balancing is, so we hope this answers some questions.

WHAT IS LIPO BALANCING? LiPo battery "balancing" is typically considered to be the action of "equalizing" or "near-equalizing" the voltages of the series cells within a LiPo battery. In the case of Thunder Power balancers, they're specifically designed to balance the series cells to within 0.015V or less of one another.

HOW DO YOU DO IT? Thunder Power balancers, and the balancers built-in to applicable TP chargers, are designed to slightly discharge (at a rate of 300-450mA) any cell(s) with a voltage higher than the cell with the lowest voltage in the battery, before, after, or (preferably) during charging. Other "stand-alone" and "charge-through" type balancers often do the same; however, some "balancing chargers" (not to be confused with "chargers with built-in balancers" like the TP-610C) actually charge the series cells of a battery independently to approximately the same voltage (which is usually a more time-consuming, costly and less accurate way to balance a LiPo battery).

IS IT NEEDED? LiPo battery balancing can help improve cycle life and performance by keeping series cells from becoming so far out of balance that some cells are either overdischarged during discharge to the low voltage cutoff setting, or overcharged during typical charging. In the case of TP balancers used independently or in conjunction with TP chargers, the balancer can also alert the user and/or tell the charger not to charge, to lower the charge rate or to stop charging any LiPo battery that is dangerously out of balance. TP always recommends balancing (preferably DURING charging) in order to obtain maximum cycle life, performance AND safety from your LiPo battery.

www.thunderpowerrc.com





THE BEST-KEPT SECRET OF 2008 MIGHT BE MCPAPPY:

One of the biggest buzzes on the Internet in a while was the surprise introduction of an all-new pan car in December. It got racers talking and excited, for sure, and with 'Beryllium Orange' anodizing, it got many second looks! The new McPappy Racing 1/10-scale "Dart" has been designed with many new innovations. Some of the key features of their race car are below. It is great to see interest in pan car oval racing growing and another company offering something new.

- All of the chassis components are made of 2.5mm quasi-isotropic carbon fiber.
- The bumper allows you to mount the transponder flush with the bottom of the bumper.
- Machined Delrin body posts are included, with a triangle 3-mount system for the front.
- Windtunnel long kingpins, springs and buckets, and an Associated front end.
- Quality Boca Bearings, HPI's new center shock, and IRS's 'Top Gun' side shocks.
- Incorporates a unique LiPo strapping method with a screw-down feature.
- Features an ultra-low center of gravity design throughout the car from front to rear.
- Battery positions and rear motor pod are designed to allow the most left side weight.
- Rear steer bottom plate and a topless top plate, allowing for easy motor access.
- Floating rear pod with offset options allowing you to change the car's roll center.
- Tungsten weights that mount in the chassis cutouts to increase weight and keep it low.

www.mcpappyracing.com

Gadget of the Month

WE GET QUESTIONS ABOUT WHAT TO SMOOTH YOUR FOAM TIRES WITH AFTER CUTTING THEM DOWN. CHECK OUT PRP'S TIRE FILE, WITH A 40 GRIT AND 80 GRIT SIDE. IT WORKS GREAT. TIRES THAT LOOK LIKE CHEESE GRATERS WILL MAKE YOUR CAR CRAZY, SO SMOOTH OUT THAT FOAM!

WWW.RC4LESS.COM



RUMOR MILL

With the move to more LiPo racing comes unknowns and, of course, increased discussion. The 'C' rating seems to be the new hot topic, with a race to who can sell the **highest 'C' numbers**. But what do they really mean, and with 21.5 motors, do cars actually pull enough amps to use the extra burst power? Time will tell. But as with anything new, racers will want to try them for sure. Trinity's new handout C.O.T. class is looking promising, giving tracks and races a choice of an **affordable handout option** in today's new world of LiPo and brushless racing. Some do not want to worry about keeping up with the latest and greatest, so this is a competitive option, for sure. There is still bigtime 4-cell racing going on, and the latest batches of sub-Cs seem to be the best ever, holding voltage and staying strong. This is great! The move to **single-cell LiPo racing** is gaining interest and support, as SMC and others are working on packs to allow this choice. A single-cell LiPo is basically 3.7 volts (versus the regular 7.4), so the option for slower classes is there. The lower voltage requires a receiver pack in your car to run them (this is one argument against them). **Will enduro racing make a comeback?** With the Snowbirds running 600-lap enduro races and 10+ companies working on quick-change systems, maybe more events will start offering this racing action once again. Congrats to Dawn Sanchez for winning the ROAR election. The racing organization is strong, and with all the new technology and changes going on, we 'may' need ROAR more than ever. Is it **time to unify and standardize?** With all these choices and directions in which tracks can go, it is hard for the average Joe to keep up any more. One day it would be great to have all tracks and races running behind one set of rules and classes again (some feel this way, at least). It would make race planning a whole lot easier for everyone. **CYA at the races!**

Not to be confused with "McPappy," the rapper who talks like Popeye.



DRIFTING IN 6 STEPS

LEARN THE SLIDE

words: James Revilla

RC drifting is fun. Not only does it involve realistic-looking cars, but it also combines speed with tire-spinning drifts that are on the edge. So maybe you've seen RC drifting before, and you want to get into it. However, you want to show up ready to drift the next time a public session or competition comes around. How would you practice drifting? Simple! All it takes is your ready-to-drive RC car and these six different methods of learning how to drift. If you follow these exercises and perform them on a regular basis, soon you'll be drifting with the best of them.

