BEHIND THE WHEEL

 Type >> 4WD competition buggy

 Price >> \$660 (varies with dealer)

 Requires >> Radio >> Fuel >> Receiver pack >> Servos >>

 Starter box >> Tuned pipe >> .21 engine >> Tires

 odonnellracing.com

EXCLUSIVE! O'DONNELL ZOIB

Designed by a legend, tested by a champion

WORDS KEVIN HETMANSKI » kevinh@airage.com | PHOTOS HOPE McCALL

Steve O'Donnell is an RC legend and is well known for his engine modifications and engine accessories. In 2005, Steve O'Donnell decided to build a completely no-compromise ¹/₈-scale buggy he could dream up, and the end result is the Z01B. Steve didn't want to design a buggy that was just different; he set out to refine the current ¹/₈-scale buggy platform. The prototype Z01B buggies were tested by national champ Jared Tebo, so if it's good enough for him, you can bet it's good enough for you. The Z01B has already taken home a few wins in prototype form, and it's sure to take the top spot at even more races. Some have said it's the most dependable, durable and consistent buggy ever. Let's see how it stacks up.

DRIVE TIME

WOLCOTT HOBBY » WOLCOTT, CT » WOLCOTTHOBBY.COM AND PIN SHOP HOBBIES » OAKVILLE, CT » PINSHOPHOBBIES.COM

AWESOME ACCELERATION

I took the Z01B to Wolcott Hobby in Wolcott, CT, for the first round of testing. This track is one of the largest in the state, and a lot of fast buggy guys run there, so it's a perfect track to test the Z01B. A lot of work went into the drivetrain to make it as smooth and as light as possible for the best potential acceleration. Without even putting the Z01B on the track, I could tell that Steve O'Donnell had done his homework. The tires quickly grew with every stab of the throttle while warming up the engine on the starter box, and the tires spun for what felt like forever between blips. Over the years I have run several ½-scale buggies, and the Z01B accelerates harder than anything I've ever run. I figured that it might just be the engine, but I have the same setup in another buggy and that buggy doesn't come close. The track was very dry when testing, and the low rotating mass drivetrain caused the tires, when punched, to spin a little more than I liked. I toned down the throttle response on my radio, and the buggy was much more controllable. I'd rather have too much of something than not enough; that way, you can dial in more when you need it, for instance when running on a high-traction track or after the track has been watered.

BADASS BINDERS

The brakes are just as important as how the buggy accelerates, and the Z01B's brake system worked flawlessly during testing. I dialed in a little more rear brake to help the buggy rotate better through the track's tight turns. The brakes are very smooth and showed no signs of pulsating or fading all day.

TURNS ON A DIME

As I got used to the feel of the buggy and harder on the throttle, I found that it also cor-



ners very well. You can carry a lot of speed when entering and get on the gas early without having the front end push. This is a major advantage on tight courses; you can make up all kinds of time in the turns. The Z01B really shines down the straight. It gets up to speed quickly without the need for steering corrections to keep it straight.

FLY TIME

The jumps are a part of what makes the test track challenging. The increased acceleration the rapid-reaction drivetrain gives the Z01B made jumping easy; you don't need much run-up or throttle input to clear big jumps. The Z01B handled the air like most high-end buggies. It's very well balanced and very easy

to control when you have a nose-up or nosedown condition. The shocks shine on the landings and quickly settle the chassis with no signs of bottoming out. The shocks are some of the smoothest I've ever built. The suspension performs equally well over smaller bumps, and it flies over whoops like they're not even there. The chassis stays fairly flat, and the tires are always in contact with the dirt.