Note that this how-to assumes that you already have an AWD touring car chassis ready to go, with electronics installed and setup. You'll also need to find a traffic-free place to practice, with at least 50x50 feet of clear space. It can be asphalt or concrete, but make sure it's relatively flat, with no large cracks or potholes. Also, it's more fun and you'll learn faster if you practice with a friend, so if you have buddies interested in learning how to drift, here's the best opportunity for all of you.

GETTING STARTED

DIFFICULTY

SCALE RATING: 1=NOVICE 5=EXPERT

1.0



TIME TO COMPLETE



3 HOURS

TOOLS NEEDED



• Your touring car, ready to drive



• Mounted drift tires & kit tires



• 10-20 small-sized traffic cones



• A relatively flat area of pavement, at least 50x50 feet in size

1. Start Small

Most people getting into RC drifting start off with a low- to mid-level kit touring car chassis. You don't really need top-level equipment when you're



learning how to drift. If you have RC driving experience, skip this step; otherwise read on. Before you even consider trying to drift, you need to get a feel for what it's like to just drive RC. The viewing angle is different (you're not in the car!), the trigger/wheel control needs getting used to, and the speeds of hobby-grade RC are different from what you get at a toy store. Thus the first thing you should learn in RC is how to drive, not drift. Start with the kit motor and the kit tires (considering you started with a non-drift chassis); I know, the kit tires are probably not drift tires, but that doesn't matter – you can't drift if you can't drive. Get a feel for the car. Note how it responds to the transmitter inputs, get a feel for the speed, and see if you can drive around without crashing. Set up a small cone course and drive around it. If you can consistently follow the same line around the cones, then you're ready to learn how to drift.

Now then, the biggest difference between driving and drifting is traction – or lack thereof. RC drift tires are designed to lose traction. Try this: after running a few laps on regular tires, swap to drift tires and try to take the same lines. You'll notice that the amount of traction is drastically different, and you'll probably do a lot of spinouts. You'll also notice that standing start acceleration has a delay, and that braking distances are a lot longer. This lack of traction actually helps you drift and slide for a long time, provided you know how to use the throttle and steering correctly. Let's work on that next.

2. Not Just For Cops

The "donut" is the simplest, yet very challenging, exercise when learning how to drift. Basically you have one cone in the center of your practice area, and the challenge is to get your car to go around the cone consistently. Sounds simple, right? Not if you're running drift tires! The first thing you'll notice is that if you gun the trigger and turn, the back end of the chassis will swing. The more throttle you give it at the start, the faster the rear end will swing around. Controlling this swing is part of drifting.

Start with your chassis about 2-3 feet away from the cone, with the cone to the side of the car. Start moving and start turning, and try to get all the way around the cone, without spinning out. You'll find that once the rear end of the car is swinging, you'll have to counter-steer in order to keep from doing a 180-degree turn. Be patient, and experiment with different levels of throttle, and try to carve an arc around the cone. Don't try to do donuts right next to the cone – you won't be able to do it just yet. For now, just practice drifting in big circles around the cone. When you get the hang of it and you can do a few consecutive donuts around the cone, then try tightening your line, getting the circle smaller and closer to the cone. Believe it or not, even seasoned RC drifters have trouble with donuts. Master this before you go to the next step.

3. Like Ice Skating

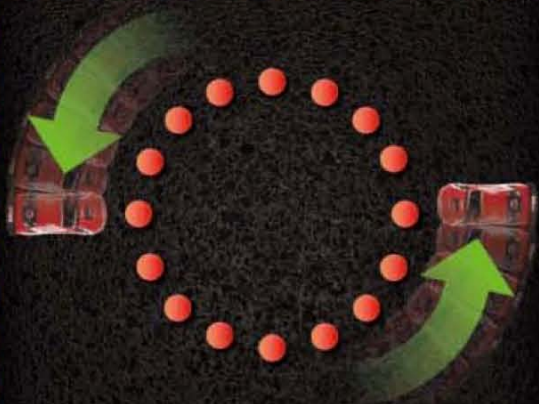
So you've mastered the donut. At this point, you should already have a decent feel for controlling an RC drift car. With that done, now it's time to learn how to control a change of direction while drifting. This is where the figure-8 test begins. Take two cones and space them about 20 feet away from each other. The object here is to do one donut around one cone, then another donut around the other cone, but in the opposite direction. In other words, try doing a counterclockwise donut around the first cone, then without stopping, get to the second cone and do a clockwise donut—thus tracing the number '8.' This method tests your ability to drift in both left- and right-hand corners, and it teaches you how to keep control of the car when switching the direction of the drift. A lot of it is throttle control, so concentrate on your trigger finger. When transitioning from one cone to the other, you'll want to let off a little bit on the trigger just as the car starts to switch directions (obviously when you turn the wheel to the other side). As you get better at doing the figure-8, bring the cones closer and closer to each other. Each time you move the cones closer, it will require different throttle inputs, but you will train yourself to get used to when, and when not, to pull the trigger.

If you're reading this, somehow we convinced Derek to put more drifting in the mag.



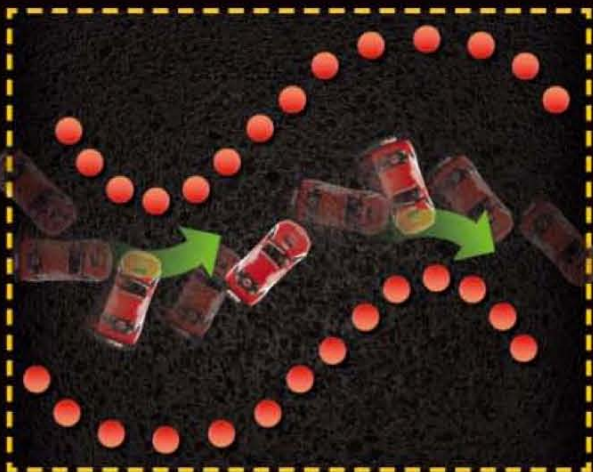
4. The J-Turn

Now that you've passed the donut and the figure-8, let's learn how to drift at speed. The J-turn is a common drift technique that requires you to bring your car up to speed in a straight line, then kick it sideways into a drift around a corner. Set up cones in a J-shape, with the straight part of the 'J' about 30 feet long, and the curved part of the 'J' carving an arc about 20 feet in diameter. Position your car at the top of the 'J' and take off, gaining speed as you approach the curve. When you get to the curve, flick the steering wheel toward the curve, allow the rear end to swing, then try to keep the drift and control it around the curved section of the 'J'. This exercise will help you learn the proper timing when approaching a corner to drift. Depending on how fast you hit the corner, you'll see that the faster you're going, the earlier you'll have to turn, and the quicker you'll have to counter-steer in order to control the drift and not spin out. Practice this in both directions ('J' and inverted 'J') so that you get used to high-speed drift entry for both left and right-handed corners. The better you get at this test, the more control you'll have at higher speeds—which is when drifting is really cool.



5. The Big Wheel

The "big wheel" is like a donut—just really, really big; try 15-20 feet in diameter! Why so large? Well, the point of this is to learn how to keep drifting, while keeping speed and momentum. To start, set up a circle of cones in a 15-20-foot diameter. Start with your car next to the cones, and drive around the circle. When you feel ready, give the car some more throttle, get the rear end to swing sideways, and then try to keep that angle all the way around the cone circle. It will be tough, compared to the donut exercise, but that's how you learn. You will find that the throttle, and not the steering—will be your main means of carving the big circle. Like the other tests, once you master the big wheel one way, do the same the opposite way. There's no point in knowing how to drift left only, right?



6. The S-Turn

The S-turn exercise is basically a combination of the figure-8 and the Big Wheel; here you'll actually have to hold a line around a giant 'S' shape without spinning or losing speed. Set up cones in an 'S' with each curve of the 'S' about 20-25 feet in diameter. The point of this final exercise is to learn how to drift, keep speed, AND change direction in between. The approach would be the same as the J-turn—accelerate straight to the first corner, and swing it sideways. However, this is where the S-turn is different: once you're sideways, give the car more throttle and control the car's direction with the steering wheel. Like the Big Wheel, giving more throttle will allow you to keep your speed and momentum around the corner. The extra trick here is to switch directions in the middle. Because you're traveling at a faster rate, everything gets amplified—you'll have to initiate the change of direction much faster, and you'll have to counter-steer much faster.



GO GO POWER UP

Say you've mastered the six steps, but you want more of a challenge. That's easy—power up, ranger. The next time you go drifting, try popping in a modified motor. If you are currently running a 27-turn stock, try a 19-turn. If you started with a 13.5 brushless, bump up to a 10.5. Just like in real cars, drifting your car is one thing, but drifting your car with a high-power, high rpm motor is totally different. Any small driving mistakes you make with a lower-power motor will be evident with a stronger mill. By powering up, you'll enable your drifting skills to get even better, your reaction time will be quicker, and your ability to drift any course will, over time, be a lot easier as well.

MAXIMUM BEST INFORMATION

The pinnacle of RC drifting is competition. This is where you put your skills to the test, drifting against others in side-by-side drift action. For more information on RC drifting events, and to find a session or competition happening near you, check out these sites:

www.rcdriftclub.com
www.hpiracing.com
www.tamiyausa.com



Working at a magazine does have its perks!

CONCLUSION

THE SIX DIFFERENT DRIFT EXERCISES ABOVE, WHEN COMBINED, COVER PRACTICALLY EVERY TYPE OF SITUATION YOU'LL ENCOUNTER WHEN DRIFTING ON AN ACTUAL DRIFT COURSE. IF YOU MASTER ALL SIX, YOU WILL KNOW HOW TO RC DRIFT, FROM KNOWING HOW MUCH THROTTLE TO GIVE THE CAR, TO HOW MUCH STEERING INPUT WILL BE REQUIRED TO GET AROUND A CORNER IN TIRE-BURNING, SUPER-ANGLE DRIFTING STYLE! ◊