SHORT TRACKING

The Z01B shined on Wolcott's large open track, but I was curious on how it would do on a smaller track. I cleaned the buggy and gave it a quick look-over before heading to Pin Shop Hobbies in Oakville, CT. This track

is designed and built for ¹/10-scale, but lots of guys run ¹/₈-scale truggy and buggy there; if they can get around, the Z01B can too. It took a few laps to get used to the track layout and jumps; I was overshooting everything. Once I gathered myself and got on the wheel, I found that the Z01B was just as at home on the small track as it was on the larger one. The steering and brakes really shined here. I had talked to Steve O'Donnell a few days before heading to Pin Shop, and he gave me a new setup to try, so between heats I changed over to the new setup. The next time I hit the track, the buggy felt more forgiving and fit my driving style better. I'll post the setup on my blog so you can try it out.



The body for the Z01B comes clear. I sent it to Zegers RC Graffix so Bill could lay down a sweet paint job with Parma Faskolor paint.

UNDER THE HOOD



The suspension on the Z01B is as smooth as silk and very adjustable. They even throw tuning springs and swaybars in the box for more tuning options.



Check out the packaging for this buggy. This alone screams quality.

SPECIFICATIONS

O'DONDELL BACING **Z01B**

Scale 1/8 (varies with dealer)

DIMENSIONS & WEIGHT

Overall length with body 20 in. (510mm) Wheelbase 13 in. (330mm) Width 12 in. (305mm) Weight as tested 6 lb. (2,720g)

CHASSIS

Type 3mm machined-aluminum sub-chassis with molded-plastic braces

DRIVETRAIN

Type Shaft-driven 4WD Insmission 13T Clutch Bell/48T Spur Gear Clutch 3-shoe aluminum Transmission ratio 3.69:1 Final drive ratio 12.2:1 Differentials Sealed bevel gear Drive axles Steel universal driveshafts Bearings rubber sealed Brakes large front with small rear composite disc steel pads

SUSPENSION

Type (F/R) Lower H-arm with turnbuckle upper link Inboard camber-link positions (F/R) 3/6 Outboard camber-link positions (F/R) 2/2 Upper shock positions (F/R) 3/4 Lower shock positions (F/R) 2/2

SHOCKS

Type Hard-anodized aluminum body, oil-filled

STEERING

Type Dual bellcrank vo-saver Adjustable, bellcrank mounted Tie rods Nickel-plated steel turnbuckles

BODY, WHEELS & TIRES

Body Molded Lexan, clear ing Injection-molded plastic els Multi-spoke white with 12mm hexes Tires Not included Inserts Not included

OTHER ACCESSORIES Manifold Not included Pipe Not included Fuel tank capacity 125cc

Lightweight drivetrain

The drivetrain has the name Rapid Reaction-and for good reason. Just about every component in the entire drivetrain has been lightened in some way. This lowers the Z01B's rotating mass and enhances acceleration and fuel economy. Deceleration is also increased by a low rotating mass, and dual discs slow things down. The front disc is larger than the rear to withstand the pressure that the front brakes are accustomed to seeing. The discs ride in small plastic blocks below



Spiral-cut ring-and-pinion gears increase the durability and efficiency of the drivetrain. Drive cups and other drivetrain components are lightened to lower rotating mass.

them that help keep the discs away from the pads when on the throttle, and just like all buggies, you can adjust front and rear brake bias. The front and rear diffs have spiral-cut ring gears attached to them that are much stronger than the standard-issue bevel gear, and they operate more efficiently, which increases the buggy's acceleration.



Low-CG radio gear

The radio tray is designed to keep all of the components attached to it as low as possible. The servo tray is made out of carbon-fiber plate, which also helps lower the CG, and it looks trick. The steering servo is mounted in the lay-down position, and the servo arm is located to the inside of the chassis to protect it from impact. The receiver box is compact and has enough room to fit a hump-style battery pack. Grooves in the hinged lid and box are there to help keep dust out of the box and your receiver.

The steering servo is mounted in the lav-down position. and its output shaft faces the inside of the chassis to protect it from debris and crash damage.



Beefv suspension

The Z01B uses a typical lower H-arm with upper adjustable camber links. The shock towers are 4mm thick and machined to reduce weight. Hard-anodizing enhances their looks and increases durability. The shocks are threaded units and are also hard anodized. The springs are designed so their diameter increases in the middle to prevent them from rubbing on the shock bodies when the suspension is extended or compressed. Monster-size 4mm shock shafts ride inside the shock body; there's no way you'll bend these.