XTREME CHRONICLES

Happy New Year! The one good thing about life is that the year changes regularly—giving us a chance to set goals for the next year—even though we'll probably just forget about them in a month or so anyway. But some resolutions stick. So do a favor for yourself and set RC goals for 2009. Whether you're a racer and want to make the "A" more often, or you're a basher and want to save enough money for a new Li-Po, set a few goals. And if you want to make sure and taste some success, make lots of goals, because if you set a lot of them, chances are that a few will actually be realized. I'm not going to bore you with a list of my own RC resolutions, but make some for yourself. Here is a look at some past issues of Xtreme; most of which were anniversary oriented to commemorate the dawning of a brand new year.

words: Michael Wortel

10 YEARS



MARCH 1999: ISSUE 4.6

This March '99 issue features a look at a redesign for Xtreme. Most magazines change their layout templates every number of years—giving a totally new look to all

of the articles and content. In the last ten years, Xtreme has gone through some new looks, and the feedback has always been very positive. You wouldn't think that changing-around a magazine so drastically would be a good idea, but it always works!

MAXIM LAUNCH

Even though it has absolutely nothing to do with RC, the editors of Xtreme made their first shout-out to the then "new" publication of Maxim—or at least—when it started becoming popular. Maxim has proven to be a very successful publication over the years, and like all good things, it has spawned competition. Some even feel that Xtreme is the Maxim of RC, but we don't think so.



LOOK! PAN CARS WITH SEDAN BODIES

The hot topic in carpet racing is what is called the "World GT" class. Some may not realize that the idea has been around for years and while Speedmerchant might be the first it's funny to see that back then even AE knew touring cars were getting too complicated for the average guy. Sometimes it takes a good 10 years for a good idea to catch on.



5 YEARS



MARCH 2004: ISSUE 100

In other anniversary news, Xtreme turned "100" five years ago—releasing issue number 100 in March of '04. For a publisher, 100 issues is a great

accomplishment. It means that the publication has gone through its growing pains successfully and is finally making some good money! And the good news for readers is that Xtreme is still running strong, even though our economy has been so rough.

INSIGHT

This issue featured a pretty cool interview with Mike Velez, publisher and bill-payer of Xtreme. It talked about his path of becoming a magazine owner from the ground up—starting as a hobbyist, then learning the business from the commercial side, and eventually starting a successful publication. This was an interesting article that even I just re-read.



XRAY M18

Wow has it really been five years already? In 2004, XRAY, in the midst of an industry-wide mini scale craze, XRAY released the M18, an 1/18-scale touring car. Everyone fell in love with this car, and you couldn't even find one on the shelves for a few months, because they were selling so quickly. The hype eventually died down a bit, but at the present time, but this car is still a must-have.



1 YEAR



MARCH 2008: ISSUE 148

It usually happens once a year, and last year it happened in the March issue—the classic, reoccurring article about running your car in the winter! It's all there: the

baggie-over-the-receiver trick, prepping the engine, and using a blow-dryer at the end to dry things up. What was missing from this article though? Any pictures of snow... Hey, give us a break, it's 80 degrees here right now.

CROSSING THE LINE

Everyone in RC has thought about doing it, but last year, we did it for real. James took a "Radio Shack" RC car and strapped in hobby-quality RC gear. The conversion was actually pretty easy, and in the end, the car was pretty cool. After all was said and done, however, we learned that it's a much better idea to just start with a real RC car to begin with, rather than upgrading something cheap. But it sure was fun!



BAJA KIT

Twelve months ago, HPI released a kit version of their hugely-successful Baja 5b—the 5b SS. This was an absolute dream come true to many. It featured a new orange color-scheme, deviating from HPI's classic purple, some upgraded parts, and most importantly, the ability to build it from the ground-up. Dave highly covets his Baja 5b SS, and if he ever leaves Xtreme, I bet he'll try to steal it on the way out!





We offer more crawler parts **IN STOCK** than any other shop! Our ad lists a very small selection. Visit our web site for lots more.

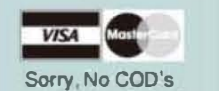


RCP3372	RockCrawlerLowCGSaddlePack2V	28.88	SCP49L06	Blue Steering and Drag Link set	6.88	SCP20105	Hollow Li w Alum Green Body post(4)	13.88
RCP3484	RockCrawlerLowCGSaddlePack 8.4V	32.88	SCP655L01	Black Alum Suspension Link 55mm	6.88	RTD120	Replacement Shock Shafts kit TD120	8.88
STD120DS08	Dual Spring for TD120 shock silver	6.88	SCP608L01	Black Alum Suspension Link 60mm	6.88	SCP2401	Black Alum Servo Mount Ax10	10.88
BLV207N01	Alum. 2.2 narrow truck wheel(4)	88.88	STD0818RC04	RockCrawler LowCG Spring Gold (2)	3.75	SCP2405	Green Alum. Servo Mount AX10	10.88
BLV207N02	Red Ring Alum. 2.2 narrow wheel (4)	88.88	STD1118RC01	Rock Crawler Low CG Spring Black (2)	3.75	SCP55HL01	Ax10 CNC high lift Ladder Bars	19.88
BLV207N07	Purp Ring Alum. 2.2 narrow wheel (4)	88.88	STD120MR128	120 RockCrawler dual rate spring	13.88	SCP55S01	CNC Alum. ladder Bar Ax10	24.88
BLV217N05	Dark Crystal 2.2 narrow truck wheel	108.88	STD120S08	100 mm RC Spring chrome soft (pair)	3.75	SCP1801	Black Alum. C-Hub Scorpion	23.88
BLV217N08	Dark Knight 2.2 narrow truck wheel	108.88	HAG817	17T 48P Hard Anodizing Alum. Gear	4.88	SCP2101	Black Alum Slewing Knuckle Scorpion	23.88
BLV2207R01	2 2 wide HD Bead lock Ring Black (4)	18.88	HAG830	30 tooth 48 pitch Hard pinion gear	4.88	WK1008	Alum. 12mm hex wheel hub VVK AX10	13.88
BLV278V01	Alum. CRD1 Bead lock wheel Black 4	88.88	PG414	48 pitch 14 teeth	8.88	CB248F01	Front Clod axle Tube steering system	38.88
SCP126M01	Black Alum AX10 Battery Plate Mount	13.88	RCG809L	Long Steel 48P 9T pinion Gear	7.88	RCM31P08	M3 Step Type Mount 12mm Offset (2)	9.88
SCP126M05	Green Alum AX10 Battery Plate Mount	13.88	RCG810L	Long Steel 48P 10T pinion Gear	7.88	RCM31T08	RockCrawler Link M3T Type Mount	8.88
SCP14CM01	Alum. CM Vertical Plate Chassis AX10	38.88	RCG811L	Long Steel 48P 11T pinion Gear	7.88	SCP0801	Black Alum Upper Link Mount AX10	18.88
SCP14MM01	Alum. MM Vertical Plate Chassis AX10	33.88	RCG812L	Long Steel 48P 12T pinion Gear	7.88	RUN37H	Replacement Alum. universal for 37H	8.88
SCP14X.M01	Alum. XM Vertical Plate Chassis AX10	33.88	RCG89012L	Long 48P 9 10 11 12T pinion Gaset	28.88	SCP288R05	Green Driveshaft Rings retainers (2)	4.88
SCP48R01	Front/Rear steering set Scorpion AX10	34.88	S8126M3	Thumb Screws to secure battery strap	4.88	SCP37H05	Alum. universal center shaft AX10	28.88
SCP55M01	Black Alum Suspension Link Mount	4.88	SCP68H01	Hard Anodized 88T Alum. spur gear	18.88	SCP0301	Alum. mini Bumper w/Mini AX10	18.88
RCL61301	Black Alum. 6x13mm Link(4)	4.88	SCP888H	Hard Anodized 88T Alum. spur gear	18.88	SCP13301	EACenter Bottom skid plate ax10	18.88
RCL61801	Black Alum. 6x18mm Link(4)	4.88	SCP888H	Hard Anodized 89T Alum. spur gear	18.88	SCP133VH01	Black Adj. channel Skid Plate wheel	5.88
RCL62301	Black Alum. 6x23mm Link(4)	4.88	SCP820EL	Long Steel axle set for CB20EL (2)	23.33	SCP133VH05	Green Adj. channel Skid Plate wheel	5.88
RCL62801	Black Alum. 6x28mm Link(4)	4.88	SCP85B.01	Alum Re. AX10 LOCKOUT kit AX10	33.88	SCP133X01	LC Center round Bottom skid plate	23.88
RCL63301	Black Alum. 6x33mm Link(2)	4.88	SCP1000T	Hard Anodizing Alum. Center Gear set	28.88	SCP33101	Skid plate Stock AX10 axle case	18.88
RCL63801	Black Alum. 6x38mm Link(2)	4.88	SCP1201	Scale 6061 Aluminum axle case AX10	88.88	SCP331H01	Skid plate Stock 1201 Alum. axle case	17.88
RCL64301	Black Alum. 6x43mm Link(2)	4.88	SCP12LC01	Black On board power axle kit ax10	108.88	SCP1801	Black Heatsink Motor plate AX10	8.88
RCL64801	Black Alum. 6x48mm Link(2)	4.88	SCP12LC08	Silver On board power axle kit ax10	108.88	SCP1805	Green Heat sink Motor plate AX10	13.88
RCL65301	Black Alum. 6x53mm Link(2)	4.88	SCP13C01	6061 Alum. center gear box AX10	33.88	SCP1505	Alum. Gear Adapter green cap plate	16.88
RCL65801	Black Alum. 6x58mm Link(2)	4.88	SCP38X01	6061 Alum. Low CG gear box AX10	88.88	SCP50H101	Alum. 871 Spur w/Double wave Slipper	33.88
RCL68801	Black Alum. 6x88mm Link(2)	4.88	SCP39L.01	Dig unit for AX-10 transmission	43.88	SCP50P	Wave SLIPPER PAD for SCP50H01	7.00
SCP08M01	CNC Alum 3 LINK CONNECTOR AX10	8.88	RCP4498	RockCrawler Low CG Saddle Pack 9.6V	38.88	BLV2207 C01	Black wheel cap with screw	10.88
SCP160M01	H8 Alum. Pipe 6x10x1mm 30deg (2)	16.88	TD12001	Threaded Alum. Shock Set 120mm	28.88	SCP1006	Alum. 12mm hex wheel hub VVK AX10	14.88
SCP160B05	Green Anodized Alum Balls (20) Ax10	9.88	TD12005	Green Threaded Shock Set 120mm	28.88	SCP10MW01	Alum Multi width HEX HUB 30 to 60mm	28.88
SCP160B07	Purple Alum. Balls (20) Ax10	9.88	TD120DR01	HA Black 123mm Double spring shock	33.88	VK10D01	ALUM. WIDE HEX HUB 30 to 50mm	28.88
SCP160H05	Green Alum. Pipe Ball End (2)	6.88	TD120DR02	HA Red 123mm Double spring shock	33.88	SCP128X01	Black Lower CG 2/3A pack mount	20.88
SCP49L01	Black Steering and Drag Link set	6.88	TD120DR06	HA Blue 123mm Double spring shock	33.88	SCP126X08	Silver Lower CG 2/3A pack mount	20.88
SCP49L02	Red Slewing and Drag Link set	6.88	SCP20101	Hollow Li wt black Body post(4)	13.88	RCL60801	Black Alum. 6x8mm Link (4)	4.88