Take a look at those shock springs. They are larger in the center to prevent them from rubbing on the shock bodies when the suspension is in motion.

FACTORY OPTIONS

- Aluminum rod end-part no. ODOC2599
- Aluminum shock end—ODOC2719
- Aluminum steering bellcrank post-ODOC2771
- Machined-aluminum steering knuckle-ODOC2777

You'll need	WE USED
Radio	Futaba 4PK
	futaba.com
Throttle servo	Futaba BLS352
	futaba.com
Steering servo	Futaba BLS351
	futaba.com
Fuel	O'Donnell 30%
	odonnellracing.com
Receiver pack	DuraTrax 1400mAh
	Duratrax.com
Engine	O.S. VZ-B V-Spec
	osengines.com
Starter box	DuraTrax universal
	starter box
	Duratrax.com
Tires	Pro-Line Crime Fighter
	M3 compound
	pro-lineracing.com





Great acceleration Freely spinning drivetrain out of the box Optional springs and swaybars come in kit



Serious off-road racers

Jared Tebo



When you build the Z01B, you'll clearly see that the time taken to develop this buggy was well worth it. This buggy almost falls together. The instructions are great, and all of the parts are clearly labeled. While building my kit, I took some notes, and I have a few tips to make your build go even smoother.

A LITTLE GREASE HELPS

The front and rear assemblies use a gasket between them and the chassis to keep dust out of the rinaand-pinion gear during operation. The gasket is dry and moves around on the chassis, and it can be difficult to keep it aligned when installing the front and rear assemblies. Dab some grease on the gasket before putting it on the chassis to keep it in place.

RADIO-TRAY ASSEMBLY

The instructions tell you to screw the receiver box to the chassis before the servo tray. Attach the servo tray to the receiver box before you attach the assembly to the chassis. It makes it easier to hold the parts while you run the servo wires into the receiver box.

CARB ALIGNMENT

When you install the engine in the chassis. make sure that the carb is properly aligned with the throttle servo. You want the linkage to be perpendicular to the servo arm. This will eliminate any binding of the linkage and carb and give you a smooth and consistent throttle response.

AIR-LEAK-FREE FUEL FILTERS

The Z01B comes with two large fuel filters to increase the capacity of the fuel system and ensures that no contaminants find their way to the engine. They are O-ring sealed but can still leak air if vou assemble them without a dab of oil on the O-rings. A little oil on the ring lets the aluminum slide over it while vou tighten the fuel-filter cap and makes for a better seal. If you omit the oil, the Orings may bunch up and affect the seal and possibly let air into the fuel system.

STEP 24 STEERING ASSEMBLY

For those who purchased early production kits, you'll see that the screw that attaches the steering linkages to the steering plate is installed backwards. The head of the screw is supposed to be installed from above. When the nut is

installed from above, it binds the steering when the suspension is extended because the nut rubs on the bottom of the upper suspension arm. This has been addressed in newer manuals.

DIFF-HOUSING GASKET

A square gasket is provided to enhance the seal between the diff housing and the chassis. The manual doesn't tell you the best way to install that gasket. You can place it on the chassis first and then lower the housing over it, but the gasket may slip and be misaligned when you're ready to install the screws. If this is the way you choose to install the gasket, try using a small dab or two of ?? on the gasket to help stick it to the chassis plate. You can also place the gasket on the bottom of the diff housing first. There are two plastic bosses that align the hosing to the chassis, and they do a good job of holding on to the gasket while you installing the hosing.

Rating the O'Donnell Z01B

When I see the name O'Donnell Racing on the box, I expect a great product, and the Z01B certainly didn't disappoint. You can see why it took more than two years to be developed: the attention to detail is amazing. The fit and finish is great, and it performs very well on the track. That's a perfect combination. I'm looking forward to more racing and learning how to get the Z01B more dialed at my local track. I hope we see a truggy soon!