Hot Racing aluminum hop-ups for Losi Mini Crawler



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ASK THE PROFESSOR

STRIPPED OUT

I keep stripping out the spur gear on my Slash. Why does this keep happening? It seemed to happen more after I put a brushless system in there. Should I switch to a metal spur gear?

Slashbasher

A: NO! If you switch to a metal spur gear you'll just strip a different gear in the drivetrain, and this is generally true for ANY vehicle on the market. You have to look at the gear that is in question. The Slash is awesome. Adding power does stress the gears (in any car) and you have to make sure of a few things. The gear mesh must be perfect and the slipper must be adjusted correctly. The motor must be adjusted properly and tightened down. Mark where you have the motor set and make sure it doesn't move from there. Upgrading to better motor screws can help, and switching to a metal motor plate will reduce the failure you are experiencing. Now this next point is very important in the Slash, and in most other vehicles as well: Having a slipper that's too loose is bad. It can melt the spur gear and kill performance. Likewise, if it is too tight there will be no give in the system and any shock from landing on power has to be absorbed by the entire drivetrain. Adjust the slipper so it just barely slips and you'll reduce your failures. We've been racing Slash since we got them and we've only had a few gears strip, but we have seen others that go through them like cheap candy.

DerekB

GOT A QUESTION FOR THE PROFESSOR?

The Professor isn't a person, but our message board where you can ask questions and get answers from racers like you around the world and the answers from avid racers, old-time pros, and factory pilots. Each month we'll choose certain questions and publish them here. If you've got a question, The Professor's got the answers! The Professor shown here is only a representation of what we think everybody on the Internet looks like. "Your" Professor may look different or be a toaster. Visit www.rc411.com to look, learn and help.





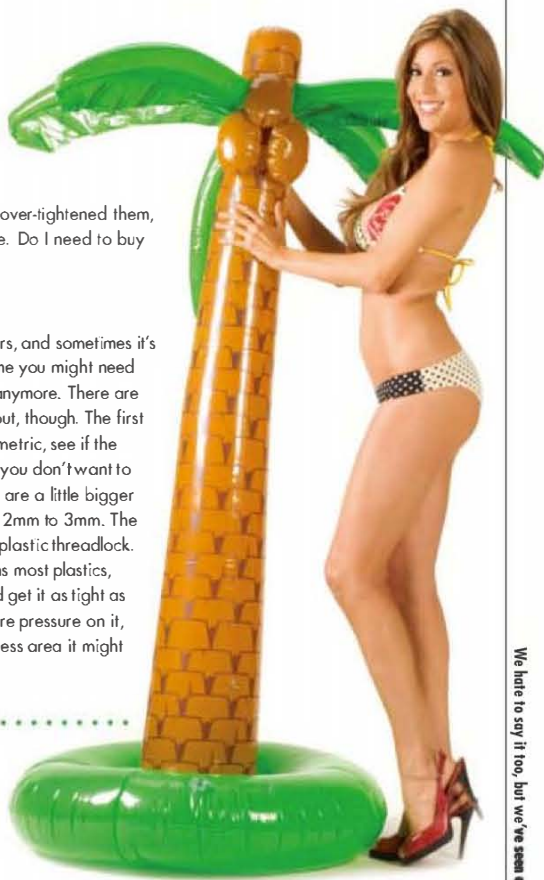
PLASTIC RULES

The other day I noticed that some of my screws that go into plastic don't seem to get tight anymore. I don't think I've ever over-tightened them, but they definitely don't lock down anymore. Do I need to buy a new chassis?

Speakerpimp

A: Some plastics wear more than others, and sometimes it's just over use that causes it. Over time you might need to replace those parts screws don't work in anymore. There are a few tricks you can use to prolong the payout, though. The first is to find slightly larger screws. If you car is metric, see if the next size up screw will work, but be careful; you don't want to crack the plastic. The "standard" size screws are a little bigger and will work better than just going up from 2mm to 3mm. The other thing you can do is use some CA as a plastic threadlock. Never use threadlock on plastic as it weakens most plastics, but CA is perfect. Put some on the screw and get it as tight as possible. Once the CA dries you can put more pressure on it, but it won't be like new, so if it's in a high stress area it might not work.

DerekB



We hate to say it too, but we've seen a lot of nuts fall off.

KUNG FU GRIP

I haven't been racing for long but I have a problem that actually sounds funny to say. My nuts keep falling off! It seems like no matter what I do eventually I see my front wheel rolling down the track "ghost rider" style. I try to put my nuts on tight but it doesn't seem to matter. Am I weak, or do my nuts suck?

Onroadracerguy

A: You have sloppy nuts. Over time the nylon designed to help the nut grip loses some grip, and with the power of most RC cars over time can loosen just by driving. Some companies offer optional nuts that have "knurls" cut into the backside that actually cut into the wheel and grab on. Many companies now sell them for their cars and like size axles (most touring cars and 1/8-scale use the same thread). If you switch to those nuts, I almost guarantee that they will never fall off again.

DerekB

TUNED

I've been running nitro for over a year and I have an issue with my car that I can't seem to figure out. It seems the tune changes after a certain amount of time and I've replaced the fuel line and sealed the engine three times. I can't find a leak anywhere but about 3 minutes in it seems to go lean. What am I missing?

21power

A: We had an issue like this that drove us insane, literally (Jeff was already there). What it turned out to be was an internal leak in the fuel tank, which was undetectable with normal tank testing. But if you think about what is happening, it makes sense. As the fuel level goes down, a crank in the pick up line allows more air to enter the fuel line; this makes it go lean and change the tune. But when the fuel moves around and goes all over the place, it can drive you to the breaking point if you're trying to tune. Some tanks develop leaks in the cap over time; the best advice is to just change the tank—it will be the best \$20 you ever spent.

DerekB



XTRA STUFF

MAD "MACHO" SCIENTIST DAVE

Dave "Macho" Palacios as we call him, loves RC. He paints, races, and builds custom RC cars that we at first make fun of, then secretly admire after. Over the years some of Dave's creations have even made it into production. Recognize the PTI Goliath Mini Monster Truck? Dave created that before any of the main-stream companies had one, and sold the design to PTI. The 4-stroke Tamiya you see in this issue looks stock, but it took some crafting to get it together. We thought since over the years Dave has made some interesting creations we'd pay tribute to him where we thought would fit best...the end of the magazine and on a single page.

Associated FT N-T4 FEATURES

1. Engine angled forward for more center weight.
2. Inverted clutch allows engine to be centered in chassis' center line.
3. Belt drive transmission has the same internal gear ratio as stock T4, but allows the stock T4 shock tower to be used because of the longer reach forward.
4. Stock T4 chassis is used with aluminum insert for heat dissipation and because of the inverted clutch design no hole is needed on the bottom for a bump start. Instead a restart style drive unit is used.

Mid-motor RS4 Pro 2 FEATURES

1. Mid motor design moves weight up towards the center of the chassis for quicker response in the turns.
2. 4/2 saddle packs for better left/right weight balance.
3. With this design the weight bias is exactly in the center of all four tires when fully loaded; left, right, front to back.
4. Threaded tierods in the upper deck allow the chassis tweak to be adjusted.

Original Micro Monster Truck (MMT) FEATURES

1. Four-wheel drive solid axle suspension with cantilevers.
2. Aluminum axles.
3. Ball differentials in both axles and in the center transmission.
4. Uses standard sized electronics.
5. Went into production under PTI Goliath MMT.
6. Underwent some slight changes to make the PTI rock crawler.

PTI Goliath Nitro MMT FEATURES

1. Uses a .12 sized engine.
2. Same four-wheel drive solid axle cantilever suspension as the MMT.
3. Locked center spool for better power delivery.
4. Utilizes Associated's GT2 fuel tank for long run times.
5. Is currently under going development for production as the PTI Nitro Goliath.

Kyosho Twin Force Super Crawler FEATURES

1. Dual motors.
2. Carbon fiber CNC'd chassis.
3. Four-wheel steering.
4. Delrin skid plate.

April 1st - April 5th **SILVER STATE** Nitro Challenge 2009

SCHEDULE OF EVENTS

WEDNESDAY APRIL 1st

10:00am gates open for Pit set-up
NO PRACTICE

THURSDAY APRIL 2nd

8:00am Track Open (Invitational Class Only)

FRIDAY APRIL 3rd

7:00am Two Rounds of Open Class Practice

SATURDAY APRIL 4th

8:00am Round 1 of Open Class Qualifiers
1:00pm Round 2 of Open Class Qualifiers

SUNDAY APRIL 5th

7:00am Round 3 of Open Class Qualifiers
11:00am All Open Class Mains
7:00pm Trophy Presentation
Top 12 Qualify for the Main, 3 Bump-up

ENTRY FORM

ID NUMBER OF PERSONAL TRANSPONDERS (NO ENTRY ACCEPTED WITHOUT PTN).

(PTNB): _____ (PTNT): _____

NAME: _____

STREET ADDRESS: _____

CITY/ STATE/ ZIP: _____

PHONE: _____

EMAIL: _____

CLASSES - SEE WEBSITE FOR CLASS INFORMATION - WWW.SILVERSTATE-RC.COM

>> OPEN BUGGY FREQ. 1ST _____ 2ND _____ SPK _____

>> OPEN TRUGGY FREQ. 1ST _____ 2ND _____ SPK _____

>> ELEC. BUGGY FREQ. 1ST _____ 2ND _____ SPK _____

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RACERS' RIDES

HEAVY METAL

Here are some pictures of the Savage I built last fall. I built this truck to handle just about anything that comes its way. This truck started as a Savage SS but the only original part left is the radio and maybe a few screws. Hop ups include aluminum A-arms, 4.6 SH engine, 5.25in. extended chassis, a three-speed transmission, and more. This truck is truly awesome in size and performance. It doesn't handle the greatest and it won't win many races, but it will conquer any terrain in Northwest B.C.. I also have a stock Savage 4.6 that I use when I go out with the boys to mess around.

Garry Phelps

Kitimat B.C., Canada



THE FAMILY CRAWLER

This is my dad's and my AX-10 Scorpion. It has soft and super soft springs, memory foams, wheel weights, Rock Lizard tires, and a set of 4 Pro-Line Sand Paw paddle wheels, as well as some other home made "upgrades." I painted and lifted a Jeep Wrangler Rubicon body for my dad, and I lifted the Baja Buzzard body for myself. I love your rock crawling magazine; it's awesome. Keep them coming.

Brandon Waldaia



BENDER

I read all the RC mags, but XRC rocks. The X-Dyno, the reviews, and the race coverage are top-notch, and the professors are just icing on the cake. Here are pictures of my LST 2 Racer that I race every Sunday at our club. I have modified many things on this truck to make it a very capable track machine; most of the ideas can be found at LSTForums.com. It's powered by an LRP .28 Spec 3 and has an RD Logics dual stinger pipe, Nomad radio gear, dual Hitec 7955 steering servos, an Airtronics 94358 throttle/brake servo, and a LiPo battery. I also installed a CF main chassis plate and 15-degree C-hubs. I run the RPM A-arms/Lunsford titanium in the front, with 8IGHT-T turnbuckles and a Muggy front-end conversion but the rear end is stock. I also custom built a wing mount for the rear shock tower for mounting the Jay Concepts REVO wing kit. I built a custom steering link for the front because I kept bending the stocker at the track. I have also Dremmed many things up front to make this truck turn like a truggy. The body is an LST Racer body that I airbrushed; it's the 6th body I've painted, and I trimmed it to look a little racier. I also custom designed body clips that stay put and never get lost all season long. I would be amped to see my truck in Racer's Rides, because I've put a lot of heart into it, and it has served me well on the track. You can see for yourself when you come to the Canadian Winter Nationals in 2009. Keep up the GREAT work! PEACE.

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WANT TO SEE YOUR RIDE IN RACERS' RIDES?

Send us pictures of your car along with a description of what it's got. We prefer digital files (no zip files please) in a high resolution, so be sure to flip that switch on your camera to the "fine" setting. One submission per month will receive a full-year subscription to Xtreme RC Cars, an XRC t-shirt, and a xxx-main point DVD! **Void where prohibited. Subscription offer is valid for U.S. residents only!**

Digital files should be sent to: **derek@rc411.com**
Please put "Racers' Rides" in the subject line.
If you still want to send film, please send your photos to:
Xtreme RC Cars Magazine
Attn: Racers' Rides
13401 Yuba Avenue
Chino, CA 91710



ROAD RACER ON FIRE

My name is Kevin McKiernan. I am 12 years old and love RC cars. My car is an Associated TC3. It is powered by a Novak GTB with a 4.5 brushless motor. It is controlled by an Airtronics MX3FHSS 2.4 GHz. I have a few billet hop ups. The wheels are Jaco disc foams. The body is a Protoform DNA that my dad bought and airbrushed for me. I had to pay him back by pulling weeds. I hope you put my car in your magazine.

Kevin McKiernan
Mentone, California

LITTLE MONSTER

Check out this little beast; this is my custom Micro-T. I have never seen any micros in any magazines, so I thought I would show you how sweet they can look. My Micro-T has been modified with a full ball bearing set, new threaded axles, 7.4v 2-cell LiPo battery pack, new aluminum 42 tooth spur gear, custom made aluminum body mounts, blue aluminum oil filled dampers, custom aluminum wheelie bar, Team Losi sport radio with stock ESC, and new rubber nabbed from a Losi Micro Raminator. My future plans for my Micro-T include a full arsenal of aluminum and a carbon fiber chassis. Thanks for looking and hope you all like my Micro-T as much as I do. Love the magazine keep them coming.

Mike Harris
Mt. Gilead, Ohio



WAR WAGON

I love your magazine and can't wait to get the new issue each month. I figured I would send in some photos of my Associated Mini MGT 3.0. It has an Axial War Wagon body that is metallic black with metallic blue pinstripes. It is fully water sealed and I run Backyard Basher 20%. It has an Airtronics Mx3 FHSS radio system too. The rims are Maximizer black bead locks with IMEX Maxx Dawg tires mounted on them. Thanks again for the great magazine.

Ryne Bogart
Glen Rock, PA

Pete Mid, Pete.



AWESOME RACER

Here's a picture of my Losi 8IGHT-T in action. I have been racing it all summer and it has been performing awesome. It's a race roller with a PICCO P7-R Evo2, JP4 pipe, Spektrum receiver, and Pro-Line Crime Fighter LPRs on Pro-Line wheels. Other than that, I'm still running the "race roller" setup.

Dan LeBlanc
www.mrcr.ca

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15.5 Turn

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